

158 FERC ¶ 61,126
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Acting Chairman;
Norman C. Bay, and Colette D. Honorable.

Dominion Carolina Gas Transmission, LLC

Docket No. CP16-98-000

ORDER ISSUING CERTIFICATE

(Issued February 2, 2017)

1. On March 9, 2016, Dominion Carolina Gas Transmission, LLC (Dominion Carolina) filed an application under section 7(c) of the Natural Gas Act (NGA)¹ and Part 157 of the Commission's regulations² for a certificate of public convenience and necessity authorizing it to construct and operate natural gas pipeline and compression facilities in Aiken, Charleston, Dillon, Dorchester, Greenwood, Laurens, Newberry, and Spartanburg Counties, South Carolina, to provide 80,000 dekatherms per day (Dth/d) of firm natural gas transportation service from an interconnection with Transcontinental Gas Pipe Line (Transco) for local distribution and use in electric generating and manufacturing plants in South Carolina (Transco to Charleston Project). As discussed below, the Commission will grant the requested authorizations, subject to certain conditions.

I. Background and Proposal

2. Dominion Carolina,³ a South Carolina limited liability company, is a natural gas company as defined by section 2(6) of the NGA,⁴ engaged in the business of transporting natural gas in interstate commerce for customers in South Carolina and Georgia.

¹ 15 U.S.C. § 717f(c) (2012).

² 18 C.F.R. pt. 157 (2016).

³ Dominion Carolina is a wholly-owned subsidiary of Dominion Midstream Partners, LP, a Delaware limited partnership formed by Dominion Resources, Inc.

3. The Transco to Charleston Project will enable Dominion Carolina to provide 80,000 Dth/d of firm transportation service to local distribution, power generation and industrial customers. Dominion Carolina requests authority to construct and operate the following facilities:

- approximately 55 miles of 12-inch-diameter natural gas pipeline extending from interconnection with Transco at Moore, South Carolina through Spartanburg, Laurens, Newberry, and Greenwood Counties, South Carolina (Moore to Chappells Pipeline);
- approximately five miles of 4-inch-diameter pipeline in Dillon County, South Carolina (Dillon Pipeline);
- a new compressor station with three 1,200 horsepower (hp) compressor units⁵ approximately two miles northeast of St. George in Dorchester County, South Carolina (Dorchester Compressor Station);
- two 1,400 hp compressor units and additional gas cooling units at the existing Moore Compressor Station in Spartanburg County, South Carolina;
- one new metering and regulating station and one new regulating station on the Moore to Chappells Pipeline in Moore and Chappells, South Carolina, and one new measurement station on the Dillon Pipeline in Dillon County, South Carolina;
- eleven mainline valves on the Moore to Chappells Pipeline, one mainline valve on the Line N pipeline at the Chappells Tie-in, and one mainline valve at the beginning of the Dillon Pipeline at the Reedy Creek Take-off;
- one pig launcher assembly at the beginning of the Moore to Chappells Pipeline within the Moore Purchase facility in Moore, South Carolina, and one pig receiver assembly with an over-pressure protection system at the Chappells Tie-in in Chappells, South Carolina;

⁴ 15 U.S.C. § 717a(6) (2012).

⁵ The three 1,200 hp compressor units will be relocated from Dominion Carolina's Southern Compressor Station in Aiken, South Carolina, where they serve as standby units.

- one over-pressure protection system, controls, and upgrades at the existing Charleston Town Border Station in Charleston County, South Carolina;
- one over-pressure protection system, controls, and upgrades at the existing Greenwood Town Border Station in Greenwood County, South Carolina; and
- two interconnects on the Moore to Chappells Pipeline and one interconnect at the terminus of the Dillon Pipeline.⁶

4. Dominion Carolina also requests authorization to convert one existing 1,200 hp turbine-driven compressor unit from standby to service at the Southern Compressor Station in Aiken County, South Carolina.

5. Dominion Carolina held a non-binding open season from May 30, 2013 through July 31, 2013, to solicit interest for firm transportation service originating at Dominion Carolina's interconnection with Transco. Following this non-binding open season, Dominion Carolina initiated negotiations for project capacity with several potential customers, including South Carolina Electric & Gas (SC Electric & Gas). Dominion Carolina also conducted a reverse open season during this time, but states it did not receive any acceptable bids by shippers to turn back capacity. In 2014, SC Electric & Gas agreed to be an anchor shipper for the project, electing to receive 75,000 Dth/d of firm transportation service at the existing Transco-Moore Receipt Point in Moore, South Carolina. Subsequently, Dominion Carolina held a binding open season and another reverse open season in June and July 2014. Dominion Carolina entered into two binding precedent agreements with Flakeboard Company Limited (Flakeboard) (2,000 Dth/d) and Wyman-Gordon Company (Wyman-Gordon) (3,000 Dth/d).

6. Dominion Carolina estimates that the proposed facilities will cost \$119,300,029. Dominion Carolina proposes an incremental base reservation rate as the initial recourse rate for firm transportation service using capacity created by the project. In addition to the incremental base reservation rate, Dominion Carolina proposes to assess all other applicable rates, charges, and surcharges under Rate Schedule FT as set forth in its tariff. However, the project shippers have elected to pay negotiated rates, plus fuel and applicable surcharges, for firm project service.

⁶ Dominion Carolina's March 9, 2016 Application, Resource Report 1, 1-8 (Application).

II. Notice and Interventions

7. Notice of Dominion Carolina's application was published in the *Federal Register* on March 25, 2016.⁷ The notice established April 11, 2016, as the deadline for filing motions to intervene and comments. SCANA Energy Marketing Inc.; Robert M. Shealy; Johnson Management, LLC, Wiley Fork Legacy, LLC, and Wiley Fork – Laurens, LLC (collectively, Johnson Entities);⁸ Patriots Energy Group (Patriots),⁹ and Upstate Forever¹⁰ filed timely, unopposed motions to intervene.¹¹ The South Carolina Department of Natural Resources (South Carolina DNR) filed an untimely notice of intervention, which the Commission granted.¹²

8. Mr. Shealy asserts that Dominion Carolina's proposed project will have adverse environmental and economic impacts. Upstate Forever raises concerns regarding the environmental impacts of the proposed project and asserts that Dominion Carolina has not demonstrated a need for the project.¹³ Patriots questions the calculation of Dominion Carolina's proposed incremental rate and raises concern that the project could adversely impact the transportation service that Patriots receives on Transco's upstream pipeline.

