163 FERC ¶ 61,197
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

Mountain Valley Pipeline, LLC Docket Nos. CP16-10-001
Equitrans, L.P. CP16-13-001

ORDER ON REHEARING

(Issued June 15, 2018)

1. On October 13, 2017, the Commission issued an order under section 7(c) of the Natural Gas Act (NGA)[1] and Parts 157, Subpart F and 284, Subpart G of the Commission's regulations,[2] authorizing Mountain Valley Pipeline, LLC (Mountain Valley) to construct and operate its proposed Mountain Valley Pipeline Project in West Virginia and Virginia (MVP Project).[3] The Certificate Order also authorized Equitrans, L.P. (Equitrans) to construct and operate the system modifications necessary to enable Equitrans to provide transportation service from western Pennsylvania to an interconnect with the MVP Project in Wetzel County, West Virginia (Equitrans Expansion Project).

2. On November 13, 2017, the following individuals and entities sought rehearing of the Certificate Order: (1) James T. Chandler; (2) Dr. Carl Zipper;[4] (3) New River Conservancy, Inc. (New River Conservancy); (4) Blue Ridge Land Conservancy; (5) The Nature Conservancy; (6) Preserve Montgomery County, Virginia (Preserve Montgomery County); (7) Montgomery County, Virginia (Montgomery County); (8) Blue Ridge

[1] 15 U.S.C. § 717f(c) (2012).

[2] 18 C.F.R. pts. 157, 284 (2017).

[3] *Mountain Valley Pipeline, LLC*, 161 FERC ¶ 61,043 (2017) (Certificate Order).

[4] Intervenors who join in Mr. Zipper's request for rehearing are: Thomas T. and Susan A Bouldin; Delwyn A. Dyer; Joseph H. Fagan; Maury Johnson; Mr. and Mrs. Robert M. Jones; Zane R. Lawhorn; Clifford A. Shaffer; and Thomas E. and Bonnie Triplett.

Environmental Defense League; (9) Greater Newport Rural Historic District Committee (Historic District);[5] (10) Appalachian Mountain Advocates;[6] (11) Roanoke, Giles, and Craig Counties, Virginia (Counties); (12) Preserve Craig, Inc. (Preserve Craig);[7] (13) Sierra Club; (14) Carolyn Reilly;[8] (15) Preserve Giles County; and (16) Helena Teekell.[9]

3. On November 14, 2017, late requests for rehearing were filed by (1) Martin Morrison and (2) Preserve Bent Mountain. On November 15, 2017, Preserve Giles County filed a corrected copy of its earlier request for rehearing. On December 26, 2017, Charles Chong filed a late request for rehearing of the Certificate Order. On May 4, 2018, Ben Rhodd, Tribal Historic Preservation Officer of the Rosebud Sioux Tribe, Steve Vance, Tribal Historic Preservation Officer of the Cheyenne River Sioux Tribe, and the Blue Ridge Environmental Defense League jointly filed a late request for rehearing.[10]

[5] The Historic District's request for rehearing appears in this docket four times as Accession Nos. 20171113-5363, 20171113-5364, 20171113-5365, 20171113-5368.

[6] Appalachian Mountain Advocates filed two requests for rehearing. The first (Accession No. 20171113-5366) was filed on behalf of Appalachian Voices; Center for Biological Diversity; Chesapeake Climate Action Network; Natural Resources Defense Council; Protect Our Water, Heritage and Rights; Sierra Club; West Virginia Rivers Coalition; Wild Virginia; Bold Alliance; Orus Ashby Berkley; Charles Chong; Rebecca Chong; Judy Hodges; Steven Hodges; Donald Jones; Gordon Jones; Elisabeth Tobey; Ronald Tobey; and Keith Wilson. Appalachian Mountain Advocates' second request (Accession No. 21071113-5375) includes the Appalachian Trail Conservancy among the rehearing petitioners, but otherwise appears to be identical to its earlier filing.

[7] Preserve Craig's request for rehearing is joined by: Preserve Bent Mountain; Preserve Monroe; Save Monroe; Indian Creek Watershed Association; Summers County Residents Against the Pipeline; Protect our Water, Heritage and Rights; Preserve Giles County; Preserve Montgomery County; and the Historic District.

[8] Ms. Reilly also filed on behalf of Four Corners Farm and other owners of that farm.

[9] In addition, Equitrans sought clarification of the Certificate Order. The Commission addressed that request in an order issued on March 1, 2018. *Equitrans, L.P.*, 162 FERC ¶ 61,191 (2018).

[10] Mr. Rhodd and Mr. Vance also filed late motions to intervene on May 4, 2018.

4. All of the requests for rehearing, with the exception of that filed by Mr. Chong, also sought a stay of the Certificate Order.

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

I. Background

6. The MVP Project is a new pipeline system designed to provide 2,000,000 dekatherms (Dth) per day of firm transportation service to markets in the Northeast, Mid-Atlantic, and Southeast regions. The project includes a 303.5-mile-long, 42-inch-diameter greenfield natural gas pipeline running from Wetzel County, West Virginia to Transcontinental Pipe Line Company's Compressor Station 165 in Pittsylvania County, Virginia. The project also includes three compressor stations, interconnection facilities, metering and regulation facilities, and other appurtenant facilities.

7. The Equitrans Expansion Project is designed to provide up to 600,000 Dth per day of firm transportation service from southern Pennsylvania and northern West Virginia to a proposed interconnection with the MVP Project in West Virginia. The project consists of six new pipeline segments, totaling 7.87 miles, on Equitrans' existing mainline system, a new compressor station, interconnection facilities, and other appurtenant facilities. Together, the MVP and Equitrans Expansion Projects are designed to serve the demand for natural gas in the Northeast, Mid-Atlantic, and Southeast.

8. In the Certificate Order, the Commission agreed with the conclusions presented in the final Environmental Impact Statement (EIS) and adopted the EIS's recommended mitigation measures as modified in the order. The Certificate Order determined that the MVP and Equitrans Expansion Projects, if constructed and operated as described in the Final EIS, are environmentally acceptable actions and required by the public convenience and necessity.

II. Procedural Matters

A. Party Status

9. Under NGA section 19(a) and Rule 713(b) of the Commission's Rules and Practice and Procedure, only a party to a proceeding has standing to request rehearing of a final Commission decision.[11] Any person seeking to become a party must file a motion

[11] 15 U.S.C. § 717f(a) (2012); 18 C.F.R. § 385.713(b) (2017).

to intervene pursuant to Rule 214 of the Commission's Rules of Practice and Procedure.[12] Mr. Bohon and Ms. Karen E. Chandler never sought to intervene in this proceeding and accordingly they may not join in the rehearing requests filed by Dr. Zipper and Mr. Chandler, respectively.

10. On November 13, 2017, Jerry Deplazes, Jerolyn Deplazes, Karolyn Givens, Frances Collins, Michael Williams, Miller Williams, Tony Williams, Shannon Lucas, and Nathan Deplazes, property owners in the Greater Newport Rural Historic District in Giles County, Virginia (collectively, Movants), filed a late motion to intervene.[13] Additionally, as noted above, on May 4, 2018, Ben Rhodd and Steve Vance, filed late motions to intervene. On May 17, 2018, Mountain Valley filed an answer in opposition to Mr. Rhodd's and Mr. Vance's late motions to intervene.

11. The Commission has explained that "[w]hen late intervention is sought after the issuance of a dispositive order, the prejudice to other parties and burden upon the Commission of granting the late intervention may be substantial."[14] In such circumstances, movants bear a higher burden to demonstrate good cause for the granting of late intervention,[15] and generally it is Commission policy to deny late intervention at the rehearing stage.[16]

12. Here, Movants cite their March 2016 request to become consulting parties under section 106 of the National Historic Preservation Act[17] (NHPA). In April 2016, Commission staff denied that request because the Movants did not prove that they had a direct legal or economic relationship with the project, as required under the Advisory

[12] 18 C.F.R. § 385.214(a)(3) (2017).

[13] Motion of Jerry Deplazes, *et al*., filed Nov. 13, 2017. The Movants have joined in the rehearing request filed by the Historic District. The Deplazes have also joined in the Dr. Zipper's request for rehearing.

[14] *National Fuel Gas Supply Corp.*, 139 FERC ¶ 61,037 (2012). *See, e.g.*, *Florida Gas Transmission Co.*, 133 FERC ¶ 61,156 (2010).

[15] *See California Department of Water Resources and the City of Los Angeles*, 120 FERC ¶ 61,057, at n.3 (2007), *reh'g denied*, 120 FERC ¶ 61,248, *aff'd sub nom. California Trout and Friends of the River v. FERC*, 572 F.3d 1003 (9th Cir. 2009).

[16] *See Tennessee Gas Pipeline Company, L.L.C.*, 162 FERC ¶ 61,013, at P 10 (2018).

[17] 54 U.S.C. § 306108 (previously codified at 16 U.S.C. § 470f).

Council on Historic Preservation's (Advisory Council) Regulations.[18] However, the Movants were encouraged to make use of the Commission's existing processes to comment on the projects.[19] In May 2017, after consultations with the Advisory Council, Commission staff reconsidered its position and granted the Movants' request to be consulting parties.[20] Movants do not explain why they did not intervene between April 2016 and May 2017. Instead, they point to a 2015 email exchange between a conservation group from another Virginia county and a Commission staff member, which incorrectly states that entities could not be both an intervenor and a consulting party.[21] But again, this does not explain why the Movants' did not seek to intervene when their request for consulting party status was initially denied. Moreover, Movants do not demonstrate any reliance on the 2015 email exchange with another party. We thus find that Movants have not met their burden and deny their request to intervene. Because the Movants are not parties to this proceeding, they have no standing to seek rehearing of the Certificate Order, and we therefore dismiss the pertinent rehearing requests as to them.

13. On May 4, 2018, Mr. Rhodd, Tribal Historic Preservation Officer of the Rosebud Sioux Tribe, and Mr. Vance, Tribal Historic Preservation Officer of the Cheyenne River Sioux Tribe, separately, filed motions for late intervention, explaining that each became aware of the MVP Project in January 2018, after issuance of the Certificate Order and execution of a Programmatic Agreement governing the treatment of cultural resources. Mr. Rhodd and Mr. Vance assert that the pipeline will traverse four locations of concern. Mr. Vance wrote letters to the Commission dated January 16, March 18 and April 16, and June 1, 2018, to which staff responded on January 30, April 6 and 27, 2018. Mr. Rhodd never filed comments with the Commission, until the May 4, 2018 request for late intervention.

14. We find that Mr. Rhodd and Mr. Vance do not show good cause to intervene at this late stage in the proceeding. Mr. Rhodd and Mr. Vance failed to explain why they did not intervene until five months after becoming aware of the project. Further, Mr. Rhodd and Mr. Vance stated that they visited the project area in March 2018, but also did not intervene at that time. It is the responsibility of interested entities to intervene if, as occurred here, they became aware that resources of concern to them may

[18] 36 C.F.R. § 800.2(c)(5) (2017).

[19] *See, e.g.*, Apr. 8, 2016 Letter from J. Martin to M. Fellerhoff (Accession No. 20160408-3014).

[20] *See, e.g.*, May 17, 2017 Letter from J. Martin to F. Collins (Accession No. 20170517-3027).

[21] Motion to Intervene at Ex. A.

be affected by the proposed action. While the Commission has had, until recently,[22] a liberal policy of accepting late motions to intervene in natural gas certificate proceedings, provided that the motion to intervene is filed before the order on the certificate application issues,[23] allowing an intervention filed seven months after the Certificate Order was issued would delay, prejudice, and place additional burdens on the Commission and the certificate holder.[24] Thus, we deny Mr. Rhodd's and Mr. Vance's late motions to intervene.

B. Untimely Requests for Rehearing

15. Pursuant to section 19(a) of the NGA, an aggrieved party must file a request for rehearing within 30 days after the issuance of the Commission's order.[25] Under the Commission's regulations, read in conjunction with section 19(a), the deadline to seek

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[22] *See Tennessee Gas Pipeline Co., L.L.C.*, 162 FERC ¶ 61,167, at PP 49-50 (2018) (noting that "in light of the pattern noted here of failures to address our regulations' requirements for late interventions, going forward we will be less lenient in the grant of late interventions"). Because the timing of this proceeding falls outside the time line we established in *Tennessee Gas* for implementing our new late intervention policy, Mr. Rhodd's and Mr. Vance's motions to intervene are evaluated under the Commission's former liberal intervention policy.

[23] *See, e.g.*, *Rover Pipeline LLC*, 158 FERC ¶ 61,109, at n.8 (2017) (granting a motion to intervene filed 17 months after notice of application but six months before the certificate order issued); *Dominion Transmission, Inc.*, 155 FERC ¶ 61,106, at P 9 (2016) (noting that the Commission's practice in certificate proceedings generally is to grant motions to intervene filed prior to issuance of the Commission's order on the merits).

[24] We note that Mountain Valley performed a survey of a cultural site mentioned by Mr. Rhodd and Mr. Vance. Mountain Valley identified a rock push pile on the Chandler properties, stopped work in the immediate vicinity of the discovery, fenced off the area to protect the feature, and notified the Commission pursuant to the *Mountain Valley Pipeline Project Plan for Unanticipated Historic Properties and Human Remains*. *See* Mountain Valley's May 11, 2018 Supplemental Cultural Report.

[25] 15 U.S.C. § 717r(a) (2012) ("Any person, State, municipality, or State commission aggrieved by an order issued by the Commission in a proceeding under this act to which such person, State, municipality, or State commission is a party may apply for a rehearing within thirty days after the issuance of such order"). The Commission has no discretion to extend this deadline. *See, e.g.*, *Transcontinental Gas Pipe Line Co.*, 161 FERC ¶ 61,250, at P 10 n.13 (2017) (collecting cases) (*Transco*).

rehearing was 5:00 pm U.S. Eastern Time, November 13, 2017.[26] Mr. Morrison; Preserve Bent Mountain; Mr. Chong; and the Rosebud Sioux Tribe, the Cheyenne River Sioux Tribe,[27] and the Blue Ridge Environmental Defense League[28] failed to meet this deadline. Because the 30-day rehearing deadline is statutorily based, it cannot be waived or extended, and their requests must be rejected as untimely. For this same reason, we reject Preserve Giles County's corrected request for rehearing filed on November 15, 2017.[29]

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[26] Rule 2007 of the Commission's Rules of Practice and Procedure provides that when the time period prescribed by statute falls on a weekend, the statutory time period does not end until the close of the next business day. *See* 18 C.F.R. § 385.2007(a)(2) (2017). The Commission's business hours are "from 8:30 a.m. to 5:00 p.m.," and filings – paper or electronic – made after 5:00 p.m. will be considered filed on the next regular business day. *See* 18 C.F.R. §§ 375.101(c), 2001(a)(2) (2017).

[27] Additionally, the Rosebud Sioux Tribe and the Cheyenne River Sioux Tribe are not parties to the proceeding. As stated above, only parties to a proceeding have standing to file a request for rehearing. 15 U.S.C. § 717f(a) (2012); 18 C.F.R. § 385.713(b) (2017).

[28] The Blue Ridge Environmental Defense League filed two requests for rehearing on November 13, 2017, and May 4, 2018. We only reject its May 4, 2018 Filing as untimely and will address its timely November 13, 2017 Request in this order.

[29] *See, e.g.*, *Associated Gas Distributors v. FERC*, 824 F.2d 981, 1005 (D.C. Cir. 1987) (stating that "the Commission cannot waive the jurisdictional bar of [section] 19" of the Natural Gas Act); *City of Campbell v. FERC*, 770 F.2d 1180, 1183 (D.C. Cir. 1985) (holding that an identical 30-day time requirement to file a request for rehearing in the Federal Power Act (FPA) "is as much a part of the jurisdictional threshold as the mandate to file for a rehearing"); *Boston Gas Co. v. FERC*, 575 F.2d 975, 979 (1st Cir. 1978) (holding that the rehearing provision of the NGA is "a tightly structured and formal provision. Neither the Commission nor the courts are given any form of jurisdictional discretion."); *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,160, at P 3 (2012); *La. Energy and Power Auth.*, 117 FERC ¶ 61,258, at 62,301 (2006); *Midwest Independent Transmission System Operator, Inc*., 112 FERC ¶ 61,211, at P 10 (2005); *Texas-New Mexico Power Co. v. El Paso Elec. Co.*, 107 FERC ¶ 61,316, at P 22 (2004); *California Independent System Operator Corp.*, 105 FERC ¶ 61,322, at P 9 (2003); *Tennessee Gas Pipeline Co.*, 95 FERC ¶ 61,169, at 61,546-61,547 (2001); *Columbia Gas Transmission Corp.*, 40 FERC ¶ 61,195, at 61,655 (1987). The rehearing provisions in the FPA and the NGA are identical and read *in pari materia*. *See Ark. La. Gas Co. v. Hall*, 453 U.S. 571, 577 n.7 (1981) (because relevant provisions of the Natural Gas Act and Federal Power

C. Deficient Requests for Rehearing

16. The NGA requires that a request for rehearing set forth the specific grounds on which it is based.[30] Additionally, the Commission's regulations provide that requests for rehearing must "[s]tate concisely the alleged error in the final decision" and "include a separate section entitled 'Statement of Issues,' listing each issue in a separately enumerated paragraph" that includes precedent relied upon.[31] Consistent with these requirements, the Commission "has rejected attempts to incorporate by reference arguments from a prior pleading because such incorporation fails to inform the Commission as to which arguments from the referenced pleading are relevant and how they are relevant."[32] Finally, "parties are not permitted to introduce new evidence for the first time on rehearing since such practice would allow an impermissible moving target, and would frustrate needed administrative finality."[33]

Act "are in all material respects substantially identical," it is "established practice" to cite "interchangeably decisions interpreting the pertinent sections of the two statutes"). We nonetheless note that Preserve Giles County's November 15, 2017 Filing appears to be substantially identical to its November 13, 2017 Filing.

[30] 15 U.S.C. § 717r(a) (2012).

[31] 18 C.F.R. § 385.713 (2017).

[32] *San Diego Gas and Electric Co. v. Sellers of Market Energy*, 127 FERC ¶ 61,269, at P 295 (2009). *See Tennessee Gas Pipeline Co., L.L.C.*, 156 FERC ¶ 61,007 (2016) ("the Commission's regulations require rehearing requests to provide the basis, in fact and law, for each alleged error including representative Commission and court precedent. Bootstrapping of arguments is not permitted."). *See also ISO New England, Inc.*, 157 FERC ¶ 61,060 (2016) (explaining that the identical provision governing requests for rehearing under the Federal Power Act "requires an application for rehearing to 'set forth specifically the ground or grounds upon which such application is based,' and the Commission has rejected attempts to incorporate by reference grounds for rehearing from prior pleadings"); *Alcoa Power Generating, Inc.*, 144 FERC ¶ 61,218, at P 10 (2013) ("The Commission, however, expects all grounds to be set forth in the rehearing request, and will dismiss any ground only incorporated by reference.") (citations omitted).

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

17. The Blue Ridge Land Conservancy filed a one-page request for rehearing which simply asserted that the Commission "ignored or did not give adequate attention" to a host of issues. The pleading does not comply with the Commission's regulations and is thus dismissed.[34]

18. Preserve Giles County's request for rehearing identifies two purported errors in the Certificate Order: the reliance upon inadequate information from Mountain Valley regarding the MVP Project's environmental impacts and Mountain Valley's failure to adequately address compound geological hazards along the project route.[35] But the filing makes only a fleeting reference to any finding in the Certificate Order,[36] and the rehearing request fails to "include [] representative Commission and court precedent" upon which Preserve Giles County relies to demonstrate an error in the Certificate Order. Instead, the request for rehearing consists of new reports from various specialists evaluating the resources reports submitted by Mountain Valley during the environmental review process and includes some critiques of the Draft EIS.[37] The closing date for comments on the Draft EIS was December 22, 2016.[38] The Final EIS was issued on June 23, 2017, and the Commission addressed comments on that document in the Certificate Order.[39] Preserve Giles County thus had ample opportunity to present this information during the Commission's environmental review process.[40] The Commission

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

[35] Preserve Giles County's Request for Rehearing at 2-3.

[36] *See id*. at 2 ("MVP documentation suggesting construction of the pipeline 'would result in limited adverse environmental impacts' is incomplete and fundamentally flawed.").

[37] *See, e.g.*, Preserve Giles County's Request for Rehearing at 28 ("the [Draft EIS] grossly underestimates the extent of soil limitations"); 38 ("The Draft [EIS] is inordinately dependent on self-serving, applicant provided, disingenuous information"); and 50 ("We call for a revised [Draft EIS]").

[38] Final Environmental Impact Statement (EIS) at ES-3.

[39] Certificate Order, 161 FERC ¶ 61,043 at P 129.

[40] Indeed, Preserve Giles County submitted comments and the Commission responded to those comments in the Final EIS. *See* Final EIS at Appendix AA, Part 3 of 36 (item CO-18 addressing Preserve Giles County).

looks with disfavor on parties raising issues for the first time on rehearing that could have been raised earlier, particularly during NEPA scoping.[41] In light of Preserve Giles County's failure to present this information in a timely fashion, we dismiss their request for rehearing on this issue.[42] Moreover, the reports that make up the body of Preserve Giles County's request for rehearing are new evidence. It is improper to introduce such evidence at the rehearing stage. We thus dismiss Preserve Giles County's request for rehearing.[43] We note, in any event, that Preserve Giles County's concerns are generally addressed in response to arguments properly raised by other parties on rehearing.

19. The rehearing petitions filed by Preserve Montgomery County, the Historic District, and Blue Ridge Environmental Defense League seek to incorporate "all evidence and arguments" presented in their prior pleadings in this proceeding, as well as arguments made in other parties' request for rehearing.[44] As noted above, this is improper and we will not consider such arguments.

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[41] *See Baltimore Gas & Electric Co.*, 91 FERC ¶ 61,270, at 61,922 (2000) ("We look with disfavor on parties raising on rehearing issues that should have been raised earlier. Such behavior is disruptive to the administrative process because it has the effect of moving the target for parties seeking a final administrative decision."); *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 764 (2004) ("Persons challenging an agency's compliance with NEPA must 'structure their participation so that it ... alerts the agency to the [parties'] position and contentions,' in order to allow the agency to give the issue meaningful consideration.") (quoting *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519 (1978).

[42] *See Tennessee Gas Pipeline Co., L.L.C.*, 162 FERC ¶ 61,167 (Feb. 27, 2018); *Cf. Northwest Pipeline, LLC*, 157 FERC ¶ 61,093, at P 27 (2016) ("We dismiss the Cemetery's argument that EA's indirect impacts analysis was deficient because the Cemetery raises this argument for the first time on rehearing.").

[43] *Northeast Utilities Serv. Co.*, 136 FERC ¶ 61,123, at P 9 (2011) ("We will deny rehearing. CRS' attempt to introduce new evidence and new claims at the rehearing stage is procedurally improper"); *Commonwealth Edison Co.*, 127 FERC ¶ 61,301, at P 14 (2011) ("We reject as untimely the new affidavit which ComEd includes in its request for rehearing. Parties are not permitted to introduce new evidence for the first time on rehearing."); *New York Indep. Sys. Operator*, 112 FERC ¶ 61,283, at P 35 n.20 (2005) ("parties are not permitted to raise new evidence on rehearing. To allow such evidence would allow impermissible moving targets").

[44] *See* Preserve Montgomery County's Request for Rehearing at 15 (purporting to incorporate rehearing arguments raised by Appalachian Mountain Advocates); Blue Ridge Environmental Defense League's Request for Rehearing at 15 (same); Historic

D. Answers

20. On December 12, 2017, Mountain Valley filed a motion for leave to answer and answer to the requests for rehearing. Rule 713(d)(1) of the Commission's Rules of Practice and Procedure[45] prohibits answers to a request for rehearing. Accordingly, we reject Mountain Valley's filing.

E. Motions for Stay

21. Mr. Chandler, Dr. Zipper, New River Conservancy, The Nature Conservancy, Preserve Montgomery County, Montgomery County, the Blue Ridge Environmental Defense League, the Historic District, Appalachian Mountain Advocates, Counties, Preserve Craig, Sierra Club, Ms. Reilly, and Ms. Teekell request that the Commission stay the Certificate Order pending issuance of an order on rehearing. This order addresses and denies or dismisses the requests for rehearing; accordingly, we dismiss the requests for stay as moot.

F. The Commission Appropriately Denied an Evidentiary Hearing

22. Appalachian Mountain Advocates contends that an evidentiary hearing must be set to resolve substantial disputed issues regarding: (1) the demand for natural gas in the regions to be served by the MVP Project, (2) the ability of Mountain Valley's precedent agreements with affiliated shippers to demonstrate need for the project sufficient to support a finding of public convenience and necessity, and (3) the ability of other reasonable alternatives to satisfy any such market need.[46] Appalachian Mountain Advocates contends that the Commission's failure to hold an evidentiary hearing prevented it from adequately assessing the parties' conflicting contentions and rendered the Certificate Order arbitrary and capricious.[47]

District's Request for Rehearing at 1 n.1 (purporting to "incorporate all evidence and arguments presented in Preserve Montgomery' and Preserve Craig's Requests for Rehearing").

[45] 18 C.F.R. § 385.713(d)(1) (2017).

[46] Appalachian Mountain Advocates' Request for Rehearing at 25-26.

[47] *Id*. at 26.

23. An evidentiary, trial-type hearing is necessary only where there are material issues of fact in dispute that cannot be resolved on the basis of the written record.[48] No party has raised a material issue of fact that the Commission cannot resolve on the basis of the written record. As demonstrated by the discussion below, the existing written record provides a sufficient basis to resolve the issues relevant to this proceeding. The Commission has done all that is required by giving interested parties an opportunity to participate through evidentiary submission in written form.[49] Therefore, we will deny the request for a trial-type evidentiary hearing.

G. Due Process

24. Appalachian Mountain Advocates argues the Commission violated its due process obligations when it issued the Certificate Order without granting participants access to precedent agreements filed as privileged pursuant to 18 C.F.R. § 388.112 and Exhibit G diagrams filed as Critical Energy Infrastructure Information (CEII) pursuant to 18 C.F.R. § 388.113. Appalachian Mountain Advocates explains that denying it access to the precedent agreements and Exhibit G flow diagrams deprived it and the public at large an opportunity to challenge Mountain Valley's assertions about need for the project.[50]

25. Bold Alliance, an intervenor and co-filer to Appalachian Mountain Advocates' request for rehearing, sought access to the Exhibit G flow diagrams using a process outside of these proceedings. On May 26, 2017, Bold Alliance requested access to the Exhibit G flow diagrams through the Commission's CEII process, pursuant to the provisions of 18 C.F.R § 388.113(g)(5) (2017). This provision is intended to provide general members of the public (as opposed to parties to a proceeding before the Commission) an avenue to seek to obtain CEII as an alternative to the Freedom of Information Act procedures.[51] For whatever reason, Bold Alliance elected not to seek the flow diagrams pursuant to 18 C.F.R § 388.113(g)(4) (discussed in more detail below), which provides a method for parties (such as Bold Alliance) to obtain CEII directly from applicants. On November 16, 2017, three days after the deadline to file requests for rehearing, the Commission produced these documents to Bold Alliance. Bold Alliance did not challenge the outcome of that process.

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

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

[50] Appalachian Mountain Advocates' Request for Rehearing at 94-97.

[51] 18 C.F.R. § 388.113(g) (2017).

26. The Commission's regulations provide avenues specifically intended for parties to a proceeding who desire access to privileged documents and CEII. However, there is no evidence in the record that Appalachian Mountain Advocates or Bold Alliance sought access to the precedent agreements from either the Commission or from Mountain Valley. Any party to the proceeding could have sought access to the privileged precedent agreements directly from Mountain Valley. Section 388.112(b)(2) of the Commission's regulations provides that a party desiring access to a document designated as privileged "may make a written request *to the filer* for a copy of the complete, non-public version of the document."[52] On rehearing, Appalachian Mountain Advocates does not suggest that Bold Alliance or any other party joining in its rehearing request made a request to Mountain Valley under section 388.112(b)(2) to access the privileged precedent agreements; therefore, there is no evidence that any materials were improperly withheld from it in violation of section 388.112.

27. Likewise, Appalachian Mountain Advocates could have sought access to the Exhibit G flow diagrams directly from Mountain Valley under section 388.113(g)(4) of the Commission's regulations. The Commission's regulations specifically direct an applicant for a section 7 certificate to omit CEII data from the public filing.[53] If the material is filed in a proceeding "to which a right to intervention exists,"[54] then the applicant must include a proposed form of protective agreement.[55] Under section 388.113(g)(4) "[a]ny person who is a participant in a proceeding or has filed a motion to intervene or notice of intervention in a proceeding may make a written request

[52] 18 C.F.R. § 388.112(b)(2)(iii) (2017) (emphasis added).

[53] *Id*. § 157.10(d)(1) ("If this section requires an applicant to reveal Critical Energy Infrastructure Information (CEII), as defined in § 388.113(c) of this chapter, to the public, the applicant shall omit the CEII from the information made available . . . ."). The rationale for section 157 requiring protection of CEII, defined in part as information that "[c]ould be useful to a person in planning an attack on critical infrastructure," 18 C.F.R § 388.113(c)(2)(ii) (2017), is more fully developed in other Commission orders. *See Critical Energy Infrastructure Information*, Order No. 630, FERC Stats. & Regs. ¶ 31,140 PP 12-13, *order on reh'g*, Order No. 630-A, FERC Stats. & Regs. ¶ 31,147 (2003).

[54] *Id.* § 388.113(d)(1)(iii). A certificate proceeding is a case where a right to intervene exists. *Arlington Storage Co., LLC*, 145 FERC ¶ 61,025, at P 7 (2013).

[55] *Id.* § 388.113(d)(1)(iii). *See* Mountain Valley's Application at Exhibit Z-5 (form of confidentiality and protective agreement).

to the filer for a copy of the complete CEII version of the document without following the procedures outlined in paragraph (g)(5) of this section."[56]

28. To the Commission's knowledge, neither Bold Alliance nor any other party joining Appalachian Mountain Advocates' rehearing request asked Mountain Valley to release the CEII Exhibit G flow diagrams under section 388.113(g)(4). As noted above, Bold Alliance took the steps outlined in section 388.113(g)(5), but that section applies to non-parties, i.e., "any requester not described above in paragraphs (g)(1) through (4) of this section." Bold Alliance and other parties joining Appalachian Mountain Advocates' rehearing request, however, are "participant[s] in a proceeding" as described in section 388.113(g)(4), and therefore could have availed themselves of the process in section 388.113(g)(4). In sum, there were procedural mechanisms available to Bold Alliance and other parties as intervenors to this proceeding and they did not follow them.[57] Accordingly, we deny rehearing on this basis alone with respect to the CEII Exhibit G flow diagrams.

29. Appalachian Mountain Advocates' due process argument is similarly flawed. Section 388.112(b)(2) (pertaining to privileged documents) seeks to balance the applicants' interest in protecting "trade secrets and commercial or financial information obtained from a person and privileged or confidential,"[58] and the interest a party has to fully participate in Commission proceedings. Similarly, section 388.113 (pertaining to CEII documents) is crafted to strike a balance between preventing the risk of harm if sensitive materials are disclosed to bad actors and allowing parties to fully participate in Commission proceedings.[59] The availability of these procedures assures parties the

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[56] 18 C.F.R. § 388.113(d)(4) (2017) (emphasis added).

[57] Notably, in 2012 counsel for Bold Alliance raised similar due process arguments related to requests for information filed with the Commission as privileged and CEII. The Commission rejected those arguments on rehearing and was affirmed by the court on appeal. *See Millennium Pipeline Co. L.L.C.*, 141 FERC ¶ 61,198, at P 70 (2012), *aff'd*, *Minisink Residents for Environmental Preservation and Safety v. FERC*, 762 F.3d 97, 115 (D.C. Cir. 2014) (quoting *B & J Oil*, 353 F.3d 71, 78 (D.C. Cir. 2004)) (internal quotations omitted).

[58] 5 U.S.C. § 552(b)(4) (2012).

[59] *See, e.g.*, Order No. 833, 157 FERC ¶ 61,123, at P 26 (2016) (observing that, with respect to a party's concerns over due process, "under the amended CEII regulations the Commission will balance the need to protect critical information with the potential need of parties participating in Commission proceedings to access CEII"). *See* Final EIS at 4-252 ("The Commission, like other federal agencies, is faced with a dilemma in how much information can be offered to the public while still providing a significant level of

opportunity to access materials, consistent with this balance. Where the parties did not attempt to avail themselves of the full extent of the Commission's available procedures, there can be no demonstration that the procedures themselves, or the Commission's implementation of them, violates due process.

30. The Commission's findings here are consistent with *Myersville Citizens for a Rural Community, Inc. v. FERC* (*Myersville*)[60] and *Minisink Residents for Environmental Preservation and Safety v. FERC* (*Minisink Residents*).[61] There the court explained that "[d]ue process requires only a 'meaningful opportunity' to challenge new evidence."[62] In those cases, the court found no due-process violations because the parties had access to all record evidence filed by the applicants and relied on by the Commission, including confidential filings, prior to the filing due dates for requests for rehearing. The parties in *Minisink Residents* and *Myersville* properly sought access to CEII material from the applicant through a non-disclosure agreement in compliance with our regulations.[63] Appalachian Mountain Advocates and Bold Alliance had the opportunity to obtain the materials, but did not follow the prescribed procedures.

31. In any event, the court in *Minisink Residents* held that "to the extent Petitioners assert that other potentially relevant documents were improperly withheld as confidential, the contention that such documents might support [their] position [is] far too speculative to provide a basis for setting aside [the Commission's] judgment."[64] Likewise here, Appalachian Mountain Advocates has not adequately explained how the documents it seeks would have affected its rehearing request or otherwise altered the outcome here.

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protection to the facility. Consequently, the Commission has taken measures to limit the distribution of information to the public regarding facility design and layout location information to minimize the risk of sabotage. Facility design and location information has been removed from the Commission's website to ensure that sensitive information filed as Critical Energy Infrastructure Information is not readily available to the public ….").

[60] 783 F.3d 1301, 1327 (D.C. Cir. 2015).

[61] 762 F.3d 97 (D.C. Cir. 2014).

[62] *Myersville*, 783 F.3d at 1327; *see also Minisink Residents*, 762 F.3d at 115.

[63] *Dominion Transmission, Inc.*, 143 FERC ¶ 61,148, at PP 50-52 (2013); *Millennium Pipeline Co. L.L.C.*, 141 FERC ¶ 61,198, at PP 71-73 (2012).

[64] *Minisink Residents*, 762 F.3d at 115 (quoting *B & J Oil*, 353 F.3d 71, 78 (D.C. Cir. 2004)) (internal quotations omitted).

With respect to the privileged precedent agreements, Appalachian Mountain Advocates explains that it wanted access to the precedent agreements to independently verify project need.[65] Mountain Valley publicly provided the identities of its shippers, as well as details about the maximum daily quantities and contract terms for which they have subscribed.[66] Appalachian Mountain Advocates has not explained what additional information, which might have been included in the precedent agreements, it believes would have helped develop its arguments regarding need. With respect to the CEII Exhibit G flow diagrams, Appalachian Mountain Advocates states that this information would have helped it fully assess alternatives to the MVP Project but does not explain why the information in the record and available to the public was insufficient for this purpose or how they would have used the engineering data they believed would be provided by the flow diagrams to aid their assessment. Thus, Appalachian Mountain Advocates has not established, in light of their decision not to use the defined procedures for obtaining the precedent agreements and the Exhibit G flow diagrams, any violation of their due process rights.

32. Sierra Club also asserts that the order violates due process guaranteed by the Fifth Amendment of the U.S. Constitution by relying on environmental information and reasoning not presented in the applications, Draft EIS, or other documents available for public comment.[67] Sierra Club states that the Commission should have made any additional environmental information available for public review either through a supplemental EIS or through a formal evidentiary hearing.[68]

33. We dismiss Sierra Club's due process claims. Sierra Club states that the "order relies on extensive evidence" not made available to the public for comment. In support, it offers nothing more than a bare list of paragraphs in the Certificate Order, and an attempt to incorporate by reference comments from another participant.[69] We reject Sierra Club's attempt to "incorporate by reference arguments from a prior pleading" because, as we stated above, "such incorporation fails to inform the Commission as to which arguments from the referenced pleading are relevant and how they are relevant."[70]

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[65] Appalachian Mountain Advocates' Request for Rehearing at 96.

[66] Certificate Order, 161 FERC 61,043 at PP 9-10.

[67] Sierra Club's Request for Rehearing at 2.

[68] *Id*. at 3-6.

[69] *Id*. at 2 (citing Appalachian Mountain Advocates' Request for Rehearing at 38-39, 4-46), 5 & n.7.

[70] *See supra* P 16, n.32.

Moreover, Sierra Club is obligated to "set forth specifically the ground or grounds upon which" its request for rehearing is based.[71] Simply making blanket allegations that the Commission violated the law without any analysis or explanation does not meet this requirement. In any event, all of the environmental documents discussed in Sierra Club's citations were publicly available, and Sierra Club does not dispute that it had access to those documents, including the opportunity to present argument based on those documents on rehearing. Moreover, as discussed below,[72] any additional environmental information submitted to the record between the issuance of the Draft EIS and 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."[73] Further, to the extent the Commission relied on additional environmental information in the Certificate Order, this information was disclosed and available for comment on rehearing. Thus, we find that Sierra Club had an opportunity to comment on additional environmental information and there was no violation of its due process rights.

III. Discussion

A. The Certificate Order Complied with the Requirements of the NGA

1. The Certificate Order Complied With The Certificate Policy Statement

34. Several petitioners argue that the Commission violated the NGA by failing to establish that MVP is required by present or future public convenience and necessity.[74] Specifically, petitioners assert that the Commission: (1) inappropriately relied on precedent agreements between Mountain Valley and its corporate affiliates to establish

[71] 15 U.S.C. § 717r(a) (2012). *See also Constellation Energy Commodities Group, Inc. v. FERC*, 457 F.3d 14, 22 (D.C. Cir. 2006) ("Each quoted passage states a conclusion; neither makes an argument. Parties are required to present their arguments to the Commission in such a way that the Commission knows 'specifically ... the ground on which rehearing [i]s being sought'").

[72] *See infra*, PP 102-110.

[73] 40 C.F.R. § 1502.9(c)(1) (2017).

[74] Appalachian Mountain Advocates' Request for Rehearing at 12; Montgomery County's Request for Rehearing at 1; Ms. Teekell's Request for Rehearing at 6; Ms. Reilly's Request for Rehearing at 50.

need;[75] (2) failed to consider market studies showing that there is sufficient infrastructure to meet current demand;[76] and (3) did not balance the public need for the project with the harm to landowners and communities.[77]

a. Precedent Agreements with Affiliated Shippers Are Appropriate Indicators of Project Need

35. Petitioners state that the Commission erred by relying on "speculative" need created by precedent agreements between Mountain Valley and its affiliated shippers.[78] Petitioners argue that the Certificate Policy Statement recognized that "[u]sing contracts as the primary indicator of market support for the proposed pipeline project … raises additional questions when the contracts are held by pipeline affiliates."[79] Further, petitioners state that "[a] project built on speculation (whether or not it will be used by an affiliated shipper) will usually require more justification than a project built for a specific new market when balanced against the impact on the affected interests."[80] Appalachian

[75] Appalachian Mountain Advocates' Request for Rehearing at 13; Montgomery County's Request for Rehearing at 10; Ms. Teekell's Request for Rehearing at 6; Ms. Reilly's Request for Rehearing at 5.

[76] Appalachian Mountain Advocates' Request for Rehearing at 15; Montgomery County's Request for Rehearing at 11.

[77] Montgomery County's Request for Rehearing at 13; New River Conservancy's Request for Rehearing at 4-5; Ms. Teekell's Request for Rehearing at 6; Ms. Reilly's Request for Rehearing at 6; Dr. Zipper's Request for Rehearing at 20-21.

[78] New River's Request for Rehearing at 4; Montgomery County's Request for Rehearing at 11 (citing Certificate Order, 161 FERC ¶ 61,043 at P 41).

[79] Appalachian Mountain Advocates' Request for Rehearing at 13-14 (quoting *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227, at 61,744 (1999) (Certificate Policy Statement), *clarified*, 90 FERC ¶ 61,128, *further clarified*, 92 FERC ¶ 61,094 (2000) (Order Clarifying Policy Statement); Montgomery County's Request for Rehearing (citing Certificate Policy Statement 88 FERC ¶ 61,227 at 61,748 ("a project that has precedent agreements with multiple new customers may present a greater indication of need than a project with only precedent agreements with an affiliate.")); Ms. Teekell's Request for Rehearing at 6; and Ms. Reilly's Request for Rehearing at 5.

[80] Montgomery County's Request for Rehearing at 12 (quoting Certificate Policy Statement, 88 FERC ¶ 61,227 at 61,749).

Mountain Advocates argues that a goal of the Certificate Policy Statement was to reduce the Commission's sole reliance on precedent agreements, but the Commission continues to adhere to that "outdated" approach.[81]

36. We disagree and affirm the Certificate Order's finding that even though the MVP Project shippers are affiliated with Mountain Valley, the Commission is not required to look behind precedent agreements to evaluate project need.[82] The Certificate Policy Statement established a new policy under which the Commission would allow an applicant to rely on a variety of relevant factors to demonstrate need, rather than continuing to require that a percentage of the proposed capacity be subscribed under long-term precedent or service agreements.[83] These factors might include, but are not limited to, precedent agreements, demand projections, potential cost savings to customers, or a comparison of projected demand with the amount of capacity currently serving the market.[84] The Commission stated that it would consider all such evidence submitted by the applicant regarding project need. Nonetheless, the policy statement made clear that, although companies are no longer required to submit precedent agreements for Commission review, these agreements are still significant evidence of

[81] Appalachian Mountain Advocates' Request for Rehearing at 14.

[82] Certificate Order, 161 FERC ¶ 61,043 at P 45 (citing *Millennium Pipeline Co. L.P.*, 100 FERC ¶ 61,277, at P 57 (2002) ("as long as the precedent agreements are long-term and binding, we do not distinguish between pipelines' precedent agreements with affiliates or independent marketers in establishing the market need for a proposed project"). *See* Certificate Policy Statement, 88 FERC ¶ 61,227 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)). *See also Florida Southeast Connection, LLC*, 163 FERC ¶ 61,158, at P 23 (2018) ("The mere fact that Florida Power & Light is an affiliate of Florida Southeast does not call into question the need for the project or otherwise diminish the showing of market support.").

[83] Certificate Policy Statement, 88 FERC ¶ 61,227 at 61,747. As we explained in the Certificate Order, 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. The fully subscribed MVP Project and the two-thirds subscribed Equitrans Expansion Project would both have satisfied this prior, more stringent, requirement. *Id.* at n. 44.

[84] *Id.* at 61,747.

project need or demand.[85] As the court held in *Minisink Residents for Environmental Preservation and Safety v. FERC*,[86] the Commission may reasonably accept the market need reflected by the applicant's existing contracts with shippers.[87] Moreover, it is current Commission policy not to look behind precedent or service agreements to make judgments about the needs of individual shippers.[88] Likewise, *Minisink Residents* confirms that nothing in the Certificate Policy Statement, nor any precedent construing it, indicates that the Commission must look beyond the market need reflected by the applicant's contracts with shippers.[89]

37. A shipper's need for new capacity and its obligation to pay for such service under a binding contract are not lessened just because it is affiliated with the project sponsor.[90] When considering applications for new certificates, the Commission's sole concern regarding affiliates of the pipeline as shippers is whether there may have been undue discrimination against a non-affiliate shipper.[91] We affirm the Certificate Order's determination that in this proceeding no such allegations have been made, nor have we

[85] *Id*. at 61,747.

[86] 762 F.3d 97 (D.C. Cir. 2014).

[87] *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).

[88] Certificate Policy Statement, 88 FERC at 61,744 (citing *Transcontinental Gas Pipe Line Corp*., 82 FERC ¶ 61,084, at 61,316 (1998)). *See Millennium Pipeline Co., L.P.*, 100 FERC ¶ 61,277 at P 57 ("as long as the precedent agreements are long-term and binding, we do not distinguish between pipelines' precedent agreements with affiliates or independent marketers in establishing the market need for a proposed project").

[89] *Minisink Residents*, 762 F.3d at 112 n.10; *see also Myersville*, 783 F.3d at 1311 (D.C. Cir. 2015) (rejecting argument that precedent agreements are inadequate to demonstrate market need).

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

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

found that the project sponsors have engaged in any anticompetitive behavior.[92] Mountain Valley and Equitrans held both non-binding and binding open seasons for capacity on their projects, and all potential shippers had the opportunity to contract for service.

38. As a result of the open season, Mountain Valley entered into long-term, firm precedent agreements with five shippers[93] for 2,000,000 Dth per day of firm transportation service – the MVP Project's full design capacity. Equitrans has entered into a precedent agreement with EQT Energy for 66 percent of the design capacity of the Equitrans Expansion Project.[94] This information was publicly available in the record[95] and the precedent agreements were reviewed and verified by Commission staff. The Certificate Order found, and we agree, that the contracts entered into by the shippers are the best evidence that additional gas will be needed in the markets served by the MVP and the Equitrans Expansion Projects.[96]

39. Appalachian Mountain Advocates disagrees with our policy not to "look behind precedent agreements to question individual shippers' business decisions to enter into contracts."[97] Appalachian Mountain Advocates insists that the Commission must look behind the "self-dealing" nature of affiliate agreements because they undermine the Commission's ability to determine market demand. Specifically, Appalachian Mountain Advocates asserts that affiliate contracts do not reflect true demand for new capacity, particularly where one or more of those affiliates are public utilities (Roanoke Gas

[92] Certificate Order, 161 FERC ¶ 61,043 at P 45.

[93] EQT Energy, LLC (EQT Energy); Roanoke Gas Company; USG Properties Marcellus Holdings, LLC; WGL Midstream, Inc.; Consolidated Edison of New York, Inc; and Public Service Company of North Carolina, Inc. *See* May 18, 2018 letter from M. Eggerding to K. Bose (Accession No. 20180518-5178) (noting Public Service Company of North Carolina, Inc. as a new firm shipper on the MVP Project).

[94] *See* Certificate Order, 161 FERC ¶ 61,043 at PP 10 and 19.

[95] S*ee Myersville Citizens for a Rural Community, Inc. v. FERC*, 783 F.3d 1301, 1311 (D.C. Cir. 2015) (observing that an affidavit and motions to intervene constituted substantial evidence that pipeline was subscribed).

[96] *Id*. P 41.

[97] Appalachian Mountain Advocates' Request for Rehearing at 15 (quoting Certificate Order, 161 FERC ¶ 61,043 at P 45).

Company and Consolidated Edison of New York, Inc.) and can pass along costs to its captive ratepayers.[98]

40. As the Certificate Order explained, issues related to a utility's ability to recover costs associated with its decision to subscribe for service on the MVP and Equitrans Expansion Projects involve matters to be determined by the relevant state utility commissions; those concerns are beyond the Commission's jurisdiction.[99] The review that Appalachian Mountain Advocates seek in this proceeding, looking behind the precedent agreements entered into by state-regulated utilities, would infringe upon the role of state regulators in determining the prudence of expenditures by the utilities that they regulate. For those shippers that are not state-regulated utilities, such as producers or marketers, the Commission has chosen not to look behind the precedent agreements as these parties are fully at-risk for the cost of the capacity and would not have entered into the agreements had they not determined there was a need for the capacity to move their product to market.

41. Further, we find no merit in Appalachian Mountain Advocates' argument that the project will be subsidized by the affiliated shippers' captive ratepayers. To the extent a ratepayer receives a beneficial service, paying for that service does not constitute a "subsidy."[100] Further, state regulatory commissions are responsible for approving any expenditures by state-regulated utilities. Mountain Valley and Equitrans are responsible for calculating their recourse rates based on the design capacity of the pipeline, placing Mountain Valley and Equitrans at risk for costs associated with any unsubscribed capacity. The recourse rates are derived using billing determinants based on the design capacity of the project, not subscribed capacity, meaning any particular customer paying the recourse rate is responsible for paying its share of the design capacity, not the subscribed capacity.[101]

42. Petitioners cite to the Certificate Order's dissent, which recognized that Mountain Valley only entered into agreements with end users (as opposed to marketers or

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[98] *Id*. at 20-21.

[99] Certificate Order, 161 FERC ¶ 61,043 at P 53.

[100] *See* Order Clarifying Policy Statement, 90 FERC ¶ 61,128 at 61,393.

[101] *See Cameron Interstate Pipeline, LLC*, 160 FERC ¶ 61,009, at P 11 (2017); *Alliance Pipeline L.P.*, 142 FERC ¶ 62,048, 64,099 (2013); *Kinder Morgan Interstate Gas Transmission LLC*, 122 FERC ¶ 61,154, at P 28 (2008).

producers) for 13 percent of the pipeline's capacity.[102] They state that the specific need for the remaining subscribed capacity is unknown and based on speculation that the shippers will be able to take advantage of price differentials in the Northeast, Mid-Atlantic, and Southeast markets.[103] Moreover, Appalachian Mountain Advocates claims that favorable price differentials are unlikely to persist given the significant amount of new takeaway capacity from the basin, depletion of the most productive and profitable gas plays, and the high cost of transportation on the MVP Project.[104]

43. The Certificate Policy Statement "does not require that shippers be end-use customers of natural gas. Shippers may be marketers, local distribution companies, producers, or end users."[105] Due to the development of the interstate pipeline grid, many projects are now designed to add capacity to move new gas supplies into the interstate market where it is transported to market centers or pools where buyers and sellers of the commodity come together. This benefits producers by providing them access to a variety of end use consumers and benefits consumers by providing them access to a variety of suppliers. As we have stated in other cases, a project driven primarily by marketers and producers does not render it speculative.[106] Marketers or producers who subscribe to firm capacity on a proposed project on a long-term basis presumably have made a positive assessment of the potential for selling gas to end-use consumers in downstream markets served by the pipeline or through markets accessible through interconnects with other pipelines and have made a business decision to subscribe to the capacity on the basis of that assessment.[107]

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[102] Appalachian Mountain Advocates' Request for Rehearing at 18 (citing Certificate Order, 161 FERC ¶ 61,043, dissent at 3-4); Ms. Teekell's Request for Rehearing at 6; Ms. Reilly's Request for Rehearing at 6.

[103] Appalachian Mountain Advocates' Request for Rehearing at 18-19 (citing Certificate Order, 161 FERC ¶ 61,043, dissent at 4).

[104] *Id.* at 19.

[105] *Transco*, 158 FERC ¶ 61,125 at P 29; *see also Transcon. Gas Pipe Line Company, LLC*, 161 FERC ¶ 61,250, at P 29 (2017) (rejecting challenge to need for project based on allegation that some of the gas appeared destined for export).

[106] *Transco*, 158 FERC ¶ 61,125 at P 29 (citing *Maritimes & Northeast Pipeline, L.L.C.*, 87 FERC ¶ 61,061, at 61,241 (1999)).

[107] *Id.*

44. We affirm that the MVP and Equitrans Expansion Projects will provide needed natural gas transportation service to both end use customers and natural gas producers and that the precedent agreements signed by Mountain Valley, for its full capacity, and by Equitrans, for two-thirds of its capacity, adequately demonstrate project need.

b. The Commission Did Not Ignore Evidence of Lack of Market Demand

45. Petitioners argue that the Commission ignored evidence in the record showing lack of market demand.[108] Petitioners contend that the Certificate Policy Statement "sought to remedy problems caused by the Commission's long-standing reliance on precedent agreements"[109] and thus established other indicators of need, such as reports by the U.S. Energy Information Administration or other studies assessing market demand or available pipeline capacity.[110] Petitioners state that precedent agreements are not dispositive of market demand and the Commission should have evaluated other evidence.[111] Specifically, petitioners cite to studies by: (1) the U.S. Department of Energy (DOE), stating that increasing utilization rates of existing interstate gas pipelines, re-routing gas flows, and expanding existing pipeline capacity are potentially lower-cost alternatives to building new infrastructure;[112] (2) Synapse Energy Economics, Inc. (Synapse), asserting that existing gas pipeline capacity, existing storage in Virginia and the Carolinas, and the future operation of Transco's Atlantic Sunrise Project and

[108] Appalachian Mountain Advocates' Request for Rehearing at 15; Montgomery County's Request for Rehearing at 11-12.

[109] Appalachian Mountain Advocates' Request for Rehearing at 14.

[110] *Id.* at 14 (citing *Order Clarifying Statement of Policy*, 90 FERC ¶ 61,128 at 61,390); Montgomery County's Request for Rehearing at 10.

[111] Appalachian Mountain Advocates' Request for Rehearing at 18; Montgomery County's Request for Rehearing at 12.

[112] 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).

Columbia's WB Xpress Project can satisfy the growing peak demand in that region;[113] and (3) 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.[114] Appalachian Mountain Advocates asserts that these market studies show that the demand for natural gas in the regions served by the MVP Project is leveling off at the same time that overall pipeline capacity is rapidly expanding, which will lead to significant unused capacity at the expense of ratepayers.[115]

46. Commission policy is to examine the merits of individual projects and each project must demonstrate a specific need.[116] While the Certificate Policy Statement permits the applicant to show need in a variety ways, it does not suggest that the Commission should examine a group of projects together and pick which projects best serve 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 the uncertainty associated with long-term demand projections, such as those presented in the Synapse Study and other studies cited by Appalachian Mountain Advocates and Montgomery County, where an applicant has precedent agreements for long-term firm service, the Commission deems the precedent agreements, which represent actual, rather than theoretical evidence regarding demand, to be the better evidence of demand. Thus, the Commission evaluates individual projects based on the evidence of need presented in each proceeding. Where, as here, it is demonstrated that specific shippers have entered into precedent agreements for project service, the Commission places substantial reliance on those agreements to find that the project is needed.

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[113] 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).

[114] 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).

[115] Appalachian Mountain Advocates' Request for Rehearing at 15-16.

[116] With respect to comments requesting the Commission to assess the market demand for gas to be transported by other proposed interstate pipeline projects, we note that the Commission will evaluate the proposals in those proceedings in accordance with the criteria established in our Certificate Policy Statement.

47. In any event, the Certificate Order evaluated the studies cited by petitioners and found that the findings of the studies were "somewhat overstated by their filers."[117] First, the Certificate Order analyzed the DOE Study and determined that the petitioners overstated their claim that the study demonstrates overbuilding in the current pipeline network. The DOE Study projects that less pipeline capacity will be added to the network between 2015 and 2030 (34 to 38 billion cubic feet (Bcf) per day) than in the past (127 Bcf per day between 1998 and 2013),[118] because, now, natural gas production and natural gas demand are less geographically dispersed. The study explained that Marcellus Shale Supply can meet East Coast demand, so pipelines no longer need to stretch for thousands of miles from the Rockies to serve East Coast markets.[119] Similarly, the DOE Study notes that although natural gas companies are 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.[120] Second, the Certificate Order found that the Synapse Study makes an unlikely assumption that all gas is flowed by primary customers along their contracted paths. However, the study fails to consider the use of regional pipeline capacity by shippers outside of Virginia and the Carolinas through interruptible service or capacity release. Finally, the IEEFA study speaks in generalities and does not assess the market for the MVP and the Equitrans Expansion Projects. However, it does suggest that pipelines like the proposed projects may serve to aid in the delivery of lower-priced natural gas to higher-priced markets. Such a result would serve the public interest.

c. The Commission Appropriately Balanced the Need for the Project Against Harm to Landowners and Communities

48. Petitioners state that the Certificate Policy Statement requires the Commission to balance the public need for the project with the harm to landowners and the environment, and claim that if the Commission appropriately balanced these interests, it would have

[117] Certificate Order, 161 FERC ¶ 61,043 at n.47.

[118] DOE Study at 20-21, 31.

[119] *See id.*

[120] *See id.* 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).

denied the projects.[121] Specifically, petitioners assert that the project will have adverse landowner impacts by devaluing property, engaging in a compulsory taking of private property through eminent domain, and preventing property enjoyment.[122]

49. Consistent with the Certificate Policy Statement,[123] the need for and benefits derived from the MVP and the Equitrans Expansion Projects must be balanced against the adverse impacts on landowners. The Commission must balance the concerns of all interested parties and did not give undue weight to the interests of any particular party.[124] The Commission found that 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 in order to reduce any adverse impacts to landowners and communities.[125] Additionally, 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.[126] The new compressor stations will be constructed on land owned by Mountain Valley. The Commission urges companies to reach mutual negotiated easement agreements with all private landowners prior to construction.[127] Further, the Certificate Order recognized Mountain Valley's commitment to make good faith efforts to negotiate with landowners for any needed rights, and will resort only when necessary to the use of the eminent domain.[128] Accordingly, although we are mindful that Mountain Valley has been unable to reach easement agreements with many landowners, for purposes of our consideration

[121] Montgomery County's Request for Rehearing at 13; New River Conservancy's Request for Rehearing at 4-5; Ms. Teekell's Request for Rehearing at 6; Ms. Reilly's Request for Rehearing at 6; Dr. Zipper's Request for Rehearing at 20-21.

[122] Montgomery County's Request for Rehearing at 13; Ms. Teekell's Request for Rehearing at 7; Dr. Zipper's Request for Rehearing at 21.

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

[124] Certificate Order, 161 FERC ¶ 61,043 at P 57.

[125] Final EIS at ES-3 and 3-17.

[126] *Id.* at 2-10.

[127] *See id.* at 4-309.

[128] Certificate Order, 161 FERC ¶ 61,043 at P 57.

under the Certificate Policy Statement, we find that Mountain Valley has taken sufficient steps to minimize adverse impacts on landowners and surrounding communities.

50. Ms. Teekell and Dr. Zipper contend that the Commission should have balanced the project's need against adverse environmental effects, such as tree removal and preventing forest regeneration, spreading invasive species, cutting through streams and sinkholes, degrading water quality, and threatening several endangered species.[129] These issues were analyzed in the Final EIS and are addressed below. The Certificate Policy Statement's balancing of adverse impacts and public benefits is an economic, not an environmental analysis.[130] Only when the benefits outweigh the adverse effects on the economic interests will the Commission proceed to consider the environmental analysis where other interests are addressed. In addition, we ensured avoidance of unnecessary environmental impacts by including a certificate condition providing that authorization for the commencement of construction would not be granted until Mountain Valley and Equitrans have successfully executed contracts for volumes and service terms equivalent to those in their precedent agreements.[131]

51. Based on the foregoing, we affirm the Certificate Order's conclusion that Mountain Valley and Equitrans demonstrated public need for MVP and the Equitrans Expansion Projects.

2. The Commission Properly Accepted a 14 Percent Return on Equity

52. On rehearing, Appalachian Mountain Advocates and Montgomery County argue that the Commission's approval of Mountain Valley's proposed 14 percent return on equity (ROE) is unsupported by substantial evidence.[132] Both argue that a 14 percent

[129] Ms. Teekell's Request for Rehearing at 7; Dr. Zipper's Request for Rehearing at 20-21.

[130] *National Fuel*, 139 FERC ¶ 61,037 at P 12.

[131] Certificate Order, 161 FERC ¶ 61,043 at Ordering Paragraph (C)(4).

[132] Appalachian Mountain Advocates' Request for Rehearing at 22-25; Montgomery County's Request for Rehearing at 14-21.

ROE is excessive based on the specific risks faced by the MVP Project and could lead to overbuilding.[133]

53. We disagree. The Certificate Order approved Mountain Valley's proposed 14 percent ROE but required the pipeline to design its cost-based rates using a capital structure that includes at least 50 percent debt,[134] consistent with Commission policy.[135] This requirement reduces the overall maximum recourse rate, which acts as a cap on a pipeline's rate of return.[136] The Certificate Order explained that the Commission's policy of accepting a 14 percent ROE in these circumstances reflects the increased business risks that new pipeline companies like Mountain Valley face.[137] Because new entrants building greenfield natural gas pipelines do not have an existing revenue base, they face greater risks constructing a new pipeline system and servicing new routes than established pipeline companies do when adding incremental capacity to their systems.[138] This is the reason why Commission policy requires existing pipelines that provide incremental services through an expansion to use the ROE underlying their existing system rates and last approved in a section 4 rate case proceeding when designing the

[133] *See* Appalachian Mountain Advocates' Request for Rehearing at 22-23; Montgomery County's Request for Rehearing at 20-21.

[134] Imputing a capitalization with more than 50 percent equity "is more costly to ratepayers, because equity financing is typically more costly than debt financing and the interest incurred on debt is tax deductible." *See MarkWest Pioneer, LLC*, 125 FERC ¶ 61,165, P 17 (2008).

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

[136] The maximum recourse rate is the maximum rate the pipeline is allowed to charge for transportation service.

[137] Certificate Order, 161 FERC ¶ 61,043 at P 82 ("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 .").

[138] *Id.* P 82 n.106 (citing *Rate Regulation of Certain Nat. Gas Storage Facilities*, 115 FERC ¶ 61,343, at 62,345 (2006)).

incremental rates. This tends to yield a return lower than 14 percent, reflecting the lower risk existing pipelines face when building incremental capacity.[139]

54. The Certificate Order also required 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 firm and interruptible recourse rates, or alternatively file a section 4 rate case. Providing this relevant information will allow the Commission, as well as Mountain Valley's shippers, to determine if, and to what degree, the pipeline may be overearning its costs.[140]

55. Appalachian Mountain Advocates and Montgomery County disagree that MVP faces increased risk as a new pipeline company that would justify a higher rate of return.[141] Montgomery County states that while a greenfield pipeline undertaken by a new entrant may face higher risk associated with obtaining financing, this theory does not apply to Mountain Valley because Mountain Valley stated in its application that it is able to obtain debt financing.[142] Montgomery County also asserts that Mountain Valley faces little risk of its project not being approved and little risk associated with insufficient demand because the project is backed by precedent agreements and investors' risk of non-recovery is low.[143]

56. We find no support for petitioners' assertion that Mountain Valley faces less risk than other new pipelines that have received equity returns of 14 percent because it is able to obtain debt financing. As stated above, the Commission allows greenfield pipelines to design their maximum rates by including a return on equity component that is generally higher than that of existing pipelines. This reflects the fact that greenfield pipelines have a higher level of risk than existing pipelines because they have no existing customer base or pipeline system to leverage off of and may be constructing a significantly larger amount of facilities than existing pipelines typically do. Due to the large amount of

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

[140] The three-year cost and revenue study provides a vehicle for parties to analyze the revenue a pipeline is receiving and to see to what extent the pipeline is required to discount.

[141] Appalachian Mountain Advocates' Request for Rehearing at 24; Montgomery County's Request for Rehearing at 18.

[142] Montgomery County's Request for Rehearing at 18-19.

[143] *Id.* at 19.

capital required to construct many greenfield pipeline facilities, most new companies building greenfield pipelines obtain some level of debt financing, so Mountain Valley is no different in this regard. Montgomery County argues that MVP faces little risk from cost overruns or from insufficient usage by its customers,[144] but it offers no support for its assertions. The Commission's Policy Statement encourages pipelines and their shippers to negotiate cost sharing agreements for construction cost overruns in their precedent agreements; therefore, there is no guarantee that Mountain Valley will be able to pass on any cost overruns to its customers. While Montgomery County is correct that the MVP Project is fully subscribed, the risk of an underutilization in the event of contract cancellation remains, by design, with Mountain Valley.[145] Montgomery County also argues that project completion risks are low because a "pipeline[] seeking a certificate is virtually assured of receiving it."[146] However, risks associated with initial regulatory approval are not reflected in a pipeline's rate of return, since there will be no project (or rate of return) unless the project is approved. The ROE underlying a pipeline's initial rates reflects risks to be faced by the pipeline in recovering the capital invested in an approved and constructed project. We have consistently approved equity returns of 14 percent in approving for new pipelines that are, like Mountain Valley, fully subscribed.[147]

57. Appalachian Mountain Advocates also asserts that a 14 percent ROE is excessive as compared to equity returns for state regulated gas and electric utilities and the projected average rate of return for U.S. stocks over the next five years.[148] As discussed in the Certificate Order, the returns approved at the state level for electric utilities and local distribution companies are not relevant because these companies are inherently less risky than greenfield interstate transmission projects proposed by a new natural gas

[144] *Id.* at 19-20.

[145] *See supra* P 41.

[146] Montgomery County Request for Rehearing at 19.

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

[148] Appalachian Mountain Advocates' Request for Rehearing at 22-23.

pipeline company.[149] This is also true regarding the risks faced by all U.S companies that are publicly traded.[150]

58. Appalachian Mountain Advocates also maintains that the fact that Mountain Valley's rates will be reassessed, and potentially adjusted, after three years of operations does not protect the public from what it contends is an unnecessary pipeline.[151] There is no evidence that this ROE will incentivize what is ultimately an unneeded pipeline; as discussed, the Commission conducts a separate needs determination and is satisfied that there is demand for the MVP Project.[152] Moreover, the Commission requires that initial rates be designed on 100 percent of the design capacity of the project, thereby placing the risk of underutilization on the pipeline.

59. Finally, Montgomery County argues that the hypothetical capital structure that the Commission applied to the MVP Project's initial rates does not adequately offset the risks to ratepayers from a 14 percent ROE.[153] Montgomery County asserts that the Commission should instead have lowered the ROE.[154] Although we allowed Mountain Valley to impose a 14 percent ROE, we only did so after imposing a hypothetical capital structure that raised the debt level to 50 percent and dropped the equity level to 50 percent.[155] This policy reduces the impact of Mountain Valley's ROE and ensures that Mountain Valley's rates are on a level playing field with other new greenfield pipelines. The D.C. Circuit has ruled that the Commission is permitted to use a

[149] *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.).

[150] Certificate Order, 161 FERC ¶ 61,043 at P 82.

[151] Appalachian Mountain Advocates' Request for Rehearing at 24.

[152] *See supra.* PP 34-51.

[153] Montgomery County's Request for Rehearing at 21.

[154] *Id.* Montgomery County also repeatedly claims that Mountain Valley initially proposed a capital structure of 60 percent equity and 40 percent debt with a 13 percent ROE, but Mountain Valley actually proposed this capital structure with a 14 percent ROE. Mountain Valley's Certificate Application at 37.

[155] Certificate Order, 161 FERC ¶ 61,043 at P 80.

hypothetical capital structure to decrease a pipeline's proposed rates, as we did here, in the interest of consumer protection.[156]

60. In this proceeding, the Commission reviewed and approved Mountain Valley's initial rates for service using proposed new pipeline capacity under the public convenience and necessity standard, which is a less rigorous standard than the just and reasonable standard under NGA sections 4 and 5.[157] Nonetheless, the approved initial rates will "hold the line" and "ensure that the consuming public may be protected," until just and reasonable rates can be determined through the more thorough and time-consuming ratemaking sections of the NGA.[158]

[156] *Sierra Club v. FERC*, 867 F.3d 1357, 1378 (D.C. Cir. 2017).

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

[158] *Id.* at 392.

3. Mountain Valley Is Qualified to Construct Its Project

61. Preserve Craig argues that the Certificate Order erred by not making a finding regarding Mountain Valley's ability and willingness to perform the acts required by the NGA section 7(e) and implementing regulations.[159]

62. This is incorrect. The Certificate Order specifically states that the certificate of public convenience and necessity was issued to Mountain Valley, "[*c*]*onsistent with* the criteria discussed in the Certificate Policy Statement and NGA section 7(e), and subject to the environmental discussion" in the order.[160] Further, Mountain Valley's acceptance of the certificate demonstrates the willingness to perform such acts in accordance with the conditions set out in the certificate.

4. The Certificate Order Properly Conveyed Eminent Domain Authority

63. On rehearing, petitioners argue that the Commission violated the Fifth Amendment to the U.S. Constitution and the NGA by granting Mountain Valley the power of eminent domain through the Certificate Order. Petitioners contend that the Certificate Order: (1) erred by determining that the Certificate Order's finding of public necessity and convenience under the NGA is the equivalent to a finding of "public use" pursuant to the Fifth Amendment;[161] (2) did not ensure that Mountain Valley would be able to pay landowners just compensation;[162] (3) did not ensure that Mountain Valley negotiated in good faith;[163] (4) improperly sub-delegated eminent domain authority to

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[159] Preserve Craig's Request for Rehearing at 12-13 (citing NGA section 7(e) which states that "a certificate shall be issued to any qualified applicant therefor, authorizing the whole or any part of the operation, sale, service, construction, extension, or acquisition covered by the application, if it is found that the applicant is able and willing properly to do the acts and to perform the service proposed and to conform to the provisions of this chapter and the requirements, rules, and regulations of the Commission thereunder ….).

[160] Certificate Order, 161 FERC ¶ 61,043 at P 64 (emphasis added).

[161] Ms. Teekell's Request for Rehearing at 7-8; Ms. Reilly's Request for Rehearing at 6-7.

[162] Appalachian Mountain Advocates' Request for Rehearing at 89-90.

[163] New River Conservancy's Request for Rehearing at 6.

Mountain Valley;[164] (5) violated due process rights of landowners;[165] (6) failed to preclude Mountain Valley from using "quick take" procedures.[166]

64. NGA section 7(h) states that a certificate holder may "acquire ... by the exercise of the right of eminent domain" all "necessary land or other property."[167] However, the actual transfer of ownership rights, and the compensation for the ceded property rights, are established in a court proceeding.[168] Moreover, the D.C. Circuit has held that the Commission does not have the discretion to deny a certificate holder the power of eminent domain.[169]

a. The MVP Project Satisfies the "Public Use" Standard of the Takings Clause

65. We affirm that, having determined that the MVP Project serves the public convenience and necessity, we are not required to make a separate finding that the project serves a "public use" in order for a certificate holder to pursue condemnation proceedings in U.S. District Court or a state court pursuant to NGA section 7(h).[170] A lawful taking under the Fifth Amendment requires that the taking must serve a "public purpose."[171]

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[164] Blue Ridge Environmental Defense League's Request for Rehearing at 15; Preserve Montgomery County's Request for Rehearing at 15.

[165] Appalachian Mountain Advocates' Request for Rehearing at 93; Sierra Club's Request for Rehearing at 5-7.

[166] Appalachian Mountain Advocates' Request for Rehearing at 90-93.

[167] 15 U.S.C. § 717f(h) (2012).

[168] *Williston Basin Interstate Pipeline Co.*, 124 FERC ¶ 61,067, at P 8 n.12 (2008).

[169] *Midcoast Interstate Transmission, Inc. v. FERC*, 198 F.3d 960, 973 (D.C. Cir. 2000) (*Midcoast Interstate*).

[170] Certificate Order, 161 FERC ¶ 61,043 at PP 58-61. *See Atlantic Coast Pipeline, LLC*, 161 FERC ¶ 61,042, at P 79 (2017). *See also, e.g.*, *Midcoast Interstate*, 198 F.3d at 973 (holding that Commission's determination that pipeline "serve[d] the public convenience and necessity" demonstrated that it served a "public purpose" for Fifth Amendment purposes).

[171] *Kelo v. City of New London*, 545 U.S. 469, 479-80 (2015) (upholding a state statute that authorized the use of eminent domain to promote economic development).

The U.S. Supreme Court has broadly defined this concept, "reflecting [the court's] longstanding policy of deference to the legislative judgments in this field."[172] Here, Congress clearly articulated in the NGA its position that "transporting and selling natural gas for ultimate distribution to the public is affected with a public interest, and that Federal regulation in matters relating to the transportation of natural gas and the sale thereof in interstate and foreign commerce is necessary in the public interest."[173] Neither Congress nor any court has suggested that there was a further test, beyond the Commission's determination under NGA section 7(e),[174] 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.[175] The power of eminent domain conferred by NGA section 7(h) is a necessary part

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[172] *Id.* at 480; *see also id.* at 497-98 (O'Connor, J., dissenting) (explaining that one "relatively straightforward and uncontroversial" category of taking that "compl[ies] with the public use requirement" involves the "transfer of private property to private parties, often common carriers, who make the property available for the public's use—such as with a railroad, a public utility, or a stadium") (citations omitted); *Nat'l R.R. Passenger Corp. v. Boston & Maine Corp.*, 503 U.S. 407, 422-23 (1992) ("We have held that the public use requirement of the Takings Clause is coterminous with the regulatory power, and that the Court will not strike down a condemnation on the basis that it lacks a public use so long as the taking "is rationally related to a conceivable public purpose. . . . ").

[173] 15 U.S.C. § 717(a) (2012).

[174] *Id.* § 717f(e).

[175] *See e.g., N. Border Pipeline Co. v. 86.72 Acres of Land*, 144 F.3d 469, 470–71 (7th Cir. 1998) (under the Natural Gas Act, "issuance of the certificate [of public convenience and necessity] to [pipeline] carries with it the power of eminent domain to acquire the necessary land when other attempts at acquisition prove unavailing"); *Maritimes & Ne. Pipeline, L.L.C. v. Decoulos*, 146 F. App'x 495, 498 (1st Cir. 2005) (noting that once a certificate of public convenience and necessity is issued by FERC, and the pipeline is unable to acquire the needed land by contract or agreement with the owner, the only issue before the district court in the ensuing eminent domain proceeding is just compensation for the taking); *Rockies Exp. Pipeline LLC v. 4.895 Acres of Land, More or Less*, 734 F.3d 424, 431 (6th Cir. 2013) (rejecting landowner's claim for damages from eminent domain taking by pipeline as an impermissible collateral attack on the essential fact findings made by the Commission in issuing the certificate order authorizing the pipeline); *E. Tennessee Nat. Gas Co. v. Sage*, 361 F.3d 808, 823 (4th Cir.

of the statutory scheme to regulate the transportation and sale of natural gas in interstate commerce.[176]

66. The Commission has interpreted the section 7(e) public convenience and necessity determination as requiring the Commission to weigh the public benefit of the proposed project against the project's adverse effects.[177] Our ultimate conclusion that the public interest is served by the construction of the proposed project reflects our findings that the benefits of a project will outweigh its adverse effects. Under section 7(h) of the NGA, once a natural gas company obtains a certificate of public convenience and necessity it may exercise the right of eminent domain in a U.S. District Court or a state court, regardless of the status of other authorizations for the project.[178]

67. There is no evidence in the record that the MVP Project is intended to serve the natural gas export market.[179] As the Final EIS explained, Mountain Valley did not design

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2004) (affirming district court's determination that the certificate of public convenience and necessity issued by FERC gave the pipeline the right to exercise eminent domain and thus an interest in the landowners' property).

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

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

[178] 15 U.S.C. § 717f(h); *see also id.* at § 717n(a)-(c) (addressing process coordination for other federal permits or authorizations required for projects authorized under NGA section 7).

[179] Ms. Teekell's Request for Rehearing at 7-9; Ms. Reilly's Request for Rehearing at 3, 6-8; Montgomery County's Request for Rehearing at 2 n.3; Mr. Chandler's Request for Rehearing at 12.

its facilities to transport natural gas to a liquefied natural gas (LNG) export terminal.[180] Mountain Valley's system is designed to transport gas in interstate commerce to an interconnection with Transco's interstate pipeline system at Transco Station 165. Petitioners argue that this makes it is possible that shippers utilizing the MVP Project will export natural gas abroad. We note that there is no direct connection between the MVP Project, any LNG export terminal, or any other NGA section 3 export facility. The nearest LNG export terminal to Transco's Station 165 (the Cove Point LNG terminal on the Chesapeake Bay) is approximately 190 miles away and not directly connected to the Transco system. A shipper seeking to export volumes transported on the MVP Project would need to arrange for interstate transportation on both the Transco system and the Dominion Cove Point LNG interstate system that directly serves the terminal.[181] Additionally, arguments that the MVP Project will nonetheless facilitate shipment of natural gas abroad because there are contracts between its shippers and foreign entities are not supported in the record. We note that in any event, if any of the natural gas transported on the MVP Project is ultimately designated for export, prior authorization by the Department of Energy, finding that such export was not inconsistent with the public interest, would be necessary. Further, even if the gas is eventually transported and sold for export, our determination that the projects are in the public interest remains unchanged.

68. We find that the Certificate Order, and the associated right of eminent domain conferred by the NGA, satisfy constitutional standards. Preserve Montgomery County and Blue Ridge Environmental Defense League argue that the Commission's certification process falls short of constitutional requirements and *Kelo v. City of New London.*[182] It does not. As extensively discussed in both the Certificate Order and above, the MVP Project will service the public convenience and necessity; this finding satisfies the constitutional "public use" requirement.[183]

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[180] Final EIS at 1-8.

[181] *Id.*

[182] 545 U.S. 469 (2016). Preserve Montgomery County's Request for Rehearing at 15; Blue Ridge Environmental Defense League's Request for Rehearing at 15.

[183] *See supra* PP 34-51; *see also* Certificate Order, 161 FERC ¶ 61,043 at PP 58-61.

b. Eminent Domain Proceedings Do Not Remove Pipeline's Incentive To Negotiate In Good Faith

69. Petitioners contend that Mountain Valley failed to negotiate in good faith before resorting to the use of eminent domain, in violation of the Certificate Order.[184] While the Commission prefers that applicants obtain easements from landowners through mutually negotiated agreements,[185] the Commission has found that the initiation of eminent domain proceedings does not preclude further negotiation with landowners.[186] Therefore, even if eminent domain proceedings have commenced, that does not negate the possibility that a mutually agreed upon settlement in good faith can be achieved. While we expect our certificate holders to negotiate in good faith, the NGA does not contain a good faith requirement. All the NGA requires is a showing that Mountain Valley has been unable to acquire the property by contract or has been unable to agree with the owner of the property as to the compensation to be paid.[187] Nonetheless, whether the parties have negotiated in good faith is an issue for the court.[188]

70. Nonetheless, we note that condemning private property generally is not in the pipeline's best interest.[189] The condemnation process can be a prolonged and expensive process that could delay construction of the pipeline and add significant costs to the project.[190] Therefore, Mountain Valley has the incentive to negotiate agreements with landowners to avoid the condemnation process.

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[184] New River Conservancy's Request for Rehearing at 6-7.

[185] Final EIS at 4-393.

[186] *Midwestern Gas Transmission Co.*, 116 FERC ¶ 61,182, at P 66 (2006) (*Midwestern Gas*).

[187] *See Constitution Pipeline Co., LLC v. A Permanent Easement for 1.92 Acres*, No. 3:14-2445, 2015 WL 1219524, at *4 (M.D. Pa. 2015) ("… the court finds that a good faith requirement is not imposed by the NGA"). *See also Constitution Pipeline*, 154 FERC ¶ 61,046, at P 72 (2016).

[188] *CenterPoint Energy Gas Transmission Co.*, 109 FERC ¶ 61,197, at P 24 (2004).

[189] *Midwestern Gas Transmission Co.*, 114 FERC ¶ 61,257, at P 29 (2006).

[190] *Id*.

71. In any event, Congress enacted the eminent domain provision of the NGA and we have no authority to second-guess it.

c. Initiation of Eminent Domain Proceedings Does Not Violate the Certificate Order

72. Preserve Craig, Counties, and the Historic District contend that commencement of eminent domain proceedings violates the Certificate Order.[191] As described above and elsewhere, the certificate of public convenience and necessity bestows its holder with the automatic right to obtain the necessary right of way through eminent domain.[192] The Certificate Order prohibits parties from commencing *construction*, not engaging in eminent domain proceedings, prior to obtaining all permits and satisfying all environmental conditions.[193] Thus, Mountain Valley's actions did not violate the Certificate Order. Further, we note that to the extent that Mountain Valley or Equitrans elects to proceed with construction of project facilities while rehearing is pending, they bear the risk that we will revise or reverse our initial decision or that our orders will be overturned on appeal. If this were to occur, Mountain Valley and Equitrans might not be able to utilize any of the new facilities, and could be required to remove them and undertake remediation.

d. Eminent Domain Concerns Are Best Addressed by a Federal Court

73. As discussed above, several petitioners raise concerns regarding how eminent domain authority is conveyed, commenced, and conducted.[194] Specifically, petitioners state that: (1) Congress improperly delegated eminent domain authority to certificate

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[191] Preserve Craig's Request for Rehearing at 6; Counties' Request for Rehearing at 5; Historic District's Request for Rehearing at 4.

[192] *Columbia Gas Transmission, LLC v. 1.01 Acres, More or Less in Penn Tp., York Cnty., Pa., et al.*, 768 F.3d 300, 304 (3d Cir. 2014) (*Columbia Gas*).

[193] Certificate Order, 161 FERC ¶ 61,043 at Appendix C, Environmental Conditions.

[194] Preserve Craig's Request for Rehearing at 6; Counties' Request for Rehearing at 5; Historic District's Request for Rehearing at 4; Preserve Craig's Request for

holders;[195] (2) the Commission improperly granted Mountain Valley Pipeline eminent domain authority before determining whether the pipeline can provide just compensation to landowners;[196] (3) the Commission should prohibit "quick take" procedures, which violate the due process clause and the separation of powers doctrine;[197] and (4) the tolling order and the Certificate Order violate the due process clause because eminent domain proceedings can commence prior to the resolution of legal challenges.

74. In NGA section 7(c), Congress gave the Commission jurisdiction to determine if the construction and operation of proposed pipeline facilities are in the public convenience and necessity. Once the Commission makes that determination, in NGA section 7(h), Congress gives the natural gas company authorization to acquire the necessary land or property to construct the approved facilities by the exercise of the right of eminent domain if it cannot acquire the easement by an agreement with the landowner. Some courts have held that a natural gas company may be granted possession pending a trial for just compensation under a preliminary injunction procedure.[198] The Commission itself does not grant the pipeline the right to take the property by eminent domain.[199]

75. It is beyond dispute that the federal government has the constitutional power to acquire property by exercise of eminent domain.[200] The federal government can also

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Rehearing at 6; Counties' Request for Rehearing at 5; Historic District's Request for Rehearing at 4; Preserve Montgomery County's Request for Rehearing at 15; Blue Ridge Environmental Defense League's Request for Rehearing at 15.

[195] Preserve Montgomery County's Request for Rehearing at 15; Blue Ridge Environmental Defense League's Request for Rehearing at 15.

[196] Appalachian Mountain Advocates' Request for Rehearing at 10, 86-92.

[197] *Id.* at 90-93.

[198] *Rover Pipeline LLC*, 158 FERC ¶ 61,109, at P 68 (2017) (citing *East Tennessee Natural Gas Co. v. Sage*, 361 F.3d 808, 828 (4th Cir. 2004) ("we hold that once a district court determines that a gas company has the substantive right to condemn property under the NGA, the court may exercise equitable power to grant the remedy of immediate possession through the issuance of a preliminary injunction")).

[199] *Islander East Pipeline Co.*, 102 FERC ¶ 61,054, at PP 124-31 (2003) (*Islander East*).

[200] *Tenneco Atlantic Pipeline Co.*, 1 FERC ¶ 63,025, at 65,203 (1977) (citing *U.S. v. Carmack*, 329 U.S. 230 (1946); *State of Oklahoma v. Guy F. Atkinson Co.*, 313 U.S.

delegate the power to exercise eminent domain to a private party, such as the recipient of an NGA section 7 certificate, when needed to fulfill the certificate,[201] which it has done here.

76. Nonetheless, the Commission does not oversee the acquisition of necessary property rights. Issues related to the acquisition of property rights by a pipeline under the eminent domain provisions of NGA section 7(h), including issues regarding the timing of acquisition and just compensation are matters for the applicable state or federal court.[202] Because the Commission simply has no authority to determine what constitutes just compensation,[203] it consequently cannot determine whether a party has sufficient assets to pay such just compensation.

77. "Quick-take" procedures are established by the judiciary as one method for carrying out the right of eminent domain. While Appalachian Mountain Advocates allege various constitutional infirmities with quick-take procedures as a category, the Commission's role does not include directing courts how to conduct their own proceedings.

78. And finally, with regard to due process, the Sierra Club fails to establish that the issuance of a tolling order followed by a substantive rehearing order will deprive it of the

508 (1941)). *See also Kelo*, 545 U.S. at 477 ("a State may transfer property from one private party to another if future 'use by the public' is the purpose of the taking"); *Hawaii Housing Authority v. Midkiff*, 467 U.S. 229, 230-31 (1984) ("Government does not itself have to use property to legitimate the taking; it is only the taking's purpose, and not its mechanics, that must pass scrutiny under the Public Use Clause").

[201] *Tenneco Atlantic Pipeline Co.*, 1 FERC ¶ 63,025, at 65,203 (1977) (citing *Thatcher*, 180 F. 2d 644); *see also Islander East*, 102 FERC ¶ 61,054, at PP 128, 131.

[202] *Northwest Pipeline, LLC*, 156 FERC ¶ 61,086, at P 12 (2016); *Californians for Renewable Energy, Inc. (Care) v. Williams*, 135 FERC ¶ 61,158, at P 19 (2011) ("The Commission is not the appropriate forum in which to adjudicate property rights."); *Northwest Pipeline*, 135 FERC ¶ 61,158, at P 19 (2011).

[203] *Rover Pipeline LLC, Panhandle Eastern Pipe Line Co.*, 158 FERC ¶ 61,109, at P 54 (2017); *Midwestern Gas*, 116 FERC ¶ 61,182, at P 15. *See also Ketchikan Pub. Util.*, 82 FERC ¶ 61,162, at 61,593 (1998) ("Under eminent domain, the courts determine what is just.").

chance to be heard.[204] Petitioners had notice of, and participated in, the certificate proceeding before the Commission. Petitioners do not argue that they have been deprived of the opportunity to seek review of the Certificate Order; rather, they assert that the potential delay in receiving a substantive order on rehearing will deprive them of their right to seek judicial review of the public use determination.[205]

79. As the Supreme Court has recognized, "due process is flexible and calls for such procedural protections as the particular situation demands."[206] The courts have recognized the importance of permitting the Commission "to give complete and deliberate consideration" to matters before it, and have rejected arguments to delay eminent domain until after meeting all conditions.[207] Here, petitioners do not argue that they will not be able to seek review of the Certificate Order, but only that such review must await the Commission's consideration of their requests for rehearing.[208] The Supreme Court, however, has found that "[w]here only property rights are involved, mere postponement of the judicial enquiry is not a denial of due process, if the opportunity given for the ultimate judicial determination of the liability is adequate."[209] Petitioners

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[204] Sierra Club's Request for Rehearing at 6. To the extent the parties' objections arise from the December 13, 2017 Tolling Order, we note that they were required to raise those claims on rehearing of the tolling order. They have not done so.