⁷ 81 Fed. Reg. 16,167.

⁸ The Johnson Entities are owners and operators of timberland engaged in logging operations.

⁹ Patriots is a joint action agency organized under South Carolina's Joint Agency Act. It operates intrastate pipeline facilities in South Carolina to supply natural gas services to its members, York County Natural Gas Authority, Chester County Natural Gas Authority, and Lancaster County Natural Gas Authority, which the South Carolina General Assembly created to provide local gas distribution service in their respective service territories.

¹⁰ Upstate Forever states that it is a public interest organization with stated goals that include protecting the environment in the Upstate region of South Carolina.

¹¹ Timely, unopposed motions to intervene are granted by operation of Rule 214(c) of the Commission's Rules of Practice and Procedure. 18 C.F.R. § 385.214(c) (2016).

¹² Secretary's November 15, 2016 Notice Granting Late Intervention.

¹³ The South Carolina Environmental Law Project, acting as a representative, filed two sets of comments on Upstate Forever's behalf.

Dominion Carolina filed an answer in response to Patriots' motion to intervene and comments.¹⁴

9. Comments relating to the need for Dominion Carolina's proposed project, its proposed incremental rate, potential impacts on Transco's upstream pipeline services, and economic issues are discussed below. The environmental concerns raised by the intervenors and other commenters are addressed in the Environmental Assessment (EA) and, as appropriate, in the environmental section of this order.

III. Discussion

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

A. Certificate Policy Statement

11. The Certificate Policy Statement provides guidance for evaluating proposals to certificate new pipeline construction.¹⁶ The Certificate Policy Statement establishes criteria for determining whether there is a need for a proposed project and whether the proposed project will serve the public interest. The Certificate Policy Statement explains that in deciding whether to authorize the construction of major new pipeline facilities, the Commission balances the public benefits against the potential adverse consequences. The Commission's goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, the avoidance of unnecessary disruptions of the environment, and the unneeded exercise of eminent domain in evaluating new pipeline construction.

12. Under this policy, the threshold requirement for existing pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. The next step is to determine

¹⁴ Dominion Carolina's April 29, 2016 Answer.

¹⁵ 15 U.S.C. § 717f (2012).

¹⁶ *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999), *clarified*, 90 FERC ¶ 61,128 (2000), *further clarified*, 92 FERC ¶ 61,094 (2000) (Certificate Policy Statement).

whether the applicant has made efforts to eliminate or minimize any adverse effects the project might have on the applicant's existing customers, existing pipelines in the market and their captive customers, or landowners and communities affected by the route of the new pipeline. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, the Commission will evaluate the project by balancing the evidence of public benefits to be achieved against the residual adverse effects. This is essentially an economic test. Only when the benefits outweigh the adverse effects on economic interests will the Commission proceed to complete the environmental analysis where other interests are considered.

13. As discussed above, the threshold requirement for pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. The Commission has determined that, in general, where a pipeline proposes to charge incremental reservation rates for new construction that are higher than the applicable existing system rate, as is the case here, the pipeline satisfies the threshold requirement that the project will not be subsidized by existing shippers.¹⁷ As discussed below, we are approving Dominion Carolina's proposed incremental recourse rate for services using the capacity created by the Transco to Charleston Project. The incremental recourse reservation rate is designed to recover the cost of service associated with the construction and operation of Transco to Charleston Project capacity and is higher than Dominion Carolina's existing system rate. Therefore, we find that Dominion Carolina's existing customers will not subsidize the project, and the threshold requirement of no subsidization is met.

14. None of Dominion Carolina's shippers have raised any concerns that the service they receive from Dominion Carolina will be adversely affected by Dominion Carolina's proposal, and we therefore find that Dominion Carolina's proposal also satisfies this criterion under the Certificate Policy Statement. Further, there is no evidence that Dominion Carolina's project will result in the displacement of any existing service that would result in load loss on another pipeline causing adverse rate impacts to that pipeline's captive customers. However, Patriots, a firm shipper on both Dominion Carolina's and Transco's systems, raises concerns that Dominion Carolina's project could adversely affect the quality of the upstream service that Patriots receives from Transco.

15. Patriots states that some of its delivery points on Transco's system are in the vicinity of the Moore Purchase Station where Dominion Carolina has an existing pipeline

¹⁷ See, e.g., *Dominion Carolina Gas Transmission, LLC*, 155 FERC ¶ 61,231, at P 15 (2016), and *Transcontinental Gas Pipe Line Corp.*, 98 FERC ¶ 61,155, at 61,552 (2002).

interconnection with Transco and proposes to add additional take-off facilities in order to receive gas from Transco into the proposed Moore to Chappells Pipeline. Patriots reports that in recent years it has experienced critical drops in the pressure at which it receives gas deliveries from Transco, and it is concerned that Dominion Carolina's plans to increase gas receipts from Transco will aggravate the pressure issues that Patriots has experienced on Transco's system.¹⁸ While Patriots does not assert that its existing service on Dominion Carolina's system will be adversely affected, Patriots argues that our approval of Dominion Carolina's proposal would have results contrary to the objectives of the Commission's interconnection policy by exacerbating Patriots' pressure problems on Transco's system.¹⁹ Patriots asks the Commission to review Dominion Carolina's and Transco's interconnection agreement and both pipelines' gas flow models to assess the proposed project's potential impact on Transco's delivery pressures.

16. Dominion Carolina responds that Patriots' concerns about delivery pressures on Transco's system are more appropriately resolved between Patriots and Transco.²⁰ Additionally, Dominion Carolina asserts that Patriots' reliance on the Commission's interconnection policy as articulated in *Panhandle* and other orders is misplaced. Dominion Carolina argues that the proposed take-off facilities, through which the proposed Moore to Chappells Pipeline will receive additional gas from Transco's system, will not constitute a new interconnection as contemplated by the Commission's interconnection policy since the new take-off facilities will be located at the Moore Purchase Station where Dominion Carolina already has an existing interconnection with Transco. Dominion Carolina also contends that the Commission's *Panhandle* interconnection policy is inapposite because Transco is not opposed to Dominion Carolina's proposed new take-off facilities.

¹⁸ Patriots' April 11, 2016 Motion to Intervene and Comments at 4-5 (Patriots' Comments).

¹⁹ *Id.* at 5 (citing *Panhandle Eastern Pipe Line Company*, 91 FERC ¶ 61,037, at 61,141 (2000) (*Panhandle*); *Discovery Gas Transmission LLC*, 107 FERC ¶ 61,124, at P 42 (2004) (explaining that while the goal of the Commission's interconnection policy is to maximize use of the pipeline grid in order to increase consumers' supply alternatives and lessen the impact of supply disruptions, a pipeline should not agree to construct a requested new interconnection if the interconnection and any resulting transportation will "diminish service to the pipeline's existing customers.")).

²⁰ See Dominion Carolina's April 29, 2016 Answer at 4-6.

17. Because a pipeline company's desire to protect its own competitive interests can be at odds with the Commission's goals of promoting competition and access to the nation's pipeline grid, the Commission established its *Panhandle* interconnection policy.²¹ The policy requires that a jurisdictional pipeline allow a requested interconnection if, *inter alia*, it will not adversely affect the pipeline's operations or diminish service to its existing customers, and the other pipeline or party seeking the interconnection is willing to bear the costs of constructing the interconnection facilities.²² We disagree with Dominion Carolina that the Commission need not consider Patriots' concerns simply because Transco has expressed no opposition and because the new take-off facilities will be located at the site of an existing interconnection.²³ Patriots' concerns

²¹ *Panhandle Eastern Pipe Line Co.*, 79 FERC ¶ 61,016, *order on reh'g*, 81 FERC ¶ 61,295 (1997), *remanded*, *Panhandle Eastern Pipe Line Co. v. FERC*, 196 F.3d 1273 (D.C. Cir. 1999); *Panhandle*, 91 FERC ¶ 61,037.

²² *See, e.g., Tennessee Gas Pipeline Company, L.L.C.*, 143 FERC ¶ 61,128, at P 59 (2013):

In *Panhandle*, the Commission established a policy to ensure competitive forces operate freely and that open-access pipelines do not impose artificial restrictions on those who seek access to a pipeline system. The Commission found that that when pipelines are able to accommodate the interconnection, subject to reasonable conditions, the pipeline may not deny such requests. Moreover, the Commission emphasized that it did not require that a pipeline construct or acquire facilities, rather it stated that the interconnection policy sought only to ensure that when a pipeline responded to a request for interconnections, it did so in a manner that causes no undue discrimination and that furthers the Commission's policies favoring competition across the national pipeline grid.

²³ We note that while Dominion Carolina characterizes the proposed take-off facilities as, "facility enhancements needed at the existing interconnection" in its April 29, 2016 answer, its application refers to the proposed new take-off facilities at the Moore Purchase Station as a "new interconnection." *See, e.g., Application, Resource Report 1* at 1-3:

Two interconnects are proposed to be located on the Moore to Chappells Pipeline. The first is an interconnect (i.e., take-off) which will connect with new facilities being installed by [Transco] at the existing Moore Purchase facility in Spartanburg County, South Carolina.

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regarding the potential impacts that Dominion Carolina's project could have on Patriots' upstream service on Transco's system are relevant in our consideration of Dominion Carolina's proposed project and the public interest under the Certificate Policy Statement.

18. As described above, Patriots asserts that in recent years there have been significant drops in the pressure at which Transco delivers gas into Patriots' intrastate pipeline, which delivers gas to the local distribution systems operated by its three members that are South Carolina county gas authorities.²⁴ Patriots raises concerns that the frequency or depth of these pressure drops will be exacerbated by Dominion Carolina's proposed project because it will result in increased deliveries of gas from Transco's system to Dominion Carolina's system. However, we note that Patriots does not allege that Transco has violated any of its contractual firm service obligations to Patriots, or that Transco's increased deliveries of gas to Dominion Carolina's system will cause Transco to violate any of its contractual service obligations to Patriots. Indeed, Patriots' concerns do not appear to be based on a situation where Transco's delivery pressures having been inadequate at any time for gas to enter Patriots' intrastate pipeline, but rather that drops in Transco's delivery pressure to Patriots affects the pressure at which Patriots is able to deliver the gas into its members' local distribution systems.²⁵

19. Dominion Carolina's application indicates that Transco will also construct new facilities in order to deliver increased volumes to Dominion Carolina's system.²⁶ If

Id. at 1-8:

Two interconnects are proposed to be located on the Moore to Chappells Pipeline. The first is a take-off at the Moore Purchase Station, which will connect with new facilities being installed by Transco.

²⁴ Patriots notes that, as South Carolina state agencies, it and the York, Chester, and Lancaster county gas authorities are municipalities as defined in section 2(3) of the NGA. Patriots' Comments at 4-5.

²⁵ Patriots' only description of how it has been affected by Transco's delivery pressures is that the "[p]ressure that drops below system averages has had a detrimental impact on the operation of Patriots' intrastate pipeline, which connects and services its members." Patriots' Comments at 4.