[205] Sierra Club's Request for Rehearing at 6; Appalachian Mountain Advocates' Request for Rehearing at 93.

[206] *Morrissey v. Brewer*, 408 U.S. 471, 481 (1972).

[207] *See Kokajko v. FERC*, 837 F.2d 524, 526 (1st Cir. 1998) (rejecting claim that due process was violated when a final rehearing order had not been issued by the Commission five years after the filing of a complaint). *See Gas Transmission Nw., LLC v. 15.83 Acres of Permanent Easement*, 126 F. Supp. 3d 1192, 1197-98 (D. Or. 2015) (rejecting argument that holder of conditioned certificate could not exercise eminent domain until after conditions are satisfied); *Tenn. Gas Pipeline Co. v. 104 Acres of Land*, 749 F. Supp. 427, 433 (D. R.I. 1990).

[208] Sierra Club's Request for Rehearing at 6; Appalachian Mountain Advocates' Request for Rehearing at 93.

[209] *Phillips v. Internal Revenue Comm'r*, 283 U.S. 589, 596-97 (1931); *see also Transcon. Gas Pipe Line Company, LLC*, 161 FERC ¶ 61,250 at P 39 (quoting *Phillips*, 283 U.S. at 596-97). *See also Council of & for the Blind of Delaware Cty. Valley, Inc. v. Regan*, 709 F.2d 1521, 1533-34 (D.C. Cir. 1983) ("In order to state a legally cognizable constitutional claim, appellants must allege more than the deprivation of the *expectation* that the agency will carry out its duties.") (emphasis in original); *Polk v.*

fail to show that they have been substantially prejudiced by the Commission following its longstanding practice of issuing a tolling order while affording the multiple rehearing requests in this proceeding the careful consideration they are due.[210]

5. Conditional Certificates

80. Appalachian Mountain Advocates argues that the conditional certificate is statutorily and constitutionally flawed.[211] Appalachian Mountain Advocates argues that Congress did not intend the NGA to make the certificate of public convenience and necessity "conditional" in the sense of needing to satisfy prerequisites before pipeline activity can commence.[212] Rather, Appalachian Mountain Advocates argues that Congress intended to place limitations on pipeline activity.[213] Appalachian Mountain Advocates cites *CATCO*,[214] where the Supreme Court held that the conditions clause in NGA section 7(e) vests the Commission control over the conditions under which gas may be initially dedicated to interstate use, so that the consuming public may be protected while the justness and reasonableness of the price fixed by the parties is being determined under other sections of the Act.[215] While Appalachian Mountain Advocates acknowledges that several district courts have endorsed the Commission's use of its conditional authority, they contend the Commission should not rely on these cases to justify its practice.[216]

Kramarsky, 711 F.2d 505, 508-09 (2d Cir. 1983) (holding that plaintiff's property right, while delayed, was not extinguished, and that no deprivation of property interest occurred).

[210] *Arthur Murray Studio of Wash. Inc. v. F.T.C.*, 458 F.2d 622 (5th Cir. 1972) (showing of substantial prejudice is required to make a case of denial of procedural due process in administrative proceedings).

[211] Appalachian Mountain Advocates' Request for Rehearing at 75.

[212] *Id*. at 75-76.

[213] *Id*. at 76.

[214] 360 U.S. 378, 389, 392 (1959).

[215] Appalachian Mountain Advocates' Request for Rehearing at 77.

[216] *Id*. at 78.

81. The Commission's practice of issuing conditional certificates has consistently been affirmed by courts as lawful.[217] While Appalachian Mountain Advocates claims that the Commission's conditioning authority is *restricted* to limits "on the terms of the proposed service itself,"[218] such a restriction finds no support in NGA section 7(e). Rather, the statute itself speaks broadly, authorizing the Commission to attach "reasonable terms and conditions" "to the *issuance* of the certificate and to the *exercise* of the rights granted thereunder."[219]

82. In this regard, Appalachian Mountain Advocates errs in suggesting that the Supreme Court's decision in *CATCO*[220] precludes the Commission's issuance of conditional certificates. In that case, the Supreme Court explained that "Congress, in § 7(e), has authorized the Commission to condition certificates in such manner as the public convenience and necessity may require when the Commission exercises authority

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[217] *See Del. Riverkeeper Network v. FERC*, 857 F.3d at 399 (upholding Commission's approval of a natural gas project conditioned on securing state certification under section 401 of the Clean Water Act); *see also Myersville*, 783 F.3d at 1320-21 (upholding the Commission's conditional approval of a natural gas facility construction project where the Commission conditioned its approval on the applicant securing a required federal Clean Air Act air quality permit from the state); *Del. Dep't. of Nat. Res. & Envtl. Control v. FERC*, 558 F.3d 575, 578-79 (D.C. Cir. 2009) (holding Delaware suffered no concrete injury from the Commission's conditional approval of a natural gas terminal construction despite statutes requiring states' prior approval because the Commission conditioned its approval of construction on the states' prior approval); *Pub. Utils. Comm'n. of State of Cal. v. FERC*, 900 F.2d 269, 282 (D.C. Cir. 1990) (holding the Commission had not violated NEPA by issuing a certificate conditioned upon the completion of the environmental analysis).

[218] Appalachian Mountain Advocates' Request for Rehearing at 76-77 (quoting *N. Nat. Gas Co., Div. of InterNorth v. FERC*, 827 F.2d 779, 782 (D.C. Cir. 1987)). As *Northern Natural Gas* explains, the statute does permit the Commission to impose "conditions on the terms of the proposed service." That case, like *Panhandle E. Pipe Line Co. v. FERC*, 613 F.2d 1120 (D.C. Cir. 1979), concerns limits on the scope of the Commission's authority to condition rates under section 7(e) as "necessary to preserve the integrity of 'just and reasonable' rate review under sections 4 and 5" of the NGA. *N. Nat. Gas*. 827 F.2d at 790 (discussing 15 U.S.C. §§ 717c, 717d (2012)).

[219] 15 U.S.C. § 717f(e) (2012) (emphasis added).

[220] 360 U.S. at 389-94.

under section 7."[221] In particular, the Court held that, in order to assure that the initial section 7 rates are in the public interest, "the Commission in the exercise of its discretion might attach such conditions as it believes necessary."[222] *CATCO* demonstrates that the Commission's authority to evaluate the public convenience and necessity (which encompasses a wide-range of factors, including market need, environmental, and landowner impacts), is as broad as the scope of its authority to condition certificates in such manner as the public convenience and necessity may require. The conditions attached to the Certificate Order limit the companies' activities where necessary to ensure that the projects are, in fact, consistent with the public convenience and necessity.

83. We disagree with Appalachian Mountain Advocates' argument that granting conditional certificates violates the Takings Clause of the Fifth Amendment. At the time the Commission granted the certificate of public convenience and necessity, there was a public need for the acquisition of the property, and thus a constitutional purpose.

6. Blanket Certificates

84. Several petitioners raise concerns regarding Mountain Valley's receipt of a blanket certificate.[223] Specifically, petitioners state that the Commission's blanket authority: (1) is impermissibly broad and incompatible with the requirements of the NGA;[224] (2) violates due process by not allowing for notice and comment on the application;[225] (3) permits companies to engage in activities that the applicant has not described the

[221] *Id*. at 391.

[222] *Id*.

[223] Montgomery County's Request for Rehearing at 28-29; Appalachian Mountain Advocates' Request for Rehearing at 80-84.

[224] Appalachian Mountain Advocates' Request for Rehearing at 80, 82.

[225] Appalachian Mountain Advocates' Request for Rehearing at 84; Montgomery County's Request for Rehearing at 7, 28-29.

pipeline application;[226] (4) allows companies to use eminent domain authority and devalue property values;[227] and (5) minimizes economic and environmental review.[228]

85. We find those arguments an impermissible collateral attack on the blanket certificate program. Moreover, we find that the blanket certificate program is consistent with the NGA. In 1982, the Commission created the blanket certificate program, citing its authority vested in section 7(c) of the NGA.[229] The blanket certificate authorization was created because the Commission found that a limited set of activities did not require case-specific scrutiny as they would not result in a significant impacts on rates, services, safety, security, competing natural gas companies or their customers, or on the environment.[230] Blanket authority is issued pursuant to the public convenience and necessity standard.[231]

86. A blanket certificate authorizes routine activities on a self-implementing basis – that is – a blanket certificate relieves natural gas companies from the requirement of having to obtain a certificate of public convenience and necessity for certain covered activities. The rationale for offering a blanket certificate is that there are certain activities

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[226] Appalachian Mountain Advocates' Request for Rehearing at 81, 83.

[227] Appalachian Mountain Advocates' Request for Rehearing at 81-82; Montgomery County's Request for Rehearing at 28-29.

[228] Appalachian Mountain Advocates' Request for Rehearing at 83.

[229] *Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol*, Order No. 436, 50 FR 42408 (Oct. 18, 1985). *See also ANR Pipeline Co.*, 50 FERC ¶ 61,140, 61,427 (1990) ("blanket and individual certificates are issued under section 7 of the Natural Gas Act (NGA) and, as such, are subject to the same statutory requirements. Accordingly, any terms and conditions imposed by the Commission, whether they are imposed on a case-specific basis or through a blanket certificate, must conform to section 7(e) of the NGA which requires that the terms and conditions be 'reasonable' and 'required' by the 'public convenience and necessity.'").

[230] *Revisions to the Blanket Certificate Regulations and Clarification Regarding Rates*, Order No. 686, 71 FR 63680, at P 7 (Oct. 31, 2006), FERC Stats. & Regs. ¶ 31,231, at P 8 (2006), explaining that "[t]he blanket certificate program was designed to provide an administratively efficient means to authorize a generic class of routine activities, without subjecting each minor project to a full, case-specific NGA section 7 certificate proceeding." (October 2006 Final Rule).

[231] 18 C.F.R. § 157.208 (c)(7) (2017).

that natural gas pipeline operators must undertake in maintaining and operating facilities for which they have already received a certificate of public convenience and necessity. The blanket certificate increases administrative efficiencies for the Commission and companies subject to its jurisdiction by reducing the filing requirements for those activities.[232] In some instances, these activities are so well understood as an established industry practice that little scrutiny is required to determine their compatibility with the public convenience and necessity.[233] For other types of activities, the Commission requires that companies notify the public in advance and provides an opportunity to protest.[234]

87. Because all the activities permitted under the blanket certificate regulations must satisfy our environmental requirements and meet certain cost limits, they have minimal impacts; thus, the close scrutiny involved in considering applications for case-specific certificate authorization is not necessary to ensure compatibility with the public convenience and necessity. Concerns that a company will acquire and construct facilities "well outside the footprint considered and approved by the Commission"[235] are misplaced, because the financial and environmental thresholds inherent in the blanket certificate program are intended to preclude the type of work petitioners envision.

88. Appalachian Mountain Advocates' contentions that blanket certificates permit activities not found in a company's case-specific NGA section 7 certificate application are also misplaced. Appalachian Mountain Advocates is correct in observing that blanket authority enables a company to undertake activities that go beyond those described in a case-specific application. However, as noted above, blanket authority is limited to activities that the Commission has found do not result in significant adverse impacts, and thus do not require the same scrutiny as activities subject to case-specific certificate review. Thus, a blanket certificate is intended to serve as adjunct authority to enable a company to make certain relatively minor, cost-constrained modifications to a larger system that has been separately scrutinized and approved under case-specific certificate authorization. To ensure projects with potentially significant impacts are not constructed

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[232] *Meridian Oil, Inc.*, 58 FERC ¶ 61,002, at 61,004 (1992). *See also* Certificate Order, 161 FERC ¶ 61,043 at P 74.

[233] *Interstate Pipeline Certificates for Routine Transactions*, 47 Fed. Reg. 24.254-01 (June 4, 1982). These types of blanket certificate project activities are known as Automatic.

[234] These types of blanket certificate project activities are known as Prior Notice.

[235] Appalachian Mountain Advocates' Request for Rehearing at 82.

under blanket authority, companies are prohibited from dividing larger projects into multiple smaller blanket-eligible segments.[236]

89. Before acting under blanket authority, a company must provide notice to all affected landowners at least 45 days in advance.[237] In many cases, landowners must receive notice 60 days in advance, accompanied by an opportunity to protest the proposed project.[238] Exceptions to this notification are limited.[239] In establishing this notice period, the Commission considered the needs of landowners and the nature of permitted projects.[240] Additionally, in this instance, Mountain Valley will also have to document minor future actions performed under the blanket certificate program in either annual reports or as Prior Notice applications,[241] subject to the Commission's environmental review in accordance with section 157.206 of the Commission's regulations.[242] For these reasons, we find our blanket certificate process in full compliance with the NGA and consistent with our notice and comment requirements.

90. Receipt of a Part 157 blanket certificate does confer the right of eminent domain authority under section 7(h) of the NGA.[243] However, Commission regulations require

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[236] 18 C.F.R. § 157.208(b) (2017) states a blanket certificate holder "shall not segment projects in order to meet the [blanket program] cost limitation."

[237] *Id.* § 157.203(d).

[238] *Id.* § 157.205.

[239] *Id.* § 157.203(d)(3).

[240] *Revisions to the Blanket Certificate Regulations and Clarification Regarding Rates*, Order No. 686, 117 FERC ¶ 61,074 (2006), *order on reh'g*, Order No. 686-A, 119 FERC ¶ 61,303 at P 16, *order on reh'g*, Order No. 686-B, 120 FERC ¶ 61,249 (2007).

[241] Prior Notice applications are those types of blanket certificate program activities which are not deemed automatic and require 60-day notice of publication in the Federal Register. https://www.ferc.gov/industries/gas/indus-act/blank-cert.asp

[242] Final EIS at 1-2.

[243] *See* 15 U.S.C. § 717f(h) (2012); *also Columbia Gas*, 768 F.3d at 314 (finding that the plain meaning of the Commission's Part 157 blanket certificate regulations grants the holder of a blanket certificate the right of eminent domain to obtain easements from landowners).

companies to include information on relevant eminent domain rules in notices to potentially affected landowners.[244] The compensation landowners receive for property rights is a matter of negotiation between the gas company and landowner, or is determined by a court in an eminent domain proceeding. In view of the above-noted blanket program procedures and protections, we expect landowners will have the opportunity to raise specific concerns and seek specific relief regarding Mountain Valley's reliance on blanket authority in undertaking any future activity.

91. Further, we dismiss the argument that the Commission did not properly consider the impact of the case-specific certificate or blanket certificate on nearby property values. The Certificate Order reviewed the submitted anecdotes, public surveys, and opinion polls on property values, and concluded that such examples do not constitute substantial evidence that natural gas projects decrease property values.[245] Thus, we find the Commission conducted an appropriate review to identify any appreciable impact on property values due to the MVP Project.

92. We find no merit in Appalachian Mountain Advocates' argument that the blanket certificate minimizes economic and environmental review.[246] The blanket certificate program is limited to activities that will not have a significant adverse environmental impact. The Commission ensures this by restricting blanket certificate authority to certain types of facilities and to individual projects that can comply with a cost cap and the environmental requirements specified in the Commission's regulations.[247] Petitioners have not identified, nor does the Commission find, any deficiencies in Mountain Valley's compliance with the environmental conditions set forth in the Commission's regulations.

[244] 18 C.F.R. § 157.203(d)(2)(v) (2017).

[245] Certificate Order, 161 FERC ¶ 61,043 at P 228. *See* Final EIS at 4-392 ("[t]here is a preponderance of evidence from multiple independent studies… that refute the claims … that the presence of a natural gas pipeline would significantly reduce property values.").

[246] Appalachian Mountain Advocates' Request for Rehearing at 83.

[247] 18 C.F.R. § 157.206(b) (2017).

B. The Commission is Not Required to Seek Compliance with Section 4(f) of the Department of Transportation Act

93. The Historic District alleges that the Commission violated section 4(f) of the Department of Transportation (DOT) Act[248] by not seeking approval from DOT prior to issuing the Certificate Order.[249] The Historic District cites to section 4(f) as applying in "developing transportation plans and programs that include activities or facilities."[250] The Historic District states that section 4(f) is triggered when the Secretary of Transportation is asked to approve a transportation program or project seeking to employ federal funds, "which requires the use of land from a public park, recreation area, wildlife or waterfowl refuge, or from an historic site."[251] The Historic District reasons that because the pipeline is a transportation activity it is controlled by DOT.[252] Finally, the Historic District argues that under a 1993 Memorandum of Understanding on Natural Gas and Transportation (DOT Memorandum) between the Commission and DOT, DOT has exclusive authority to promulgate federal safety standards used in the transportation of natural gas and alleges that the DOT Memorandum makes the Commission an agent of DOT.[253]

94. We disagree. The Historic District misunderstands the extent of DOT's jurisdiction over natural gas pipelines. The MOU between the Commission and DOT did not make the Commission an agent of DOT or subject to section 4(f) of the DOT Act. The DOT Memorandum:

> provide[s] guidance and set[s] policies for [the agencies'] respective technical staffs and the regulated natural gas pipeline industry regarding the execution of the agencies

[248] 49 U.S.C. § 303(b) (2012).

[249] Historic District's Request for Rehearing at 58-61.

[250] *Id.* at 58 (quoting 49 U.S.C. § 303(b) (2016)).

[251] *Id.* at 58-59 (quoting *Alder v. Lewis*, 675 F.2d 1085, 1090 (9th Cir. 1982) (internal quotations omitted)).

[252] *Id.* at 59.

[253] *Id.* (citing Memorandum of Understanding Between The Department of Transportation and the Federal Energy Regulatory Commission Regarding Natural Gas Transportation Facilities, http://www.ferc.gov/legal/mou/mou-9.pdf (DOT Memorandum)).

> respective statutory responsibilities to ensure the safe and environmentally sound siting, design, construction, operations, and maintenance of natural gas transportation facilities.[254]

Further, the DOT Memorandum explains that the DOT exercises authority to promulgate and enforce *safety* regulations and standards for the "the design, installation, construction, initial inspection, initial testing, operation, and maintenance of facilities used in the transportation of natural gas."[255] This authority does not extend to the siting or routing of interstate natural gas transmission lines, over which the Commission has exclusive jurisdiction.[256] The Certificate Order, therefore, did not require pre-authorization from DOT; thus, the requirements of section 4(f) of the DOT Act are not implicated.

C. National Environmental Policy Act (NEPA) Review

1. Procedural Issues

a. The Certificate Order Minimizes the MVP Project's Impacts in Accordance with Commission Requirements

95. Preserve Craig and the Counties argue that the record does not indicate that the MVP Project avoids or minimizes impacts to scenic, historic, wildlife, and recreational values.[257]

96. We disagree. Section 380.15(a) of the Commission's regulations requires siting, construction, and maintenance of facilities be undertaken in a way that avoids or minimizes effects on scenic, historic, wildlife, and recreational values.[258] The Final EIS

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[254] DOT Memorandum at 1.

[255] *Id.*

[256] Notably, the DOT Memorandum recognizes DOT's authority to develop safety standards for natural gas facilities, but states that under the NGA "the Commission exercises the authority over the siting of interstate natural gas transmission facilities and may impose conditions to mitigate the impact of construction or operation on the environment." DOT Memorandum at 2.

[257] Preserve Craig's Request for Rehearing at 49-51 (citing 18 C.F.R. § 380.15(a)); Counties' Request for Rehearing at 41-42.

[258] 18 C.F.R. § 380.15(a) (2017).

concluded that with the implementation of the mitigation measures impacts to scenic, historic, wildlife, and recreational values would be adequately minimized.[259]

97. The Counties next contend that the Commission has not shown that unnecessary effects on landowners and surrounding communities have been avoided or minimized, in violation of the Commission's obligations under NGA section 7(c) which requires the Commission to consider the project's potential impacts.[260] Preserve Craig states the Commission has not responded to specific objections that certain landowners' interests will be adversely affected by the lack of a complete record on environmental hazards.[261]

98. The Commission found, in issuing the Certificate Order, that the benefits the MVP Project will provide to the market outweigh any adverse effects, including those on landowners and surrounding communities.[262] The Final EIS concluded that, except for the clearing of forest, the MVP Project would not have significant adverse impacts on most environmental resources.[263] We find the mitigation measures undertaken, as discussed more specifically below, sufficiently minimize the MVP Project's impacts to landowners.[264]

99. Preserve Craig argues that the Commission did not respond to Mr. Chandler's comment that the Draft EIS did not describe geological hazards and multiple water resources impacted by the pipeline right-of-way and the access road proposed to be located on his property.[265] Mr. Chandler's comment on the Draft EIS expressed concern

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[259] Final EIS at 4-192 to 4-212 (discussing impacts on wildlife); 4-257 to 4-347; (discussing impacts to land use, scenic byways, recreation and special interest areas, and visual resources); 4-402 to 4-484 (discussing impacts to historic and cultural resources); Certificate Order, 161 FERC ¶ 61,043 at PP 214, 227 (finding that overall impacts on land use and species would be minimized). *See generally Minisink Residents*, 762 F.3d 97 at 114.

[260] Counties' Request for Rehearing at 41-42.

[261] Preserve Craig's Request for Rehearing at 51; Counties' Request for Rehearing at 40.

[262] Certificate Order, 161 FERC ¶ 61,043 at P 64.

[263] Final EIS at 5-1.

[264] *See id*. at 5-8 to 5-10, 5-17 to 5-26.

[265] Preserve Craig's Request for Rehearing at 51.

that Mountain Valley identified fewer wetlands on his parcel than a private company hired by Mr. Chandler. The Final EIS addressed Mr. Chandler's comments, finding that Mountain Valley needs to gather additional information regarding the location and number of wetlands on the Chandler parcel in collaboration with the U.S. Army Corps of Engineers (Army Corps).[266] The Final EIS explained that wetland and stream delineations are conducted within a defined corridor for the proposed right-of-way and access roads, and it is likely that the wetlands on the parcel fall outside of the survey corridor; thus, explaining the discrepancies between the number of wetlands hired identified by Mountain Valley and Mr. Chandler's contractors.[267] As the Final EIS concluded, without specific information regarding the location of these wetlands in relation to the MVP Project's environmental survey corridor, the Commission is unable to make any determinations regarding the adequacy of the wetland surveys.[268]

100. Preserve Craig further contends that the Final EIS did not address karst features, steep slopes, springs, and unmitigable sedimentation hazards on the property owned by Landcey Ragland, which would be crossed by the MVP Project.[269] Preserve Craig argues that these errors were not addressed in the Final EIS, and the Certificate Order did not require a landowner-specific crossing plan for Mr. Chandler's or Mr. Ragland's property, nor did it explain the Commission's criteria for determining whether a landowner-specific crossing plan is required, contrary to its obligations under NGA.[270]

101. Again, this is inaccurate. Mr. Chandler's arguments regarding land-crossing are addressed in the Final EIS.[271] Mr. Ragland's comments were submitted prior to issuance of the Draft EIS, and thus were addressed in the text of the Draft EIS.[272] However, we note that his concerns were not described with any level of specificity. That is,

[266] Final EIS at Appendix AA, file 23 of 36 at PDF 45 of 177 (item IND361 addressing James Chandler).

[267] *Id*.

[268] *Id*.

[269] Preserve Craig's Request for Rehearing at 51.

[270] *Id*.

[271] Final EIS at 3-115.

[272] Draft EIS at ES10-11, 4-321, 4-502 to 4-503.

Mr. Ragland did not propose a defined alternative[273] that the draft EIS could evaluate and compare to Mountain Valley's proposed route. And, to the extent the Indian Creek Watershed Association incorporated Mr. Ragland's comments, those comments cited the work of Dr. Dodds and Dr. Kastning, which are both addressed in the Final EIS and this rehearing order.[274]

b. The Draft EIS Satisfied NEPA Requirements

102. Appalachian Mountain Advocates argues that the Commission's Draft EIS was missing relevant environmental information and that a substantial amount of information was added to the record after the conclusion of the public comment period, depriving the public of any input and preventing meaningful public participation in the NEPA process.[275] Appalachian Mountain Advocates states that the purpose of the Final EIS is to respond to comments rather than to complete the environmental analysis, which should have been completed before the Draft EIS was released. Consequently, Appalachian Mountain Advocates argues that the Commission did not fulfill its obligations under NEPA by issuing an incomplete Draft EIS, and by not revising its Draft EIS in response to numerous comments highlighting the Draft EIS's deficiencies.[276] Appalachian Mountain Advocates contends that the Draft EIS did not include critical information about landslide hazards, water resources impacts, karst impacts, harm to cultural resources, harm to listed species, and other critical topics of interest to the public, and that other federal agencies criticized such omissions from the Draft EIS.[277] Appalachian Mountain Advocates cites comments from the Environmental Protection Agency (EPA), and the Department of the Interior, including the National Park Service, Bureau of Land Management (BLM), and the United States Geological Survey (USGS), to support its argument that the Commission acted without the necessary information to complete a meaningful analysis of impacts.[278] Appalachian Mountain Advocates claims that the

[273] Both the Draft and Final EIS evaluate minor route variations proposed by stakeholders. To evaluate an alternative route variation, a stakeholder must provide an alternative alignment or at least some indication of the specific resources the stakeholder would like the alternative to avoid.

[274] Final EIS at section 4.1.2.

[275] Appalachian Mountain Advocates' Request for Rehearing at 39-40.

[276] *Id*. at 41, 47.

[277] *Id*. at 39, 47.

[278] *Id*. at 48-49.

Commission has omitted information from a Draft EIS in other certificate orders and its failure to include sufficient information here renders the Final EIS deficient.[279]

103. We disagree. The Draft EIS is a draft of the agency's proposed Final EIS and, as such, its purpose is to elicit suggestions for change.[280] A draft is adequate when it allows for "meaningful analysis" and "make[s] every effort to disclose and discuss" "major points of view on the environmental impacts."[281] Appalachian Mountain Advocates do not demonstrate that the information they list renders the Draft EIS inadequate by these standards. For instance, Appalachian Mountain Advocates acknowledges[282] that at least some of the information submitted after the Draft EIS was addressed in the Final EIS, though it does not identify that information.[283]

104. Appalachian Mountain Advocates also errs in claiming that the Draft EIS was required to include certain mitigation or site-specific construction plans.[284] The inclusion in the Certificate Order of environmental conditions that require Mountain Valley to file mitigation plans does not violate NEPA. Indeed, NEPA "does not require a complete plan be actually formulated at the onset, but only that the proper procedures be followed for ensuring that the environmental consequences have been fairly evaluated."[285] Here, Commission staff published a Final EIS that identified baseline conditions for all relevant resources. Later-filed mitigation plans will not present new environmentally-significant information nor pose substantial changes to the proposed action that would otherwise

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[279] *Id*. at 53.

[280] *City of Grapevine v. U.S. Dep't of Transp*., 17 F.3d 1502, 1507 (D.C. Cir. 1994).

[281] 40 C.F.R. § 1502.9(a); *see also National Committee for the New River v. FERC*, 373 F.3d 1323, 1328 (D.C. Cir. 2004) **(**holding that FERC's Draft EIS was adequate even though it did not have a site-specific crossing plan for a major waterway where the proposed crossing method was identified and thus provided "a springboard for public comment").

[282] Appalachian Mountain Advocates' Request for Rehearing at 39, 47.

[283] We likewise note that although certain other federal agencies expressed some concerns about the Draft EIS, those agencies did not repeat their concerns after the Final EIS.

[284] *See, e.g.*, Appalachian Mountain Advocates' Request for Rehearing at 43-45.

[285] *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 352 (1989).

require a supplemental EIS. Moreover, as we have explained in other cases, practicalities require the issuance of orders before completion of certain reports and studies because large projects, such as this, take considerable time and effort to develop.[286] Perhaps more important, their development is subject to many variables whose outcomes cannot be predetermined. And, as we found elsewhere, in some instances, the certificate holder may need to access property in order to acquire the necessary information.[287] Accordingly, post-certification studies may properly be used to develop site-specific mitigation measures. It is not unreasonable for the Final EIS to deal with sensitive locations in a general way, leaving specificities of certain resources for later exploration during construction.[288] What is important is that the agency make adequate provisions to assure that the certificate holder will undertake and identify appropriate mitigation measures to address impacts that are identified during construction.[289] We have and will continue to demonstrate our commitment to assuring adequate mitigation.[290]

105. Moreover, while the Draft EIS serves as "a springboard for public comment,"[291] any information that is filed after the comment period is available in the Commission's public record, including through its electronic database, eLibrary.[292] As noted in the Certificate Order, when Mountain Valley proposed certain route modifications after the Draft EIS, Commission staff mailed letters soliciting comments from newly affected landowners.[293] Appalachian Mountain Advocates claims that parties

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[286] *See, e.g.*, *Algonquin Gas Transmission, LLC*, 154 FERC ¶ 61,048, at P 94 (2016)*; East Tennessee Natural Gas Co.*, 102 FERC ¶ 61,225, at P 23 (2003), *aff'd sub nom. Nat'l Comm. for the New River, Inc. v. FERC*, 373 F.3d 1323 (D.C. Cir. 2004).

[287] *Midwestern Gas*, 116 FERC ¶ 61,182, at P 92.

[288] *Mojave Pipeline Co.*, 45 FERC ¶ 63,005, at 65,018 (1988).

[289] *Id*.

[290] *Id*.

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

[292] The eLibrary system offers interested parties the option of receiving automatic notification of new filings.

[293] Certificate Order, 161 FERC ¶ 61,043 at P 128.

were precluded from commenting on supplemental information "as a practical matter,"[294] but the Commission in fact received "numerous written individual letters and electronic filings commenting on the final EIS or about the projects"[295] after the issuance of the Final EIS.[296] The Commission addressed those additional submissions in the Certificate Order.[297]

106. To the extent Appalachian Mountain Advocates claims that the Commission was required to supplement either the Draft or Final EIS, they are mistaken. As discussed below,[298] "an agency need not supplement an [EIS] every time new information comes to light after the EIS is finalized."[299]

107. Appalachian Mountain Advocates has not shown that the additional information submitted to the record between the issuance of the Draft EIS and the Final EIS resulted in "substantial changes in the proposed action," or presented "significant new circumstances or information relevant to environmental concerns."[300] The Final EIS analyzed the relevant environmental information and recommended environmental conditions. In the Certificate Order, we adopted most of the recommended environmental conditions and further responded to comments, including those filed after the Final EIS.[301] In short, the Commission's procedures, consistent with NEPA and the NGA, allowed the public a meaningful opportunity to comment and resulted in an informed Commission decision.

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[294] Appalachian Mountain Advocates' Request for Rehearing at 44.

[295] Certificate Order, 161 FERC ¶ 61,043 at P 131.

[296] *See, e.g.*, Bold Alliance's Sept. 25, 2017 Comments (Accession No. 20170925-5045); Wild Virginia's July 31, 2017 Comments (Accession No. 20170801-5043).

[297] *See, e.g.*, Certificate Order, 161 FERC ¶ 61,043 at PP 249, 251, 165-187, 150-151, 142-146, 247-268, 225-227, 278-280 (addressing drinking water resources, surface water, karst, steep slopes, cultural resources, visual resources, and health, and safety).

[298] *See infra* 121-130 (addressing arguments in favor of a supplemental EIS).

[299] *Id.* at 372 (quoting 40 C.F.R. § 1502.9(c)) (internal citations omitted).

[300] 40 C.F.R. § 1502.9(c)(1).

[301] Certificate Order, 161 FERC ¶ 61,043 at P 134.

108. Appalachian Mountain Advocates next contends the Commission improperly issued the Draft EIS and Final EIS prior to completing the Endangered Species Act (ESA) Section 7 consultation process with U.S. Fish and Wildlife Service (FWS) because, they state, it is only through that process that the full impacts to listed species are determined.[302] Appalachian Mountain Advocates argues that the consultation process in the Draft EIS is vital because the public does not have an opportunity for comment on the development of a biological assessment or biological opinion.[303] Appalachian Mountain Advocates claims the inclusion of this information in the Draft EIS is important to determining and inviting input on cumulative impacts to listed species, because the analyses resulting from the consultation process will only assess the direct impacts of the project, and the Commission's omission is in violation of its regulations.[304]

109. The Commission's approach is fully consistent with *National Committee for New River v. FERC*,[305] where the D.C. Circuit 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."[306]

110. Both the Draft and Final EIS contain extensive discussion of potential impacts on threatened and endangered species.[307] Further, the Certificate Order discusses threatened, endangered, and other special status species, and conditions the MVP Project's construction upon satisfying ESA requirements.[308] As we explain above and in other cases,[309] practicalities require the issuance of orders before completion of certain reports and studies because large projects, such as this, take considerable time and effort to

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[302] Appalachian Mountain Advocates' Request for Rehearing at 45.

[303] *Id.*

[304] *Id.* at 46.

[305] 373 F.3d 1323 (D.C. Cir. 2004) (*New River*).

[306] *Id.* at 1329 (citing *East Tennessee Natural Gas Co.*, 102 FERC ¶ 61,225, P 25 (2003)).

[307] *See* Draft EIS at 4-182 to 4-203; Final EIS at 4-225 to 4-256.

[308] Certificate Order, 161 FERC ¶ 61,043 at PP 210-214, Appendix C Environmental Condition No. 28.B.

[309] *See, e.g.*, *Weaver's Cove Energy, LLC*, 114 FERC ¶ 61,058, at PP 108-115 (2006); *Islander E. Pipeline Co.*, 102 FERC ¶ 61,054, at PP 41-44 (2003).

develop. Accordingly, the Commission's process "to the fullest extent possible,"[310] reflects the integration of the Commission's Draft EIS with the ESA consultation process. As courts have recognized, NEPA's requirements are essentially procedural;[311] as long as the agency's decision is fully informed and well-considered, the Commission has satisfied its NEPA responsibilities.[312]

c. The Commission Addressed Petitioners' Comments

111. Ms. Teekell argues that the Commission violated NEPA by failing to respond to the MVP Project's opponents.[313] Ms. Teekell states that the Commission's obligation to respond goes beyond addressing expert reports, and under NEPA, an agency must also address comments from all parties.[314] Ms. Teekell states that the Commission did not address her comments on the Draft EIS or the Final EIS, and the Certificate Order makes no mention of her requests. [315] Further, Ms. Teekell states the Commission did not address her concerns about the risk of damage to the pipeline resulting from landslides or blasting, adverse impacts on endangered species, the availability of preferable alternatives, and impacts on water wells.[316]

112. Ms. Teekell's statements are inaccurate. The Commission responded to Ms. Teekell's comments in the Final EIS at Appendix AA[317] and the Certificate Order.[318] The Commission further addressed concerns pertaining to steep slopes, landslides, and karst in section 4.1 of the Final EIS. The Final EIS discussed landslides in section 4.1.1,

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[310] 40 C.F.R. § 1502.9(a) (2012).

[311] *Vt. Yankee Nuclear Power Corp. v. Natural Res. Def. Council*, Inc., 435 U.S. 519, 558 (1978).

[312] *National Resources Defense Council, Inc. v. Hodel*, 865 F.2d 288, 294 (D.C. Cir. 1988).

[313] Ms. Teekell's Request for Rehearing at 11.

[314] *Id.* at 12.

[315] *Id.*

[316] *Id.* at 13.

[317] Final EIS at Appendix AA, file 28 of 36 at PDF 50-57 of 127 (IND823 addressing H. Teekell).

[318] Certificate Order, 161 FERC ¶ 61,043 at P 58.

endangered species in section 4.7, alternatives in section 5.1.14, and water wells and springs in section 4.3.

113. Next, Ms. Teekell contends that the Final EIS failed to discuss expert opinions submitted by Dr. Ernst Kastning and others.[319] Again, we find Ms. Teekell's assertions incorrect. Dr. Ernst Kastning's opinion concerned karst and associated hazards regarding the MVP Project.[320] The Final EIS and the Certificate Order discuss the MVP Project's impacts on karst terrain and mitigation measures.[321] Because Ms. Teekell fails to further identify which expert comments the Commission allegedly disregarded, we dismiss those assertions.

114. Preserve Craig next contends that the Commission has not responded to comments by various parties who state that Mountain Valley has not complied with the Commission's regulations for providing environmental information and preparing an application for certificate to date. We reiterate that Mountain Valley has provided sufficient information for the Commission to issue a certificate of public convenience and necessity.[322] Once more, we note that because Preserve Craig has not described this grievance with any level of specificity, we decline to further comment on its unexplained blanket allegations.

2. The EIS's Findings Were Supported by Substantial Evidence

115. On rehearing, the Counties and Preserve Craig assert that the Commission adopted certain findings in the Final EIS based on inadequate information related to water resources, forested land, conservation lands, visual resources, cultural resources, threatened and endangered species, and health and safety.[323] We disagree.

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[319] Ms. Teekell's Request for Rehearing at 12.

[320] *See infra.* P 165.

[321] Final EIS at 4-61, Certificate Order, 161 FERC ¶ 61,043 at PP 150-151.

[322] *See* Final EIS at ES-16 (finding that we determined that construction and operation of the projects would result in limited adverse environmental impacts, with the exception of impacts on forest. This determination is based on our review of the information provided by the Applicants and further developed from environmental information requests; field reconnaissance; scoping; literature research; alternatives analyses; and contacts with federal, state, and local agencies, and other stakeholders.).

[323] Counties' Request for Rehearing at 12-16 and Preserve Craig at 13-17.

116. In considering applications for new projects, the Commission must conduct an environmental review under NEPA.[324] NEPA imposes "a set of action-forcing procedures that require that agencies take a hard look at environmental consequences, and that provide for broad [public] dissemination of relevant environmental information."[325] The statute does not, however, mandate particular results, but rather "simply prescribes the necessary process."[326] NEPA ensures that federal agencies make informed decisions as to the potential environmental impacts of federal actions; it prohibits uninformed, "rather than unwise," agency decisions.[327]

117. While the Counties and Preserve Craig disagree with the Commission's Final EIS, both as to its conclusions and its analysis of the environmental impacts, those disagreements do not show that the Commission's decision-making process was uninformed, much less arbitrary and capricious. "If supported by substantial evidence, the Commission's findings of fact are conclusive."[328] "Substantial evidence is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion, and requires more than a scintilla but less than a preponderance of evidence."[329] When considering the Commission's "evaluation of scientific data within its expertise," the courts afford the Commission "an extreme degree of deference."[330] As more fully discussed below, we find that the Final EIS's conclusions were supported by substantial evidence and affirm the Commission's findings in the Certificate Order.

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[324] 42 U.S.C. § 4321, *et seq*. (2012).

[325] *Robertson*, 490 U.S. at 350 (internal quotation marks and citation omitted).

[326] *Id. See also Myersville Citizens for a Rural Cmty., Inc. v. FERC*, 783 F.3d 1301, 1322 (D.C. Cir. 2015) ("NEPA does not require any particular substantive result.").

[327] *Robertson*, 490 U.S. at 351.

[328] *Myersville Citizens for a Rural Cmty., Inc. v. FERC*, 783 F.3d 1301, 1308 (D.C. Cir. 2015) (quoting *B & J Oil & Gas v. FERC*, 353 F.3d 71, 76 (D.C. Cir. 2004) (citing 15 U.S.C. § 717r(b))).

[329] *S. Carolina Pub. Serv. Auth. v. FERC*, 762 F.3d 41, 54 (D.C. Cir. 2014) (internal quotation and citation omitted).

[330] *Myersville*, 783 F.3d at 1308 (internal quotation marks omitted); *see also Marsh*, 490 U.S. at 377 ("Because analysis of the relevant documents requires a high level of technical expertise, we must defer to the informed discretion of the responsible federal agencies.") (internal quotation marks omitted).

3. Programmatic EIS

118. The New River Conservancy contends that the Commission erred by failing to require a regional EIS. The New River Conservancy asserts such an EIS is necessary in light of the common development schedule and common markets serviced by the MVP Project and the Atlantic Coast Pipeline (ACP) Project.[331]

119. Regional environmental reviews are not required by law.[332] The Council on Environmental Quality's (CEQ) regulations provide that such programmatic reviews 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 spatially connected.[333] As explained in the Certificate Order, there is no Commission plan, policy, or program for the development of natural gas infrastructure.[334] Rather, the Commission processes individual pipeline proposals from private industry as required by the NGA.

120. What is required by NEPA, and what the Commission provides, is a thorough examination of the potential impacts of specific projects. When any such projects share a clear physical, functional, and temporal nexus such that they are connected or cumulative actions, the Commission will prepare a multiple-project environmental document.[335] That is not the case here with respect to the ACP and MVP Projects. Although the two projects may share a similar development schedule, there is no physical or functional interdependence between the two projects.[336] And New River Conservancy does not allege any such interdependence. Accordingly, we affirm our determination that

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[331] New River Conservancy's Request for Rehearing at 2.

[332] *See* Certificate Order, 161 FERC ¶ 61,043 at PP 137-141.

[333] Memorandum from CEQ to Heads of Federal Departments and Agencies, Effective Use of Programmatic NEPA Reviews 13-15 (Dec. 24, 2014).

[334] *See* Certificate Order, 161 FERC ¶ 61,043 at P 138 (collecting cases).

[335] 40 C.F.R. § 1508.25(a)(1)-(2) (2017) (defining connected and cumulative actions).

[336] *See, e.g.*, Final EIS at 4-597 ("Although the ACP Project is a large project, only a small portion would be within the geographic scope of analysis for the MVP Project. Specifically, about 21 miles of pipeline would be located within the Middle West Fork watershed, and 1 mile would cross the Upper West Fork watershed.").

analyzing only the MVP and Equitrans Expansion Projects together in a single EIS was appropriate under NEPA.[337]

4. Supplemental EIS

121. Dr. Carl Zipper and Preserve Craig contend that the Final EIS's introduction of the use of woody seed mix to revegetate temporary workspaces and the edge of the permanent right-of-way constitutes a substantial change from the Draft EIS that justifies the issuance of a supplemental EIS in order to more fully consider, and allow additional public comment on, information submitted to the Commission's docket following issuance of the Draft EIS.[338]

122. Section 1502.9(c) of the CEQ's regulations implementing NEPA requires agencies to prepare supplements to the Draft or Final EIS if "there are significant new circumstances or information relevant to the environmental concerns and bearing on the proposed action or its impacts."[339] In determining whether new information is "significant," courts have provided that agencies should consider whether "the new information presents a picture of the likely environmental consequences associated with the proposed action not envisioned by the original EIS."[340]

123. In Dr. Zipper's view, the use of a woody seed mix is an "extraordinary circumstance" that goes "to the heart of the case" because it highlights what Dr. Zipper alleges is the Commission's inadequate execution of its Certificate Policy Statement.[341] We disagree.[342] Rather, his request for rehearing simply seeks to buttress arguments

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[337] *See* Certificate Order, 161 FERC ¶ 61,043 at P 141.

[338] Dr. Zipper's Request for Rehearing at 9-10, 33-34.