²⁶ As Patriots notes, Dominion Carolina's Application states in Resource Report 1, Exhibit F-I, at 1.3, n.4 that "[t]he Transco interconnect will be built, owned, and operated by Transco as part of modifications planned for the Moore Purchase facility in Moore, South Carolina." Patriots' Comments at 5. Dominion Carolina's application also

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Transco reasonably believed that its construction and use of these facilities would prevent it from being able to fulfill its existing firm service obligations, it could decline to construct the necessary facilities without violating the Commission's *Panhandle* interconnection policy. Furthermore, Transco's agreement to provide incremental service to Dominion Carolina in no way relieves Transco of any of its contractual obligations regarding service to its existing customers. The third criterion of the *Panhandle* policy is that "the proposed interconnection and any resulting transportation must not diminish service to the pipeline's existing customers."²⁷ However, the policy's objective of preventing unreasonable denials of access to the national pipeline grid would be subverted by allowing a pipeline's existing shippers to invoke the policy as an obstacle to interconnections that those shippers may find not to their benefit or convenience but which, nevertheless, will not prevent the pipeline from meeting its firm service obligations to them. For example, the fact that a pipeline's service using a planned new interconnection may affect the availability of capacity for interruptible service and the exercise of flexible receipt and delivery point rights does not mean that the interconnection will result in "diminished service" to the pipeline's existing shippers as contemplated by the *Panhandle* interconnection policy. Similarly, if Transco's increased deliveries to Dominion Carolina's system has some effect on Transco's delivery pressures to Patriots which in turn affects its delivery pressures to its members' local distribution systems, that will not constitute diminished service by Transco as contemplated by the *Panhandle* policy so long as Transco continues to meet its contractual service obligations to Patriots.

20. We also find that Dominion Carolina has designed its Transco to Charleston Project to minimize impacts on landowners and surrounding communities. Approximately 14 percent of the right-of-way for the proposed 55-mile-long Moore to Chappells Pipeline and 27 percent of the right-of-way for the proposed 5-mile-long Dillon Pipeline will be collocated with existing electric transmission or other natural gas pipeline rights-of-way.²⁸ Dominion Carolina's proposed new compressor station, new

indicates that in order to connect with Transco's new facilities, Dominion Carolina "will install a 10-inch flange to connect the Transco pipeline to the start of the Moore to Chappells Pipeline." Application, Exhibit F-I, Resource Report 1 at Section 1.1.2.1.1. As Transco has not filed a case-specific application for authorization to construct its planned interconnection facilities, Patriots states that "[p]resumably, Transco will construct the interconnection and make modifications at Moore [Purchase Station] through its blanket authority." Patriots' Comments at 5.

²⁷ *Panhandle*, 91 FERC at 61,141.

²⁸ EA at 7.

compressor and cooling units at existing stations, meter and regulating equipment, pig launchers, and other facility installations will be located on land that Dominion Carolina owns or that is subject to a permanent easement.²⁹

21. The Transco to Charleston Project will provide additional infrastructure to provide incremental firm transportation service for SC Electric & Gas, Flakeboard, and Wyman-Gordon, which together have subscribed the entire 80,000 Dth/d of project capacity. Upstate Forever challenges the need for the project, arguing that the only evidence of need is that the capacity is fully subscribed. However, it has presented no evidence that would lead the Commission to question whether the precedent agreements entered into by the project shippers provide adequate evidence of market need.³⁰

22. Further, we do not agree with Upstate Forever that we cannot find that the proposed project is needed without first finding that the expansion shippers have a genuine need for service that cannot be satisfied by existing pipeline infrastructure.³¹ The Commission adopted its policies requiring jurisdictional pipelines to offer open-access, unbundled transportation service because “the Commission determined that it was vital to give all gas purchasers, including LDCs, the ability to make market-driven choices about the cost of delivering gas.”³² The Commission has explained that allowing gas purchasers to make market-driven choices means that “it will not second guess the business decisions of end users or challenge the business and economic decisions of an end user.”³³

²⁹ Application at 14.

³⁰ The D.C. Circuit upheld the Commission’s reliance on precedent agreements as evidence of need in *Minisink Residents for Environmental Preservation & Safety v. FERC*, finding that the petitioners had identified nothing in the Certificate Policy Statement or in any precedent construing it to suggest that it requires, rather than permits, the Commission to assess a project’s benefits by looking beyond the market need reflected by the applicant's existing contracts with shippers. *Minisink Residents for Env'tl. Pres. and Safety v. FERC*, 762 F.3d 97, 111 n.10 (D.C. Cir. 2014).

³¹ Upstate Forever’s November 21, 2016 filing at 4. Upstate Forever questions whether the three SC Electric & Gas plants cited by Dominion Carolina actually require natural gas from this proposed pipeline, especially for the 30 year term cited by Dominion Carolina. *Id.*

³² *Tuscarora Gas Transmission Company*, 103 FERC ¶ 61,204, at P 18 (2003).

³³ *Id.*

23. In any event, Upstate Forever is incorrect that the potential for existing pipeline infrastructure to meet the expansion shippers' need for service has not been considered.³⁴ While staff's EA states that "[n]eed is not an environmental issue to be addressed at length in this EA,"³⁵ it also explains that "[t]he Commission will more fully consider the need for the project when making its decision on whether or not to authorize the project."³⁶ Potential project alternatives considered during staff's environmental review included existing pipeline infrastructure that might make construction of all or part of Dominion Carolina's proposed project facilities unnecessary. The EA concluded that the existing pipeline infrastructure in the project area does not present viable options.³⁷ Moreover, staff review of Dominion Carolina's Exhibit G filings confirmed that the Transco to Charleston Project facilities are needed in order to provide up to 80,000 Dth/d of firm transportation service to the project shippers.

24. Nor are we persuaded by Mr. Shealy's argument that Dominion Carolina's project is not needed based on speculation that the expansion capacity will be used to transport gas for export, resulting in increased domestic gas prices. As described, the project shippers are SC Electric & Gas, which will locally distribute its gas or use it to generate electricity, and Flakeboard and Wyman-Gordon, which will use their gas in their respective manufacturing operations. Further, even if there was evidence that some of the gas transported using the expansion capacity will be exported, the Commission has explained that because the Secretary of Energy, not this Commission, acts on applications

³⁴ Upstate Forever's November 21, 2016 filing at 3. Upstate Forever claims that the Moore to Chappells Pipeline appears to be a more direct route between existing compressor stations, and that the project will simply move gas between two points that are already connected by an existing pipeline. *See id.*

³⁵ Upstate Forever's November 21, 2016 filing at 4 (citing Commission staff's October 19, 2016 EA at 2).

³⁶ EA at 2.