[339] 40 C.F.R. § 1502.9(c) (2017).

[340] *Tennessee Gas Pipeline Company, L.L.C.*, 162 FERC ¶ 61,013 (2018) (citing *Wisconsin v. Weinberger*, 745 F.2d 412, 418 (7th Cir. 1984)); s*ee also City of Olmsted Falls, Ohio v. F.A.A.*, 292 F.3d 261, 274 (D.C. Cir. 2002) (applying the rule from *Wisconsin v. Weinberger*); *Sierra Club v. Froehlke*, 816 F.2d. 205, 210 (5th Cir. 1987) (describing that "significant" requires that "the new circumstance must present a seriously different picture of the environmental impact of the proposed project from what was previously envisioned.").

[341] *Id.* at 34.

[342] Further, to the extent Dr. Zipper claims that the Commission was required to reopen the record to consider materials submitted by parties, including the applicant and

previously made and states, without support, that the use of a woody seed mix constitutes a significant change from the seed mixes discussed in the Draft EIS. Indeed, Dr. Zipper's request for rehearing acknowledges that the Draft EIS referred to Mountain Valley's seed mix and the use of native shrubs to revegetate forest areas.[343]

124. 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 Draft EIS indicated that Mountain Valley would restore vegetation through seeding; Mountain Valley simply provided additional detail about its proposed seed mix after the Draft EIS, which the Commission disclosed in the Final EIS. The Commission then addressed Dr. Zipper's comments on the proposed use of the specified woody seed mix in both the Final EIS and the Certificate Order, explaining that such seeding results in "natural recruitment" which "allow[s] for the regeneration of more highly variable plant species and trees best suited for local conditions."[344] Further, Dr. Zipper's description[345] of the required replanting does not appear to reflect the Commission's requirement that Mountain Valley "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."[346]

125. Preserve Craig contends that the Commission should have re-evaluated its analysis of karst terrain and public safety issues in light of a second expert report submitted by the Counties and prepared by Paul Rubin, which described studies and accidents demonstrating "potentially deadly consequences of pipeline ruptures.[347]

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commenters, after the Draft EIS, we note that the record remained open until the issuance of the Certificate Order. In addition, we note that all applicant-filed information, including that submitted after the issuance of a Draft or Final EIS, is placed into the public docket for the project.

[343] Dr. Zipper's Request for Rehearing at n.28.

[344] Certificate Order, 161 FERC ¶ 61,043 at P 203.

[345] Dr. Zipper's Request for Rehearing at n.28.

[346] Certificate Order, 161 FERC ¶ 61,043 at P 202.

[347] Preserve Craig's Request for Rehearing at 43.

126. As discussed in the Certificate Order, staff issued the Draft EIS for a 90-day comment period ending on December 22, 2016.[348] The Counties filed this expert report on June 2, 2017, over five months after the Draft EIS comment period closed. While it is true that "a federal agency has a continuing duty to gather and evaluate new information relevant to the environmental impact of its actions,"[349] the Supreme Court has 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."[350] As we stated above, the *New River* 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."[351]

127. The additional information submitted by the Counties after the close of the comment period on the Draft 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."[352] The Counties' study reiterated concerns regarding potential consequences of routing the MVP Project's pipeline through karst terrain.[353] Although, the Final EIS did not specifically cite to this new study, we do not find that the study's conclusion alters our analysis.[354]

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[348] Certificate Order, 161 FERC ¶ 61,043 at P 127.

[349] Preserve Craig's Request for Rehearing at 42 (citing *Warm Springs Task Force v. Gribble*, 621 F.2d 1017, 1023 (9th Cir. 1980)).

[350] *Marsh*, 490 U.S. at 373.

[351] *New River*, 373 F.3d at 1329.

[352] 40 C.F.R. § 1502.9(c)(1).

[353] Counties' June 2, 2017 Supplemental Information (Accession No. 20160602-5147).

[354] *See infra.* P 164. Section 4.1.2.5 of the Final EIS cites specific examples of natural gas pipelines constructed through karst terrain including the Project area; cites PHMSA statistics regarding natural gas pipeline incidents due to earth movement in the region; and concludes that compounding geologic hazards will be mitigated by the Project-specific measures and by utilizing appropriate pipeline design. Also, as stated in the Final EIS, Mountain Valley would employ engineering geologists, geotechnical engineers, or other specialists, depending on the hazard, to monitor construction in areas where hazards have been identified and adopt construction recommendations and

128. Preserve Craig also contends, without support, that the Commission should have supplemented its EIS to address how developments concerning the West Virginia Department of Environmental Protection's waiver of the project's Clean Water Act (CWA) section 401 certification affects its analysis of impacts to geologic and water resources in West Virginia.[355]

129. We disagree. Neither the Final EIS nor the Certificate Order found that the water quality certification is necessary to ensure that the project's impacts will be acceptable. Rather, the Final EIS stated that conditions in the CWA 401 certification were based on "measures outlined in MVP's project-specific [p]rocedures," thus indicating that the requirements of the now-vacated 401 certification are also measures now required by the Certificate Order.[356] The Final EIS reasonably concluded that Mountain Valley's project-specific mitigation measures "would adequately minimize impacts on surface water resources."[357]

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mitigation measures, including minor route adjustments, should they be required. Final EIS at 4-60 to 4-63.

[355] Preserve Craig's Request for Rehearing at 43-44. On October 17, 2017, shortly after the Certificate Order, the Fourth Circuit Court of Appeals granted the West Virginia Department of Environmental Protection's request to voluntarily remand its water quality certification under section 401 of the Clean Water Act, 33 U.S.C. § 1341(a)(1). *See Sierra Club v. W. Va. Dep't of Envtl. Protection*, No. 17-1714 (4th Cir. Oct. 17, 2017) (order granting voluntary remand). The West Virginia Department of Environmental Protection subsequently waived the requirement for a water quality certification. *See* Nov. 1, 2017 Letter from Scott Mandirola, West Virginia Department of Environmental Protection, to Kimberly D. Bose (Accession No. 20171106-0009).

[356] Final EIS at 5-4; *id.* at 4-224 (providing that West Virginia Department of Environmental Protection's water quality certification required MVP to complete all stream crossings in accordance with the Commission's *Upland Erosion Control, Revegetation, and Maintenance Plan* and Mountain Valley's project-specific procedures, including its *Stream Bank Restoration Plan*).

[357] *Id*. at 5-4. We also note that, following its waiver of the 401 certification, West Virginia Department of Environmental Protection indicated that the project would instead be covered by the Army Corps' Nationwide 12 permit with provisions specific to West Virginia that, when combined with the state's stormwater permit requirements, West Virginia Department of Environmental Protection stated "will allow for better

130. Additionally, the Certificate Order, which was issued after the water quality certification was vacated, acknowledges that the project's potential impacts are not based on the state's water quality certification. Rather, the Certificate Order stated that, "[i]n addition to the measures we require here, the Army Corps, the Pennsylvania Department of Environmental Quality …, [West Virginia Department of Environmental Quality], and Virginia Department of Environmental Quality … have the opportunity to impose conditions to protect water quality pursuant to sections 401 and 404 of the [CWA]."[358] As a result, we do not consider the vacatur and waiver of the state's water quality certification a "significant change" that requires a supplemental EIS.

5. The Final EIS Properly Assessed the Project's Purpose and Reasonable Alternatives

131. Petitioners contend that the EIS's "statement of purpose and need" is impermissibly narrow and as a result, the Commission failed to fully evaluate several alternatives.[359] Petitioners allege that the Commission should have evaluated the broader energy demands met by the Project and whether those needs can be met with an alternative pipeline or with non-transportation alternatives, such as energy conservation or renewable energy resources.[360] Petitioners also allege that the Commission failed to fully consider several route alternatives in violation of NEPA, the NGA, and petitioners' due process rights.[361]

132. We disagree. The range of alternatives in the Final EIS satisfied NEPA and met all our requirements under the NGA. As discussed below, the Final EIS fully analyzed all reasonable alternatives, including the no action alternative, system alternatives, and

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enforcement capabilities and enhanced protection for the state's waters." *See* West Virginia Department of Environmental Protection's Nov. 1, 2017 Press Release (Accession No. 20111101-5089).

[358] Certificate Order, 161 FERC ¶ 61,043 at P 187.

[359] Appalachian Mountain Advocates' Request for Rehearing at 32.

[360] *Id.*; Preserve Craig's Rehearing Request at 44-49.

[361] Montgomery County's Request for Rehearing at 29-32; The Nature Conservancy's Request for Rehearing at 6-8, 12; Mr. Chandler's Request for Rehearing at 6; Preserve Craig's Request for Rehearing at 44-49; Roanoke County's Request for Rehearing at 36-40; Helen Teekell at 13.

route alternatives, or properly dismissed those alternatives that would not meet project goals.

a. Purpose and Need

133. Appalachian Mountain Advocates argues that because the Commission failed to meaningfully evaluate the need for the Project, the alternatives analysis is deficient. Appalachian Mountain Advocates contends that the Final EIS violated NEPA by adopting Mountain Valley's and Equitrans' project goals in the Final EIS's purpose and need statement.[362] Appalachian Mountain Advocates alleges that the Final EIS stated that the Commission would determine the Project's actual need later because the Final EIS stated that the Commission would "more fully explain its opinion on project benefits and need in the [Project's Certificate Order]."[363]

134. Despite Appalachian Mountain Advocates' claims to the contrary, the Commission did not wait to define the Project's purpose until the Certificate Order. The Final EIS identified the purpose and need for the Project, explaining that the Project would provide 2.4 million Dth per day of incremental, firm natural gas transportation service between the Appalachian Basin to markets in the Northeast, Mid-Atlantic, and Southeastern United States.[364] Specifically, the MVP Project would deliver 2 million Dth per day to Roanoke Gas's systems in southwestern Virginia and Transco's Station 165 pooling point in southwestern Virginia, which serves markets in the Northeast, Mid-Atlantic, and Southeastern United States.[365] The Equitrans Expansion Project would provide transportation service to the MVP Project, but would also interconnect with the existing systems, including deliveries to Columbia's system.[366] Under NEPA, the description of the purpose of and need for the project must be "reasonable," and when, as here, "an agency is asked to sanction a specific plan . . . the agency should take into

[362] Appalachian Mountain Advocates' Request for Rehearing at 35.

[363] *Id.* at 33 (citing Final EIS at 1-9).

[364] Final EIS at 1-8 to 1-10.

[365] *Id.* at 1-8.

[366] *Id.* at 1-9.

account the needs and goals of the parties involved in the application."[367] The Final EIS satisfied these requirements.[368]

135. Appalachian Mountain Advocates appears to conflate the description of the purpose of and need for the project, required by NEPA, with the Commission's determination of "public need" under the public convenience and necessity standard of section 7(c) of the NGA. As discussed above, when determining "public need," the Commission balances public benefits, including market need, against project impacts.[369] The Final EIS appropriately explained that it was not a "decision document," and that, under NGA section 7(c), the final determination of the need for the projects lies with the Commission.[370] Neither NEPA nor the NGA requires the Commission to make its determination of whether the project is required by the public convenience and necessity before that final determination.

136. Appalachian Mountain Advocates contends that the Commission must look behind Mountain Valley's precedent agreements to determine whether the project is truly needed. Neither NEPA nor the NGA requires that the Commission look behind the applicant's showing of need through precedent agreements. And when considering a private applicant's proposal, the decision before the Commission is "*whether* to adopt an applicant's proposal and, if so, to what degree."[371] To this point, as discussed below, the Commission did consider both the no action alternative and renewable energy alternatives.[372] As for Appalachian Mountain Advocates' allegation that Mountain Valley's statements regarding service in West Virginia suggest that the Commission should question Mountain Valley's stated need, we view this evidence differently. Mountain Valley stated in its application that the Project would pass through the West

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

[368] We note that NEPA regulations require the agency to "briefly specify" the purpose and need for the projects. 40 C.F.R. § 1502.13.

[369] *See supra* PP 34-51(affirming the Certificate Order's public needs determination).

[370] Final EIS at 1-9.

[371] *Theodore Roosevelt Conservation P'ship v. Salazar*, 661 F.3d 66, 73 (D.C. Cir. 2011) (*Theodore Roosevelt Conservation P'ship*).

[372] Final EIS at ES-15 to 16, sections 3.1, 3.3. The Commission did not reject renewable energy alternative as outside the scope of "its authority." *Cf.* Appalachian Mountain Advocates' Request for Rehearing at 37.

Virginia and would provide the *opportunity* to serve local customers.[373] Accordingly, the purpose and need statement did not claim that the Project would directly serve West Virginia end-use customers.

b. System Alternatives

137. Appalachian Mountain Advocates contends that the Commission erred by rejecting the no-action alternative based on Mountain Valley's claims of public benefit and, based on these claims, the Final EIS improperly excluded calls to consider renewable energy, energy efficiency, and other pipeline alternatives.[374] We disagree.

138. Courts review both an agency's stated project purpose and its selection of alternatives under the "rule of reason," where an agency must reasonably define its goals for the proposed action, and an alternative is reasonable if it can feasibly achieve those goals.[375] When an agency is tasked to decide whether to adopt a private applicant's proposal, and if so, to what degree, a reasonable range of alternatives to the proposal includes rejecting the proposal, adopting the proposal, or adopting the proposal with some modification.[376] An agency may eliminate those alternatives that will not achieve a project's goals or which cannot be carried out because they are too speculative, infeasible, or impractical.[377]

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[373] Mountain Valley's Application at 12.

[374] Appalachian Mountain Advocates' Request for Rehearing at 35, 37.

[375] *See, e.g., Friends of Southeast's Future v. Morrison*, 153 F.3d 1059, 1066-67 (9th Cir. 1998) (stating that while agencies are afforded "considerable discretion to define the purpose and need of a project," agencies' definitions will be evaluated under the rule of reason.). *See also City of Alexandria v. Slater*, 198 F.3d 862, 867 (D.C. Cir. 1999); 43 C.F.R. § 46.420(b) (2016) (defining "reasonable alternatives" as those alternatives "that are technically and economically practical or feasible and meet the purpose and need of the proposed action").

[376] *See Theodore Roosevelt Conservation P'ship*, 661 F.3d at 72-74.

[377] *Fuel Safe Washington v. FERC*, 389 F.3d 1313, 1323 (10th Cir. 2004) (The Commission need not analyze "the environmental consequences of alternatives it has in good faith rejected as too remote, speculative, or ... impractical or ineffective.") (quoting *All Indian Pueblo Council v. United States*, 975 F.2d 1437, 1444 (10th Cir. 1992) (internal quotation marks omitted)); *Natural Resources Defense Council, Inc. v. Morton*, 458 F.2d 827, 837-38 (D.C. Cir. 1972) (same). *See also Nat'l Wildlife Fed'n v. FERC*,

139. The Final EIS explained that it excluded renewable energy and energy efficiency alternatives because they could not feasibly achieve the Projects' aims. Because renewable energy and energy efficiency measures could not transport natural gas, they were not considered or evaluated further.[378] Further, there is no evidence in the record of specific renewable energy or efficiency measures that are being proposed to meet the energy needs of the regions to be served by the project. Unsupported, hypothetical alternatives are not reasonable alternatives that warrant further NEPA consideration. Similarly, Appalachian Mountain Advocates requests a differently configured project based on its claim that the Commission must redefine the need for the Project,[379] but such an alternative would not meet the Project's goals and is too speculative to warrant additional analysis. Petitioners contend this approach is impermissibly restrictive, but for purposes of NEPA, an agency may take into account an applicant's needs and goals when assessing alternatives, so long as it does not limit the alternatives to only those that would adopt the applicant's proposal.[380]

140. Petitioners next claim that the Final EIS erred when it rejected the merged system and the co-location alternatives for Atlantic Coast Pipeline, LLC's (Atlantic) ACP Project and Dominion Transmission, Inc.'s (Dominion) Supply Header[381] and the MVP and Equitrans Expansion Projects without assessing the need for either.[382] According to

912 F.2d 1471, 1485 (D.C. Cir. 1990) (NEPA does not require detailed discussion of the environmental effects of remote and speculative alternatives).

[378] Final EIS at 3-1.

[379] Appalachian Mountain Advocates' Request for Rehearing at 37 (explaining that the Commission could have considered "a lesser diameter pipe, a different capacity, different corridor, shared use of existing infrastructure or right-of-way (ROW), etc.," if the Final EIS had redefined the project).

[380] *Theodore Roosevelt Conservation P'ship*, 661 F.3d at 73-74. *See* 18 C.F.R. § 157.6(a)(4)(i) (2017) (certification requirements for NGA section 7 applications); 18 C.F.R. § 385.2005 (2017) (subscription requirements for all pleadings filed with the Commission).

[381] On September 18, 2015, Atlantic and Dominion submitted applications for ACP and the Supply Header Project, as well as a related application for lease capacity. The Commission approved the projects at the same time it approved MVP on October 13, 2017. *Atlantic Coast Pipeline, LLC*, 161 FERC ¶ 61,042 (2017) (Docket Nos. CP15-554-000, CP15-554-001, CP15-555-000, and CP15-556-000).

[382] Appalachian Mountain Advocates' Request for Rehearing at 38; Counties' Request for Rehearing Request at 40; Preserve Craig's Request for Rehearing at 49.

Appalachian Mountain Advocates, if the Final EIS had properly examined the need for either of these project systems, it could have assessed whether smaller-scale adjustments would allow a pipeline using a single corridor to meet the actual market demand for both project systems.[383] The Counties and Preserve Craig also allege that the Commission did not support the analysis of the merged system alternative with substantial evidence, in violation of both NEPA and the NGA.[384] We disagree.

141. The Final EIS examined two hypothetical scenarios to consider the ACP and Supply Header system and the MVP and Equitrans Expansion Project system together: (1) the "two-pipe" collocation alternative in which the ACP and MVP Projects would be relocated along the proposed ACP route to meet their respective delivery requirements; and (2) the "one-pipe" merged system alternative, in which the ACP volumes would be transported together with the MVP Project volumes in a single pipeline along the proposed ACP route.[385]

142. As explained in the Final EIS and Certificate Order, there is insufficient space along ACP's narrow ridgelines to accommodate two parallel 42-inch-diameter pipelines.[386] Construction would require wider construction rights-of-ways, which are not feasible along the mountainous portions of the ACP route.[387] The area's steep slopes and narrow ridgeways make construction of two adjacent pipelines technically infeasible.[388]

143. The one pipe, merged system alternative faces similar space constraints. If Mountain Valley and Atlantic used a larger, non-typical 48-inch-diameter pipeline to transport the MVP Project's and ACP's transportation volumes together, the construction right-of-way width would increase by about 30 feet or more. This increase is infeasible

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Under this alternative the Supply Header Project and Equitrans Expansion Project would both go forward.

[383] Appalachian Mountain Advocates' Request for Rehearing at 38.

[384] Counties' Request for Rehearing at 40; Preserve Craig's Request for Rehearing at 49.

[385] Final EIS at 3-13 to 3-16, 3-29 to 3-32.

[386] *See id*. at 3-29; Certificate Order, 161 FERC ¶ 61,043 at P 302.

[387] Final EIS at 3-32.

[388] *Id*. at 3-32.

through the mountainous terrain along the ACP route in Lewis and Upshur Counties, West Virginia, and Nelson County, Virginia.[389]

144. The merged system alternative could theoretically be built along this mountainous terrain if a 42-inch-diameter pipeline was used. However, the Final EIS concluded that the one pipe alternative following the ACP route could only serve Mountain Valley's customers through additional construction of multiple laterals to accommodate Mountain Valley's proposed receipt and delivery points. Petitioners claim that the Final EIS never evaluated the potential impacts of lateral lines to permit comparison to the MVP Project.[390] We disagree. Construction of these laterals would result in land use impacts that would reduce the possible benefits of combining the systems. The Final EIS explained that this alternative would still connect to Transco's system, but would require 65 miles of additional construction to reach Transco's station 165 and at least 58 miles of laterals to connect to the two delivery points to Roanoke Gas's system. The merged system alternative would also require the relocation of the Equitrans Expansion Project's delivery point with Columbia's system, to the extent even feasible.[391] Modifying the locations of Mountain Valley's receipt or delivery points could impact Mountain Valley's existing agreements with its shippers and these shippers' ability to reach intended markets.[392] We find that the additional miles of construction and lateral lines, as well as the change in delivery point are alone adequate reasons to dismiss the one-pipeline alternative. A more detailed analysis was not required under NEPA once the Commission determined that the one pipeline merged system alternative was not feasible.[393]

145. Finally, if a single 42-inch-diameter pipeline was feasible, the merged system alternative would require about 873,015 horsepower (hp) of compression, which is more than double the 304,368 hp of compression needed for the ACP and MVP Projects combined.[394] The Final EIS concluded that the merged system analysis based on the

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[389] *Id.* at 3-16.

[390] Preserve Craig's Request for Rehearing at 48-49; Counties Request for Rehearing at 40

[391] Final EIS at 3-14 to 3-15.

[392] *Id.* at 3-15.

[393] *See supra* n. 377.

[394] Certificate Order, 161 FERC ¶ 61,043 at P 300, n. 298; Final EIS at 3-15 Mountain Valley requested 171,600 hp of new compression for MVP. *See* Certificate

determination that the emissions associated with the total compression need for this alternative would triple air quality impacts and therefore not offer a significant environmental advantage over the proposals.

146. Petitioners argue that the Commission failed to show that the merged system alternative was unreasonable because the analysis in the Final EIS did not disclose required emissions estimates and an explanation of how air quality impacts could triple.[395] We agree that this analysis in the Final EIS was based on flawed information. The specific information Mountain Valley used to calculate greenhouse gas emissions in its application was outdated, and therefore the claim in the Final EIS and Certificate Order that the merged system alternative would triple air quality impacts is inaccurate.

147. Commission staff has recalculated emissions based upon a merged MVP and ACP system while retaining the Equitrans Expansion and the Supply Header Projects. Commission staff developed the emissions data for the merged MVP and ACP system alternatives by assuming the 873,015 hp of compression would be accomplished through construction of two new "greenfield" compressor stations and adding more compressor units at the originally proposed compressor stations.[396]

148. Commission staff's analysis[397] indicates that the merged system's additional compression requirements would result in a 130 to 520 percent increase in the pollutant

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Order, 161 FERC ¶ 61,043 at P 7. Atlantic requested 132,768 hp of new compression for the ACP Project. *See Atlantic Coast Pipeline, LLC,* 161 FERC ¶ 61,042, at P 8 (2017).

[395] Preserve Craig's Request for Rehearing Request at 49; Counties Request for Rehearing at 40.

[396] For the first new greenfield compressor station Commission staff's emission analysis used four Solar Titan 130 turbine-driven compressors, each rated at 22,490 hp, for a total of 89,960 hp at the station. The second greenfield compressor station staff used three Solar Titan 130 turbine-driven compressors and one Solar Centaur 60 turbine-driven compressors for a total of 75,170 hp at the station. Power requirements at the original six compressor stations were met by two additional Solar Titan 130 and 1 Solar Centaur 50 turbines-driven compressor units at each compressor station. This analysis ended up being slightly above the required power requirement; staff used manufacture power ratings, and did not site rate the turbines. Note that staff did not include reciprocating engines, as this would have required many more engine-driven compressors and significantly increased estimated emissions.

[397] Commission staff calculations are based on EPA's emission factor for gas turbine driven compressors (EPA, AP-42 Stationary Internal Combustion Sources: Stationary Gas Turbines https://www3.epa.gov/ttnchie1/ap42/ch03/related/c03s01.html*)*

emissions than the MVP and ACP projects considered individually, as indicated in the table below. Thus, because the merged system alternative would result in over double to five times the air quality impacts, this alternative would not result in a significant environmental advantage over the proposals. We note that this correction to the information previously provided does not warrant preparation of a supplemental EIS. The information does not present a seriously different picture of the environmental landscape such that another hard look is necessary.[398] Rather, it is consistent with Commission staff's decision in the Final EIS to eliminate the merged system alternative.

Pollutant[399]	**Additional Compression Emissions for Merged System Alternative**[1] **(tons/year)**	**Existing Emissions from MVP and ACP (tons/year)**	**Total Emissions from Merged System Alternative**[2] **(tons/year)**	**Emission Increase (%)**
NO_x	2,000	480	2,500	520
CO	470	617	1100	180
SO_2	54	38	90	240
PM_{10}	98	168	270	160
$PM_{2.5}$	98	168	270	160
VOC	43	150	190	130

and manufacturer's data for solar turbines (Gas Compressor Packages, *https://www.solarturbines.com/en_US/products/gas-compressor-packages.html*). We assumed water injection for emission control. Additionally, staff assumed between 5 percent to 40 percent increase in emissions for other equipment usually on site such as generators, tanks, fugitive leaks, *etc*. (NO_x, CO, SO_2, PM_{10}, $PM_{2.5}$: 5 percent; VOCs: 40 percent; HAPs:10 percent; and GHGs: 10 percent).

[398] *See supra* P 122. *See also Delaware Riverkeeper Network v. FERC*, 857 F.3d 388, 401 (D.C. Cir. 2017) ("Even if FERC technically erred in some of its classifications, Riverkeeper has not shown any prejudice by virtue of the agency 'fail[ing] to comply precisely with NEPA procedures.'") (quoting *Nevada v. Dep't of Energy*, 457 F.3d 78, 90 (D.C. Cir. 2006); *NRDC v. Hodel*, 865 F.2d 288, 295–97 (D.C. Cir. 1988) (refusing to remand despite an agency error because it had "serve[d] NEPA's informational function").

[399] Commission staff examined the following air pollutants: nitrogen oxide (NO_x); carbon monoxide (CO); sulfur dioxide (SO_2); particulate matter less than 10 microns (PM_{10}); particulate matter less than 2.5 microns ($PM_{2.5}$); volatile organic compounds (VOC); hazardous air pollutants (HAPS); and greenhouse gases (GHG).

HAPS	23	36	60	170
GHG	1,800,000	1,746,141	3,600,000	210
1. The Merged System Alternative was developed from information contained in MVP's Responses to Environmental Information Request Dated December 24, 2015 2. Rounded to 2 significant digits				

149. Finally, Preserve Craig, the Counties, and the dissent to the Certificate Order argue that Commission staff should have designed a one-pipe alternative to meet the purpose and need of the ACP and MVP Projects in an environmentally acceptable manner.[400] The parties provide no support for the notion that an agency is required to redesign proposed projects as part of its NEPA analysis. Had a credible one-pipe alternative been placed in the record, staff might have determined that it warranted further study. That did not occur. As we explained in the Certificate Order, the Commission does not engage in pipeline planning but acts on private pipeline applications when carrying out its statutory responsibilities under the NGA.[401] Petitioners simply have not proffered an alternative with sufficient support and precision o warrant further analysis.[402]

150. Moreover, a hypothetical one-pipeline alternative, even in a different location would face many of the same challenges as the merged system alternatives eliminated in the Final EIS. Although a merged system or one-pipe alternative along a different route would eliminate impacts on resources along the specific MVP pipeline route, such an alternative would require additional compression and lateral facilities to meet the Projects' purposes and accommodate Mountain Valley's proposed delivery and receipt points.[403] These additional compression and lateral lines would result in landowner and environmental impacts, potentially reducing any possible benefits of combining the systems.[404]

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[400] Preserve Craig County's Request for Rehearing at 49.

[401] Certificate Order, 161 FERC ¶ 61,043 at P 139.

[402] *See Vermont Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc*., 435 U.S. 519, 551, (1978) ("Time and resources are simply too limited to hold that an impact statement fails because the agency failed to ferret out every possible alternative, regardless of how uncommon or unknown that alternative may have been at the time the project was approved.").

[403] *See* Final EIS at 3-14 to 3-15.

[404] *See id.* at 3-15, *supra* at PP 144-145.

c. Route Alternatives

151. The Final EIS considered four major route alternatives, fifteen route variations along the MVP Project route, and six route variations along the Equitrans Expansion Project route. In almost all cases, the alternative routes were found to not provide a significant environmental advantage over the proposed route segments and were not recommended. Nonetheless, several petitioners challenge this determination and contend that the Commission violated NEPA or the NGA by failing to properly consider their preferred alternative. As discussed below, we disagree.

i. Slussers Chapel Conservation Area

152. Montgomery County argues that the Final EIS erred in rejecting the Slussers Chapel Alternative in favor of Route Modification 250. Montgomery County explains that the original route crossed through an unstable karst region—known as the Mount Tabor Sinkhole Plain, the Slussers Chapel Conservation Area, and the Mill Creek Springs Natural Preserve Area.[405] After the Virginia Department of Conservation and Recreation proposed the Slussers Chapel Alternative to avoid all three areas, Mountain Valley proposed Route Modification 250. Route Modification 250 avoids several Virginia Department of Conservation and Recreation areas of concern but would still impact the Mount Tabor Sinkhole Plain and the Slussers Chapel Conservation Area. Montgomery County argues that by rejecting the Slussers Chapel Alternative, the Commission violated its own siting guidelines requiring project proponents to select a right of way that avoids parkland and protects adjacent resources, to the extent possible.[406]

153. The Slussers Chapel Alternative was not preferable. Montgomery County argues that Route Modification 250 would still impact the Mount Tabor Sinkhole Plain, but it is mistaken. Mountain Valley altered its route in April 2016 to completely avoid the Mount Tabor Sinkhole Plain.[407] Route Modification 250 would cross about 0.7 miles more of the Slussers Chapel Conservation Site than the Slussers Chapel Alternative, while the Slussers Chapel Alternative would cross about 2.5 miles more of National Forest System lands, 1.1 miles more side-slope, 1 mile more bedrock, and affect 25 more acres of

[405] Montgomery County's Request for Rehearing at 31.

[406] *Id.* (citing 18 CFR 380.15(e)(2), 380.15(e)(5)).

[407] As explained in section 3.5.1.10 of the Final EIS, Mountain Valley's currently authorized pipeline route between about mileposts 221.4 and 227.2 would avoid the Mount Tabor Sinkhole Plain. Final EIS at 3-65 to 3-68.

interior forest than the corresponding segment of the current authorized route.[408] The Slussers Chapel Alternative would also border the Brush Mountain Wilderness within the Jefferson National Forest and overlap with Forest Road 188, which would require the road's closure during construction.[409] Thus, the Final EIS concluded, and we agree, that the Slussers Chapel Alternative does not offer significant environmental advantages over the corresponding segment of the currently authorized route.[410]

ii. Chandler Property Alternative

154. Mr. Chandler contends that he requested that Mountain Valley change the route to the edge of his property, but Mountain Valley refused with no rationale. Mr. Chandler urges the Commission to intervene, explaining that his preferred route would move the pipeline further away from his home and his neighbor's homes.[411]

155. The Final EIS explained that Mountain Valley examined the Chandler's alternative and determined that it would require more side-slope construction and cross additional streams and drainages.[412] Because the Final EIS determined that the Chandler alternative was not significantly environmentally preferable to the currently authorized route, it was not adopted.[413] We agree with this decision.

iii. Teekell Alternative and Due Process Concerns

156. Ms. Teekell, an affected property owner in Craig County, Virginia, alleges that the Commission failed to consider a preferred alternative that she included in her comments on the Draft EIS.[414] Ms. Teekell also claims that the Commission violated her due process rights by introducing a new alternative route after the Draft EIS comment

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[408] Final EIS at 3-69.

[409] *Id.* at 3-69 to 3-70.

[410] *Id.* at 3-70.

[411] Mr. Chandler's Request for Rehearing at 6.

[412] Final EIS at 3-115, Table 3.5.3-2, with the Chandler's property being identified as tracts VA-RO-060 and VA-RO-061.

[413] *Id.*

[414] Ms. Teekell's Request for Rehearing at 13.

deadline had closed. Ms. Teekell claims she was therefore unable to rebut the newly proposed alternative.[415]

157. Ms. Teekell did not identify a preferred alternative in either her rehearing request or Draft EIS comments. Ms. Teekell's Draft EIS comments did advocate that the Commission avoid Canoe Cave in Giles County, Virginia, but she makes no mention of this on rehearing. We note that the Commission addressed Ms. Teekell's Canoe Cave concerns. After the Draft EIS was published, Mountain Valley proposed to avoid Canoe Cave completely and this route was approved by the Commission in the Certificate Order.[416]

158. As for Ms. Teekell's due process claims, we dismiss them on procedural grounds. Ms. Teekell does not identify the new alternative route that supposedly deprived her of her due process rights. Route variations proposed after the Draft EIS comment period do not deprive NEPA commenters of their procedural due process rights, particularly when Ms. Teekell had an opportunity to seek rehearing and failed to identify any specific concerns. Ms. Teekell's obligation to is to "set forth specifically the ground or grounds upon which" a request for rehearing is "based."[417] The aim of the NGA's rehearing requirement is "to give the Commission the first opportunity to consider challenges to its orders and thereby narrow or dissipate the issues before they reach the courts."[418] Simply making blanket allegations that the Commission violated the law without any analysis or explanation does not serve this purpose.

6. Threatened and Endangered Species Impacts

159. Mr. Chandler disagrees with the statement in the Final EIS that Mountain Valley lacked access to certain property affected by the project, leaving certain land unsurveyed for the small whorled pogonia, which is a plant species threatened under the ESA.[419]

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[415] *Id.*

[416] Final EIS at 3-59 to 3-60.

[417] 15 U.S.C. § 717r(a). *See also Constellation Energy Commodities Group, Inc. v. FERC*, 457 F.3d 14, 22 (D.C. Cir. 2006) ("Each quoted passage states a conclusion; neither makes an argument. Parties are required to present their arguments to the Commission in such a way that the Commission knows 'specifically ... the ground on which rehearing [i]s being sought.'").

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

[419] 16 U.S.C. § 1531 *et seq.* (2012).

Mr. Chandler states that Mountain Valley was "present to survey" their property "in the corridor and access road areas" of their property.[420]

160. We find nothing improper about the treatment of the small whorled pogonia in these proceedings. The Final EIS thoroughly addressed the small whorled pogonia,[421] and subsequent consultation with the FWS demonstrates full ESA compliance.[422] The Final EIS stated that Mountain Valley did not have access to a small portion of the affected land for purposes of completing the required surveys.[423] Therefore, Commission staff took a conservative approach, assumed the presence of the small whorled pogonia on the unsurveyed land, and concluded the project would be likely to adversely affect it.[424] Subsequently, Commission staff requested formal ESA section 7 consultation with the FWS based on that conservative, assumed presence of the threatened species.[425]

161. The Certificate Order recognized that consultation with the FWS had not yet been completed, and, consistent with the recommendation in the Final EIS and the statement in the Biological Assessment, described how Environmental Condition No. 28 "prohibits construction of the MVP Project until Commission staff completes the process of complying with the [ESA]."[426]

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[420] Mr. Chandler's Request for Rehearing at 7-8.

[421] Final EIS at 4-239 to 4-240.

[422] ESA Section 7 requires the Commission to ensure that the project "is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary . . . to be critical." 16 U.S.C. § 1536(a)(2).

[423] Final EIS at 4-239.

[424] *Id.* at 4-239 to 4-240.

[425] Commission staff's July 7, 2017 Biological Assessment at 8-76 (explaining that Commission staff is "conservatively assuming that small whorled pogonia is present within the unsurveyed land").

[426] Certificate Order, 161 FERC ¶ 61,043 at P 213; Appendix C, Environmental Conditions, Environmental Condition No. 28(b) ("Mountain Valley shall not begin construction of the proposed facilities until . . . [Commission] staff completes any

162. On November 21, 2017, subsequent to the filing of Mr. Chandler's rehearing request, the FWS issued a Biological Opinion, which addressed the small whorled pogonia. The Biological Opinion recognized that some of the construction right-of-way had not been surveyed because of lack of access; however, the FWS, like Commission staff in the Final EIS and Biological Assessment, assumed the presence of the small whorled pogonia in the unsurveyed area. Based on this conservative assumption, the FWS estimated the number of small whorled pogonia that would occur in the action area, both in the construction right-of-way and downslope of the construction right-of-way.[427] Based on this conservative estimate of presence, the FWS concluded "that authorization to construct and operate the pipeline, as proposed, is not likely to jeopardize the continued existence of the [small whorled pogonia]."[428] With the Biological Opinion from the FWS, consultation has been completed. Accordingly, we find that there has been full compliance with the requirements of the ESA, and rehearing is therefore denied.

7. Geology

163. Preserve Craig, Montgomery County, Appalachian Mountain Advocates, the Counties, and other petitioners express concern about the project's geological and topographical impacts, and contend that the Final EIS failed to address expert opinions, specifically those of Dr. Ernst Kastning, Dr. Chris Grove, Dr. Pamela Dodds, and Mr. Paul Rubin regarding the geologic and hydrogeologic risks and long-term impacts of constructing the MVP Project through areas characterized by karst terrain, steep slopes, unstable soils, and seismicity associated with the Giles County Seismic Zone.[429] The experts cited by petitioners contend that these compounded environmental hazards constitute serious threats for construction and maintenance of the pipeline rendering the region a "no-build zone" for large diameter pipelines; and further threatening the integrity

necessary [ESA] Section 7 informal and formal consultation with the FWS . . ."). In its Implementation Plan, Mountain Valley stated that it will comply with Environmental Condition No. 28. Mountain Valley November 1, 2017 Implementation Plan at 37.

[427] Biological Opinion at 11.

[428] *Id.* at 38.

[429] Preserve Craig's Request for Rehearing at 17-20; Montgomery County's Request for Rehearing at 22-24; Appalachian Mountain Advocates' Request for Rehearing at 105, 108; Counties' Request for Rehearing at 17; Mr. Chandler's Request for Rehearing at 6-7.

and quality of groundwater resources due to subsurface karst interconnectivity.[430] Mr. Chandler and other petitioners express concern with construction of the MVP Project's pipeline through areas associated with the Giles County Seismic Zone in Roanoke County, Virginia.[431]

164. The Final EIS directly addressed comments regarding rugged topography, steep and unstable slopes, karst terrain, seismicity associated with the Giles County Seismic Zone, shallow bedrock, blasting, and both active and abandoned mines and quarries.[432] In order to prevent and mitigate adverse impacts associated with these features, Mountain Valley prepared a Karst Hazard Assessment, that identifies karst features and hazards, as well as a *Karst Mitigation Plan*, which includes procedures for unanticipated karst discoveries during construction, as well as mitigation options and procedures for coordination with state agencies.[433]

165. We reviewed the expert reports provided by petitioners, along with the studies provided by Dr. Kastning, as part of our environmental analysis of karst and other geologic hazards in the project area.[434] The Final EIS found that these publications and reports are informative regarding the development, hydrology, and ecology of karst systems, but ultimately disagreed with their conclusions.[435] The Final EIS cited specific examples of natural gas pipelines constructed through karst terrain, refers to the DOT's Pipeline and Hazardous Materials Safety Administration (PHMSA) statistics regarding natural gas pipeline incidents due to earth movement in the region, and concludes that compounding geologic hazards will be mitigated by the project-specific measures identified for landslides, erosion, and steep slopes and by using appropriate pipeline design such as thicker-walled pipe in areas of potential seismic, landslide, and subsidence hazards.[436] Finally, as stated in the Final EIS, Mountain Valley would employ

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[430] *See* Sierra Club's January 4, 2018 Comments to U.S. Army Corps at Exhibit B (citing Dr. Kastning's July 3, 2016 Geologic Hazards in the Regions of Virginia and West Virginia) (Accession No. 20180205-5131).

[431] Mr. Chandler's Request for Rehearing at 7.

[432] *See* Final EIS at 4-58 to 4-63.

[433] *Id.* at 4-58.

[434] *Id.* at 4-61.

[435] *Id.* at 4-61 through 4-63.

[436] *Id.* at 4-62.

engineering geologists, geotechnical engineers, and/or other specialists, depending on the hazard, to monitor construction in areas where hazards have been identified and adopt construction recommendations and mitigation measures, including minor route adjustments, should they be required.[437]

166. The MVP Project will be in close proximity to the Giles County Seismic Zone, where peak ground acceleration could be greater than 14 percent gravity between milepost 192 and 210, and 12 to 14 percent gravity between milepost 161 and 192, and between milepost 210 and 239.[438] The Final EIS stated that the potential for soil liquefaction exists mainly in the area of the Giles County Seismic Zone between milepost 161 and 239; and that the majority of the pipe in the seismically active area near the Giles County Seismic Zone would be Class 2 or Class 3 thickness.[439] Further, the Final EIS clarified that the MVP Project pipeline would be able to withstand seismic events of the historical and projected magnitude experienced in the Giles County Seismic Zone.[440] Specifically, Mountain Valley will design the pipeline pursuant to PHMSA regulations that include procedures and guidelines for quantifying seismic hazards, pipeline performance criteria, pipeline analysis procedures, and potential mitigation options with regards to pipeline design.[441] The Final EIS concluded that these measures are sufficient to protect against seismic hazards typically associated with this region.[442] We agree.

167. Mr. Chandler and Mary Beth Coffey suggest that Dr. Dodds identified a Quaternary-Period fault within the Mill Creek watershed at milepost 244.9 and disagrees

[437] *Id.* at 4-63.

[438] *Id.* at 4-26.

[439] *Id.* at 4-51.

[440] *Id.*

[441] *Id.*

[442] *Id.*

with the Final EIS that the project pipeline alignment would not traverse known faults.[443] We disagree with this assessment.

168. The Final EIS stated that the MVP will be within 85 miles of seven USGS-identified Quaternary-Period faults associated with the Central Virginia Seismic Zone, which is known for a recent 5.8-magnitude seismic event that occurred in 2011 near Mineral, Virginia.[444] Section 2.0 of Dr. Dodds' June 2017 *Hydrogeological Assessment of the Proposed Mountain Valley Pipeline Construction Impacts to Mill Creek, Bent Mountain Area, Roanoke, Virginia* identifies a fault with slickensides[445] within vertical beds of metamorphic bedrock within the Mill Creek watershed at milepost 244.9.[446] Metamorphic bedrock in the Blue Ridge Physiographic Province is considered Proterozoic-age basement rock (1 billion years old), and not Quaternary (2.6 to 0.1 million years old) in age, as suggested by petitioners. However, we agree with Dr. Dodds' assessment that faults and fractures observed within the Blue Ridge Physiographic Province are associated with older bedrock being thrust over younger sedimentary bedrock.

169. As discussed in the Final EIS, the MVP Project would cross the St. Clair fault around milepost 194.8.[447] The St. Clair fault represents the boundary of the Allegheny Structural Front associated with the Alleghenian Orogeny which occurred about 325 to 260 million years ago during the Carboniferous through Permian Period.[448] The Final EIS further stated that St. Clair fault is not listed by the USGS as being an active fault, and therefore is not considered to be source of significant seismicity. The MVP Project will cross faults, but it will not cross any active fault lines.

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[443] Mr. Chandler's Request for Rehearing at 6-7 (citing Dodds, *Hydrogeological Assessment of Proposed Mountain Valley Pipeline Construction Impacts to Mill Creek, Bent Mountain Area, Roanoke County, Virginia*, June, 2017 (Dodds' June 2017 study) (Accession No. 20170622-5028)).

[444] *Id*.