³⁷ *See* EA at 130. Staff identified two natural gas pipeline systems that currently serve the project area. The Clinton Newberry Natural Gas Authority pipeline system consists of small diameter local distribution pipelines that would not be able provide the amount of service requested by the expansion shippers. The other existing pipeline in the project area is owned and operated by Dominion Carolina. However, redesigning Dominion Carolina's project to use the existing pipeline would require adding compression at several stations to increase its capacity and the construction of more miles of new pipeline than Dominion Carolina's current proposal. *Id.*

for authorization to export or import gas, issues such as whether gas exports result in higher domestic gas prices are beyond the Commission's purview.³⁸

25. Based on the benefits that the Transco to Charleston Project will provide by making 80,000 Dth/d of firm natural gas transportation service available for local distribution and use in electric generating and manufacturing plants in South Carolina and the minimal adverse impacts on existing shippers, other pipelines and their customers, and landowners and surrounding communities, we find that the proposed project is consistent with the Certificate Policy Statement. Based on this finding and the environmental review, as discussed below, we further find that the public convenience and necessity require approval and certification of Dominion Carolina's proposal under section 7 of the NGA, subject to the environmental and other conditions discussed in this order.

B. Rates

1. Initial Recourse Rates

26. Dominion Carolina has precedent agreements with three expansion shippers for 80,000 Dth/d of firm service, which will reserve all of the capacity created by the Transco to Charleston Project. The three project shippers have elected to pay negotiated rates. However, the Commission's negotiated rate policies require that a recourse rate be available to ensure that shippers "can fall back to cost based, traditional service."³⁹

³⁸ See, e.g., *Magnolia LNG, LLC*, 155 FERC ¶ 61,033, at P 21 (2016). See also *Sierra Club v. FERC*, No. 827 F.3d 36, 47 (D.C. Cir. 2016) (finding that the Commission's environmental analysis did not need to address the indirect effects of the anticipated export of natural gas because "the Department of Energy, not the Commission, has sole authority to license the export of any natural gas going through the [LNG export terminal].").

³⁹ *Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines, Regulation of Negotiated Transportation Services of Natural Gas Pipelines*, 74 FERC ¶ 61,076, at 61,240, *order granting clarification*, 74 FERC ¶ 61,194, *reh'g and clarification denied*, 75 FERC ¶ 61,024, *reh'g denied*, 75 FERC ¶ 61,066 (1996), (Alternative Rate Policy Statement). See also *Natural Gas Pipelines Negotiated Rate Policies and Practices; Modification of Negotiated Rate Policy*, 104 FERC ¶ 61,134, at P 32 (2003), *order on reh'g and clarification*, 114 FERC ¶ 61,042, *dismissing reh'g and denying clarification*, 114 FERC ¶ 61,304 (2006). A shipper only willing to pay the recourse rate is entitled to a *pro rata* share of available capacity: "[I]f a pipeline has 100 Dth of available capacity and there are two shippers who request that capacity, one is willing to pay no more than the recourse rate of \$5.00/Dth and another a negotiated rate

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Further, under the Certificate Policy Statement, there is a presumption that incremental rates should be charged for proposed expansion capacity if an incremental rate for firm service would exceed the maximum system-wide firm recourse rate.⁴⁰ Dominion Carolina proposes an incremental reservation recourse rate of \$22.3123 per Dth under Rate Schedule FT for service using the project capacity, which is consistent with the Commission's policy since it is higher than the currently applicable Rate Schedule FT Zone 1-1 recourse reservation charge of \$8.4387 per Dth.

27. Dominion Carolina developed its proposed incremental recourse reservation rate of \$22.3123 per Dth by dividing the first year incremental annual cost of service of \$21,419,765⁴¹ by the annual project design billing determinants of 960,000 Dth.⁴² The recourse rate for firm transportation would also include all other currently applicable rates, charges and surcharges under Rate Schedule FT, such as the Transportation Deferred Account Surcharge, the maximum system usage charge, and the maximum

of \$6.00/Dth, then each would be allocated 50 Dth on a *pro rata* basis.” Alternative Rate Policy Statement, 74 FERC ¶ 61,076, at n.78.

⁴⁰ Certificate Policy Statement, 88 FERC ¶ 61,227, at 61,745.

⁴¹ Exhibit P, Page 3 of 4, Column 2, Line 9. Patriots questions Dominion Carolina's calculation of transportation revenues in Exhibit N to its application because the revenues do not correspond to the negotiated base reservation rates agreed to by Dominion Carolina and the expansion shippers. As Dominion Carolina states in its response, its use of the full recourse rate in calculating revenues in Exhibit N was consistent with Commission precedent. As the Commission explained in *Transcontinental Pipe Line Company, LLC*, 143 FERC ¶ 61,132, at P 13 (2013):

[i]n determining that [a pipeline's] proposal meets the no-subsidization requirement of the Certificate Policy Statement, the Commission's analysis assumes all service will be provided at recourse rates. The details of any agreement negotiated with an individual shipper are irrelevant to the Commission's analysis. To the extent a pipeline negotiates to accept a rate lower than its recourse rate from any project shipper, the pipeline bears the risk of any revenue shortfall.

Further, as the pipeline will be charging an incremental rate for service, existing customers will be protected from subsidizing the new service.

⁴² 80,000 Dth/d x 12 months = 960,000 Dth.

system fuel retention percentage for the project.⁴³ Dominion Carolina proposes a depreciation rate of 1.56 percent for transmission mainlines, 2.71 percent for measuring and regulating station equipment, and a pre-tax return based on its most recently approved general rate case settlement.⁴⁴

28. On July 6, 2016 and August 25, 2016, Commission staff issued data requests asking Dominion Carolina to provide a breakdown of projected Operation and Maintenance (O&M) expenses by FERC account number and between labor and non-labor costs. In response, Dominion Carolina identified a total of \$176,195 in non-labor O&M for FERC account numbers 853, 857, 864 and 865. Commission policy⁴⁵ and section 284.7(e) of our regulations⁴⁶ require that non-labor costs be classified as variable costs and, consistent with the Commission's regulations requiring the use of straight fixed variable (SFV) rate design, recovered through a usage charge, not the reservation charge as proposed.⁴⁷ Accordingly, we direct Dominion Carolina to recalculate its incremental recourse reservation charge to recover only fixed costs when it files actual tariff records. Since the incremental reservation charge will still be higher than the current system reservation charge following removal of the improperly classified variable costs, we will approve Dominion Carolina's proposal to establish an incremental reservation recourse rate, subject to that revision.

⁴³ Application at 8.

⁴⁴ *Carolina Gas Transmission Corp., LLC*, Docket No. RP11-2076-000, 136 FERC ¶ 61,014 (2011). Carolina Gas Transmission Corporation changed its name to Dominion Carolina Gas Transmission, LLC, on April 1, 2015. *Dominion Carolina Gas Transmission, LLC*, 154 FERC ¶ 61,233 (2016).

⁴⁵ See, e.g., *Tennessee Gas Pipeline Company, L.L.C. (Tennessee)*, 156 FERC ¶ 61,156, at P 29 (2016) (Tennessee).

⁴⁶ Section 284.7(e), 18 C.F.R. § 284.7(e) (2016), provides: “[if] a reservation fee is charged, it must recover all fixed costs attributable to the firm transportation service, unless the Commission permits the pipeline to recover some of the fixed costs in the volumetric portion of a two-part rate. A reservation fee may not recover any variable costs or fixed costs not attributable to the firm transportation service.”

⁴⁷ *Tennessee*, 156 FERC ¶ 61,156, at P 29 (2016); *Columbia Gulf Transmission, LLC*, 152 FERC ¶ 61,214, at P 20 (2015); *Dominion Transmission, Inc.*, 153 FERC ¶ 61,382, at P 33 (2015).

29. Since an incremental recourse usage charge would be lower than the applicable system usage charge of \$0.0075 per Dth, Dominion Carolina's proposal to charge its applicable system usage charge⁴⁸ is also consistent with Commission policies and is approved.⁴⁹ Dominion Carolina's minimum rate for any discounted-rate service using the project capacity must recover the variable costs allocated to the service consistent with Commission policy,⁵⁰ and section 284.10(c)(4)(ii) of our regulations.⁵¹

2. Fuel and Lost and Unaccounted for Gas

30. Dominion Carolina proposes to charge an incremental fuel retainage percentage⁵² of 1.1728 percent based on a fuel study.⁵³ Dominion Carolina's proposed incremental fuel charge is greater than its existing system fuel retainage percentage. The Commission accepts Dominion Carolina's incremental fuel retainage percentage.

3. Negotiated Rates

31. Dominion Carolina states that it has entered into negotiated rate agreements with all of its project customers, and acknowledges that it must file the agreed-upon negotiated terms with the Commission prior to commencing service. In certificate proceedings, the Commission establishes initial recourse rates, but does not make determinations regarding specific negotiated rates for proposed service.⁵⁴ Dominion Carolina must file either its negotiated rate agreements or tariff records describing the negotiated rate associated with these services in accordance with the Commission's negotiated rate

⁴⁸ Application at 8 and Exhibit P, Appendix, at 6.

⁴⁹ See, e.g., *Tennessee*, 156 FERC ¶ 61,156, at P 30.

⁵⁰ See, e.g., *Dominion Transmission, Inc.*, 155 FERC ¶ 61,106, at P 22 (2016).

⁵¹ 18 C.F.R. § 284.10(c)(4)(ii) (2016).

⁵² Dominion Carolina's fuel retainage percentage includes both company use gas and lost and unaccounted for gas.

⁵³ See Dominion Carolina's July 13, 2016 Response to staff's July 6, 2016 Data Request Question 3.

⁵⁴ *CenterPoint Energy-Mississippi River Transmission Corp.*, 109 FERC ¶ 61,007, at P 19 (2004); *ANR Pipeline Co.*, 108 FERC ¶ 61,028, at P 21 (2004).

policies.⁵⁵ Dominion Carolina must file either the negotiated rate agreements or tariff records at least 30 days, but not more than 60 days, before the proposed effective date for such rates.⁵⁶

4. Reporting Incremental Costs

32. Section 154.309 of the Commission's regulations⁵⁷ includes bookkeeping and accounting requirements applicable to all expansions for which incremental rates are approved to ensure that costs, including fuel, are properly allocated between a pipeline's existing shippers and incremental expansion shippers. Therefore, Dominion Carolina must keep separate books and accounting of costs and revenues attributable to Transco to Charleston capacity and incremental services using that capacity as required by section 154.309. The books should be maintained with applicable cross-references. This information must be in sufficient detail so that the data can be identified in Statements G, I, and J in any future NGA section 4 or 5 rate case, and the information must be provided consistent with Order No. 710.⁵⁸

C. Environmental Analysis

33. On September 2, 2015, Commission staff began its environmental review of the Transco to Charleston Project by granting Dominion Carolina's request to use the pre-filing process in Docket No. PF15-29-000. As part of the pre-filing review, Commission

⁵⁵ *Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines; Regulation of Negotiated Transportation Services of Natural Gas Pipelines*, 74 FERC ¶ 61,076 at 61,241, *order granting clarification*, 74 FERC ¶ 61,194, *reh'g and clarification denied*, 75 FERC ¶ 61,024, *reh'g denied*, 75 FERC ¶ 61,066 (1996). *See also Natural Gas Pipeline Negotiated Rate Policies and Practices; Modification of Negotiated Rate Policy*, 104 FERC ¶ 61,134, at P 32 (2003), *order on reh'g and clarification*, 114 FERC ¶ 61,042, *dismissing reh'g and denying clarification*, 114 FERC ¶ 61,304 (2006).

⁵⁶ Pipelines are required to file any service agreement containing non-conforming provisions and to disclose and identify any transportation term or agreement in a precedent agreement that survives the execution of the service agreement. 18 C.F.R. § 154.112(b) (2016).

⁵⁷ 18 C.F.R. § 154.309 (2016).