[445] Slickensides are polished striated rock surfaces caused by one rock mass moving across another on a fault. https://earthquake.usgs.gov/learn/glossary/?term=slickensides.

[446] Dodds' June 2017 study at 12.

[447] Final EIS at 4-25.

[448] *Id*.

170. Lastly, we disagree with Ms. Teekell's claim that the Final EIS did not address the pipeline's effects on wells and springs due to its construction through karst terrain.[449] As discussed in the Final EIS, Mountain Valley will evaluate any complaints of damage to water supply wells associated with construction of the project and identify a suitable settlement with the landowner.[450] Mountain Valley also agrees to provide adequate quantities of potable water during repair or replacement of a damaged water supply.[451] In the event that an impact occurs to a livestock well, Mountain Valley will provide a temporary water source to sustain livestock while a new water supply well is constructed.[452]

171. In the event that an impact occurs to an irrigation well, Mountain Valley will compensate landowners for losses in crops resulting from well damage. Further, Environmental Condition No. 12 of the Certificate 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.[453] Subject to landowner approval, 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 Equitrans 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.[454] We agree that these measures are adequate to sustain water supplies of potentially affected parties.

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[449] Ms. Teekell's Request for Rehearing at 14.

[450] Final EIS at 4-103 to 4-106.

[451] *Id.* at 4-107 to 4-108.

[452] *Id.* at 4-018.

[453] Certificate Order, 161 FERC ¶ 61,043 at P 172 (discussing Environmental Condition No. 12) and Environmental Condition No. 12.

[454] Certificate Order, 161 FERC ¶ 61,043 at P 172 and Environmental Condition Nos. 21 and 35; Final EIS at 4-108.

8. Water Resources

a. Landowner Concerns

172. Mr. Chandler maintains that the Final EIS failed to adequately analyze potential impacts to wetlands and waterbodies throughout his property.[455] Specifically, Mr. Chandler expresses concern about the loss of or damage to springs, streams, and wetlands and the increased potential for erosion and sedimentation of waters on his property that feed into Mill Creek.[456] He maintains that blasting will eradicate multiple springs and a creek, as well as a sloped forested area that he maintains would increase erosion if destroyed.[457] He also takes issue with the Final EIS's conclusion that there will be no net loss of wetlands, and states that forested wetlands on his property "would take years to restore, maybe decades."[458] Additionally, Mr. Chandler states that the Final EIS does not fully represent the number of impacts to water crossings and wetlands along Green Hollow Road.[459]

173. We disagree. Construction of the MVP Project would impact about 31 acres, including 23.9 acres of emergent wetlands, 2.5 acres of scrub-shrub wetlands, and 4.6 acres of forested wetlands.[460] Operation of the MVP would impact approximately 7.9 acres of wetlands.[461] The Final EIS found that following construction, the operational easement would be restored and emergent and scrub-shrub wetlands would return in a few years to their original condition and function in accordance with the Commission's *Wetland and Waterbody Construction and Mitigation Procedures*.[462] The Final EIS acknowledged that it would take decades for the wetlands to mature and return to their

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[455] Mr. Chandler's Request for Rehearing at 2-4.

[456] *Id.* at 2.

[457] *Id.* at 4.

[458] *Id.* at 3.

[459] *Id.*

[460] Final EIS at 4-153 and 4-154.

[461] *Id.* 4-154.

[462] *Id.* at 4-154.

original condition and function.[463] The Final EIS concluded that impacts on waterbodies and wetlands on Mr. Chandler's property have been reduced to the maximum extent practicable through disturbance reduction and erosion control devices pursuant to Mountain Valley's *Erosion and Sediment Control Plan*.[464]

174. Mountain Valley will consider blasting for grade or trench excavation only after it has evaluated all other reasonable means of excavation and determined them to be unlikely to achieve the required results.[465] In the event that blasting is required and has the potential to affect any wetland, municipal water supply, waste disposal site, well, septic system, spring, or pipelines, adverse effects will be minimized by controlled blasting techniques and by using mechanical methods for rock excavation as much as possible.[466] Additionally, Mountain Valley has a *General Blasting Plan* that it would implement, which requires Mountain Valley to develop project-specific blasting plans in consultation with federal and state agencies to minimize impacts on aquatic resources.[467]

b. Surface Water Impacts

175. Preserve Craig and the Counties contend that the Commission erred in declining to require hydrologic analyses of sedimentation throughout the entire project route, rather than only within the Jefferson National Forest, and further erred by not providing a sound scientific basis for doing so.[468] Preserve Craig and the Counties both refer to the *Hydrologic Sedimentation Analysis* for the Jefferson National Forest, which found that, as the result of construction activities, "[c]umulatively, approximately 29.31 miles of stream segments downstream of the Project Area within the [Jefferson National Forest] and within the study area are expected to have a 10 percent increase in sediment loads or

[463] *Id.* at 4-153.

[464] *Id.*

[465] *See* Mountain Valley's *General Blasting Plan* at 6.

[466] *Id.* at 8.

[467] *Id.* at 6.

[468] Preserve Craig's Request for Rehearing at 21; Counties' Request for Rehearing at 20.

more," and argue that these results are a "strong indication that sedimentation impacts over the 300-mile pipeline route will be substantial."[469]

176. We disagree, and note that neither Preserve Craig nor the Counties provides any support for the statement that sedimentation impacts over the entire pipeline route will be substantial. The Final EIS acknowledged that impacts to surface waters may occur as a result of construction activities in stream channels and on adjacent banks, and that in-stream construction would cause a temporary increase in sediments mobilized downstream.[470] The applicants would minimize or avoid sedimentation impacts by implementation of the construction practices outlined in their *Erosion and Sediment Control Plan* and their state-specific *Stormwater Pollution Prevention Plans*.[471] During construction, discharge of water removed from excavations would be directed to vegetated land surfaces to control erosion and runoff, or filtered through haybale-lined dewatering structures, where vegetated land is unavailable.[472]

177. Mountain Valley also determined that it would implement dry open-cut waterbody crossings instead of wet open-cut crossings at the Elk, Gauley, and Greenbriar Rivers, in order to minimize sedimentation and turbidity in those waterbodies.[473] Staff concludes, and we agree, that the surface water mitigation measures set forth in the Final EIS are sufficient to mitigate sedimentation impacts to surface waters outside of the Jefferson National Forest, and that a hydrologic sedimentation analysis is not necessary.

c. Groundwater Impacts

178. Preserve Craig and the Counties allege that the Final EIS did not sufficiently analyze impacts to groundwater.[474] Preserve Craig contends that the Final EIS does not show consideration of impacts on groundwater recharge and flow routes.[475] Preserve

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[469] Preserve Craig's Request for Rehearing at 21-22,

[470] Final EIS at 4-136.

[471] *Id.* at 4-137.

[472] *Id.*

[473] *Id.* at 4-139.

[474] *See generally*, Preserve Craig's Request for Rehearing at 25-29; Counties' Request for Rehearing at 24-25.

[475] Preserve Craig's Request for Rehearing at 26.

Craig comments that the pipeline trench would impede or act as a barrier to groundwater flow where the pipeline is installed below the water table and would impede recharging groundwater where the pipeline lies above the water table.[476] The Counties take issue with what it considers the Final EIS's and Certificate Order's failure to address how project construction may modify hydrologic pathways and the storage potential of aquifers.[477]

179. Several parties requesting rehearing cite studies by experts who opine that due to the degree of subsurface karst interconnectivity, the MVP Project's pipeline, during its operational life, will continue to impact water quantity and quality for area groundwater users and expose springs and wells to spills and/or releases.[478] Preserve Craig and the Counties state that the Commission should have undertaken dye trace studies to determine groundwater pathways, and Preserve Craig cites a letter from Virginia Department of Conservation and Recreation requesting the same.[479]

180. The Final EIS addressed these concerns and concludes that the pipeline trenches would be backfilled immediately following pipeline installation with the same material that was excavated from the site.[480] Therefore, with the exception of the space occupied by the pipe itself, pipeline trenches would not inhibit groundwater flow.[481] For an operational pipeline to impede groundwater flow, the pipe would have to encompass an area within the saturated zone that extends both vertically and laterally to impermeable barriers (i.e., it would have to 'seal off' the aquifer).[482] Otherwise, groundwater flow would flow around the pipe.[483] Within a few feet of the ground surface, which is the only portion of the soil profile affected by the pipeline, shallow groundwater moves laterally

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[476] *Id.* at 27.

[477] Counties' Request for Rehearing at 24-25.

[478] *See, e.g.*, Preserve Craig's Request for Rehearing at 25; Preserve Giles County's Request for Rehearing at 9; Ms. Teekell's Request for Rehearing at 3.

[479] *Id.*

[480] Final EIS at 4-103.

[481] *Id.*

[482] *Id.*

[483] *Id.*

and typically follows the surface gradient. Consequently, the physical addition of a pipeline has no discernable effect on the lateral flow of groundwater.[484]

181. Staff concludes, and we agree, that the pipeline would occupy only a negligible portion of the soil profile and have no influence on groundwater flow.[485] Similarly, because of the pipeline's size relative to the overall volume and extent of shallow groundwater and the fact that it would not be attached to an impermeable barrier, water infiltration would not be inhibited by the presence of a pipeline.[486] The proposed rights-of-way for subsurface pipe only overlie a very small portion of the aquifers it crosses.[487] Further, rights-of-way would be restored to preconstruction contours and would be either seeded or allowed to revegetate naturally.[488] For these reasons, the MVP Project's restored rights-of-way would not cause a permanent reduction to infiltration of recharge waters.[489]

182. Hydraulic head, or the level to which water rises in a well, is a measurement of the potential energy of water due to its elevation and additional energy from pressure.[490] Due to the pipeline trench's small size relative to the larger groundwater system through which it traverses, the pipeline trench would have no influence on groundwater elevation or the water's potential energy associated with pressure.[491] Therefore, a pipeline or pipeline trench would not influence local groundwater's hydraulic head and alter groundwater flow.[492]

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[484] *Id.*

[485] *Id.*

[486] *Id.* at 4-104.

[487] *Id.*

[488] *Id.*

[489] *Id.*

[490] *Id.*

[491] *Id.*

[492] *Id.*

183. Karst terrain such as sinkholes, caves, and caverns, would be crossed in the southern portion of the pipeline route.[493] Areas of minor karst development have been identified from about mileposts 172 to 174 and significant karst development has been identified from mileposts 191 to 239.[494] The majority of features along the proposed route are sinkholes, though several caves are located in the vicinity of the MVP Project's pipeline.[495]

184. Mountain Valley's *Karst Mitigation Plan* outlines inspection criteria for known karst features identified during construction in proximity to the right-of-way.[496] If a karst feature is identified, Mountain Valley will conduct weekly inspections and document soil subsidence, rock collapse, sediment filling, swallets (underground streams), springs, seeps, caves, voids, and morphology.[497] If a feature is found to have a direct connection to the subterranean environment or groundwater flow system, Mountain Valley will work with a karst specialist and appropriate state agencies to develop mitigation measures for the karst feature.[498]

185. The Final EIS stated that surface water will typically flow overland down slope to recharge features, such as swallets.[499] Groundwater will flow vertically through the unsaturated zone along interconnected fractures and conduits, and along preferential paths downslope until reaching the saturated zone where groundwater will flow from areas of high hydraulic head (recharge locations) to areas of low hydraulic head (discharge locations).[500] Mountain Valley's analysis included evaluating recharge features (swallets, sinkholes, and sinking streams), resurgence features (springs and seeps), topography, and bedrock structure.[501] Importantly, Mountain Valley also

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[493] *Id*. at 4-34.

[494] *Id.*

[495] *Id*. (*see* Final EIS at Table 4.1.1-14).

[496] *See* Certificate Order, 161 FERC ¶ 61,043 at P 155; Final EIS at 4-58 to 4-60.

[497] Certificate Order, 161 FERC ¶ 61,043 at P 155.

[498] *Id.*

[499] Final EIS at 4-34.

[500] *Id.*

[501] *Id.*

considered the results of the fracture trace-lineament analysis and previously-published dye trace studies to determine groundwater flow paths, and to identify a direct subsurface connection from the pipeline alignment to Slussers Chapel and Old Mill Cave – two karst features in Montgomery County, Virginia.[502] Commission staff concluded, and we agree, that this data can be extrapolated and additional dye testing would not significantly change the understanding of groundwater flow.[503]

d. Mitigation Measures

186. Preserve Craig, Appalachian Mountain Advocates, Montgomery County, and the Counties take issue with the Final EIS's mitigation measures to minimize sedimentation and protect water quality.[504] Appalachian Mountain Advocates suggests that the Commission's conclusion that mitigation measures will adequately minimize impacts to aquatic resources is not supported.[505] Appalachian Mountain Advocates points to the U.S. Department of Agriculture, Forest Service's (Forest Service) comments on the Draft EIS, in which the Forest Service stated that "[i]t is unacceptable to say everything will be mitigated through the [erosion and sediment control] Plan,"[506] and Mountain Valley's Biological Evaluation, in which the Forest Service explained its belief that the effectiveness of erosion and sedimentation control measures were overestimated.[507]

187. As discussed in the Certificate Order,[508] Mountain Valley will adopt the Commission's *Upland Erosion Control, Revegetation and Maintenance Plan* (Plan)[509]

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[502] *Id* at 4-38.

[503] Certificate Order, 161 FERC ¶ 61,043 at P 156.

[504] *See generally*, Preserve Craig's Request for Rehearing at 24; Appalachian Mountain Advocates' Request for Rehearing at 65-69; Counties' Request for Rehearing at 19-20.

[505] Appalachian Mountain Advocates' Request for Rehearing at 65-69.

[506] *Id.* at 68.

[507] *Id.* at 69.

[508] Certificate Order, 161 FERC ¶ 61,043 at P 185.

[509] Commission's *Upland Erosion Control, Revegetation and Maintenance Plan*(May 2013) https://www.ferc.gov/industries/gas/enviro/plan.pdf. (Commission's Plan).

and Equitrans will use a project-specific plan that adopts the Commission's Plan with minor modifications.[510] Mountain Valley and Equitrans will also adopt, with minor modifications, the Commission's *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures).[511] The Commission's Plan and Procedures were developed in consultation with multiple state agencies across the country and updated based on Commission staff's field experience gained from pipeline construction and compliance inspections conducted over the last 25 years. Based on Commission staff's experience, these measures are an effective means to mitigate the impacts of construction and operation of the pipeline on affected resources. To further avoid or minimize impacts on groundwater and surface water resources, Mountain Valley and/or Equitrans will adopt additional mitigation measures contained in various plans, which include: *Erosion and Sediment Control Plans*; *Spill Prevention, Containment, and Counter Measure Plans*; Equitrans' *Preparedness Prevention, and Contingency and Emergency Action Plans*; *Fugitive Dust Control Plans*; *Karst Mitigation Plans*; *Blasting Plans*; and Equitrans' *Horizontal Directional Drilling Contingency Plans*.[512]

188. Appalachian Mountain Advocates contends that the Commission failed to evaluate the effectiveness of its mitigation, in particular its *Erosion and Sedimentation Plans*.[513] Mitigation measures are sufficient when based on agency assessments or studies or when they are likely to be adequately policed, such as when they are included as mandatory conditions imposed on pipelines.[514] During construction and restoration, Mountain Valley and Equitrans must employ environmental inspectors to ensure compliance with the aforementioned construction standards and other certificate conditions.[515] Where, as here, mitigation measures are mandatory, and a program exists to monitor and enforce

[510] Final EIS at 2-30.

[511] Commission's *Wetland and Waterbody Construction and Mitigation Procedures* (May 2013) https://www.ferc.gov/industries/gas/enviro/guidelines/wetland-pocket-guide.pdf. *See* Final EIS at 2-30.

[512] Final EIS at 2-32 to 2-33, 4-149.

[513] Appalachian Mountain Advocates' Request for Rehearing at 67.

[514] *Abenaki Nation of Mississquoi v. Hughes*, 805 F. Supp. 234, 239 n.9 (D. Vt. 1992), *aff'd*, 990 F.2d 729 (2d Cir. 1993).

[515] Final EIS at 2-38.

those measures, such measures have been found to be sufficiently supported by substantial evidence.[516]

189. Preserve Craig and Appalachian Mountain Advocates argue that problems with erosion and sedimentation at other natural gas pipeline projects indicate that the erosion and sedimentation control measures, specifically the Commission's Plan and Procedures, will not be effective.[517] Preserve Craig maintains that these mitigation measures are ineffective because substantially similar measures failed to prevent Rover Pipeline LLC (Rover) from violating its West Virginia Water Pollution Control Permit.[518] They state that the measures will be particularly ineffective in the case of the MVP Project, where "the slopes are much steeper and the soils are highly erodible."[519]

190. In July 2017, the West Virginia Department of Environmental Protection issued a cease and desist order to Rover, noting violations of its permit and ordering it to suspend all land development activity until such time when compliance with the terms and conditions of its permit and all pertinent laws and rules is achieved.[520] But instances of non-compliance do not support a conclusion that there are pervasive flaws in the required mitigation measures or that another pipeline will face similar circumstances or take similar actions as Rover. As previously stated, our experience confirms that when correctly implemented, the Commission's Plan and Procedures provide adequate erosion control and protection of aquatic resources. The Commission takes matters of non-compliance seriously and relies on its monitoring and enforcement program to ensure that non-compliance issues will be appropriately addressed and any impacts remediated to ensure the avoidance or mitigation of any adverse environmental impacts.[521]

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[516] *Nat'l Audubon Soc. v. Hoffman*, 132 F.3d 7, 17 (2d Cir. 1997).

[517] *See* Preserve Craig's Request for Rehearing at 24; Appalachian Mountain Advocates' Request for Rehearing at 67.

[518] *See* Preserve Craig's Request for Rehearing at 24.

[519] *Id.*

[520] *See* West Virginia Department of Environmental Protection's July 17, 2017 Cease and Desist Order (Accession No. 20170724-5046).

[521] Specifically, Mountain Valley and Equitrans agreed to fund a third-party compliance monitoring program during the construction phase of the projects. Under this program, a contractor is selected by, managed by, and reports solely to Commission staff to provide environmental compliance monitoring services. The Compliance Monitor provides daily reports to the Commission-staff Project Manager on compliance issues. In

191. Appalachian Mountain Advocates next argues that the Commission's Plan and Procedures are not effective based on Forest Service comments on the Biological Evaluation.[522] At the request of the Forest Service, Mountain Valley conducted a study, known as the *Hydrologic Analysis of Sedimentation*, which showed that with strict adherence to the Commission's Plan and Procedures during construction, sedimentation impacts would be reduced to below a level of significance.[523] Appalachian Mountain Advocates argues that the Forest Service undercut this analysis in its Biological Evaluation comments, which stated that erosion containment is likely overestimated and sedimentation underestimated due to a failure to comply with these requirements in the field.[524]

192. The Forest Service's blanket concerns with the best management practices are generalized, and do not directly address the Commission's Plan and Procedures. What petitioners raise is a concern related to compliance, not to the effectiveness of the Commission's Plan and Procedures. We note that Environmental Inspectors are required during construction to ensure compliance with all mitigation measures and alert the Commission to any potential compliance issue.[525]

193. Preserve Craig and the Counties argue that the Commission cannot rely on the *Hydrologic Analysis of Sedimentation* as evidence that required mitigation is effective. Both point to analysis by Dr. Pamela Dodds, who argues that the analysis erred by relying on the assumption that silt fencing will be 79 percent effective when "the standard effectiveness rating for silt fencing is actually 40 percent."[526] This argument is beside the point. The Commission does not rely on *Hydrologic Analysis of Sedimentation* as evidence that the Plan and Procedures are effective. As discussed, the Plan and Procedures are based on over 25 years of Commission inspection experience, are mandatory, and are closely monitored. Regardless, Dr. Dodds's claims are based on the

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addition to this program, Commission staff conducts periodic compliance inspections during all phases of construction and throughout restoration, as necessary.

[522] Appalachian Mountain Advocates' Request for Rehearing at 69.

[523] *Id.*

[524] *Id.*

[525] Certificate Order, 161 FERC ¶ 61,043 at Environmental Condition No. 7.

[526] Preserve Craig's Request for Rehearing at 24; Counties Request for Rehearing at 22.

use of silt fences alone, while Mountain Valley will use a variety of erosion and sediment control measures.[527]

194. Appalachian Mountain Advocates next contends that the Commission cannot rely on Mountain Valley's erosion and stormwater control plans required by Virginia Department of Environmental Quality to prevent significant impacts to aquatic resources.[528] In support of its contention, Appalachian Mountain submits, for the first time on rehearing, July 10, 2017 comments on the plans submitted by EEE Consulting, Inc. to the Virginia Department of Environmental Quality.[529] As discussed, new evidence is not permitted on rehearing and we dismiss Appalachian Mountain Advocates request. Regardless, even if this information had been timely submitted, the Certificate Order did not rely on Virginia Department of Environmental Quality stormwater requirements to reach its finding of no significant impacts.[530]

[527] Final EIS at Appendix O3-15 (discussing the use of: trench breakers, permanent slope breakers, temporary seeding, mulching, soil stabilization mats and blankets, surface roughing, the establishment of construction entrances, creation of sedimentation barriers (e.g., silt fences [including jhook fences], straw bales, compost filter socks), temporary ROW diversions, and sediment basins and traps).

[528] Appalachian Mountain Advocates' Request for Rehearing at 69-70.

[529] *Id.* at 70-71. Appalachian Mountain Advocates' specific concerns with Mountain Valley's stormwater and erosion control plans for Virginia, which were submitted to the Virginia DEQ. Appalachian Mountain Advocates point to a July 10, 2017 letter from EEE Consulting to Virginia DEQ, in which EEE Consulting stated, among other things, that water quality and quantity calculations are not consistent with the Virginia Stormwater Management Act and the Virginia Stormwater Management Regulations; that MVP failed to provide plan sheets for all stream crossings with a detailed explanation and location of water quality control measures; that MVP failed to demonstrate how streams will be protected from sediment tracked onto timber mats by construction equipment and vehicles; and that MVP failed to include any additional erosion and sediment control measures to reduce impacts in sensitive environmental resource areas. *Id.* at 70-71.

[530] Certificate Order, 161 FERC ¶ 61,043 at P 185; Final EIS at 4-149 (listing mitigation measures but not including Virginia Department of Environmental Quality *Stormwater Pollution Prevention Plan*).

i. Groundwater Mitigation Measures

195. Montgomery County argues that groundwater mitigation proposed by the Commission is unsupported by substantial evidence.[531] It claims that the Commission violated NEPA because the Commission failed to identify all water supply wells and springs within 150 feet of the pipeline or within 500 feet of the pipeline in karst terrain.[532] The Certificate Order explained that Mountain Valley was unable to complete well surveys due to lack of access on private land.[533] Noting that Environmental Condition Nos. 12 and 21 of the Certificate Order require Mountain Valley to identify wells prior to construction and monitor water quality post-construction with landowner approval, Montgomery County maintains that these conditions focus on mitigation rather than impact avoidance, and fall short of the Commission's obligation under NEPA to evaluate project impacts.[534]

196. We disagree and find that the Final EIS sufficiently evaluated impacts on wells and aquifers in the project area.[535] The well and spring surveys are not needed to assess environmental impacts, but to ensure compliance with required mitigation measures. As discussed in the Certificate Order, Mountain Valley and Equitrans are required to mitigate any impacts by offering pre- and post-construction water testing to owners.[536] These measures will ensure that there any adverse effects from the project on private wells or other sources of potable water in the area will be fully mitigated. In addition to post-construction monitoring, Environmental Condition Nos. 21 and 35 require Mountain Valley and Equitrans to compensate landowners for damages to the quantity or quality of domestic water supplies, repair or replace the water systems to near pre-construction conditions, and provide temporary sources of water.[537]

197. Montgomery County argues that Environmental Condition No. 21 of the Certificate Order directs Mountain Valley to restore contaminated water to "near" pre-

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[531] Montgomery County's Request for Rehearing at 24-26.

[532] *Id.*

[533] Certificate Order, 161 FERC ¶ 61,043 at P 172.

[534] Montgomery County's Request for Rehearing at 25

[535] *See, e.g.*, Final EIS at 4-89; 4-94; 4-97; 4-473; 4-475.

[536] Certificate Order, 161 FERC ¶ 61,043 at P 172, Condition No. 21.

[537] Certificate Order, 161 FERC ¶ 61,043 at P 172.

construction conditions, which, according to Montgomery County does not ensure that water will be potable.[538] Environmental Condition No. 21 does not contain this statement. Mountain Valley and Equitrans must assess whether private drinking water sources were contaminated during the construction process by testing for coliform bacteria, pH, and contaminants of concern, including oil and grease, volatile organic compounds, and hydrocarbons.[539] If Mountain Valley or Equitrans detects contaminants caused by construction of the pipeline, they will provide a temporary water supply to the landowner[540] and restore water quality to baseline levels.[541]

198. Montgomery County also alleges that because Environmental Condition No. 21 does not require Mountain Valley to report post-construction data on potable water quality to the Commission for monitoring, it is not supported by substantial evidence.[542] We disagree and find that Environmental Condition No. 21 is sufficient to protect all water wells, springs, and other drinking water supply sources. Environmental Condition No. 21 required that Mountain Valley file a revised *Water Resources Identification and Testing Plan*, which includes post-construction monitoring, with the landowner's permission, of wells, springs, and other drinking water supply sources within either 150 feet of construction workspaces or 500 feet of construction workspaces in karst terrain.[543]

199. Mountain Valley's *Water Resources Identification and Testing Plan*, which was revised and filed in October 2017, included a testing program that provided for pre-construction testing at two intervals; both six months and three months prior to construction.[544] At the time of the revision, Mountain Valley had already contacted well owners and conducted the six month sampling. The *Water Resources Identification and*

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[538] Montgomery County Request for Rehearing at 26.

[539] *See* Final EIS at 4-107 to 4-110.

[540] Final EIS at 4-109.

[541] Mountain Valley Pipeline, LLC, Implementation Plan, Appendix IP-21, Water Resources Identification and Testing Plan (filed November 1, 2017) (Accession No. 20171101-5042).

[542] Montgomery County's Request for Rehearing at 26.

[543] Certificate Order at Environmental Condition No. 21.

[544] Mountain Valley Pipeline, LLC, Implementation Plan, Appendix IP-21, Water Resources Identification and Testing Plan (filed November 1, 2017) (Accession No. 20171101-5042).

Testing Plan commits Mountain Valley to offer to each private water supply that participated in the pre-construction testing program, post-construction water quality and quantity testing. Mountain Valley also commits to provide the post-construction monitoring results directly to the well owner. So, while the results are not required by the condition to be filed with the Commission, Mountain Valley is required to provide the results directly to affected well owners.

ii. Surface Water Mitigation Measures

200. Appalachian Mountain Advocates also contends that the Commission failed to consider increased sedimentation from the conversion of upland forest to herbaceous cover within vulnerable segments of the right-of-way.[545] They describe modeling showing that sedimentation resulting from forest fragmentation, reduced vegetation, and clearing and maintenance of the permanent right-of-way could increase sedimentation by at least 15 percent.[546] Appalachian Mountain Advocates contends that it is difficult to revegetate steep, mountainous slopes after construction.[547]

201. We disagree that the Commission has erred. Both the Certificate Order and the Final EIS address the potential for sedimentation from steep slopes in their analysis of landslide risk.[548] The Commission's *Upland Erosion Control, Revegetation and Maintenance Plan* is specifically designed to mitigate aquatic impacts from upland construction.[549] Mountain Valley must comply with its *Landslide Mitigation Plan*, to which the Commission added additional measures, including a more robust monitoring program and construction measures to be used when crossing steep slopes at angles perpendicular to contours.[550] Mountain Valley will also follow its *Erosion and Sedimentation Plan*, which requires Mountain Valley to use certain measures (e.g., compaction, benching, toe keys, and slope drains) and long-term erosion control growth

[545] Montgomery County's Request for Rehearing at 71.

[546] *Id.* at 72-73.

[547] Appalachian Mountain Advocates' Request for Rehearing at 73.

[548] Certificate Order, 161 FERC ¶ 61,043 at P 146; Final EIS at 4-52.

[549] Final EIS at 4-81.

[550] Certificate Order, 161 FERC ¶ 61,043 at P 145.

mediums, such as Flexterra, Earthguard, erosion control fabric, or a stabilization mat, to ensure stability and revegetate steep slopes.[551]

202. The Nature Conservancy contends that the Commission failed to fully analyze or mitigate the impacts on conservation easements held by The Nature Conservancy.[552] Of concern to The Nature Conservancy are potential adverse environmental impacts of two pipeline crossings of land that it owns in the Bottom Creek watershed and a conservation easement it holds over the Woltz property.[553] The Nature Conservancy claims that the MVP Project's pipeline would cross Bottom Creek three miles above its designation as a "Tier III Exceptional State Water" under the CWA, but the Final EIS did not analyze specific impacts to water quality resulting from clearing of upland or riparian forests and the crossing of the creek headwaters on the Woltz conservation easement.[554] According to The Nature Conservancy, the required mitigation is inadequate because the Commission failed to show that these measures would avoid or minimize impacts on water quality, including sedimentation or increases in water temperature.[555] It claims that Virginia Department of Environmental Quality has listed this reach as an Exceptional

[551] Mountain Valley February 26, 2016 Response to Data Requests Issued December 24, 2015 at Appendix 1a-1: *Erosion and Sedimentation Plan* Mountain Valley Pipeline Project, Wetzel, Harrison, Doddridge, Lewis, Braxton, Webster, Nicholas, Greenbrier, Fayette, Summers, and Monroe Counties, West Virginia, at 13 (February 2016); *Erosion and Sediment Control Plan* Mountain Valley Pipeline Project, Permanent Above-Ground Facilities, Wetzel, Harrison, Braxton, and Fayette Counties, West Virginia, Wetzel, Harrison, Braxton, and Fayette Counties, West Virginia, at 3, 5, 7 (February 2016); at Appendix 1a-2, General Erosion and Sedimentation Control Specifications for Virginia, 13, 34 (Accession No. 20160226-5404).

[552] The Nature Conservancy's Request for Rehearing at 6-12. The MVP Project will cross the Poor Mountain easements between about mileposts 239.5 and 241.0 in Roanoke County, Virginia. Final EIS at 4-283.

[553] The Nature Conservancy's Request for Rehearing at 6-9.

[554] *Id.* at 7. For example, The Nature Conservancy states that the Final EIS did not acknowledge that brook trout are present in the headwaters of Bottom Creek within the Woltz easement, and that other native fish species (including brook trout, Roanoke logperch, and orangefin madtom) are present downstream, or provide a site-specific analysis of potential impacts on turbidity, water temperature, or other water quality parameters resulting from creek crossings or from construction, excavation, and clearing of upland and riparian forest adjacent to this creek.

[555] The Nature Conservancy's Request for Rehearing at 9.

State Water and as impaired under CWA section 303(d) with respect to water temperature, and that both of these designations prohibit any further impairment.[556]

203. The Final EIS considered these crossings and required the needed mitigation. The MVP route is configured to avoid crossing the 2.2-mile-long portion of Bottom Creek designated as an Exceptional State Water and nearby construction is not expected to result in significant impacts on this area. As discussed in the Final EIS, Mountain Valley will cross using the "dry open cut" method for waterbody crossing, which will follow the Mountain Valley's Wetland and Waterbody Construction and Mitigation Procedures to minimize construction impacts.[557] Dry open cut waterbody crossings that result in localized increases in turbidity downstream of construction will extend only a few hundred feet from the crossing for less than four days during construction.[558] The *Erosion and Sedimentation Plan* and the Commission's *Upland Erosion Control, Revegetation and Maintenance Plan* will also protect this area from impacts from nearby construction. The Nature Conservancy does not raise any concerns specific to these mitigation requirements.

204. With regard to The Nature Conservancy's anti-degradation concerns, the Final EIS reasonably concluded that Mountain Valley's specific mitigation measures would adequately minimize impacts on surface water resources. Although this conclusion was not based on Virginia's Section 401 certification, we note that the Virginia Department of Environmental Quality determined no additional mitigation was required specifically for the Bottom Creek crossings and granted Mountain Valley a Section 401 certification.[559]

205. Finally, The Nature Conservancy contends that the Commission failed to establish any standards when it required Environmental Condition No. 32, *The Nature Conservancy Property Crossing Plan*.[560] Environmental Condition No. 32 required that Mountain Valley develop a crossing plan for review and comment by The Nature

[556] The Nature Conservancy's Request for Rehearing at 9.

[557] Final EIS at 2-43.

[558] Certificate Order, 161 FERC ¶ 61,043 at P 185.

[559] Mountain Valley Weekly Status Report No. 6, at (December 13, 2017) (including Certification No. 17-001, 401 Water Quality Certification Issued to Mountain Valley Pipeline LLC December 8, 2017).

[560] The Nature Conservancy Request for Rehearing at 9.

Conservancy.[561] As explained in the Final EIS, the plan was not designed to provide specific mitigation but to show to the Commission that Mountain Valley had consulted with The Nature Conservancy after Mountain Valley shifted its route south to lessen environmental impacts on The Nature Conservancy's land.[562] The plan subsequently provided a detailed description of mitigation to be used on the site and disclosed that Mountain Valley and The Nature Conservancy engaged in a series of conference calls and an on-site field visit to address The Nature Conservancy's concerns.[563]

e. Cumulative Impacts

206. Appalachian Mountain Advocates also argue that the Commission did not sufficiently analyze the MVP Project's cumulative impacts to water quality.[564] Appalachian Mountain Advocates argues that, although the Final EIS described other projects "in the geographic scope of analysis considered for cumulative impacts," – including other FERC-jurisdictional projects – the Final EIS "makes no effort to meaningfully assess the combined impacts of all of these projects, and instead merely lists the number of wetlands and waterbodies crossed by each."[565] Appalachian Mountain Advocates argues the Final EIS found that the projects identified in one watershed will combine to disturb approximately eleven percent of the land area, which it uses as a proxy for overall land disturbance.[566] Appalachian Mountain Advocates echoes EPA's comments on the Draft EIS, which stated that "[b]eyond presenting the percent of each watershed affected by other identified projects and by the proposed MVP [Project], it does not appear that cumulative impacts were analyzed at the watershed or otherwise specified geographic scope."[567]

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[561] Certificate Order, 161 FERC ¶ 61,043, at Appendix C, Condition No. 32.

[562] Final EIS at 4-320.

[563] Mountain Valley March 22, 2018 Supplemental Materials (Accession No. 20180322-5082).

[564] Appalachian Mountain Advocates' Request for Rehearing at 74.

[565] *Id.* (citing the Final EIS at 4-605 and Appendix W).

[566] *Id.*

[567] *Id.* at 75 (citing EPA's Dec. 29, 2016 Comments on the Draft EIS at 28 (Accession No. 20161229-0033)).

207. We disagree. Regarding cumulative impacts on water resources, the Commission found those associated with nearby proposed Commission-jurisdictional projects (the Columbia WB Xpress, Supply Header, Atlantic Coast, Rover, Mountaineer Xpress, Columbia Smithfield III Expansion, and Virginia Southside Expansion) would result in temporary or short-term impacts on surface water resources, such as increased turbidity levels, as well as some minor long-term impacts such as loss of forested cover in the watershed and partial loss of riparian vegetation.[568] The Final EIS found that these impacts are expected to return to baseline levels over a period of days or weeks following construction.[569] Additionally, impacts will be minimized through the implementation of the applicants' *Erosion and Sediment Control Plan*s, *Spill Prevention, Containment, and Countermeasure Plans*, and *Wetland and Waterbody Construction and Mitigation Procedures*.

9. Floodplains

208. New River Conservancy states that the Final EIS failed to consider the interest of the individual localities' management of their respective floodplains, which could be affected both by temporary construction as well as permanent landscape alteration.[570] It also maintains that the Final EIS included only two references to floodplains; ignores the floodway and floodplain for Little Stony Creek, which is located within New River's easement in Giles County; and fails to include sufficiently detailed engineering information regarding mitigation of flood impacts.

209. The Counties allege that the Final EIS: does not sufficiently demonstrate that the project will not have significant impacts on floodplains; does not depict where temporary and permanent structures will be placed in relation to the floodplain; does not describe how structures will impact the base flood elevations, floodplain, or applicable floodway; fails to annotate a Federal Emergency Management Agency flood insurance rate map for the project; and incorrectly depicts Franklin County as being in West Virginia, rather than Virginia.[571]

210. Finally, both New River Conservancy and the Counties maintain that the Final EIS ignored Executive Order No. 11988, which requires federal agencies to avoid, to the extent possible, adverse impacts associated with the occupancy or modification of

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[568] Final EIS at 4-604.

[569] *Id.*

[570] New River Conservancy's Request for Rehearing at 2.

[571] Counties' Request for Rehearing at 25-26.

floodplains and to avoid support of floodplain development wherever there is a practicable alternative.[572]

211. We disagree. As an initial matter, the project is not federally funded and thus, Executive Order 11988 does not apply here.[573] Nevertheless, the Commission does consider the impacts that projects under its purview may have on floodplains.[574] Specifically, the Commission describes the volume of lost flood storage capacity that would occur within the applicable floodplain following construction.[575] For pipelines, the lost flood storage capacity is discountable because the volume of a 42-inch-diameter pipeline is very small relative to the overall volume of a floodplain. Aboveground facilities, such as compressor stations, have a discernable impact and our review seeks to avoid, minimize, and otherwise mitigate impacts from these facilities. Where impacts are unavoidable, they are disclosed. The Final EIS correctly identified that a little more than one acre of floodplain would be occupied by the MVP Project's aboveground facilities. We conclude that this impact would not be significant.

212. Additionally, we acknowledge that the Little Stony Creek floodplain, which will be crossed by the project, was inadvertently omitted from table 4.3.2-7 of the Final EIS, which lists Federal Emergency Management Agency 100-year floodplains that would be crossed by the project.[576] However, because only pipeline (as opposed to aboveground facilities) would be installed in this floodplain and Commission staff found impacts from pipelines on flood storage capacity to be discountable, we believe that this would not change the conclusions of the Final EIS or mitigation for floodplain impacts.

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[572] New River Conservancy's Request for Rehearing at 3 (citing Exec. Order No. 11,988, 42 Fed. Reg. 26,951 (May 24, 1977), *reprinted as amended in* 80 Fed. Reg. 6425 (Jan. 30, 2015); Counties' Request for Rehearing at 26 (same).

[573] *See* Exec. Order No. 11988, 80 Fed. Reg. 6425 at Section 1. Executive Order 11988 states that agencies shall take actions to reduce risk to flood loss in carrying out its responsibilities for "providing Federally undertaken, financed, or assisted construction and improvements." *Id.*

[574] *See* Final EIS at 4-128.

[575] *Id*.

[576] *Id*.

10. Forests

a. Qualifications of EIS Preparers

213. Dr. Zipper contends that none of the personnel listed as preparing the Final EIS have the type of expertise necessary to evaluate the measures necessary to mitigate the adverse effects on forest lands.[577] We disagree. Under the CEQ's regulations, "[t]he disciplines of the preparers shall be appropriate to the scope and issues identified in the scoping process."[578] Here, the preparers of the Final EIS had a wide range of expertise in multiple disciplines including biology, geology, ecology, botany, environmental resources, civil and mechanical engineering, wildlife and fisheries science, and archaeology.[579] Therefore, we find that the EIS preparers had the necessary expertise to evaluate effects on forest lands.

b. Mitigation Measures

214. Petitioners assert that the Final EIS does not support Certificate Order's conclusion that the MVP Project's impacts to forest resources will be mitigated to the extent practicable.[580] Petitioners state that the Final EIS failed to demonstrate that Commission staff developed or fully considered mitigation measures for impacts on forested lands that would accomplish the objectives set out in the regulations implementing NEPA.[581] Dr. Zipper avers that by failing to require available and practicable mitigation measures, which would minimize the project's impacts on forests and related resources, the Commission acted arbitrarily and capriciously, and failed to engage in informed and reasoned decision-making.[582] Dr. Zipper asserts that the

[577] Dr. Zipper's Request for Rehearing at 54.

[578] 40 C.F.R. § 1502.6 (2017).

[579] Final EIS at Appendix Z.

[580] Counties' Request for Rehearing at 26; Preserve Craig's Request for Rehearing at 29; Dr. Zipper's Request for Rehearing at 17.

[581] Petitioners cite 40 C.F.R. § 1505.2 (2017). Counties' Request for Rehearing at 26; Preserve Craig's Request for Rehearing at 29; Dr. Zipper's Request for Rehearing at 17 (also citing 18 C.F.R. § 380.15 (2017)).

[582] Dr. Zipper's Request for Rehearing at 18-19, 31, 40-43, 55-67. Dr. Zipper argues that the measures he proposed in response to the Draft EIS would be a more effective means for mitigating the adverse effects on forests than the measures that are required by the Certificate Order. These measure include: (1) top soil salvage and

Commission merely incorporated the mitigation measures proposed by Mountain Valley without demonstrating any analytical steps or examination despite detailed criticism of the measures in record.[583] As a result, Dr. Zipper asserts that the environment and landowners will be harmed due to inadequate mitigation measures.[584]

215. We disagree. The CEQ's regulations state that an agency shall "[s]tate whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not."[585] Here, the Final EIS explained the general mitigation measures that Mountain Valley will adopt during construction and restoration, and operation of the pipeline.[586] As part of these measures, Mountain Valley agreed to adopt the Commission's Plan and Procedures.[587] As discussed, the Plan and Procedures are based on Commission staff's experience and are an effective means to mitigate the impacts of construction and operation of the pipeline on forests. Additionally, the Final EIS described the resource-specific measures Mountain Valley proposed to further minimize environmental impacts, including its *Exotic and Invasive Species Control Plan*, *Erosion and Sediment Control Plans*, and *Migratory Bird Conservation Plan*, and includes additional mitigation measures recommended or required by other agencies and Commission staff.[588] Each of these additional measures were analyzed in the Final EIS, and Commission staff determined their effectiveness in minimizing the impacts on forests. Commission staff fully considered mitigation measures recommended by agencies and stakeholders and adopted those that it felt were appropriate. For those measures that were not adopted, Commission staff determined that

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replacement; (2) amelioration of soil compaction; (3) planting of trees and associated management; (4) protection of established seedlings from deer browse; (5) more effective invasive plant controls; and (6) monitoring and follow-up. Dr. Zipper's Request for Rehearing at 38-39. These issued are discussed more fully below.

[583] Dr. Zipper's Request for Rehearing at 31, 39.

[584] Dr. Zipper also states that the numerous landowner comments on these issues demonstrate that the Commission failed to take into account the desire of landowners, as required by its regulations. Dr. Zipper's Request for Rehearing at 55 (citing 18 C.F.R. § 380.15(b) (2017)).

[585] 40 C.F.R. § 1505.2 (2017).

[586] Final EIS at section 4.2.1.1.

[587] *Id.* at 2-30.

[588] *Id.* at section 4, 4-180 to 4-181.

they were either not appropriate or would not offer a significant advantage over the measures adopted.