⁵⁸ *Revisions to Forms, Statements, and Reporting Requirements for Natural Gas Pipelines*, Order No. 710, FERC Stats. & Regs. ¶ 31,267, at P 23 (2008).

staff participated in open houses sponsored by Dominion Carolina in Duncan, St. George, Newberry, Dillon, Laurens, and Aiken, South Carolina, on September 29 and October 1, 12, 13, 15, and 20, 2015 respectively.

34. On October 30, 2015, Commission staff issued a *Notice of Intent to Prepare an Environmental Assessment for the Planned Transco to Charleston Project and Request for Comments on Environmental Issues* (NOI). The NOI was published in the *Federal Register* on November 5, 2015,⁵⁹ and mailed to interested parties including federal, state, and local officials; agency representatives; environmental and public interest groups; Native American tribes; local libraries and newspapers; and affected property owners. On November 10, 2015, the Commission issued an Errata Notice with an updated map of the planned Moore to Chappells pipeline route in the vicinity of the Moore Compressor Station in Spartanburg County, South Carolina, and extended the scoping period.

35. On November 18 and 19, 2015, Commission staff conducted public scoping meetings in Duncan and Laurens, South Carolina, to provide the public with an opportunity to learn more about the project and comment on environmental issues that should be addressed in the EA. In total, two individuals provided verbal comments on the project at the Commission's scoping meetings. Transcripts of the scoping meetings were entered into the public record in Docket No. PF15-29-000. In addition, the Commission received comments in response to the NOI and errata notice from the U.S. Fish and Wildlife Service (FWS), the South Carolina Department of Natural Resources (South Carolina DNR), and 29 affected landowners.

36. The primary issues raised during the scoping process include: project purpose and need; need for an Environmental Impact Statement (EIS); consideration of alternatives; pipeline safety and integrity; and resource impact concerns including waterbodies, wetlands, wildlife habitat, pine plantations, Natural Resources Conservation Service easement land, Upstate Forever's Conservation Focus Areas, residential areas (including the Graystone community), and historic and archaeological resources.

37. To satisfy the requirements of the National Environmental Policy Act of 1969 (NEPA), Commission staff prepared an EA for Dominion Carolina's proposal. The analysis in the EA addresses geology, soils, water resources, wetlands, vegetation, fisheries, wildlife, threatened and endangered species, land use, recreation, visual resources, cultural resources, air quality, noise, safety, socioeconomics, cumulative impacts, and alternatives. All substantive comments received in response to the NOI and raised during the scoping process were addressed in the EA.

⁵⁹ 80 Fed. Reg. 68,521.

38. The EA was issued for a 30-day comment period and placed into the public record on October 19, 2016. The Commission received comments on the EA from South Carolina DNR, Upstate Forever, Muscogee (Creek) Nation, and several landowners and interested individuals. Comments on the EA are addressed below, by resource area. Several commenters also expressed general opposition to fossil fuel infrastructure and the project, while others voiced general support for the project.

1. EA v. EIS

39. Upstate Forever and several individuals assert that the Commission should have prepared an EIS for the Transco to Charleston Project, rather than an EA. To support this assertion, Upstate Forever points to instances where the Commission or another agency prepared an EIS for what it characterizes as comparable pipeline projects.⁶⁰

40. Under NEPA, agencies must prepare an EIS for major federal actions that may significantly impact the environment.⁶¹ However, if an agency determines that a federal action is not likely to have significant adverse effects, it may prepare an EA for compliance with NEPA.⁶² In addition, the Council on Environmental Quality (CEQ) regulations state that one of the purposes of an EA is to determine whether an EIS is required.⁶³ Thus, based on the Commission's experience with NEPA implementation for pipeline projects, the Commission's environmental staff makes an initial decision whether to prepare an EIS or an EA for each new proposed project, pursuant to the Commission's regulations.⁶⁴ An initial decision to prepare an EA for a given project may be changed to an EIS if, during the NEPA review, significant impacts are found.⁶⁵

⁶⁰ Upstate Forever's November 21, 2016 Filing at 2.

⁶¹ 42 U.S.C. § 4332(2)(C) (2012); 40 C.F.R. § 1502.4 (2016).

⁶² See 40 C.F.R. §§ 1501.3-1501.4 (2016). An EA is meant to be a "concise public document . . . that serves to . . . [b]riefly provide sufficient evidence and analysis for determining whether to prepare an [EIS] or finding of no significant impact." *Id.* § 1508.9(a). Pursuant to the Commission's regulations, if an EA is prepared first, "[d]epending on the outcome of the environmental assessment, an [EIS] may or may not be prepared." 18 C.F.R. § 380.6(b) (2016).

⁶³ 40 C.F.R. § 1501.4(c) (2016).

⁶⁴ See 18 C.F.R. § 380.6(b) (2016).

⁶⁵ *Id.* § 380.5.

41. Guided by the CEQ's regulations, the Commission will typically issue an EA, rather than preparing an EIS, where staff determines that the proposed action will not have a significant effect on the human environment.⁶⁶

42. Here, Commission staff prepared an EA to determine whether the Transco to Charleston Project would have a significant impact, requiring the preparation of an EIS. The EA addressed the impacts that could occur on a wide range of resources should the project be approved and constructed, including consideration of the cumulative impacts of the project when added to other past, present, and reasonable foreseeable future actions in the vicinity of the project. Based on the EA's analysis and staff's recommended mitigation measures, the EA concludes, and we agree, that approval of the Transco to Charleston Project would not constitute a major federal action significantly affecting the quality of the human environment.⁶⁷ Therefore, preparation of an EIS is not required.

2. Purpose and Need

43. An agency's environmental document must include a brief statement of the purpose and need to which the proposed action is responding.⁶⁸ An agency uses the purpose and need statement to define the objectives of a proposed action and then to identify and consider legitimate alternatives.⁶⁹ CEQ has explained that "[r]easonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant."⁷⁰

⁶⁶ See 40 C.F.R. § 1501.4(e) (2016).

⁶⁷ EA at 142. Under section 1508.18 of CEQ's regulations, "a 'major federal action' includes actions with effects that may be major and which are potentially subject to Federal control and responsibility. Major reinforces but does not have a meaning independent of significantly." 40 C.F.R. § 1508.18 (2016) "Significantly" requires consideration of both the context and intensity of the project. *Id.* § 1508.27.