216. Petitioners also assert that the Final EIS recommended different mitigation for federal and non-federal forested lands and does not explain the disparate treatment.[589] Specifically, petitioners note that the Final EIS required planting of woody vegetation within the Jefferson National Forest, but not on non-federal forested lands.[590] Petitioners contend that this indicates that there are available and practicable measures to mitigate impacts on all forested lands.[591]

217. As stated in the Certificate Order, the Final EIS disclosed the extent and level of impacts on forest, and outlines measures Mountain Valley proposes to reduce or mitigate those impacts.[592] Based on our history with similar projects, we continue to believe that passive revegetation, coupled with monitoring, will successfully mitigate the impacts on forests.[593] With respect to other areas of the right-of-way where hand-planting will be required, specific circumstances associated with those areas dictated the restoration approach. For example, in the Jefferson National Forest, the Forest Service required hand-planting as a condition of its easement approval. However, for non-federal lands, there is no requirement from the state land managing agencies to conduct hand planting over natural revegetation, supplemented with a woody seed mix. Similarly, Mountain Valley will hand-plant certain vegetation at waterbody crossings that are known to contain special status species or potentially suitable habitat for such species.[594] But hand-planting is not necessary, nor required, in all areas.

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[589] Counties' Request for Rehearing at 26; Preserve Craig's Request for Rehearing at 29; Dr. Zipper's Request for Rehearing at 45.

[590] Counties' Request for Rehearing at 29; Preserve Craig's Request for Rehearing at 32; Dr. Zipper's Request for Rehearing at 27 (also noting that the Certificate Order states that Mountain Valley will hand-plant native shrubs and saplings within forested wetlands and at waterbody crossings known to contain special status species).

[591] Counties' Request for Rehearing at 26; Preserve Craig's Request for Rehearing at 29.

[592] Certificate Order, 161 FERC ¶ 61,043 at P 201.

[593] Final EIS at Appendix AA, Part 18 of 36 at PDF 40 of 54 (IND244 addressing Dr. Zipper).

[594] *Id*. at 4-218.

c. Extent of Right-of-Way Impacts

218. Mr. Chandler asserts that the Certificate Order wrongly implies that only a 50-foot-wide operational easement will be kept clear of trees.[595] Rather, Mr. Chandler states that a 125-foot-wide deforestation of mature forest will occur on his property.[596] Mr. Chandler objects to the removal of mature forest and disagrees that replacement grassland will be sufficient.[597] Mountain Valley proposes to generally use a 125-foot-wide construction right-of-way for its pipeline, with a 50-foot-wide permanent operating pipeline easement that will be kept clear of trees.[598] As the Certificate Order acknowledges, while trees cleared within temporary construction work areas would be allowed to regenerate, it would take many years for trees to mature.[599] Therefore, we disagree that the Certificate Order misstates the extent of deforestation that will occur.

d. Effects on Bird Habitat

219. Mr. Chandler argues that deforestation will create a void in habitat for birds, which will force birds to either relocate, or not nest, re-breed, and proliferate.[600] The Certificate Order acknowledges that the construction of the project could disrupt bird courting, breeding, or nesting behaviors, and requires certain mitigation measures to limit any potential impact.[601] These measures include a *Migratory Bird Habitat Conservation Plan* and limitations on tree clearing.[602] Mr. Chandler provided no additional information to indicate that these measures would be inadequate. Therefore, we reaffirm our conclusion in the Certificate Order that the project will not result in population-level impacts on migratory bird species or significantly affect wildlife.

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[595] Mr. Chandler's Request for Rehearing at 5.

[596] *Id*.

[597] *Id*.

[598] Final EIS at 4-322.

[599] Certificate Order, 161 FERC ¶ 61,043 at P 192.

[600] Mr. Chandler's Request for Rehearing at 5.

[601] Certificate Order, 161 FERC ¶ 61,043 at PP 206-209.

[602] *Id*. P 206.

e. Loss of Tree Canopy

220. Mr. Chandler argues that the loss of canopy due to the deforestation will increase stream temperatures and imperil aquatic species.[603] The Final EIS acknowledged that there may be impacts on habitats due to microclimate changes associated with gaps in canopy and localized increases in stream temperature from loss of riparian habitat.[604] However, Mountain Valley and Equitrans would minimize and mitigate effects by only clearing trees and other riparian vegetation in areas that are necessary to construct and operate the projects safely, and by revegetating temporary construction areas. After construction and restoration, stream bank vegetation in temporary construction areas would be expected to recover over several months to a few years.[605] Accordingly, the Final EIS concluded, and we agree, that constructing and operating the project would not significantly impact fisheries and aquatic resources.[606]

221. Mr. Chandler also contends that a lack of tree canopy, which gently disperses rainfall, will cause more robust runoff and erosion of soils.[607] The greatest potential for erosion occurs when soils are exposed without vegetative cover. Immediately after pipeline installation, the right-of-way will be restored and revegetated, in accordance with the Commission's Plan.[608] The Commission's Plan also requires Mountain Valley to maintain temporary erosion controls until an area has been fully restored and revegetated. Therefore, concerns regarding the effect of erosion along the pipeline have been mitigated.

f. Soil Compaction

222. Dr. Zipper argues that the Final EIS wrongly found that soil compaction impacts would be temporary,[609] and asserts that there are no measures to mitigate soil compaction

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[603] Mr. Chandler's Request for Rehearing at 5.

[604] Final EIS at 4-160, 4-217 to 4-219.

[605] Final EIS at 4-218.

[606] *Id*. at 4-224.

[607] Mr. Chandler's Request for Rehearing at 5.

[608] Final EIS at ES-5.

[609] Dr. Zipper's Request for Rehearing at 51.

effects, such as limiting construction when soils are wet.[610] Dr. Zipper states that the Final EIS failed to even discuss the impact on soil compaction on natural regeneration of forests in any locations outside of wetlands.[611] Similarly, Mr. Chandler argues that the use of temporary work spaces will lead to soil compaction and lessen re-growth in the areas following vacating of equipment.[612]

223. We disagree. The Final EIS generally described potential impacts on soils, which includes compaction that could hinder restoration.[613] The Final EIS also described the measures Mountain Valley will implement to mitigate the impacts of soil compaction.[614] Specifically, Mountain Valley will decompact all disturbed areas by discing equipment.[615] Additionally, Environmental Inspectors will conduct topsoil and subsoil compaction tests and compare those results with undisturbed soil under similar moisture conditions to ensure any affected soils are properly decompacted.[616] If compaction is found to have occurred, the area would be tilled and retested, and if additional decompaction of the area is required, deep tilling would be used.[617] Therefore, we find that Mountain Valley has appropriately mitigated the risk of soil compaction.

g. Topsoil Segregation

224. Dr. Zipper states that without proper segregation of topsoil, forest trees would reestablish in subsoil rather than topsoil, which will reduce the growth of trees due to a lack of nutrients in the soil and limiting root growth.[618] Dr. Zipper notes that a lack of

[610] *Id.* at 52-53.

[611] *Id.* at 53.

[612] Mr. Chandler's Request for Rehearing at 4.

[613] Final EIS at 5-2.

[614] *Id.* at 4-85.

[615] *Id.* Discing is the use of a disc harrow, a farm implement, to blade and turn soil to remove unwanted weeds or crop remainders.

[616] Final EIS at 4-85.

[617] *Id.*

[618] Dr. Zipper's Request for Rehearing at 56-58. Dr. Zipper notes that adding fertilizers during restoration cannot be expected to support tree growth over the long-term when compared to the natural release of nutrients from organic materials.

topsoil could lead to species that do not require nutrient-rich soils, which could further suppress reforestation, and could lead to altered communities because native vegetation would be unable to grow.[619] As stated in the Final EIS, the Commission does not automatically require topsoil segregation in forested areas, but it can be requested by a landowner or land managing agency.[620] Based on our experience with similar projects in West Virginia and Virginia, Commission staff has observed successful revegetation without the need for topsoil segregation in forested areas.[621] Thus, Commission staff anticipates that over time natural reforestation will occur.

h. Revegetation Monitoring

225. Dr. Zipper argues that the Certificate Order's statement that Mountain Valley will monitor revegetation efforts following restoration is misleading because such monitoring will only occur for the first two years following revegetation.[622] Dr. Zipper claims that the Final EIS provided no explanation as to why post-construction monitoring should be limited to two years, despite evidence in the record demonstrating this would not be long enough.[623] Dr. Zipper states that forest reestablishment will take far longer than two years, and there is no plan for monitoring forest reestablishment or any criteria for determining if forest reestablishment has occurred.[624] Dr. Zipper also states that there is no method for evaluating whether the adverse effects on forests were actually

[619] *Id*. at 57, 61.

[620] Final EIS at Appendix AA, Part 18 of 36 at PDF 40 of 54 (IND244 addressing Dr. Zipper).

[621] *Id.*

[622] Dr. Zipper's Request for Rehearing at 28-29.

[623] *Id*. at 46, 48-49, 60. Dr. Zipper further notes that Mountain Valley provided no analysis supporting its assertion that colonization of invasive plant species following two growing seasons after restoration would not be attributable to the construction and operation of the project. *Id*. at 47.

[624] *Id*. at 29.

mitigated.[625] Thus, Dr. Zipper concludes that the Commission failed to provide a reasoned analysis to support its prescriptions for adverse effects' mitigation.[626]

226. The Final EIS acknowledged that the re-establishment of forest would take decades and the effects of the project on forest would be long-term or permanent.[627] Dr. Zipper mischaracterizes the revegetation requirements. Mountain Valley is required to monitor revegetation for, at a minimum, two growing seasons.[628] Section VII.A.2 of the Commission's Plan states that revegetation 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.[629] Further, the Plan requires that a project continue revegetation efforts until revegetation is successful.[630] Only after Commission staff determines that restoration is successful will monitoring end. Therefore, we find that the post-construction monitoring is appropriate to ensure successful revegetation.

i. Forest Fragmentation

227. Petitioners assert that the Final EIS does not address the full range of loss of forest values when irreplaceable cores are permanently fragmented.[631] Petitioners aver that Mountain Valley's Habitat Equivalency Analysis underestimated the total impact of forest fragmentation because it improperly defines the area of direct impact to include

[625] *Id*. at 29. Dr. Zipper asserts that additional monitoring activity would determine, after an initial time period, if target forest-tree species have established at intended rates and if unintended processes (such as invasive species or deer browsing) with potential to interfere with restoration are occurring. Dr. Zipper asserts that monitoring can lead to additional steps to ensure reestablishment of forests. *Id*. at 60.

[626] *Id*. at 44.

[627] Final EIS at 4-304.

[628] *Id*.

[629] Commission's Plan at 17.

[630] *Id*.

[631] Counties' Request for Rehearing at 27 (citing July 21, 2017 Letter from Clyde E. Cristman); Preserve Craig's Request for Rehearing at 30 (same).

only the permanent right-of-way instead of the permanent and temporary right-of-way.[632] Petitioners argue that the Final EIS wrongly relied on Mountain Valley's Habitat Equivalency Analysis without providing a reasoned explanation for its choice, and therefore, it is not entitled to deference.[633] Petitioners conclude that because the Final EIS does not accurately disclose the impacts of forest fragmentation, the Commission does not have an adequate basis to find that the proposed mitigation will mitigate such impacts to the extent practicable.

228. As stated in the Certificate Order, the Final EIS appropriately addressed forest habitat impacts, including interior/core forest habitats, with mapping, tabular data, impact analyses, and proposed measures to reduce impacts on forest.[634] Following a lengthy and detailed analysis, the Final EIS concluded that impacts on forest resources would be significant, but have been minimized to the extent practicable through pipeline routing and restoration. Moreover, the Final EIS acknowledged that the calculated indirect impact on 21,773 acres of interior forest would be permanent.[635] The Habitat Equivalency Analysis submitted by Mountain Valley was not integral to Commission staff's determination that there would be a significant impact, or to the recommended mitigation measures. Consequently, any debate on the input data used by Mountain Valley in its Habitat Equivalency Analysis, regardless of the outcome, will not change our conclusions of impact or the mitigation measures required.

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[632] Counties' Request for Rehearing at 27-31 (citing July 21, 2017 Letter from Clyde E. Cristman); Preserve Craig's Request for Rehearing at 30-31 ("VDCR estimated a total impact of 16,611 acres within Virginia compared to Mountain Valley's estimate of 3,993 acres."). Preserve Craig asserts that core forest in West Virginia will be similarly impacted. Preserve Craig's Request for Rehearing at 31.

[633] Counties' Request for Rehearing at 28-29 (citing 40 C.F.R. § 1502.24 (2017); *The Fund for Animals v. Norton*, 294 F. Supp. 2d 92, 110 (D.D.C. 2003); and *Small Refiner Lead Phase–Down Task Force v. U.S.E.P.A.*, 705 F.2d 506, 520 (D.C.Cir.1983)); Preserve Craig's Request for Rehearing at 31-32 (same).

[634] Certificate Order, 161 FERC ¶ 61,043 at P 196.

[635] Final EIS at 4-183.

j. Use of a Woody Seed Mix for Revegetation

229. Petitioners assert that the Commission wrongly relies on the Final EIS's conclusion that use of a woody seed mix is reasonable.[636] Petitioners state that the Final EIS did not adequately evaluate the environmental consequences of using a "woody seed mix" to minimize effects on forest[637] or provide a rationale for approving its use.[638] Petitioners assert that the outcome from using a woody seed mix is unpredictable and will vary from place to place, and thus, would not be an effective means of reforesting.[639] Petitioners further argue that there is evidence suggesting that the woody seed mix may be detrimental to forest restoration by creating forest communities that are dissimilar to adjacent deciduous forest,[640] and establishing tree species that would likely suppress

[636] Preserve Craig's Request for Rehearing at 33; Dr. Zipper's Request for Rehearing at 51.

[637] Preserve Craig's Request for Rehearing at 33 (noting that the use of a woody seed mix was first introduced in the Final EIS, but did not cite any scientific authorities to support its use); Dr. Zipper's Request for Rehearing at 53 (noting that the Commission cited no prior case where such a measure was effective and provided no information to indicate that the species selected for seeding would be compatible with forest re-establishment in temporary workspaces).

[638] Dr. Zipper states that Final EIS does not provide: (1) a rationale for selection of woody species to be seeded; (2) target densities or density ranges for seeded species; (3) factors that might influence establishment rates of applied species or of how such establishment rates might be influenced by season, land characteristics, animal predation of seeds prior to germination, or the differing characteristics by species of the seeds themselves; or (4) any of the other numerous factors that should be considered in order for application of woody-plant seeds to be considered as a viable strategy for forest restoration in the Appalachian mountains. Dr. Zipper's Request for Rehearing at 51.

[639] Preserve Craig's Request for Rehearing at 34 (citing Dr. Zipper's July 25, 2017 Letter).

[640] Preserve Craig's Request for Rehearing at 33-34 (citing Dr. Zipper's July 25, 2017 Letter); Dr. Zipper's Request for Rehearing at 26, 51 (noting that the mixture is not best suited for local conditions because the mixture includes two pine species that would be seeded at higher rates than the overstory deciduous species that make up the majority of forests impacted by the project).

regeneration of more highly variable plant species.[641] Last, Dr. Zipper notes that the Certificate Order's description of the mixture is misleading because the mixture contains no seeds of oak or hickory forest trees, and the mitigation plans include no direct mechanism for reestablishing these species.[642]

230. As stated in the Certificate Order, the use of a woody seed mix is a reasonable measure to minimize impacts on forests.[643] Use of seed mixes is a standard revegetation method that is generally used on all Commission-approved projects for revegetation in areas that are not officially designated as areas of special concern. Commission staff recommends that project proponents coordinate with state resource agencies to develop seed mixes that are tailored to regional conditions.[644] Commission staff believes, and we concur, that these agencies have the experience and understanding to determine which species will give restoration the best chance of success. In this case, Mountain Valley received approval for its seed mixes from the Virginia Department of Conservation and Recreation, Division of Natural Heritage and the West Virginia Department of Environmental Protection.[645] We defer to the expertise of these agencies for determining appropriate seed mixes for work within their states.

231. With respect to Dr. Zipper's assertion that the seed mixture contains no seeds of oak or hickory forest trees, while the seed mix does not include seeds of oak or hickory, we note that Mountain Valley's proposed seeding plan states in a footnote to its proposed woody seed mix list that oak and hickory species would be planted as bare root seedlings in addition to the seed mix.[646]

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[641] Petitioners assert that planting of wild grape, as proposed, will interfere with the reestablishment of native trees. Preserve Craig's Request for Rehearing at 34 (citing Dr. Zipper's July 25, 2017 Letter); Dr. Zipper's Request for Rehearing at 27, 52.

[642] Dr. Zipper's Request for Rehearing at 28.

[643] Certificate Order, 161 FERC ¶ 61,043 at P 203.

[644] Commission's Plan at 15.

[645] Mountain Valley's January 25, 2018 Supplement, Attachment M (Accession No. 20180125-5160).

[646] *Id*. at 4.

k. Hand Planting Vegetation

Petitioners argue that the Certificate Order and Final EIS fail to support the conclusion that re-planting of trees would not provide a significant advantage to natural reforestation.[647] Petitioners assert that there are numerous scientific sources in support of re-planting, and that the Virginia Department of Conservation and Recreation also recommended replanting native trees.[648] Dr. Zipper further asserts that hand-planting does not inhibit natural regeneration and assures that seedlings will be established during the first year, something that is not assured by natural seeding.[649] Dr. Zipper also contends that the Final EIS wrongly claimed that replanting would limit the species available to be planted, noting that oak species are among common replanted species and would be desirable species in this region.[650]

232. Based on past experience on similar projects, Commission staff concluded, and we agree, that natural revegetation will be successful.[651] Mountain Valley would also supplement natural revegetation with a woody seed mix comprised of forest species representative of the preexisting vegetative community, which would allow for more successful regeneration. Hand planting would only be required for special circumstances, such as another agency's regulatory requirement or a specific landowner concern. As discussed above, we did require hand planting in in the Jefferson National Forest and at

[647] Counties' Request for Rehearing at 29-30; Preserve Craig's Request for Rehearing at 32-33; Dr. Zipper's Request for Rehearing at 26, 50.

[648] Counties' Request for Rehearing at 29-30 (citing Nov. 20, 2016 Letter from Dr. Zipper; July 25, 2017 Letter from Dr. Zipper; Virginia Department of Conservation and Recreation's Final EIS Comments); Preserve Craig's Request for Rehearing at 32-33 (same); Dr. Zipper's Request for Rehearing at 50.

[649] Dr. Zipper's Request for Rehearing at 26, 59 (noting that the Forest Service agrees with this assessment and citing Final EIS at 4-173).

[650] Dr. Zipper asserts that depending on how natural seeding occurs, the mitigation measures will likely lead to a different composition of native species than in adjacent areas. Dr. Zipper's Request for Rehearing at 50, 61.

[651] Final EIS at Appendix AA, Part 18 of 36 at PDF 40 and 45 of 54 (IND244 addressing Dr. Zipper).

waterbody crossings that are known to contain special status species or potentially suitable habitat for such species.[652]

11. Impacts from Temporary Workspaces

233. Without explanation, Mr. Chandler asserts that Mountain Valley's commitment to hand plant shrubs and trees within the temporary workspaces at specific water body crossings, up to 100 feet from the stream bank, is not sufficient.[653] We disagree. As stated in the Final EIS, Mountain Valley will conduct follow-up inspections and monitor disturbed areas until revegetation thresholds are met, at a minimum for the first and second growing seasons.[654] Additionally, Mountain Valley will submit quarterly monitoring reports for at least two years following construction, and restoration will not be considered completed until the density and cover of non-nuisance vegetation are similar in density and cover to adjacent, undisturbed areas.[655] Commission staff will also conduct post-construction restoration inspections to monitor for vegetation cover, which will continue until the problems are corrected and the right-of-way is stable and revegetated.[656] Therefore, we find that the mitigation and inspections required will adequately restore the temporary workspaces.

12. Property Values

234. On rehearing, Ms. Teekell and Montgomery County argue the Commission "relied primarily on reports prepared by the gas industry which are inherently biased and not surprisingly, conclude that pipelines do not depress property values."[657] Ms. Teekell states the Commission should have undertaken its own independent analysis of pipeline impacts on property values.[658]

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[652] *See supra* at P 216.

[653] Mr. Chandler's Request for Rehearing at 4.

[654] Final EIS at 2-52.

[655] *Id.*

[656] *Id.* at 2-53.

[657] Ms. Teekell's Request for Rehearing at 11; Montgomery County's Request for Rehearing at 26-29.

[658] Ms. Teekell's Request for Rehearing at 11.

235. There is no legal basis to the assertions by Ms. Teekell and Montgomery County that the reports at issue inherently lack credibility. Further, the Final EIS thoroughly evaluated property values,[659] and the Certificate Order thoroughly addressed concerns about property values.[660] To the extent the only basis for criticism on rehearing is that some of the studies were sponsored by entities disfavored by Ms. Teekell and Montgomery County, we reject this argument as unsupported.

236. The Final EIS recognized that the "presence of a pipeline, and the restrictions associated with an easement, may influence a potential buyer's decision whether or not to purchase that property," but then reasonably concluded that "[m]ultiple studies indicate that the presence of a natural gas pipeline would not significantly reduce property values."[661] This is not a case where the Final EIS ignored unfavorable comments or data. Instead, the Final EIS addressed a number of unfavorable filings tending to show adverse effects natural gas facilities have to property values,[662] and concluded that these filings had certain weaknesses.

237. The property values discussion was comprehensive and resulted from Commission staff's own independent research.[663] To the extent Ms. Teekell asserts Commission staff should have independently collected underlying data, it is enough to note that NEPA does not require this. Commission staff appropriately relied on existing literature to complete its hard look at the potential impacts on property values.

13. Visual Impacts

238. The Counties and Preserve Craig state that the Certificate Order references the Final EIS when stating 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, and the Jefferson National Forest."[664] However, the Counties and Preserve Craig argue that the Final EIS failed to address errors in Mountain

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[659] Final EIS at 4-363 to 4-369.

[660] Certificate Order, 161 FERC ¶ 61,043 at PP 228-231.

[661] Final EIS at 5-11.

[662] *See, e.g.*, *id.* at 4-364.

[663] Final EIS at 4-365.

[664] Counties' Request for Rehearing at 31 (citing Certificate Order, 161 FERC ¶ 61,043 at P 225); Preserve Craig's Request for Rehearing at 35.

Valley's Visual Impact Assessment, including (1) omitting Key Observation Points, such as using photographs in foggy conditions, rather than typical viewing conditions; and (2) using photographs taken from distances of 300 to 400 feet, rather than adjacent to the proposed crossings.[665]

239. Prior to issuing the Final EIS, Commission staff reviewed comments provided by the Roanoke Appalachian Trail Club and consulted with cooperating agencies. All parties concluded that the Visual Impact Assessment was sufficient to assess visual impacts under NEPA. Additionally, Commission staff did not identify errors in Mountain Valley's implementation of its methodology. Specifically, the Visual Impact Assessment evaluated views from 47 Key Observation Points, which Commission staff considered more than sufficient. The visual simulations contained in the Visual Impact Assessment were conducted by professional visual resource experts, and the results were accepted after independent review by the Commission staff and the federal cooperating agencies, such as the Army Corps, BLM, and Forest Service. Ultimately, the Army Corps agreed that the project will not have significant adverse visual impacts on the Weston and Gauley Bridge Turnpike; the National Park Service agreed that the project will not have significant adverse visual impacts on the Blue Ridge Parkway; and the Forest Service agreed that the project will not have significant adverse visual impacts on the Jefferson National Forest. Therefore, we conclude the Visual Impact Assessment for the project was appropriate.

240. The Counties and Preserve Craig also argue that the Commission did not adequately consider mitigation for visual impacts outside of the Appalachian National Scenic Trail and Jefferson National Forest.[666] The Counties and Preserve Craig state that the Commission failed to consider the same mitigation measures required by the Forest Service on private lands.[667]

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[665] Counties' Request for Rehearing at 31 (citing Diana Christopulos' February 23, 2017 letter and the Counties Final EIS Comments); Preserve Craig's Request for Rehearing at 36 n.132 (same).

[666] Counties' Request for Rehearing at 32; Preserve Craig's Request for Rehearing at 36.

[667] *Id*. For example, Preserve Craig states that in the Jefferson National Forest, there would be only a 50-foot temporary construction corridor and 10-foot permanent undulating corridor; but on private forested lands, there would be a 125-foot temporary construction corridor and 50-foot permanent corridor. Preserve Craig's Request for Rehearing at 36-37 (citing Maury Johnson's June 18, 2017 Comments).

241. We disagree. Ten of the Key Observation Points analyzed in the Visual Impact Assessment are outside of the Jefferson National Forest and not along the Appalachian National Scenic Trail. In addition, separate Visual Impact Assessments were produced for the Blue Ridge Parkway and the Weston and Gauley Bridge Turnpike, which are also outside the Jefferson National Forest and not along the Appalachian National Scenic Trail. Commission staff's evaluations indicated that the project will have no visual impacts at some locations, low impacts on others, and medium impacts at one location (Giles High School).[668] Therefore, because there will be no significant adverse visual impacts, no additional mitigation is necessary.

242. Additionally, in accordance with the Programmatic Agreement for the project, Commission staff held continuing consultations after the issuance of the Certificate Order with representatives of the National Park Service, Forest Service, BLM, State Historic Preservation Offices, the Advisory Council, Appalachian Trail Conservancy, and Roanoke County, regarding potential project-related visual impacts for hikers along the Appalachian National Scenic Trail in the project area. As a result of these consultations, Mountain Valley agreed to produce an avoidance and minimization plan, including revegetation and replanting of trees within the temporary construction right-of-way in selected areas along the pipeline route that may be visible to hikers at specific sites along the Appalachian National Scenic Trail, similar to the plan Mountain Valley will use for the Jefferson National Forest.[669]

14. Land Use

243. The Nature Conservancy argues that the Commission violated NEPA and the Administrative Procedure Act by failing to respond to its argument that the MVP Project route would violate the terms of a conservation easement that The Nature Conservancy holds over the Woltz's property. We disagree. The Final EIS specifically addressed this claim, noting that The Nature Conservancy believes that a pipeline through its property would violate the terms of its easement.[670] As discussed previously above and in the Final EIS, Commission staff took The Nature Conservancy's concerns into account and considered alternatives to avoid these easements. However, these alternatives did not

[668] Final EIS at 4-345 to 4-347, Table 4.8.2-3.

[669] Consultations about potential visual impacts related to the project for hikers along the Appalachian National Scenic Trail were held on January 10 and April 4, 2018, and notes from the meetings were placed into the record on January 31 and May 17, 2018.

[670] Final EIS at 4-319.

offer a significant environmental advantage.[671] Under these circumstances, the Commission is not required to conclude that an easement between private parties requires altering the pipeline route. Neither NEPA nor the Administrative Procedure Act required any additional analysis.

15. Safety

244. On rehearing, Montgomery County claims the Commission violated the NGA by assuming that Mountain Valley will construct and operate the Project in accordance with PHMSA safety standards.[672] Further, Montgomery County asserts that the Commission disregarded petitioners' and safety experts' concerns about whether the pipeline could be built given seismic activity and landslide risks.[673] Mr. Chandler also contends that a seismic risk exists on his property and asks that the Commission require Mountain Valley use construction materials to protect against this risk.[674] We disagree.

245. As explained in the Final EIS, pipeline safety standards are mandated by regulations adopted by PHMSA.[675] DOT has the exclusive authority to promulgate federal safety standards used in the transportation of natural gas.[676] As detailed in the Final EIS, Mountain Valley and Equitrans have designed and will construct, operate, and maintain the Projects in accordance with DOT's pipeline safety regulations.[677] DOT also prescribes the minimum standards for the depth of cover during construction, pipe wall thickness and design pressures, inspection and testing of welds, etc.[678] Montgomery

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[671] *Id*. at 3-76 to 3-83 (discussing the Poor Mountain Variation and Alternative 682).

[672] Montgomery County's Request for Rehearing at 32-33.

[673] *Id*.

[674] Mr. Chandler's Request for Rehearing at 6-7.

[675] Final EIS at 4-558.

[676] *See Memorandum of Understanding Between the Department of Transportation and FERC Regarding Natural Gas Transportation Facilities* (Jan. 15, 1993), http://www.ferc.gov/legal/mou/mou-9.pdf.

[677] *See* Final EIS at 4-559.

[678] *See* 49 C.F.R. § 192.615 (2017) (requiring emergency plans).

County does not provide any evidence that Mountain Valley will not comply with these mandatory standards.

246. Montgomery County next claims the Commission disregarded petitioners' and safety experts' comments that the pipeline faces potential landslides and seismic activity, but fails to articulate those concerns on rehearing.[679] As discussed, petitioners are not permitted to incorporate arguments on rehearing by reference and must identify their specific concerns.[680] Accordingly, we dismiss Montgomery County's argument. In any event, as discussed in the Certificate Order, the Commission relied on substantial evidence when concluding that Mountain Valley's and Equitrans' plans will ensure pipeline safety for areas with steep slopes and in proximity to seismic zones.[681] To prevent landslides, the Commission required Mountain Valley to implement a revised *Landslide Mitigation Plan* to address possible impacts from locating the pipeline in areas with steep slopes.[682] Under Equitrans' *Landslide Mitigation Plan*, the company will monitor construction on side slopes and Equitrans will use pipe with a higher class standard, i.e. pipeline that exceeds safety standards.[683] In areas where seismic hazards exist, Mountain Valley will install pipeline with thicker walls to withstand a seismic event[684] and will also conduct post-construction monitoring to detect any slope movement.[685]

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[679] Montgomery County's Request for Rehearing at 33.

[680] *Supra* at P 16.

[681] Certificate Order, 161 FERC ¶ 61,043 at PP 144-149; Final EIS at 4-52 to 4-58, 4-558 to 4-568.

[682] Certificate Order, 161 FERC ¶ 61,043 at P 145 and Environmental Condition No. 19. *See also* Final EIS at 4-54 to 4-55, 4-565.

[683] Final EIS at 4-57 to 4-58, 4-565 to 5-566 (describing Equitrans' plans to flag side slopes that meet certain criteria for additional mitigation or reroute and use of pipe in Class I areas to be designed to Class II standards and tested to Class III standards per 49 C.F.R. § 192 (2017)).

[684] Certificate Order, 161 FERC ¶ 61,043 at PP 148; Final EIS at 4-51.

[685] Certificate Order, 161 FERC ¶ 61,043 at P 148. *See also* Final EIS at 4-565. Equitrans' Project will occur in an area with low seismic activity. Certificate Order, 161 FERC ¶ 61,043 at P 149; Final EIS at ES-4.

247. Mr. Chandler asks that the Commission require Mountain Valley to install pipeline with thicker walls on the portion of pipe near his property, which he states is located near the Giles County Seismic Zone.[686] The Final EIS stated that the potential for soil liquefaction exists mainly in the area of the Giles County Seismic Zone between milepost 161 and 239; and that the majority of the pipe in the seismically active area near the Giles County Seismic Zone would be Class 2 or Class 3 thickness.[687] This zone was identified using calculations by D.G. Honegger Consulting which showed that potential hazards exist for triggered slope displacement due to higher potential seismicity between mileposts 161 and 239.[688] Mr. Chandler's property is located at milepost 245.1 to 245.5.[689] Mr. Chandler's property is located outside the area identified by D.G. Honnegger Consulting and we find consequently that it does not face a significant risk of soil liquefaction and slope movement.

16. Historic Properties

a. Issuance of Certificate Order Prior to Section 106 Consultation

248. Blue Ridge Environmental Defense League and Preserve Montgomery County state that the there are numerous unresolved issues regarding the identification of potentially-affected historic, cultural, and archeological resources and whether those resources will be affected.[690] Petitioners assert that the Commission's issuance of the

[686] Mr. Chandler's Request for Rehearing at 6-7.

[687] Final EIS at 4-51. Mountain Valley will use a small amount of Class 1 pipe at the outside range of the Giles County Seismic Zone at mileposts 178 to 186. D.G. Honegger Consulting calculations shows that the strain from ground settlement would not affect Class 1 pipe should the depth of cover be less than 10 feet. Final EIS at 4-26 (citing Honegger Consulting, Inc. 2015a. Letter Report to MVP: Review of Potential Seismic Hazards Along the Proposed Route of the Mountain Valley Pipeline. August 18, 2015 (Accession No. 20151023-5035)).

[688] Final EIS at 4-51.

[689] *Id.* at 3-115.

[690] Blue Ridge Environmental Defense League's Request for Rehearing at 8-9; Preserve Montgomery County's Request for Rehearing at 8-9.

Certificate Order, prior to the completion of section 106 consultation violates the NHPA.[691]

249. As discussed above,[692] the Commission has previously affirmed that a conditional certificate could be issued prior to completion of cultural resource surveys and consultation procedures required under NHPA because construction activities would not commence until surveys and consultation are complete.[693] In justifying our rationale for issuing conditional orders, we rely on the D.C. Circuit's decision in *City of Grapevine*, holding that the FAA properly conditioned approval of a runway project upon the applicant's subsequent compliance with the NHPA.[694]

250. The Historic District contends that the Commission's practice of deferring NHPA section 106 compliance has been rejected by the courts. As support, the Historic District relies on *Mid States Coalition for Progress v. Surface Transportation Board* (*Mid States*)[695] where the court stated that the agency's approval of license conditions on future mitigation measures "could only be sanctioned as consistent with [s]ection 106 if the [agency] negotiated an agreement before the issuance of a license."[696] The court in *Mid States* held that the Advisory Council's regulations "when read in their entirety, thus permit an agency to defer completion of the NHPA process until after the NEPA process has run its course (and the environmentally preferred alternatives chosen), but require that NHPA issues be resolved by the time that the license is issued."[697] While we find *City of Grapevine* to be more directly applicable in light of Environmental Condition

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[691] Blue Ridge Environmental Defense League's Request for Rehearing at 2-8; Preserve Montgomery County's Request for Rehearing at 2-8; Preserve Craig's Request for Rehearing at 38; Historic District's Request for Rehearing at 52-58; Counties' Request for Rehearing at 42-48.

[692] *See supra* P 81 (affirming our use of conditional certificates).

[693] *See generally Iroquois Gas Transmission System, L.P.*, 53 FERC ¶ 61,194, at 61,758-61,764 (1990).

[694] 17 F.3d 1502, 1509 (D.C. Cir. 1994) (upholding the agency's conditional approval because it was expressly conditioned on the completion of section 106 process).

[695] Historic District's Request for Rehearing at 53 (citing 345 F.3d 520 (8th Cir. 2004)).

[696] Historic District's Request for Rehearing at 53.

[697] 345 F.3d 520, 554.

No. 15, discussed below, we do not view this as irreconcilable with our practice, in that the Advisory Council's regulations permit an agency granting project approval to "defer final identification and evaluation of historic properties if it is specifically provided for in a programmatic agreement executed pursuant to § 800.14(b)."[698]

251. On December 20, 2017, the Commission executed a Programmatic Agreement with the Advisory Council, State Historic Preservation Offices of West Virginia and Virginia, Forest Service, BLM, and the National Park Service. The execution of the Programmatic Agreement satisfies the Commission's responsibilities under NHPA section 106.[699] However, completion of NHPA section 106 consultation prior to the issuance of the Certificate Order was not feasible. As discussed in the Certificate Order, Mountain Valley was unable to survey, identify and evaluate all potential tracts until after the certificate was issued, when Mountain Valley was able to gain access via eminent domain proceedings to lands where survey access was previously denied.[700] In order to protect lands prior to the completion of consultation, Environmental Condition No. 15[701] and the Programmatic Agreement ensure the applicants will take measures, as required by section 800.8(c)(4) of the Advisory Council's regulations, to "avoid, minimize, or mitigate" adverse effects on identified historic properties and other historic properties that may be identified following the completion of outstanding cultural surveys.[702] We

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[698] 36 C.F.R. § 800.4(b)(2) (2017).

[699] December 20, 2017 Programmatic Agreement (Accession No. 20171220-3013) (Programmatic Agreement).

[700] Certificate Order, 161 FERC 61,043 at P 269.

[701] *Id*. at Environmental Condition No. 15.

[702] *See* 36 C.F.R. § 800.8(c)(4) (2017), which states:

> If the agency official has found, during the preparation of an [Environmental Assessment (EA)] or EIS that the effects of an undertaking on historic properties are adverse, the agency official shall develop measures in the EA, [Draft EIS], or EIS to avoid, minimize, or mitigate such effects in accordance with paragraph (c)(1)(v) of this section. The agency official's responsibilities under section 106 and the procedures in this subpart shall then be satisfied when either: (i) A binding commitment to such proposed measures is incorporated in: (A) The [Record of Decision], if such measures were proposed in a [Draft EIS] or EIS; or (B) A [Memorandum of Agreement] drafted in compliance with § 800.6(c); or (ii) The Council has

believe this approach is consistent with the court's cautionary comment in *Mid States* that while "an agency may not require consultation in lieu of taking its own 'hard look' at the environmental impact of a project, we do not believe that NEPA is violated when an agency, after preparing an otherwise valid EIS, imposes consultation requirements in conjunction with other mitigating conditions."[703]

b. Identification of Historic Properties

252. Petitioners state that the area of potential effect identified in the Final EIS is inadequate for the identification and protection of historical resources.[704] We disagree. The "area of potential effect" is "the geographic area or areas within which an undertaking may directly or indirectly cause alternations in the character or use of historic properties, if any such properties exist."[705] The Final EIS defined the MVP Project's direct area of potential effect as a 300-foot-wide corridor centered on the pipeline.[706] Additionally, the Final EIS defined the Equitrans Expansion Project's direct area of potential effect for historic properties between 85 and 125 feet wide, depending on the pipeline segment.[707] The State Historic Preservation Officers concurred with our definition of the area of potential effect for the MVP and Equitrans Expansion Projects,[708] as evidenced by their acceptance of the survey and evaluation reports and as signatories to the Programmatic Agreement.

c. Consulting Parties

253. Blue Ridge Environmental Defense League and Preserve Montgomery County assert that the Commission refused to grant section 106 consulting party status to persons

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commented under § 800.7 and received the agency's response to such comments.

[703] 345 F.3d 520, 544.

[704] Blue Ridge Environmental Defense League's Request for Rehearing at 9-13; Preserve Montgomery County's Request for Rehearing at 9-13; Counties' Request for Rehearing at 45.

[705] 36 C.F.R. § 800.16(d) (2017).

[706] Final EIS at 4-432.

[707] *Id.*

[708] *Id.*

and organizations who intervened in the proceeding; thus, forcing parties to choose between protecting their interests through the section 106 process and protecting their interests in the Commission's proceeding.[709]

254. Section 800.2(c)(5) of the NHPA implementing regulations states that "certain individuals and organizations with a demonstrated interest in the undertaking may participate as consulting parties due to the nature of their legal or economic relation to the undertaking or affected properties, or their concern with the undertaking's effects on historic properties."[710] Commission staff initially denied section 106 consulting party status to some commenters, stating that the Commission's existing procedures provided participants with sufficient opportunities to comment on cultural resources. After further consultation with the Advisory Council, Commission staff reconsidered its position and granted section 106 consulting party status to Craig County, Giles County, Montgomery County, and Roanoke County, and multiple landowners.[711] However, Commission staff declined to offer Section 106 consulting party status to the remaining commenters, like Blue Ridge Environmental Defense League and Preserve Montgomery County, because they failed to show either a legal or economic relationship to the undertaking, as required by section 800.2(c)(5).[712]

255. The NHPA regulations allow a federal agency to determine which entities and individuals should participate as consulting parties for purposes of section 106.[713] In particular, section 800.2(c)(5) uses permissive language, stating that certain individuals and organizations "may" participate as consulting parties. In contrast, section 800.2(c)(3)

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[709] Blue Ridge Environmental Defense League's Request for Rehearing at 13-14; Preserve Montgomery County's Request for Rehearing at 13-14.

[710] 36 C.F.R. § 800.2(c)(5) (2017).

[711] Landowners granted consulting party status because they have historic properties near the MVP project included Francis Collins *et al.*, Clarence and Karolyn Givens, Jerry and Jerolyn Deplazes, Shannon Lucas and Nathan Deplazes, and Grace Terry et al. The Counties are also intervenors in this proceeding.

[712] *See* February 16, 2017 Letter from J. Martin to C. Dwin Vaughn (Accession No. 20170216-3029).

[713] *See Boott Hydropower, Inc.*, 143 FERC ¶ 61,048 at P 110, *reh'g denied*, 144 FERC ¶ 61,211, at P 57 n. 98 (2013), *aff'd sub nom., Dept. of Interior v. FERC*, 876 F.3d 360 (1st Cir. 2015).

provides that a representative of a local government with jurisdiction over the area in which the effects may occur "is entitled" to participate as a consulting party.

256. Although Commission staff determined that Blue Ridge Environmental Defense League's and Preserve Montgomery County's request for section 106 consulting party status was insufficient, these participants were encouraged to participate in the proceeding. In fact, Blue Ridge Environmental Defense League and Preserve Montgomery County provided comments on the portion of the Draft EIS that discussed historic properties, to which Commission staff responded.[714]

257. To the extent that petitioners allege that they were denied section 106 consulting party status because they chose to protect their rights as an intervenor in this proceeding, we concur that participants should be able to avail themselves of party status in both proceedings. However, as stated above, Commission staff concluded that Blue Ridge Environmental Defense League and Preserve Montgomery County did not possess an adequate interest as required by section 800.2 of the NHPA regulations and Commission staff appropriately denied their request to be consulting parties. Further, being a consulting party in the section 106 process does not confer any substantive rights. Accordingly, Blue Ridge Environmental Defense League and Preserve Montgomery County have suffered no injury here.

d. Consultation Procedures

258. The Counties and the Historic District state that the Commission failed to properly consult with parties prior to issuing the Certificate Order.[715]

259. To fulfill an agency's obligations under NHPA section 106, the Advisory Council requires agencies to consult with State Historic Preservation Officers; Indian Tribes and

[714] *See* Final EIS, Appendix AA, file 4 of 36 at PDF 33-44 of 64 (item CO60 addressing Preserve Roanoke and Blue Ridge Environmental Defense League's comments); Appendix AA, file 10 of 36 at PDF 28-60 of 60, file 11 of 36 at PDF 1-8 of 8, file 12 of 36 at PDF 1-9 of 9, file 13 of 36 at PDF 1-3 of 129 (item CO89 addressing Blue Ridge Environmental Defense League's historic properties comments); Appendix AA, file 13 of 36 at PDF 28-29 of 129 (item CO92 addressing Preserve Montgomery County's comments).

[715] Counties' Request for Rehearing at 42-46; Historic District's Request for Rehearing at 55-58.

Native Hawaiian Organizations; representatives of local governments; applicants for federal assistance, permits, licenses, and other approvals; and the public.[716]

260. Commission staff consulted with the West Virginia and Virginia State Historic Preservation Officers, interested Indian Tribes, government agencies, and the public regarding potential impacts on historic properties resulting from the construction and operation of the MVP and Equitrans Expansion Projects.[717] For review of this project, and many others, staff conducts paper consultations, rather than convening meetings. This approach is more efficient and saves time and resources. Part 800 does not specify the nature of consultations – only that consultations occur. In this case, consultations were initiated by staff prior to issuing its findings of effects. Mountain Valley filed all of the historic architectural cultural resources reports as "public" information on the docket, and these reports were thus available for review by the consulting parties and the public. In addition, Mountain Valley provided the consulting parties with additional copies of all cultural resources reports for review and comment. Those reports contained the recommendations for National Register of Historic Places-eligibility and project effects provided by Mountain Valley's contractors.[718] Commission staff reached conclusions about National Register of Historic Places-eligibility and project effects after consultations with the State Historic Preservation Officers and other consulting parties who filed timely comments on reports (within 30 days after receipt of reports).

e. Effects on the Greater Newport Rural Historic District

261. The Counties claim that the Commission failed to address several concerns regarding historic properties in the Final EIS and the Certificate Order, particularly in relation to: (1) the Adlai Jones house and road trace; (2) the Wilford Dowdy house; (3) the Puckett Farm; (4) the Link Farm; (5) the 1912 Link Covered Bridge; (6) the James Madison Reynolds House; (7) the Frank Sibold House; (8) the Leffel/Givens House; and (9) the Martin House and springbox. The Counties state that these properties, located within the Greater Newport Rural Historic District, were mislocated and errors were made in their evaluation.[719]

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[716] 36 C.F.R. § 800.2(c) (2017).

[717] Final EIS at 4-402.

[718] *Id.*, Table 4.10.1-3 at 4-409 to 4-410 (documenting consulting party status and data conveyance).

[719] Counties Request for Rehearing at 32-35.

262. We disagree. The Virginia Department of Historic Resources, representing the State Historic Preservation Office, accepted Mountain Valley's historic architectural survey and evaluation reports. The Programmatic Agreement found that the project will have an adverse effect on the Greater Newport Rural Historic District, and requires Mountain Valley to mitigate those impacts through the implementation of the measures outlined in the revised *Treatment Plan for the Greater Newport Rural Historic District* filed February 13, 2018. The Virginia Department of Historic Resources approved the revised Treatment Plan and signed the Programmatic Agreement. In some cases, Mountain Valley filed supplemental data that updated the distance from project features to individual sites within the Greater Newport Rural Historic District.[720]

263. Additionally, we dismiss the Counties' blanket claims that we "[erred] in applying methodology for evaluating effects" on the sites listed above.[721] The Counties failed to specify how our evaluation erred. Simply making blanket allegations that the Commission violated the law without any analysis or explanation does not suffice to raise an issue. Further, the Counties are not permitted to incorporate arguments on rehearing by reference and must identify their specific concerns.[722] Because the Counties do not list any specific concerns with our methodology for evaluating effects to the resources, we dismiss those allegations.

264. The Counties state that our methodology to evaluate effects on a Newport Village Sidewalk was faulty.[723] We disagree. The Final EIS stated that the project would not cross the boundary into the Newport Historic District.[724] Thus, the Newport Village Sidewalk is outside of the area of potential effect and is not listed as an element of the Greater Newport Historic District's nomination form.[725]

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[720] *See* Mountain Valley's May 3, 2018 Supplemental Materials, Attachment L at 8 (Accession 20180503-5127).

[721] Counties Request for Rehearing at 34-35.

[722] *Supra* at P 18, n.43.

[723] Counties' Request for Rehearing at 35.

[724] Final EIS at 4-438.

[725] Kapp, P.H. 14 September 1999. National Register of Historic Places Nomination Form for the Greater Newport Rural Historic District, Giles County, Virginia.

265. Additionally, we disagree with the Counties that Canoe Cave is a historical resource.[726] Canoe Cave is a geological feature and not a historic or cultural resource. The Final EIS discussed Canoe Cave under the geology section and determines the project will have no impact on Canoe Cave because the pipeline is located 900 feet away from this feature.[727]

266. The Counties claim that there were errors in the evaluation of effects on elements of the Bent Mountain Rural Historic District, including resources associated with the Apple Orchard Rural Historic District within the Bent Mountain Rural Historic District's boundaries (such as Green Hollow Drive, Vest House, and King Apple Orchard). The Final EIS acknowledged that the Commission staff and the Virginia Department of Historic Resources evaluated the Bent Mountain Rural Historic District as eligible for the National Register of Historic Places.[728] Commission staff agrees that the Vest House, the historic Bent Mountain Turnpike, and the King-Waldron Orchard are contributing elements to the Apple Orchard Rural Historic District, within the Bent Mountain Rural Historic District. Also, the Programmatic Agreement stated that the project would have an adverse effect on the Bent Mountain Rural Historic District, and Mountain Valley will mitigate against these impacts according to its February 14, 2018 revised Treatment Plan.

f. Analysis of Cultural Attachment

267. Preserve Craig asserts that the Final EIS's analysis of cultural attachment is deficient because it failed to demonstrate how the project's impacts on cultural attachment will be effectively mitigated.[729] We disagree. The Final EIS analyzed cultural attachment to identify tangible and intangible potential impacts to the physical environment.[730] However, an assessment of cultural attachment is not required by any federal laws or regulations relating to historic preservation and cultural resources

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[726] Counties' Request for Rehearing at 34.

[727] Final EIS at 4-198.

[728] *Id*. 4-440.

[729] Preserve Craig's Request for Rehearing at 40-42. Preserve Craig defines cultural attachment as "families who are threatened with displacement from homes and places to which they have strongly identified." *Id*. at 40. This is not the definition for cultural attachment found in the Final EIS, where it was stated that: "Cultural attachment is demonstrated in the intimate relationship…that people of a particular culture share with their landscape …." Final EIS at 4-472.

[730] Final EIS at 4-470 to 4-477.

management.[731] The staff's analysis, conducted by professional anthropologists, concluded that the MVP Project should not have significant long-term adverse effects on cultural attachment to the land;[732] therefore, the Final EIS did not recommend any specific mitigation measures.

17. Greenhouse Gas (GHG) Emissions and Climate Impacts

268. On rehearing, Appalachian Mountain Advocates argues that the Commission failed to adequately analyze the climate change impacts of the end use of the natural gas to be transported by the project as indirect impacts under the CEQ's regulations.[733] In support, Appalachian Mountain Advocates relies solely on *Sierra Club v. FERC* (*Sabal Trail*).[734]

269. The New River Conservancy argues that the Commission's current policy for evaluating the public interest in NGA section 7 proceedings fails to adequately consider the likely impact of the effects of incremental anthropogenic climate change.[735] The New River Conservancy explains that the consequences of extraction and burning of fossil fuels by humans were not considered or understood in 1938 when the NGA was enacted.[736] According to the New River Conservancy, the analysis of GHG emissions in these proceedings "appears to be mentioned solely to avoid judicial remand on the issue, and not to grant such impacts any particular weight."[737]

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[731] *Id*. at 4-474.

[732] *Id*. at 4-476.

[733] Appalachian Mountain Advocates' Request for Rehearing at 53-62.

[734] 867 F.3d 1357 (D.C. Cir. 2017). Appalachian Mountain Advocates glosses over two important distinctions between the facilities in the *Sabal Trail* proceeding and the facilities here. First, the environmental document in the *Sabal Trail* proceeding, unlike the Final EIS here, did not quantify downstream consumption emissions. Second, the natural gas in the *Sabal Trail* proceeding was destined for delivery to identified gas-fired electric generating plants. Here, the gas is destined to be delivered into the market, and determining the final destination of the gas is highly speculative.

[735] New River Conservancy's Request for Rehearing at 5-6.

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

[737] *Id.* at 6.

270. Evaluating GHG-related climate change impacts implicates two analytical steps.[738] The first step is quantifying GHG emissions, which can be direct, indirect, or cumulative effects as those terms are defined by CEQ regulations implementing NEPA. The second step, which the *Sabal Trail* court described as a "further analytical step,"[739],is linking GHG emissions to particular climate impacts through a qualitative or quantitative analysis. However, as we discuss below, we do not believe GHG emissions from the downstream use of natural gas transported by the project fall within the definition of indirect impacts or cumulative impacts, and we do not believe the Social Cost of Carbon tool can meaningfully inform our decisions on natural gas transportation infrastructure projects under the NGA.

a. Quantification of GHG Emissions

271. The Certificate Order quantified downstream GHG emissions.[740] The Commission's environmental review went beyond what is required to comply with NEPA by conservatively estimating GHG emissions, even those emitted by downstream consumption of natural gas, an activity that is attenuated and not reasonably foreseeable.[741] Relying on the Final EIS, the Certificate Order conservatively estimated "that full combustion of the volume of natural gas transported would produce GHG emissions of up to about 48 million metric tons per year."[742] The Certificate Order explained that the estimate was an upper bound of GHG emissions, and added that displacement of other fuel could actually lower total GHG emissions.[743] Appalachian

[738] *See* Sabal Trail, 867 F.3d 1371-75.

[739] *Id*. at 1375.

[740] Certificate Order, 161 FERC ¶ 61,043 at PP 287-296. We note that this information was provided outside the scope of our NEPA analysis. *See Dominion Transmission, Inc.*, 163 FERC ¶ 61,128, at PP 41-44 (2018).

[741] No party in this proceeding has pointed any record evidence that would support a finding that the downstream activities are sufficiently casually connected to the MVP and Equitrans Expansion Projects to be indirect impacts of the project.

[742] Certificate Order, 161 FERC ¶ 61,043 at P 293 (citing Final EIS at 4-620).

[743] *Id.* P 293.

Mountain Advocates acknowledges that the Commission addressed quantification of GHG emissions.[744]

b. Climate Impacts Resulting from GHG Emissions

272. With respect to the "further analytical step" of "link[ing] those downstream carbon emissions to particular climate impacts,"[745] Appalachian Mountain Advocates disputes that disclosure of the amount of pollution is adequate; rather, Appalachian Mountain Advocates argues that the Commission must examine the ecological, economic, and social impacts of the emissions, including an assessment of their significance.[746]

273. Appalachian Mountain Advocates glosses over another important aspect of the Final EIS. It is not true, as Appalachian Mountain Advocates implies, that the Final EIS here ignored the climate impacts resulting from GHG emissions.[747] The Final EIS

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[744] Appalachian Mountain Advocates' Request for Rehearing at 55 (explaining that the Commission must do a "more searching analysis than merely disclosing the amount of pollution" and recognizing that the Commission "attempted to estimate downstream GHG emissions"). In a footnote, Appalachian Mountain Advocates purports to incorporate into its rehearing request a litany of criticisms about the quantification of GHG emissions in the Draft EIS. Appalachian Mountain Advocates' Request for Rehearing at 55 n.173. Those comments were addressed in the Final EIS. *See* Final EIS, Appendix AA, file 2 of 36 at PDF 135 of 205 (item CO5 addressing Appalachian Mountain Advocates); Appendix AA, file 9 of 36 at PDF 30 of 87 (item CO84 addressing Sierra Club, VA Chapter). A rehearing request is required to "[s]tate concisely the alleged error in the final decision or final order." 18 C.F.R. 385.713(c)(1). *See* NGA section 19(a), 15 U.S.C. § 717r. "The purpose of rehearing is for parties to apprise the Commission of purported errors or departures from precedent involved in its initial determination." *Black Oak Energy, L.L.C.*, 153 FERC ¶ 61,231, at P 62 (2015). As we stated above, incorporation by reference in a rehearing request of comments that were addressed in the Final EIS does not serve this purpose. Accordingly, the allegations raised in the footnote regarding quantification of GHG emissions are dismissed.

[745] *Sabal Trail*, 867 F.3d at 1375.

[746] Appalachian Mountain Advocates' Request for Rehearing at 55 (citing 40 C.F.R. § 1508.8(b), 1502.16(a)-(b) (2017)).

[747] Similarly, the dissent relies on *Mid States*, 345 F.3d at 549, an Eighth Circuit case, which holds that "when the nature of the effect is reasonably foreseeable but its extent is not, [an] agency may not simply ignore the effect." However, as the Final EIS demonstrates, we have not ignored climate impacts associated with GHG emissions.

qualitatively described how GHGs occur in the atmosphere and how they induce global climate change.[748] Further, the cumulative impacts analysis in the Final EIS qualitatively described the potential cumulative impacts of climate change in areas where markets expected to be served by the project exist, e.g. the Northeast (Pennsylvania and West Virginia) and Southeast (Virginia) regions.[749] The Final EIS observed that "[g]lobally, GHGs have been accumulating in the atmosphere since the beginning of the industrial era (circa 1750); [c]ombustion of fossil fuels (coal, petroleum, and natural gas), combined with agriculture and clearing of forests, is primarily responsible for the accumulation of GHG; [a]nthropogenic GHG emissions are the primary contributing factor to climate change; and [i]mpacts extend beyond atmospheric climate change alone and include changes to water resources, transportation, agriculture, ecosystems, and human health."[750] The Final EIS also included a discussion of climate impacts from a regional perspective of the Northeast (heat waves, coastal flooding, and river flooding; infrastructure; and agriculture, fisheries, and ecosystems) and Southeast (sea level rise, increasing temperatures, and water availability).[751]

274. Appalachian Mountain Advocates acknowledges that the Final EIS "listed some typical climate change impacts;"[752] however, Appalachian Mountain Advocates argues that the Final EIS omitted some impacts that were included in other environmental reviews.[753] For example, Appalachian Mountain Advocates observes that past Commission environmental documents have cited the U.S. Global Change Research

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[748] Final EIS at 4-488 ("GHGs are gases that absorb infrared radiation in the atmosphere, and have been determined to endanger public health and welfare by causing human induced global climate change.").

[749] *Id.* at 4-618.

[750] Final EIS at 4-618.

[751] *Id.* at 4-618. Appalachian Mountain Advocates states the Final EIS makes conflicting statements when it included the qualitative discussion of climate change from a global and regional perspective. Appalachian Mountain Advocates' Request for Rehearing at 60 n.192. As we discuss herein, one section of the Final EIS discussed the global impacts and another section described the impacts that are peculiar to the region. Any fair reading of the Final EIS reveals that both of these sections recognized the global phenomenon of GHG emissions and their climate change impacts. *See* Final EIS at 4-617 to 4-618.

[752] Appalachian Mountain Advocates' Request for Rehearing at 56 n.175.

[753] *Id.*

Program's 2014 climate change report.[754] However, the Final EIS did cite the U.S. Global Climate Change Research Program's National Climate Assessment.[755] The Commission's qualitative analysis was therefore based on an authoritative report that the Commission has used in other environmental documents.

c. Social Cost of Carbon is not Meaningful to Project Decisions under the NGA

275. Appalachian Mountain Advocates offers the Social Cost of Carbon methodology as a means of achieving that further level of analysis. To that end, Appalachian Mountain Advocates claims that the Commission's analysis here is inconsistent with *Sabal Trail*, where the U.S. Court of Appeals for the D.C. Circuit vacated and remanded the Commission's authorization of three pipelines in the southeastern United States.[756] The court held that where "all the natural gas that will travel through these pipelines will be going somewhere: specifically, to power plants in Florida,"[757] the downstream greenhouse gas emissions that will result from burning the transported gas "are an indirect effect of authorizing [the SMP] project, which [the Commission] could reasonably foresee, and which [the Commission] has legal authority to mitigate."[758] The court held that the Commission's environmental review must consider these effects and directed the Commission to quantify and consider the project's downstream GHG emissions or explain in more detail why it cannot do so.[759] Further, the court required the Commission to explain whether it still adhered to its prior position, accepted by the court

[754] *Id.*

[755] Final EIS at 4-618.

[756] *Sabal Trail*, 867 F.3d 1357.

[757] *Id.* at 1371.

[758] *Id.* at 1374.

[759] *Id.*

n *EarthReports, Inc. v. FERC,*[760] that estimates using the Social Cost of Carbon tool were not useful in performing its NEPA review.[761]

276. Following remand, the supplemental environmental document in that proceeding set forth reasons (identical to those reasons in the Final EIS in these proceedings) why the Social Cost of Carbon tool is not appropriate in project-level environmental review.[762] The *Sabal Trail* Remand Order then explained "why the Social Cost of Carbon tool cannot meaningfully inform the Commission's decisions on natural gas transportation infrastructure projects under the NGA."[763] As discussed below, we continue to support that explanation.[764]

277. The Social Cost of Carbon tool, (as well as the Social Cost of Methane and Nitrous Oxide tools), estimates the monetized climate change damage associated with an incremental increase in CO_2 emissions in a given year. It can also be thought of as the cost today of future climate change damage, represented as a series of annual costs per metric ton of emissions discounted to a present-day value.

278. The *Sabal Trail* court did not conclude that the Commission was required to use the Social Cost of Carbon. Rather, because the Commission did not address the Social Cost of Carbon tool in in its environmental documents or orders, the court directed the Commission to explain on remand whether, and why, the Commission holds to the position it took in a past EIS reviewed (and affirmed) by the court in *EarthReports,*[765]

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[760] 828 F.3d 949, 956 (D.C. Cir. 2016) (*Earth Reports*). The *EarthReports* court reviewed the Commission's orders in *Dominion Cove Point LNG, LP*, 148 FERC ¶ 61,244 (2014), *reh'g denied*, 151 FERC ¶ 61,095 (2015).

[761] *Sabal Trail*, 867 F.3d at 1375.

[762] *Florida Southeast Connection*, 162 FERC ¶ 61,233, at P 35 (2018) (*Sabal Trail* Remand Order). Rehearing of the *Sabal Trail* Remand Order is pending.

[763] *Id.* P 36.

[764] *Sabal Trail* Remand Order, 162 FERC ¶ 61,233, at PP 30-51 (2018).

[765] *EarthReports*, 828 F.3d at 956. In *EarthReports*, the court considered whether the Commission was correct to not use the Social Cost of Carbon "to analyze the environmental impacts of greenhouse gas emissions from the construction and operation" of Commission jurisdictional facilities. 828 F.3d at 956. "Although petitioners take a different position, they identify no method other than the "social cost of carbon" tool that the Commission could have used. Hence, petitioners provide no reason to doubt the reasonableness of the Commission's conclusion." 828 F.3d at 956. In support, the

that the Social Cost of Carbon tool was not useful for the Commission's NEPA evaluation because several of the components of its methodology are contested and because not every harm it accounts for is necessarily significant within the meaning of NEPA.[766]

279. In this case, the Certificate Order gave three reasons for rejecting the Social Cost of Carbon methodology:

> (1) EPA states that 'no consensus exists on the appropriate [discount] rate to use for analyses spanning multiple generations' and consequently, significant variation in output can result; (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.[767]

The Certificate Order noted that the Social Cost of Carbon methodology was no longer representative of government policy.[768]

280. The Social Cost of Carbon tool cannot meaningfully inform the Commission's decisions on natural gas transportation infrastructure projects under the NGA.[769] For the

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EarthReports court cited *WildEarth Guardians v. Jewell*, 738 F.3d 298, 309–12 (D.C. Cir. 2013). In *WildEarth Guardians*, BLM quantified carbon emissions for the project, for a statewide region, and for the country. 738 F.3d at 309. With this data, the BLM quantified the project's contribution to state and national emissions. *Id*. at 309. With respect to the next analytical step of associating particular climate impacts to those levels of GHG emissions, the BLM explained that the state of science does not permit this, which the court, supported by reference to CEQ guidance, found supported the conclusion that "the BLM was not required to identify specific effects on the climate in order to prepare an adequate EIS." *Id*. at 309.

[766] *Sabal Trail*, 867 F.3d. at 1375.

[767] Certificate Order, 161 FERC ¶ 61,043 at P 296.

[768] *Id.* P 296. *See* Exec. Order No. 13,783, 82 Fed. Reg. 16,093 (2017).

[769] CEQ regulations address procedures for "evaluating reasonably foreseeable significant adverse effects" when there is "incomplete or unavailable information." 40 C.F.R. § 1502.22 (2017). Although this order discusses why we believe downstream GHG gas emissions in this case are not reasonably foreseeable indirect impacts and how

reasons discussed below, absent information persuading us otherwise, we continue to decline to employ the tool in our proceedings. Our decision not to use the tool does not in any way indicate that the Commission is not cognizant of the potentially severe consequences of climate change, does not undermine our hard look at the effects of the MVP and Equitrans Expansion Projects and our disclosure of these effects to the public, and does not undermine informed public comment or informed agency decision making. The Commission is committed to monitoring climate science, state and national targets, and climate models that may inform its decision-making.[770]

281. We continue to believe that the Social Cost of Carbon tool is more appropriately used by regulators whose responsibilities are tied more directly to fossil fuel production or consumption.[771] The federal agencies that regulate the fossil fuel production from federal lands—e.g., the BLM, the Office of Surface Mining Reclamation and Enforcement, the Forest Service, the Bureau of Ocean Energy Management—are charged with determining whether to authorize a quantity of coal, oil, or natural gas production from federal lands. The federal and state agencies that regulate fossil fuel consumption—e.g., the National Highway Transportation Safety Board through corporate average fuel economy standards, the U.S. Department of Energy through energy efficiency standards for commercial equipment, state public utility commissions through certificates for proposed power plants—directly control whether some quantity of fossil fuels is burned and thus directly control whether end use GHG emissions occur. Thus, it follows that

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a meaningful threshold for determining significance of GHG emissions using the Social Cost of Carbon is lacking, we believe that the discussion herein is consistent with the procedures for addressing incomplete or unavailable information.

[770] *See also WildEarth Guardians*, 738 F.3d at 309 ("Because current science does not allow for the specificity demanded . . . , the BLM was not required to identify specific effects on the climate in order to prepare an adequate EIS.").

[771] We do not believe, as the dissent implies, that the Commission does not have a responsibility to consider climate change impacts. As discussed above, we have quantified emissions and included a qualitative discussion of how those emissions relate to climate change. *See supra* PP 272-274. Rather, we acknowledge herein that the scope of the impacts of our decisions may differ from that of other agencies and that certain tools, here, the Social Cost of Carbon, may be of more use in informing the decision making of other agencies than for the Commission.

some of these agencies have chosen to use the Social Cost of Carbon tool to inform their decisions[772] or have been faulted for failing to use it.[773]

282. However, the Commission's authority under NGA section 7 has no direct connection to the production or end use of natural gas,[774] and we continue to find that the Social Cost of Carbon tool is not meaningful for our decision making under the NGA. The Commission does not control the production or consumption of natural gas. Producers, consumers, and their intermediaries respond freely to market signals about location-specific supply and location-specific demand. The Commission oversees proposals to transport natural gas between those locations. For the MVP and Equitrans Expansion Projects, Commission staff estimated the GHG emissions from end use under

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[772] *E.g.*, Bureau of Ocean Energy Management, Liberty Development Project: Draft EIS at 4-247 (July 2017) (using Social Cost of Carbon tool to evaluate proposed wells on Alaska's Outer Continental Shelf to produce up to 65,000 barrels of crude oil and 120 million standard cubic feet of natural gas per day for 15 to 20 years), https://www.boem.gov/2016-010-Volume-1-Liberty-EIS/; Office of Surface Mining Reclamation and Enforcement, Final Environmental Impact Statement for the Four Corners Power Plant and Navajo Mine Energy Project at 4.2.26 to 4.2.27 (May 1, 2015) (using Social Cost of Carbon tool to evaluate proposed 5,600-acre coal mining area and proposal to continue operating sole-source coal-fired generating station beyond original approved lifetime), https://www.wrcc.osmre.gov/initiatives/fourCorners/documentLibrary.shtm; *Zero Zone, Inc. v. U.S. Dep't of Energy*, 832 F.3d 654, 679 (7th Cir. 2016) (affirming the Department of Energy's use of the Social Cost of Carbon tool to monetize global benefits of energy efficiency standards for commercial equipment); Peter Fairley, *States Are Using Social Cost of Carbon in Energy Decisions*, Inside Climate News, Aug. 14, 2017 (noting that Minnesota, Colorado, Maine, and Nevada regulators use the Social Cost of Carbon tool when evaluating proposals for new power plants).

[773] *E.g.*, *High Country Conservation Advocates v. Forest Serv.*, 52 F. Supp. 3d 1174, 1191 (D. Colo. 2014) (arbitrary and capricious for Forest Service to quantify benefits of proposed mining exploration on federal land but to fail to quantify costs given that Social Cost of Carbon tool was available); *Ctr. for Biological Diversity v. National Highway Transportation Safety Administration*, 538 F.3d 1172, 1217 (9th Cir. 2008) (arbitrary and capricious for agency to monetize uncertain costs of higher vehicle fuel-efficiency standards but not to monetize the benefits of carbon emission reductions using Social Cost of Carbon tool).

[774] NGA section 1(b) specifically excludes production from the Commission's jurisdiction. 15 U.S.C. § 717(b) (2012).

a worst-case full burn scenario to be 48 million metric tons CO_2e,[775] which is more than 96 percent of all project-related GHG emissions, meaning less than 4 percent of the GHG emissions are related to construction and operation of Commission-jurisdictional facilities.[776]

i. The Commission Does Not Use Monetized Cost-Benefit Analysis

283. The CEQ does not require agencies to conduct a monetary cost-benefit analysis for NEPA review and explains, moreover, that agencies "should not" display a monetary cost-benefit analysis when there are important qualitative considerations.[777] "NEPA does not demand that every federal decision be verified by reduction to mathematical absolutes for insertion into a precise formula."[778] Because we agree with this conclusion and because siting infrastructure necessarily involves making qualitative judgments between

[775] Final EIS at 4-620 (Table 4.13.2-2).

[776] These percentages were derived using the end use emissions under a full burn scenario (48,000,000 metric tons CO_2e) and the sum of construction, operation, and end use emissions under a full burn scenario (983,930 + 2,636,103 + 48,000,000 CO_2e). *See* Final EIS at 4-502 to 4-506 (construction emissions), 4-506 to 4-510 (operation emissions), and 4-620 (end-use combustion emissions). The construction related emissions aggregate emissions over a three-year construction time period.

[777] 40 C.F.R. § 1502.23 (2017) ("For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations."); CEQ, *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* at 32-33 (Aug. 1, 2016) (citing same regulation and adding that "[w]hen an agency determines that a monetized assessment of the impacts of greenhouse gas emissions or a monetary cost-benefit analysis is appropriate and relevant to the choice among different alternatives being considered, such analysis may be incorporated by reference or appended to the NEPA document as an aid in evaluating the environmental consequences.") (internal citations omitted), https://obamawhitehouse.archives.gov/sites/whitehouse.gov/files/documents/nepa_final_ghg_guidance.pdf (last accessed March 5, 2018). The Final Guidance, which is "not a rule or regulation" and "does not change or substitute for any law, regulation, or other legally binding requirement, and is not legally enforceable," was subsequently withdrawn. *See supra* n.786.

[778] *Sierra Club v. Lynn*, 502 F.2d 43, 61 (5th Cir. 1974).

different resources as to which there is no agreed-upon quantitative value, the Commission does not conduct a monetary cost-benefit analysis in its NEPA review. Because Commission staff lacked quantified information about all of the costs and benefits of the project, the Final EIS did not use the limited available quantified benefits in a cost-benefit analysis to inform Commission staff's comparison of alternatives, choices of mitigation measures, or determination about the significance of the MVP and Equitrans Expansion Projects' environmental impacts.

284. To appropriately use the Social Cost of Carbon calculation for the MVP and Equitrans Expansion Projects in our decision-making under the NGA, not only would we need to quantify all of the negative impacts of the project, but we would also need to calculate the project's benefits, including, but not limited to, replacement of coal and oil by natural gas, a task no easier than calculating costs.[779] Without complete information, an analysis using the Social Cost of Carbon calculations would necessarily be based on multiple assumptions, producing misleading results.

285. The Commission's balancing process to determine whether a proposed natural gas transportation project is required by "the public convenience and necessity" is not skewed by our decision not to use the Social Cost of Carbon tool. Consistent with longstanding precedent, an applicant must show that benefits to be achieved by a proposed project will outweigh the potential adverse effects.[780] For the MVP and Equitrans Expansion Projects, the Certificate Order and this order find that the project sponsors had shown market demand for the project because shipper-customers, anticipating their own ability to sell transported natural gas or the electricity generated from it to end users, entered long term binding contracts for transportation service using most of the project's incremental capacity.[781] These long term contracts guarantee revenue to financially support incremental transportation capacity in an area of the interstate transportation grid where the expansion of existing pipelines would not satisfy the identified demand.

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[779] Although the Final EIS did quantify some of the project's direct socioeconomic benefits (e.g., employment and tax payments), the Final EIS did so because those benefits occur in units of dollars and are directly comprehensible in units of dollars. However, because Commission staff lacked quantified information about all of the costs and benefits of the project, and in some cases such information would be nearly impossible or infeasible to obtain, the Final EIS did not use the limited available quantified benefits in a cost-benefit analysis to inform Commission staff's comparison of alternatives.

[780] Certificate Policy Statement, 88 FERC ¶ 61,227 at 61,747.

[781] Certificate Order, 161 FERC ¶ 61,043 at P 41. *See supra* PP 34-47.

286. The Commission may consider evidence in the record of other public benefits beyond meeting unserved demand, such as eliminating bottlenecks, providing access to new supplies, lowering costs to consumers, providing new interconnects that improve the interstate grid, providing competitive alternatives, or increasing electric reliability.[782] These benefits accrue from the proposed project itself, not from the end use of the transported natural gas. The Commission's assessment of benefits is qualitative. As we discuss above, the Commission first balances a proposed project's benefits against potential adverse economic effects on the project sponsor's existing customers, existing pipelines in the market and their captive customers, or landowners and communities affected by the route of the new project.[783] These adverse economic effects also accrue from the proposed project itself, not from the end use of the transported natural gas. The Commission's assessment of adverse economic effects is qualitative. The balancing is therefore qualitative; we do not monetize benefits or monetize adverse economic effects.

287. As discussed above, only when the benefits outweigh the adverse effects on economic interests will the Commission then proceed to consider the environmental analysis where other interests are addressed.[784] The Commission presents the environmental analysis in the NEPA document. But, as we explained above, the Commission does not use a monetized cost-benefit analysis to determine whether a proposed project's environmental impacts would be significant or to determine whether and how to mitigate identified environmental impacts by imposing conditions on a certificate or denying a certificate.

ii. Technical challenges associated with the Social Cost of Carbon tool's use in Commission certificate proceedings

288. As noted above, the Social Cost of Carbon tool estimates the monetized climate change damage associated with an incremental increase in CO_2 emissions in a given year. To provide a consistent approach for agencies to quantify damage in dollars from estimated emissions, the Obama Administration created the Interagency Working Group on the Social Cost of Greenhouse Gases (IWG). In 2010, and updated in 2016, the IWG released a methodology for estimating the Social Cost of Carbon values across a range of

[782] Certificate Policy Statement, 88 FERC ¶ 61,227 at 61,748.

[783] *Id*. at 61,745.

[784] *Id*. at 61,745. This essentially means that it is Commission policy not to authorize a project that does not pass scrutiny on an economic basis, notwithstanding that a project's potential effects on the environment might prove minimal.

assumptions about future socioeconomic systems and physical earth systems that incorporated cost estimates based on global damages.[785]

289. On March 28, 2017, the Trump Administration disbanded the IWG and withdrew its reports and supporting documents as no longer representative of government policy.[786] In place of the IWG Social Cost of Carbon methodology, agencies were required to follow the 2003 OMB Circular A-4, which states that when agencies conduct cost-benefit analyses regarding GHG emissions, they should use Social Cost of Carbon values based on domestic, rather than global, damage costs and to use discount rates of 3 and 7 percent.[787] In October 2017, the EPA completed a regulatory impact analysis for its proposal to repeal the Clean Power Plan. In this document, the EPA developed Social Cost of Carbon values based on only the direct impacts of climate change anticipated to occur within U.S. borders. The Social Cost of Carbon values were presented as interim values for use in regulatory analyses until an improved estimate of the impacts of climate change to the U.S. could be developed.

(a) Tool Validity

290. We accept that the Social Cost of Carbon methodology does constitute a tool that can be used to estimate incremental physical climate change impacts. The integrated assessment models underlying the Social Cost of Carbon tool were developed to estimate certain global and regional physical climate change impacts due to incremental GHG emissions under specific socioeconomic scenarios. However, although the integrated assessment models could be run through a first phase to estimate global and regional physical climate change impacts from the MVP and Equitrans Expansion Projects' related GHG emissions, as discussed below, we would still have to arbitrarily determine what potential increase in atmospheric GHG concentration, rise in sea level, rise in sea water temperatures, and other calculated physical impacts would be significant for that particular pipeline project.

291. Moreover, the appropriate discount rate to be used in the Social Cost of Carbon tool calculations remains a contentious issue, as we have previously described: "[EPA] states that "no consensus exists on the appropriate [discount] rate to use for analyses spanning multiple generations" and consequently, significant variation in output can

[785] Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866 - Interagency Working Group on Social Cost of Greenhouse Gases, United States Government, August 2016

[786] Exec. Order No. 13783, 82 Fed. Reg. 16,093 (Mar. 28, 2017).

[787] 68 Fed. Reg. 58,366 (Sept. 17, 2003).

result."[788] Specifically, we continue to believe that the choice between a high discount rate of 7 percent (or higher) or a lower discount rate of 3 percent introduces substantial variation in Social Cost of Carbon tool outputs. As the courts have explained, "[m]isleading economic assumptions can defeat the first function of an EIS by impairing the agency's consideration of the adverse environmental effects of a proposed project"[789] and "can also defeat the second function of an EIS by skewing the public's evaluation of a project."[790]

(b) Social Cost of Carbon as an Indicator of Significance

292. Appalachian Mountain Advocates asserts that the Final EIS staff erred by making no real effort to assess significance.[791] We are aware of no standard established by international or federal policy, or by a recognized scientific body that would assist us to ascribe significance to a given rate or volume of GHG emissions.[792] The Certificate Order explained that significance for purposes of NEPA could not be determined because "the project's incremental physical impacts on the environment caused by climate change cannot be determined, [and] it also cannot be determined whether the projects' contribution to cumulative impacts on climate change would be significant."[793] However, the Certificate Order also provided regional and national context for this level of GHG emissions, and found that the end use of the natural gas transported by the project would increase regional emissions[794] by 2 percent and national emissions by one percent at most.[795] But the Final EIS explained that "[b]ecause we cannot determine the

[788] *EarthReports*, 828 F.3d at 956.

[789] *Hughes River Watershed Conservancy v. Glickman*, 81 F.3d 437, 446 (4th Cir. 1996) (citing *So. La. Envtl. Council, Inc. v. Sand*, 629 F.2d 1005, 1011-12 (5th Cir. 1980)).

[790] *Id.* at 446.

[791] Appalachian Mountain Advocates' Request for Rehearing at 57.

[792] *Sabal Trail* Remand Order, 162 FERC ¶ 61,233, at P 26 (2018).

[793] Certificate Order, 161 FERC ¶ 61,043 at P 295.

[794] The Certificate Order defined the region as the states where the applicants had defined prospective markets. Certificate Order, 161 FERC ¶ 61,043 at P 294.

[795] Certificate Order, 161 FERC ¶ 61,043 at P 294.

projects' incremental physical impacts on the environment caused by climate change, we cannot determine whether the projects' contribution to cumulative impacts on climate change would be significant."[796] The national emissions reduction targets expressed in the EPA's Clean Power Plan and the Paris climate accord are pending repeal and withdrawal, respectively. Accordingly, we find there are no appropriate national targets to use as benchmarks for comparison.

293. However, the fact that one may view a number as large does not necessarily equate to its being significant. Looking to local or state GHG emissions inventories as a benchmark for significance for purposes of siting natural gas pipelines is problematic. Any two projects with the same capacity (or multiple smaller projects with an equivalent cumulative capacity), but which are designed to serve end users in different states or multiple states, will contribute identically to global climate change notwithstanding that they might result in widely different percent increases over different states' GHG emissions inventories.[797] Moreover, as noted below, considering GHG emissions would have no effect on our alternatives analysis.

294. Commission staff is not aware of studies that assess the significance of monetized damages calculated with the Social Cost of Carbon tool. At most, we are able to publish estimated ranges of monetized damages under different assumptions in the Social Cost of Carbon tool. However, because we have no basis to designate a particular dollar figure calculated from the Social Cost of Carbon tool as "significant," such action would be arbitrary and would meaningfully inform neither the Commission's decision–making nor the public. Accordingly, we conclude that using the Social Cost of Carbon would not assist us in determining whether downstream GHG emissions are significant.

295. We do not agree that using one number (quantity of GHG emissions) for which there is no established significance to produce another number (price per ton of carbon equivalent) for which there is similarly no established significance (at least in the context of our examination of the relative impacts associated with a proposed pipeline) enhances our ability to reach a reasoned decision.

296. Appalachian Mountain Advocates states that *Sabal Trail* required the Commission to do more.[798] This is a correct general reading of *Sabal Trail*; however, Appalachian

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[796] Final EIS at 4-620.

[797] For example, adding the same amount of GHG emissions could result in a relatively small percentage increase in an industrial area, while causing a more substantial increase in a less developed region.

[798] Appalachian Mountain Advocates' Request for Rehearing at 57.

Mountain Advocates misconstrues *Sabal Trail* when it argues the court "firmly rejected" the Commission's concerns about use of the Social Cost of Carbon tool. This is evident given: (1) *Sabal Trail* cited a case, *EarthReports,* that had *accepted* the Commission's rejection of the Social Cost of Carbon based in part on the difficulty of determining significance; and (2) the court *explicitly noted that it was not deciding* any issue with regard to the Social Cost of Carbon.[799]

297. As further evidence of inadequate analysis, Appalachian Mountain Advocates says the statement in the Final EIS about the relative GHG emissions associated with natural gas versus other fuels is an "approach" that the *Sabal Trail* court rejected.[800] However, the *Sabal Trail* language they quote merely supports the analysis in the Final EIS. The statement about relative emissions was not intended to demonstrate that we did not need to look at the emissions. The first sentence to the paragraph quoted by Appalachian Mountain Advocates, which Appalachian Mountain Advocates omits, reveals that the court was addressing "making emissions estimates."[801] Again, as Appalachian Mountain Advocates is aware, the Commission went beyond its NEPA obligations to estimate the emissions of downstream consumption in this case, which Appalachian Mountain Advocates does not seriously challenge. The secondary effects of those emissions and the question of whether those effects are significant, is the "further analytical step." As discussed above, the court's discussion of that second analytical step hardly supports Appalachian Mountain Advocates' advocacy for the Social Cost of Carbon.

d. Alternatives

298. Appalachian Mountain Advocates asserts that the failure to link GHG emissions to particular climate impacts undermined the alternatives analysis.[802] Appalachian Mountain Advocates states that the failure to use the Social Cost of Carbon as a measure of significance "undermines the [Final] EIS's alternatives analysis, which is the 'is the heart of the environmental impact statement.'"[803] Appalachian Mountain Advocates

[799] *Sabal Trail*, 867 F.3d at 1375.

[800] Appalachian Mountain Advocates' Request for Rehearing at 58.

[801] 867 F.3d at 1374.

[802] Appalachian Mountain Advocates' Request for Rehearing at 59-60.

[803] *Id.* at 60.

states that reasonable alternatives could be evaluated "while keeping the discount rate constant."[804]

299. Alternatives were thoroughly evaluated in the Final EIS, and other parts of this order address challenges to that analysis. In each of these analyses, staff considered comparative environmental information to discern whether a potential alternative could provide a significant environmental advantage over the proposed action. The environmental information considered impacts on all potentially affected resources. For purposes of downstream GHG emissions and climate change, we have explained why we do not think the Social Cost of Carbon is an appropriate methodology and why we do not believe it reveals useful data for our underlying determination under NGA section 7. For similar reasons, we do not believe the alternatives analysis would be enhanced by adding into the mix a methodology such as the Social Cost of Carbon.

300. Denial by the Commission of the proposed MVP and Equitrans Expansion Projects on the grounds that combustion of the transported gas would result in unacceptable environmental impacts would not forestall the project shippers' search for alternative means of natural gas transportation. Shippers on the project entered into long-term contracts with substantial financial obligations that reflect need for natural gas supplies; thus, these shippers would likely pursue alternative means to obtain natural gas in the event of denial of these projects. Consequently, the No Action Alternative would only eliminate one potential route for transporting natural gas but would not decrease the ultimate consumption of fossil fuel to satisfy demand for electricity or reduce GHG emissions. For example, the project shippers might seek to transport the same volumes of natural gas by subscribing to other expansions of existing transportation systems or seeking the construction of other new facilities.

e. Cumulative Impacts

301. Appalachian Mountain Advocates states that the failure to properly analyze downstream GHG emissions resulted in a flawed cumulative impacts analysis.[805] Appalachian Mountain Advocates' argument relies on its flawed assumption that the GHG emissions associated with the downstream use of the gas transported by the projects are either indirect or cumulative impacts of the Projects. GHG emissions from the downstream use of the transported gas do not fall within the definition of indirect impacts, nor are downstream emissions cumulative impacts as discussed below.

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[804] *Id.* at 59.

[805] Appalachian Mountain Advocates' Request for Rehearing at 60.

302. CEQ defines cumulative impacts as "the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions."[806] The requirement that an impact must be "reasonably foreseeable" to be considered in a NEPA analysis applies to both indirect and cumulative impacts. 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."[807] 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."[808]

303. The geographic scope of our cumulative impacts analysis varies from case to case, and resource to resource, depending on the facts presented. Further, where, as here, the Commission lacks meaningful information about downstream use of the gas; i.e., information about future power plants, storage facilities, or distribution networks, within the geographic scope of a project-affected resource, then these impacts are not reasonably foreseeable for inclusion in the cumulative impacts analysis.[809] As explained in the Certificate Order, the MVP Project will interconnect with Transco's mainline system enabling the project's five shippers to supply gas to markets in the Northeast, Mid-Atlantic, and Southeast.[810] In short, there is no evidence in the record that ultimate end-use combustion of the gas transported by the Projects is reasonably foreseeable or will occur within the geographic scope of the emissions impacts from the MVP and Equitrans Expansion Projects, and therefore does not meet the definition of cumulative impacts.

304. The dissents cite *Mid States* to argue that the end use of the gas being transported by a pipeline is reasonably foreseeable and the GHG emissions associated with the end-

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[806] 40 C.F.R. § 1508.7 (2017).

[807] *Kleppe v. Sierra Club*, 427 U.S. 390, 414 (1976) (*Kleppe*); *see also* CEQ, *Considering Cumulative Effects Under the National Environmental Policy Act*, at 8 (January 1997), https://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-CEQ-ConsidCumulEffects.pdf, (1997 CEQ Guidance) (explaining 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").

[808] *Natural Res. Def. Council, Inc. v. Callaway*, 524 F.2d 79, 88 (2d Cir. 1975).

[809] *See, e.g., Dominion Transmission, Inc.*, 163 FERC ¶ 61,128, at P 34 (2018).

[810] Certificate Order, 161 FERC ¶ 61,043 at PP 6, 7, 10, and 41.

use combustion should have been more fully considered beyond merely quantifying the GHG emissions. In *Mid States*, petitioners argued that the projected availability of 100 million tons of low-sulfur coal per year at reduced rates would increase the consumption by existing power plants of low-sulfur coal vis-à-vis other fuels (e.g., natural gas).[811] The court found that the likely increased consumption of low-sulfur coal by power plants would be an indirect impact of construction of a shorter, more direct rail line to transport the low-sulfur coal from the mining area to existing coal-burning power plants.[812] Thus, the Surface Transportation Board was required to consider the effects on air quality of such consumption.[813] In *Mid States* it was undisputed that the proposed project would increase the use of coal for power generation. Here, it is unknown where and how the transported gas will be used and there is no identifiable end-use as there was in *Mid States*.[814] Further, unlike the case here, the Surface Transportation Board had stated that approval of the rail line would lead to increased coal production.[815] It is primarily for this reason that reliance on *Mid States* is "misplaced since the agency in *Mid States* stated that a particular outcome was reasonably

[811] *Mid States*, 345 F.3d at 548.

[812] *Id.* at 550 (finding compelling the fact that while the Board's draft EIS had stated that it would consider potential air quality impacts associated with the anticipated increased use of the transported coal, the final EIS failed to do so).

[813] The dissent cites to a market study to suggest that the "expanded role of gas-fired power generation" is the driver for the MVP Project. However, in *Mid States*, the court did not require the Board to consider the impacts that would be associated with potential construction of any new power plants that might be "induced" as the result of the availability of inexpensive coal, because those impacts were speculative and not reasonably foreseeable. *Id.* at 549 (noting that where and what size additional power plants may be built is speculative and "hardly the reasonably foreseeable significant impacts that must be analyzed under NEPA").

[814] While it may be foreseeable, as some suggest, that the gas transported on the expansion will be burned, we have no information as to the extent such consumption will represent incremental consumption above existing levels, as opposed to substitution for existing sources of supply.

[815] *Mid States*, 345 F.3d at 549.

foreseeable and that it would consider its impact, but then failed to do so," and the Commission did neither of those things.[816]

305. Nonetheless, the Certificate Order reasonably evaluated cumulative effects of the downstream emissions and described how these GHG emissions would combine "with past and future emissions from all other sources, and contribute incrementally to climate change."[817] The Certificate Order 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."[818] No more was required.[819]

306. Appalachian Mountain Advocates states the Commission should have quantified the GHG emissions related to other past, present, and reasonably foreseeable future projects, including those listed in the Final EIS.[820] We disagree that the level of detailed analysis sought by Appalachian Mountain Advocates is necessary to analyze the potential cumulative air impacts.[821] The Final EIS evaluated the cumulative impacts on air quality

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[816] *See Ark. Wildlife Fed'n v. U.S. Army Corps of Eng'rs*, 431 F.3d 1096, 1102 (8th Cir. 2005).

[817] *Id.* P 295.

[818] Certificate Order, 161 FERC ¶ 61,043 at P 295.

[819] *See Cent. N.Y. Oil & Gas Co.*, 137 FERC ¶ 61,121, at PP 99-101 (2011) (holding that the extent and location of shale gas production development were not reasonably foreseeable with respect to a proposed 39-mile long pipeline located in Pennsylvania, in the heart of Marcellus Shale development), *on reh'g*, 138 FERC ¶ 61,104 (2012), *aff'd, Coal. for Responsible Growth & Res. Conservation v. FERC*, 485 F. App'x 472, 474 (2d Cir. 2012) (Commission's cumulative impact analysis sufficient where it included a short summary discussion of shale gas production activities). *See also Sierra Club v. DOE*, 867 F.3d at 202 (holding that DOE's generalized discussion of the impacts associated with non-conventional natural gas production fulfill its obligations under NEPA; DOE need not make specific projections about environmental impacts stemming from specific levels of export-induced gas production).

[820] *Id.* at 61. *See* Final EIS at 4-585 to 4-598.

[821] An agency's cumulative impacts analysis should be proportional to the magnitude of the environmental impacts of a proposed action; actions that will have no

within the Air Quality Control Regions (AQCR) where compressor stations are located.[822] The Final EIS identified 19 proposed new or modified gas-fired compressor stations within the AQCR of the MVP and Equitrans Expansion Projects.[823] The Final EIS explained that because operation of these compressor stations would not exceed major source thresholds, would operate in compliance with their Clean Air Act permit, and the likely rapid dispersion of emissions as a result of the facility location and typical meteorological conditions, there would be no significant cumulative impact on local or regional air quality.[824]

f. Mitigation

307. Appalachian Mountain Advocates argues that the failure to evaluate the climate consequence of GHG emissions resulted in the failure to mitigate those consequences.[825] An environmental impact statement must discuss possible mitigation measures for adverse environmental consequences.[826] The Final EIS described in detail the federal and state regulatory regimes that will control the Mountain Valley's direct emission sources.[827] The Final EIS also discussed mitigation measures for construction emissions, such as limiting the idling of engines when construction equipment is not in use,[828] and mitigation measures for operation emissions, such as preventive maintenance to identify leaks and commitments to reduce the frequency of unscheduled maintenance blowdowns, as well as mitigation measures dealing with the full spectrum of environmental resources.

308. We do not believe there are any additional mitigation measures the Commission could impose with respect to the GHG emissions analyzed in the Final EIS. Even if

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significant direct and indirect impacts usually require only a limited cumulative impacts analysis. *See* CEQ, *Memorandum on Guidance on Consideration of Past Actions in Cumulative Effects Analysis* at 2-3 (June 2005).

[822] Final EIS at 4-614 to 4-616.

[823] Final EIS at 4-615 to 4-616 (Table 4.13.2-1).

[824] Final EIS at 4-615.

[825] Appalachian Mountain Advocates' Request for Rehearing at 54-55.

[826] *Robertson*, 490 U.S. at 351-353.

[827] Final EIS at 4-489 to 4-518.

[828] *Id.* at 4-505.

downstream emissions were an effect of the project, the Commission lacks jurisdiction to impose mitigation measures on downstream end-use consumers, be they power plants, manufacturers, or others. The U.S. Environmental Protection Agency and state regulatory agencies have authority to regulate power plant emissions under the federal Clean Air Act.

309. In addition, the vast majority of the lifecycle GHG emissions associated with the natural gas delivery chain are a result of the end use of the natural gas, not the construction or operation of the transportation facilities subject to the Commission's jurisdiction. Thus, the downstream GHG emissions associated with a proposed project are primarily a function of a proposed project's incremental transportation capacity, not the facilities, and will not vary regardless of the project's routing or location. There are no conditions the Commission can impose on the construction of jurisdictional facilities that will affect the end-use-related GHG emissions.[829] The only way for the Commission to reflect consideration of the downstream emissions in its decision making would be, as the *Sabal Trail* court observed, to deny the certificate. However, were we to deny a pipeline certificate on the basis of impacts stemming from the end use of the gas transported, that decision would rest on a finding not "that the *pipeline* would be too harmful to the environment,"[830] but rather that the *end use* of the gas would be too harmful to the environment. The Commission believes that it is for Congress or the Executive Branch to decide national policy on the use of natural gas and that the Commission's job is to review applications before it on a case-by-case basis.[831]

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[829] Contrast this with the direct project-related impacts, which the Commission has the ability to mitigate through conditions on routing (*e.g.*, changes to avoid sensitive resources), construction methodology (*e.g.*, timing restrictions to lessen impacts on wildlife, requirements to drill under sensitive streams rather than open cut), and operations (*e.g.*, noise restrictions, requiring electric instead of gas compressors in appropriate situations).

[830] *Sabal Trail*, 867 F.3d at 1357 (emphasis added).

[831] *See Office of Consumers' Counsel v. FERC*, 655 F.2d 1132, 1147 (D.C. Cir. 1980) ("FERC's authority to consider all factors bearing on the public interest when issuing certificates means authority to look into those factors which reasonably relate to the purpose for which FERC was given certification authority."); *American Gas Association v. FERC*, 912 F.2d 1496, 1510-11 (D.C. Cir. 1990) ("[T]he Commission may not use its [Natural Gas Act] § 7 condition power to do indirectly . . . things that it cannot do at all.").

g. Public Input

310. Finally, Appalachian Mountain Advocates states that the failure to take a hard look at the downstream GHG and climate impacts resulted in the failure to seek public input regarding possible mitigation measures and reasonable alternatives.[832] We disagree. Emissions associated with consumption were included in the Draft EIS and all participants had an opportunity to comment.[833] Again, this Commission does not deny the link between GHG emissions and environmental impacts and climate change. However, linking particular GHG emissions to particular climate and environmental impacts in a way that results in analysis that is useful to the Commission for purposes of fulfilling its obligations under NEPA and the NGA is a different matter. In any event, given the discussion of those GHG emissions in the Draft EIS, any participant to these proceedings had full opportunity to comment on them, including the further analytical step of secondary environmental and climate impacts. Accordingly, rehearing is denied.

The Commission orders:

(A) The November 14, 2017 requests for rehearing filed by James T. Chandler; Dr. Carl Zipper; New River Conservancy, Inc.; The Nature Conservancy; Preserve Montgomery County, Virginia; Montgomery County, Virginia; Blue Ridge Environmental Defense League; Greater Newport Rural Historic District Committee; Appalachian Mountain Advocates; Roanoke, Giles, and Craig Counties, Virginia; Preserve Craig, Inc.; Sierra Club; Carolyn Reilly; Preserve Giles County; and Helena Teekell are dismissed or denied.

(B) Martin Morrison's November 14, 2017 request for rehearing; Preserve Bent Mountain's November 14, 2017 request for rehearing; Charles Chong's December 26, 2017 request for rehearing; and the Rosebud Sioux Tribe, the Cheyenne River Sioux Tribe, and the Blue Ridge Environmental Defense League's May 4, 2018 request for rehearing are rejected as untimely.

(C) Preserve Giles County's November 15, 2017 corrected request for rehearing is rejected as untimely.

(D) Blue Ridge Land Conservancy's November 14, 2017 request for rehearing and Preserve Giles County's November 14, 2017 request for rehearing are dismissed as deficient.

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[832] Appalachian Mountain Advocates' Rehearing Request at 61.

[833] Draft EIS at 4-390, 4-392, 4-401 to 4-412, 4-511 to 4-516, 5-12.

(E) The late motions to intervene filed by Mr. Bohon; Ms. Karen E. Chandler; Jerry Deplazes; Jerolyn Deplazes; Karolyn Givens; Frances Collins; Michael Williams; Miller Williams; Tony Williams; Shannon Lucas; Nathan Deplazes; Ben Rhodd on behalf of the Rosebud Sioux Tribe; and Steve Vance, on behalf of the Cheyenne River Sioux Tribe are denied.

(F) Mountain Valley Pipeline's December 12, 2017 answer is rejected.

(G) The requests for stay filed by Dr. Carl Zipper; New River Conservancy, Inc.; The Nature Conservancy; Preserve Montgomery County, Virginia; Montgomery County, Virginia; Blue Ridge Environmental Defense League; Greater Newport Rural Historic District Committee; Appalachian Mountain Advocates; Roanoke, Giles, and Craig Counties, Virginia; Preserve Craig, Inc.; Sierra Club; Carolyn Reilly; Preserve Giles County; Helena Teekell; Martin Morrison; Preserve Bent Mountain; and the Rosebud Sioux Tribe, the Cheyenne River Sioux Tribe, and the Blue Ridge Environmental Defense League are dismissed as moot.

By the Commission. Commissioners LaFleur and Glick are dissenting with separate statements attached.

(S E A L)

Kimberly D. Bose,
Secretary.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Mountain Valley Pipeline, LLC	Docket Nos.	CP16-10-001
Equitrans, L.P.		CP16-13-001

(Issued June 15, 2018)

LaFLEUR, Commissioner, *dissenting*:

Today's order denies rehearing of the order approving the Mountain Valley Pipeline Project/Equitrans Expansion Project (MVP). For the reasons set forth below, I respectfully dissent.

I did not support the Commission's original authorization of this project because I concluded the project as proposed was not in the public interest.[1] My decision was influenced by my consideration of the certificate application for the Atlantic Coast Pipeline Project (ACP),[2] which was decided the same day as MVP. After carefully balancing the aggregate environmental impacts resulting from the authorization of both these projects, against the economic need of the projects, I could not find either proposal, on balance, in the public interest. I am dissenting today on the rehearing order for three reasons: (1) I still do not find the MVP project is in the public interest; (2) I am concerned about the majority's response to stakeholders who have tried to access documents relevant to this proceeding, including precedent agreements; and (3) I disagree with the treatment of climate impacts.

As noted in my dissents on the certificate authorizations, MVP and ACP will be located in the same Appalachian region, with similarities in route and timing. The projects, when considered collectively, pose significant environmental impacts. Both pipelines cross hundreds of miles of karst terrain, thousands of waterbodies, and many

[1] *Mountain Valley Pipeline, LLC*, 161 FERC ¶ 61,043 (2017) (LaFleur, Comm'r, *dissenting*).

[2] *Atlantic Coast Pipeline, LLC*, 161 FERC ¶ 61,042 (2017) (LaFleur, Comm'r, *dissenting*).

agricultural, residential, and commercial areas. The impacts to landowners and communities are also significant, as evidenced by the numerous concerns raised by intervenors in this rehearing proceeding. For these reasons, I believe we should have given more consideration to a merged system/one-pipe alternative option that could result in less environmental disturbance and fewer landowner impacts. While the majority contends that there was not a credible one-pipe alternative included in the record,[3] I believe that the one-pipe options presented as alternatives provided reasonable approaches that warranted serious consideration, even if it would have delayed the issuance of the MVP and ACP authorizations.

In circumstances of multiple projects proposed in the same region, with similar timing, I believe we should, in the future, consider a regional review for the development of natural gas infrastructure to assess both the need for pipeline capacity in the region, and the environmental impacts of multiple proposed pipelines on the region. I know that questions on this topic were included in the Commission's NOI on the Certificate Policy Statement,[4] and I look forward to engaging with stakeholders on how a regional look at pipeline projects could support both our needs determination and our environmental review.

In addition, I am concerned about the Commission's processes for ensuring that all interested parties are able to review and comment on materials in the record that are essential to our pipeline determinations, including precedent agreements. While the Certificate Policy Statement sets forth a variety of factors that can be utilized to demonstrate economic need, in practice, the Commission's need determination has focused narrowly on whether a pipeline demonstrates evidence of precedent agreements. Indeed, in this case, the Commission relied solely on the existence of precedent agreements to find that MVP is needed.[5]

I am unsatisfied by the majority's response to stakeholders who unsuccessfully try to navigate the complex FERC regulations and process to obtain access to important

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[3] *Mountain Valley Pipeline, LLC*, 163 FERC ¶ 61,197 at P 149 (2018) (Rehearing Order).

[4] *Certification of New Interstate Natural Gas Facilities*, Notice of Inquiry, 163 FERC ¶ 61,042 (2018) (NOI on the Certificate Policy Statement).

[5] I am not dissenting today specifically on the use of precedent agreements to determine need; I recognize that approach is consistent with existing Commission policy, to be reviewed as part of the NOI on the Certificate Policy Statement.

documents, like precedent agreements and flow diagrams. Rehearing parties mistakenly chose the wrong CEII process to formally request access to those documents and thus did not have the opportunity to review and potentially articulate specific concerns that may be relevant on rehearing. [6] The majority explains that, if a party argues that certain potentially relevant documents are improperly withheld, the party must demonstrate how such documents "would have affected its rehearing request or otherwise altered the outcome here."[7] The majority dismisses the due process claim that documents were improperly withheld, finding that "Mountain Valley publicly provided the identities of its shippers, as well as, details about the maximum daily quantities and contract terms for which they have subscribed."[8] In my view, public statements by a pipeline applicant are insufficient to demonstrate need. If we are going to rely on precedent agreements to demonstrate need, the Commission must continue to evaluate the precedent agreements themselves, and ensure interested parties have the opportunity to review and comment on those agreements. We must also ensure landowners and communities know how to fully participate in our proceedings, access documents, and engage with the Commission.

Finally, today's order also addresses topics on which I have written on extensively in recent months – the consideration of downstream GHG emissions and the use of the Social Cost of Carbon to evaluate the impacts of those emissions.[9] With respect to GHG emissions, as I have stated repeatedly, the Commission should quantify and consider the downstream impacts of GHG emissions.[10] Today's order quantified downstream GHG

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[6] They requested access pursuant to the provisions of 18 C.F.R § 388.113(g)(5) (2017) instead of 18 C.F.R § 388.113(g)(4) (2017).

[7] Rehearing Order, 163 FERC ¶ 61,197 at P 31.

[8] *Id.*

[9] *See Florida Southeast Connection, LLC*, 162 FERC ¶ 61,233 (2018) (LaFleur, Comm'r, *dissenting in part*) (*Sabal Trail* Remand Order); *Dominion Transmission Inc.*, 163 FERC ¶ 61,128 (2018) (LaFleur, Comm'r, *dissenting in part*) (*New Market*); *Florida Southeast Connection, LLC*, 163 FERC ¶ 61,158 (2018) (LaFleur, Comm'r, *concurring*); and *Tennessee Gas Pipeline Company*, 163 FERC ¶ 61,190 (2018) (LaFleur, Comm'r, *concurring*).

[10] I believe that it is reasonably foreseeable in the vast majority of cases that the gas being transported by a pipeline we authorize will be burned for electric generation or residential, commercial, or industrial end uses. In those circumstances, there is a reasonably close causal relationship between the Commission's action to authorize a pipeline project that will transport gas and the downstream GHG emissions that result from burning the transported gas. *See Mid States Coalition for Progress v. Surface*

emissions but failed to sufficiently consider the impacts of those emissions. I believe we should endeavor to assess the significance of a given rate or volume of GHG emissions. For example, in a number of cases we looked at how the downstream GHG emissions associated with an individual project impacted the total state and national emission inventories.[11] And as I have said previously, I disagree with the Commission's recently-announced change in policy limiting the review and disclosure of GHG emissions in our orders.[12] Particularly after the recent *Sabal Trail* decision,[13] I believe the right approach is to include and consider more information in our orders regarding the impacts of GHG emissions, rather than less.

With respect to assessing climate change, I cannot support the majority's characterization of the Social Cost of Carbon. The Social Cost of Carbon is a scientifically-derived metric to translate tonnage of carbon dioxide or other GHGs to the cost of long-term climate harm.[14] The majority recites a number of technical and policy

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Transportation Board, 345 F.3d 520, 549 (8th Cir. 2003) (*Mid States*). In *Mid States*, the Court concluded that the Surface Transportation Board erred by failing to consider the downstream impacts of the burning of transported coal. Even though the record lacked specificity regarding the extent to which the transported coal would be burned, the Court concluded the nature of the impact was clear.

[11] Recent Commission orders include the full-burn calculation. *E.g.*, *Columbia Gas Transmission, LLC*, 158 FERC ¶ 61,046, at P 120 (2017); *Algonquin Gas Transmission, LLC*, 158 FERC ¶ 61,061, at P 121 (2017); *Rover Pipeline LLC*, 158 FERC ¶ 61,109, at P 274 (2017); *Tennessee Gas Pipeline Co., L.L.C.*, 158 FERC ¶ 61,110, at P 104 (2017); *Nat'l Fuel Gas Supply Corp.*, 158 FERC ¶ 61,145, at P 189 (2017); *Dominion Carolina Gas Transmission, LLC*, 158 FERC ¶ 61,126, at P 81 (2017); *Nexus Gas Transmission, LLC*, 160 FERC ¶ 61,022, at P 173 (2017); *Atlantic Coast Pipeline, LLC*, 161 FERC ¶ 61,042, at P 298 (2017); *Millennium Pipeline Co., L.L.C.*, 161 FERC ¶ 61,229, at P 164 (2017); *Penneast Pipeline Co., LLC*, 162 FERC ¶ 61,053, at P 208 (2018); *Florida Southeast. Connection, LLC*, 162 FERC ¶ 61,233, at P 22 (2018); and *DTE Midstream Appalachia, LLC*, 162 FERC ¶ 61,238, at P 56 (2018).

[12] *New Market*, 163 FERC ¶ 61,128.

[13] *Sierra Club v. FERC*, 867 F.3d 1357, 1374 (D.C. Cir. 2017) (*Sabal Trail*). In *Sabal Trail*, the Court concluded because the pipeline was delivering gas to an identified end use, four downstream power plants, the burning of gas at those power plants was an indirect impact to be quantified and considered as part of our NEPA responsibilities.

[14] https://www/epa.gov/sites/production/files/2016-

arguments to attack the usefulness of the Social Cost of Carbon, many of which I addressed in my dissent on the *Sabal Trail* Remand Order.[15] Without entirely rehashing those arguments, I reject the notion that the Social Cost of Carbon cannot meaningfully inform the Commission's decision-making. The majority presents various excuses, including arguments about the application of a cost-benefit analysis in our pipeline review and lack of consensus regarding the appropriate discount rate. I continue to find these arguments unpersuasive. The Commission does not monetize the costs and benefits of a proposed pipeline project largely because, to date, we have not sought to develop the record with evidence that would that support this type of cost-benefit approach to our pipeline reviews. I believe we could better account for changes in GHG emissions resulting from the end use of the transported gas, and calculate a Social Cost of Carbon that accurately reflects the climate change impacts of a particular project. Additionally, the Commission could estimate the appropriate discount rate or to use more than one discount rate in our calculations or to provide a range of numbers for consideration.

As I have said before, much of the majority's criticism simply reflects the fact that consideration of climate change in our pipeline reviews is difficult. I agree that consideration of climate change is difficult. However, I do not believe that the difficulty of considering climate change relieve us of the obligation to consider climate change impacts as part of our environmental review.

For all of these reasons, I respectfully dissent.

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Cheryl A. LaFleur
Commissioner

12/documents/social_cost_of_carbon_fact_sheet.pdf

[15] 162 FERC ¶ 61,233.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Mountain Valley Pipeline, LLC	Docket Nos. CP16-10-000
Equitrans, L.P.	CP16-13-000

(Issued June 15, 2018)

GLICK, Commissioner, *dissenting*:

Today's order denies rehearing of the Commission's decision to certificate the Mountain Valley Pipeline (MVP) and Equitrans Expansion Projects (Equitrans) (collectively, the Projects). I dissent from the order because it fails to comply with our obligations under section 7 of the Natural Gas Act[1] (NGA) and the National Environmental Policy Act (NEPA).[2] Two issues are particularly egregious.[3] First, the Commission concludes that precedent agreements among affiliates of the same corporation are sufficient to demonstrate that the Projects are needed. I disagree. The mere existence of affiliate precedent agreements—which, by their very nature, are not necessarily the product of arms-length negotiations—is insufficient to demonstrate that the Projects are needed. Second, the Commission concludes that it is not obligated to consider the harm caused by the Projects' contributions to climate change and, in any case, that it lacks the tools needed to do so. In order to meet our obligations under both NEPA and the NGA, the Commission must adequately consider the environmental impact of greenhouse (GHG) emissions on climate change. As I have previously explained, and reiterate below, the Commission has the tools needed to evaluate the Projects' impacts on climate change. It simply refuses to use them. Both of these considerations—the need for the Projects and their contribution to the harm caused by

[1] 15 U.S.C. § 717f (2012).

[2] National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852.

[3] In addition, I agree with the concerns expressed by my colleague, Commissioner LaFleur, that the Commission should consider conducting regional reviews for the development of natural gas infrastructure and take steps to ensure that the natural gas certification process is transparent, so that all interested parties know how to fully participate in the process. I look forward to exploring these issues as part of the Commission's Notice of Inquiry on the natural gas certification process. *Certification of New Interstate Natural Gas Facilities*, Notice of Inquiry, 163 FERC ¶ 61,042 (2018).

climate change—are critical to determining whether the Projects are in the public interest. Therefore, the Commission's failure to adequately address them is a sufficient basis for vacating this certificate. For these reasons, I dissent from today's order.

The Commission Has Not Demonstrated that the Projects Are Needed

Section 7 of the NGA requires that, prior to issuing a certificate for new pipeline construction, the Commission must find both a need for the pipeline, and that, on balance, the pipeline's benefits outweigh its harms.[4] Today's order asserts that the first requirement—that the pipeline be needed—is satisfied based solely on the existence of precedent agreements among corporate affiliates of the Projects' developers. Although precedent agreements can be useful in assessing whether a pipeline is needed, they may not be, in and of themselves, sufficient to make that demonstration and certainly are not when the precedent agreements involve affiliated entities. Indeed, the Commission itself has recognized that "[u]sing contracts as the primary indicator of market support for the proposed pipeline project also raises additional issues when the contracts are held by pipeline affiliates."[5] In particular, I am concerned that, where entities are part of the same corporate structure, precedent agreements among those entities will not necessarily be negotiated through an arms-length process and considerations other than market demand will bear on the negotiations underlying the agreement.[6] This situation requires that the Commission rely on more than the mere existence of precedent agreements when concluding that these Projects are needed. That is particularly so where, as here, *all* of

[4] *See Pub. Utils. Comm'n of Cal. v. FERC*, 900 F.2d 269, 281 (D.C. Cir. 1990) (The public interest standard under the NGA includes factors such as the environment and conservation, particularly as decisions concerning the construction, operation, and transportation of natural gas in interstate commerce "necessarily and typically have dramatic natural resource impacts.").

[5] *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227, at 61,744 (1999) (Certificate Policy Statement), *clarified*, 90 FERC ¶ 61,128, *further clarified*, 92 FERC ¶ 61,094 (2000).

[6] I am concerned that the corporate relationships among affiliates might cause companies to contract for natural gas pipeline capacity on an affiliated project to enhance the value of the pipeline project.

the precedent agreements are among affiliates of the Projects' developer.[7]

Looking beyond affiliate precedent agreements need not be a difficult exercise. As the Commission stated in the Certificate Policy Statement, "[r]ather than relying only on one test for need, the Commission will consider all relevant factors reflecting on the need for the project," including "demand projections, potential cost saving to consumers, or a comparison of projected demand with the amount of capacity currently serving the market."[8] These and potentially other factors can serve as indicia of need.

The Commission maintains that nothing in its Certificate Policy Statement requires it to look beyond precedent agreements and that the need underlying a shipper's contract is "not lessened because it is affiliated with the project sponsor."[9] But the fact that it is not required to look beyond precedent agreements does not excuse the Commission from failing to recognize that affiliate precedent agreements may not demonstrate need. The Commission's reliance on *Minisink* and *Sabal Trail* is similarly inapt.[10] In both proceedings, the court discussed only the Commission's reliance on precedent agreements generally—not precedent agreements among affiliates—and, therefore, those cases provide no response to the unique concerns posed by affiliate precedent agreements.[11]

The developer of a potential pipeline, especially of a pipeline that is not clearly needed, still has a powerful incentive to secure precedent agreements with one of its

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[7] *See Mountain Valley Pipeline, LLC*, 161 FERC ¶ 61,043 at P 10 & nn.12–16, P 19 & n.12 (2017) (Certificate Order), *order on reh'g*, 163 FERC ¶ 61,197, at P 36 (MVP Rehearing Order) (2018).

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

[9] MVP Rehearing Order, 163 FERC ¶ 61,197 at P 37 (stating that the Commission's "sole concern" regarding affiliates when considering applications for new certificates "is whether there may have been undue discrimination against a non-affiliate shipper"); *id.* P 40 (explaining that affiliate shippers "are fully at-risk for the cost of the capacity and would not have entered into the agreements had they not determined there was a need for the capacity to move their product to market.").

[10] MVP Rehearing Order, 163 FERC ¶ 61,197 at P 36 & n.88.

[11] *Minisink Residents for Environmental Preservation and Safety v. FERC*, 762 F.3d 97, 111 n.10 (D.C. Cir. 2014); *Sierra Club v. FERC*, 867 F.3d 1357, 1379 (D.C. Cir. 2017) (*Sabal Trail*).

affiliates. The Commission consistently relies on those agreements, by themselves, to conclude that a proposed pipeline is needed. This incentive to secure precedent agreements in order to make this showing is, at least potentially, sufficient for a pipeline developer's corporate parent to cause one of its affiliates to enter into a precedent agreement with the developer. The Commission's disregard of this incentive means that its exclusive reliance on precedent agreements cannot be the product of reasoned decisionmaking.

The Order Does Not Adequately Evaluate the Projects' Environmental Impact

Climate change poses an existential threat to our security, economy, environment, and, ultimately, the health of individual citizens.[12] Unlike many of the challenges that our society faces, we know with certainty what causes climate change: It is the result of GHG emissions, including carbon dioxide and methane—which can be released in large quantities through the production and the consumption of natural gas. Accordingly, it is critical that the Commission carefully consider the Projects' contributions to climate change, both in order to fulfill NEPA's requirements and to determine whether the Projects are in the public interest under the NGA.

The Commission, however, goes out of its way to avoid seriously addressing the Projects' contributions to the harm caused by climate change. Although the Commission recognizes its responsibility to evaluate the Projects' contributions to climate change—both by quantifying the Projects' direct and indirect effects on GHG emissions and by "linking downstream GHG emissions to particular climate change impacts through *qualitative or quantitative* analysis"[13]—it refuses to consider the reasonably foreseeable downstream GHG emissions caused by the Projects or to quantify that harm through the use of the Social Cost of Carbon. That is inconsistent with our statutory obligations. The Commission is required by the NGA to find, on balance, that a project's benefits outweigh the harms, including the environmental impacts from climate change that result from authorizing additional transportation. Yet, the Commission appears to be arguing that it can establish public interest prior to examining potential adverse environmental effects and further suggests that it cannot deny a certificate on the basis that the

[12] *Fla. Se. Connection, LLC*, 162 FERC ¶ 61,233, at 2 & n.9 (2018) (Glick, Comm'r, dissenting).

[13] MVP Rehearing Order, 163 FERC ¶ 61,197 at P 271.

downstream GHG emissions would be too harmful to the environment.[14] This failure to consider all impacts affecting the public interest amounts to a collateral attack on our obligations under NEPA and the NGA.

The Final Environmental Impact Statement (EIS) for the Projects includes a "full-burn" analysis that quantifies the potential downstream GHG emissions associated with combusting the amount of gas that the Projects could transport.[15] The Commission, however, turns a blind eye to these emissions, asserting that they result from "an activity that is attenuated and not reasonably foreseeable."[16] The record, however, indicates that the combustion of natural gas transported through the Projects is an entirely foreseeable result of the Projects themselves. Mountain Valley Pipeline supplied a market study to the record which demonstrated that the primary driver for increased gas consumption in the Southeast is the expanded role of gas-fired power generation.[17]

Under these circumstances, it is certainly reasonable to consider the likely end use of gas transported through the Projects, even if we do not know the precise use to which every molecule of gas will be devoted. NEPA, after all, does not require exact certainty;

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[14] *Id.* P 310.

[15] Final EIS at 4-620 (emission quantity based on the full design capacity of the projects). This calculation was made prior to the policy change, announced in *Dominion Transmission, Inc.*, 163 FERC ¶ 61,128, at PP 38–42, 59–63 (2018) (*New Market*), to exclude downstream greenhouse gas emissions calculations in cases where the exact end use location for consumption is not known.

[16] MVP Rehearing Order, 163 FERC ¶ 61,197 at P 272.

[17] WOOD MACKENZIE, INC., SOUTHEAST U.S. NATURAL GAS MARKET DEMAND IN SUPPORT OF THE MOUNTAIN VALLEY PIPELINE PROJECT (Jan. 2016) (filed as Appendix A of Mountain Valley's January 27, 2016 Answer at 14–15) ("The primary driver for increased gas consumption [in the Southeast] has been the expanded role of gas-fired power generation, which grew at an annual rate of 5.8% [between 2010 and 2015] …Three main factors underscore the need for new gas pipeline capacity and supply in the Southeast. 1. Power generation. The Southeast leads all regions in total projected migration from coal- to gas-fired power generation. 2. Peak period demand growth. In addition to seasonal peak demand spikes in core market sectors, significant pipeline capacity will be required to meet the peak hour dispatch rates in gas-fired power generation. 3. Economic supply displacement. Buyers reduce purchases of current Gulf Coast gas supply sources in favor of more economic Marcellus and Utica production.").

instead, it requires that the Commission engage in reasonable forecasting and estimation of possible effects of a major federal action where doing so would further the statute's two-fold purpose of ensuring that the relevant agency will "have available, and will carefully consider, detailed information concerning significant environmental impacts" and that this information will also be "available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision."[18] As the United States Court of Appeals for the Eighth Circuit explained in *Mid States*—a case that also involved the downstream emissions from new infrastructure for transporting fossil fuels—when the "nature of the effect" (end-use emissions) is reasonably foreseeable, but "its extent is not" (specific consumption activity producing emissions), an agency may not simply ignore the effect.[19] Put differently, the fact that an agency may not know the exact location and amount of GHG emissions to attribute to the federal action is no excuse for assuming that impact is zero. Instead, the agency must engage in a case-by-case inquiry into what effects are reasonably foreseeable and estimate the potential emissions associated with that project—making assumptions where necessary—and then give that estimate the weight it deserves. As noted above, the record here is sufficient to demonstrate that the "nature of the effect" is

[18] *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 768 (2004) (quoting *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989)). In order to evaluate circumstances in which downstream impacts of a pipeline facility are reasonably foreseeable results of constructing and operating the proposed facility, I am relying on precisely the sort of "reasonably close causal relationship" that the Supreme Court has required in the NEPA context and analogized to proximate cause. *See id.* at 767 ("NEPA requires a 'reasonably close causal relationship' between the environmental effect and the alleged cause. The Court [has] analogized this requirement to the 'familiar doctrine of proximate cause from tort law.'") (quoting *Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 774 (1983)); *see also Paroline v. United States*, 134 S. Ct. 1710, 1719 (2014) ("Proximate cause is often explicated in terms of foreseeability or the scope of the risk created by the predicate conduct."); *Staelens v. Dobert*, 318 F.3d 77, 79 (1st Cir. 2003) ("[I]n addition to being the cause in fact of the injury [the but for cause], the plaintiff must show that the negligent conduct was a proximate or legal cause of the injury as well. To establish proximate cause, a plaintiff must show that his or her injuries were within the reasonably foreseeable risks of harm created by the defendant's negligent conduct.") (internal quotation marks and citations omitted).

[19] *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549 (8th Cir. 2003).

emissions from end-use combustion.[20]

Quantifying the GHG emissions that result from the project is not sufficient. The Commission must also identify the harm caused by those emissions. The Social Cost of Carbon does just that, providing a meaningful approach for considering the effects that the Commission's certificate decisions have on climate change. Nevertheless, the Commission again rejects the use of the Social Cost of Carbon arguing that it "cannot meaningfully inform the Commission's decisions on natural gas transportation infrastructure projects under the NGA."[21] The order suggests that the Commission's role is to merely "oversee[] proposals to transport natural gas between…locations" and has "no direct connection to the…end use of natural gas,"[22] thus the Social Cost of Carbon tool is not meaningful to its decision making.[23]

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[20] *See* Final EIS at 4-620 (estimating 48 million tons of GHG emissions caused by the combustion of the full design capacity of the projects); *id.* 4-617–4-620 (finding that GHG emissions would contribute incrementally to climate change, producing impacts such as sea level rise, increasing temperatures, decreased availability of water, compromised ecosystems, and extreme weather events); WOOD MACKENZIE, INC., SOUTHEAST U.S. NATURAL GAS MARKET DEMAND IN SUPPORT OF THE MOUNTAIN VALLEY PIPELINE PROJECT (Jan. 2016) (filed as Appendix A of Mountain Valley's January 27, 2016 Answer at 14-15) (indicating primary use of additional gas supplied to the region of the Projects will be for gas-fired generation).

[21] MVP Rehearing Order, 163 FERC ¶ 61,197 at P 281.

[22] *Id.* P 283.

[23] The Commission attempts to distinguish its responsibility to consider the climate change impacts of its decisions from that of other agencies, such as the Forest Service, that the Commission argues "are tied more directly" to fossil fuel production and consumption. But the facts belie this suggestion. The NGA requires the Commission to authorize not just the construction and siting of new interstate pipeline facilities but also the transportation of natural gas over those facilities. To transport natural gas in interstate commerce is no less tied to its consumption than to produce it, and the case law reflects this accord. Like the Commission, the Forest Service does not directly regulate consumption and yet the court found that the Forest Service must evaluate the climate change effects from downstream coal consumption using the Social Cost of Carbon. *Compare High County Conservation Advocates v. Forest Serv.*, 52 F. Supp. 3d 1174, 1191 (D. Colo. 2014) (recognizing that the Forest Service must evaluate and consider the climate change impact from combusting the coal produced as a result of the agency's approval of mining operations) *with Sabal Trail*, 867 F.3d at 1374 (GHG

Yet, Congress determined under the NGA that no entity may transport natural gas interstate, or construct or expand interstate natural gas facilities, without the Commission first determining the activity is in the public interest. This requires the Commission to find, on balance, that a project's benefits outweigh the harms, including the environmental impacts associated with the Projects such as the contribution to climate change. By measuring the long-term damage done by a ton of carbon dioxide, the Social Cost of Carbon provides a meaningful method for "linking GHG emissions to particular climate impacts through qualitative or quantitative analysis."[24]

The Commission further claims that the Social Cost of Carbon is not useful because it requires the Commission to undertake a complete cost-benefit analysis, pointing to Council on Environmental Quality (CEQ) Guidance that the Commission should not utilize a monetary cost-benefit analysis when there are "important qualitative considerations."[25] Indeed, the public interest in major infrastructure projects should not be viewed solely through the lens of monetary impacts, particularly when some factors are best considered qualitatively. But the opposite is equally true. The Commission cannot refuse to consider a factor as significant as climate change simply because it is best considered as a function of dollars. Such an approach flies in the face of the same CEQ Guidance, which clearly distinguishes a quantitative assessment of climate change from a complete cost-benefit analysis.[26] The fact that the Social Cost of Carbon is a monetized quantification does not implicate a full cost-benefit analysis, and certainly

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emissions from consumption "are an indirect effect of authorizing [the interstate pipeline project], which [the Commission] could reasonably foresee, and which the agency has legal authority to mitigate.").

[24] MVP Rehearing Order, 163 FERC ¶ 61,197 at P 271.

[25] *Id.* P 284.

[26] *See* CEQ, *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* at 32-33 (Aug. 1, 2016) ("[When an agency determines that a monetized assessment of the impacts of greenhouse gas emissions *or* a monetary cost-benefit analysis is appropriate and relevant to the choice among different alternatives being considered, such analysis may be incorporated by reference or appended to the NEPA document as an aid in evaluating the environmental consequences.") (emphases added) (internal citations omitted), https://obamawhitehouse.archives.gov/sites/whitehouse.gov/files/documents/nepa_final_ghg_guidance.pdf.

does not suggest one is required. Instead, CEQ recognizes that both monetized quantification of an impact and cost-benefit analysis are appropriate to be incorporated into the NEPA document, if doing so is necessary for an agency to fully evaluate the environmental consequences of its decisions.[27] In addition, the courts have endorsed—and, in some cases, required agencies to use the Social Cost of Carbon to evaluate climate change when the agency monetizes other impacts of its decision,[28] as the Commission has here through, for example, its consideration of the Projects' effects on capital expenditures, local tax revenues, state tax revenues, ad valorem tax revenues, and property tax revenues.[29]

"One of the most important procedures NEPA mandates is the preparation, as part of every 'major Federal action[] significantly affecting the quality of the human environment,' of a 'detailed statement' discussing and disclosing the environmental impact of the action."[30] Here, however, the Commission claims that it cannot determine whether the Projects' contributions to the harm caused by climate change is significant because there is no standard established "that would assist us to ascribe significance to a given rate or volume of GHG emissions."[31] The Commission contends that, even if it quantified the harm caused by the Projects using the Social Cost of Carbon, this task would be meaningless because it is not aware of an established framework or threshold for determining the significance of that impact.[32]

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[27] *Id*.

[28] *See Montana Envt'l Info. Ctr. v. U.S. Office of Surface Mining*, 274 F. Supp. 3d 1074, 1097 (D. Mont. 2017), *amended in part, adhered to in part sub nom. Montana Envtl. Info. Ctr. v. U. S. Office of Surface Mining,* No. CV 15-106-M-DWM, 2017 WL 5047901 (D. Mont. Nov. 3, 2017); *High Country Conservation Advocates v. U.S. Forest Serv*., 52 F. Supp. 3d 1174, 1193 (D. Colo. 2014) (requiring agency to use the Social Cost of Carbon protocol when calculating costs and benefits of action that would generate greenhouse gas emissions).

[29] Final EIS at 4-393–4-399.

[30] *Sabal Trail*, 867 F.3d. at 1367.

[31] MVP Rehearing Order, 163 FERC ¶ 61,197 at P 293.

[32] *Id.* P 295 (Commission staff is "not aware of studies that assess the significance of monetized damages calculated with the Social Cost of Carbon tool.").

But the Commission itself recognizes that a variety of environmental impacts are best considered qualitatively and provides no answer for why the Commission—as the agency with both the mandate and technical expertise to consider the public interest in the Projects—cannot use a quantitative measure as input to making a qualitative determination regarding the significance of the Projects' contribution to climate change.

This is particularly troubling because the Commission regularly exercises its expert judgement in this way. In the Final EIS, the Commission makes *qualitative* significance determinations utilizing the quantitative information available, without any defined threshold or national targets. For example, the permanent disturbance of over 3,000 acres of forest is deemed significant based on expert qualitative judgement.[33] This qualitative approach to significance is aligned with our obligation as "NEPA does not demand that every federal decision be verified by the reduction to mathematical absolutes for insertion into a precise formula."[34] The Commission, in today's order, in fact, agrees that siting infrastructure necessarily involves making *qualitative* judgements between different resources as to which there is no agreed-upon *quantitative* value.[35] A wholesale rejection of a Social Cost of Carbon analysis on the grounds that the Commission is "not aware of studies that assess the significance" of the impact amounts is arbitrary and capricious, given that the Commission relies on qualitative judgement elsewhere in the EIS.

Finally, it is worth comparing the Commission's refusal to fully consider the GHG emissions caused by the Projects or to quantify the harm caused by those emissions using the Social Cost of Carbon with the Commission's statement that it is "cognizant of the potentially severe consequences of climate change."[36] Paying lip service to the consequences of climate change means little if the Commission does not use its "best efforts"[37] to identify, evaluate, and disclose the Projects' contribution to those

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[33] Certificate Order, 161 FERC ¶ 61,043 at P 194 ("[I]n considering the total acres of forest affected, the quality and use of forest for wildlife habitat, and the time requirement for fill restoration in temporary workspaces, the final EIS concludes that the MVP Project will have significant impacts on forested land.") (citing Final EIS at 4-191).

[34] *Sierra Club v. Lynn,* 502 F.2d 43, 61 (5th Cir. 1974).

[35] MVP Rehearing Order, 163 FERC ¶ 61,197 at P 284.

[36] *Id.* P 281.

[37] *New Market*, 163 FERC ¶ 61,128, at 3–5 (Glick, Comm'r, dissenting in part).

consequences. Similarly, a commitment to "monitoring climate science and state and national emission targets"[38] is no replacement for an agency fulfilling its NEPA obligation to consider the environmental effects of a proposed action before that action is taken and those effects come to pass.[39]

For these reasons, I respectfully dissent.

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Richard Glick
Commissioner

[38] MVP Rehearing Order, 163 FERC ¶ 61,197 at P 281.

[39] *City of Davis v. Coleman*, 521 F.2d 661, 677 (9th Cir.1975).