⁶⁸ See 40 C.F.R. § 1508.9 (2016) (for an Environmental Assessment); *id.* § 1502.13 (for an Environmental Impact Statement).

⁶⁹ See *Colo. Env'tl. Coal. v. Dombeck*, 185 F.3d 1162, 1175 (10th Cir. 1999).

⁷⁰ *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*, 46 Fed. Reg. 18,026, 18,027 (Mar. 23, 1981).

44. The EA for the Transco to Charleston Project accepts Dominion Carolina's articulation of the purpose and need to provide 80,000 Dth/d of "natural gas firm transportation services in South Carolina to improve regional energy security, system resiliency, and to meet increasing demand for natural gas for local commercial, industrial, and power generation customers."⁷¹ The EA also notes that "market demand" is one of several factors upon which the Commission makes a separate conclusion under section 7 of the NGA, to be articulated in the later order to issue or deny a certificate, of whether a proposed project "is or will be required by the present or future public convenience and necessity."⁷² This standard includes economic need and other factors bearing on the public interest.⁷³

45. Upstate Forever disputes the statements in Dominion Carolina's application about the market need for the project, stating that the proposed pipeline appears merely to be a more direct route between existing stations, moving natural gas between two points that are already connected by an existing pipeline.⁷⁴ Upstate Forever claims that the proposed pipeline does not provide natural gas to a new area, nor does the pipeline directly service the area where its users are located (the pipeline is almost entirely within upstate South Carolina, and the users are in the lower part of the state).⁷⁵ In addition, Upstate Forever questions whether the three South Carolina Electric and Gas plants cited by Dominion Carolina actually require natural gas from this proposed pipeline, especially for the 30 year term cited by Dominion Carolina.⁷⁶ For these reasons, Upstate Forever objects to the EA's acceptance of Dominion Carolina's statements as the "purpose and need" for NEPA analysis.

46. The EA's statement of purpose and need satisfied NEPA. An agency's definition of purpose and need, its choice of alternatives, and the depth of discussion of those alternatives must be reasonable.⁷⁷ Courts have upheld federal agencies use of applicants'

⁷¹ EA at 1.

⁷² EA at 2; 15 U.S.C. § 717f(e) (2012).

⁷³ *Atlantic Refining Co. v. Pub. Serv. Comm'n of N.Y.*, 360 U.S. 378, 391 (1959).

⁷⁴ Upstate Forever's November 11, 2016 filing at 3.

⁷⁵ *Id.*

⁷⁶ *Id.* at 4.

⁷⁷ *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991) (*Busey*).

identified project purpose and need as the basis for evaluating alternatives.⁷⁸ Where an agency is asked to sanction a specific plan, the agency should take into account the needs and goals of the parties involved in the application.⁷⁹ We acknowledge that a project's purpose and need may not be so narrowly defined as to preclude consideration of what may actually be reasonable choices.⁸⁰ But an agency need only consider alternatives that will bring about the ends of the proposed action, and the evaluation is shaped by the application at issue and by the function that the agency plays in the decisional process.⁸¹

47. Here the EA's reliance on Dominion Carolina's statements about purpose and need was reasonable given the content of its application and the Commission's position in the decisional process. Upstate Forever argues, in effect, that the Commission should analyze broad economic need, for example across the state of South Carolina, and should effectively plan the way that alternative natural gas projects, other energy sources, or energy conservation could satisfy that broad economic need. Though the NGA's public convenience and necessity standard is broad, the Commission's powers under section 7 are limited. The Commission can issue a certificate for a proposed project subject to "such reasonable terms and conditions as the public convenience and necessity may require," but the Commission cannot order, for example, that a natural gas company carry gas from or to Commission-favored producers or users. Similarly, the Commission can decline to authorize a proposed project if, and only if, a balance of all the circumstances weighs against certification.⁸²

3. Alternatives

48. Upstate Forever states that the EA's alternatives analysis is incomplete, and relies on unproven assumptions of customer demand and assumptions that demand cannot be satisfied by existing infrastructure. We disagree. The EA appropriately analyzes system

⁷⁸ E.g., *City of Grapevine v. U.S. Dep't of Transp.*, 17 F.3d 1502, 1506 (D.C. Cir. 1994).

⁷⁹ *Busey*, 938 F.2d at 199.

⁸⁰ *Alaska Survival v. Surface Transp. Bd.*, 705 F.3d 1073, 1085 (9th Cir. 2012); *Simmons v. U.S. Army Corps. of Eng'rs*, 120 F.3d 664, 669 (7th Cir. 1997); *Busey*, 938 F.2d at 198-99.

⁸¹ *Busey*, 938 F.2d at 199.

⁸² E.g., *Fed. Power Comm'n v. Transcon. Gas Pipe Line Corp.*, 365 U.S. 1, 17; *Jordan Cove Energy Project, L.P.*, 154 FERC ¶ 61,190, PP 28-42 (2016).

alternatives and determines that existing natural gas pipeline systems in the region do not have capacity to support the service to be provided to the Transco to Charleston Project's subscribed customers without substantial modification.

49. We also received comments from individual affected landowners unsatisfied with the EA's analysis of route variations to avoid their properties. Mr. Joe Scurry and Ms. Susannah Smith stated that impacts on their family tree farm could be avoided by routing the pipeline adjacent to existing power lines or Highway 39. Commission staff evaluated route variations in the EA to reduce impacts on several pine plantations, including Mr. Scurry's and Ms. Smith's tree farm.⁸³ Dominion Carolina and Commission staff evaluated 14 route variations during the pre-filing process, and an additional 28 route variations after the application was submitted. Dominion Carolina incorporated 23 of the variations into the proposed route to reduce specific environmental, landowner, or construction constraints without unnecessarily encumbering landowners, and the EA concurs with these changes. The remaining minor route variations were not incorporated if they would result in greater environmental impact or merely shift the impacts to an adjacent landowner. Commission staff further reviewed Mr. Scurry's and Ms. Smith's property and confirmed that rerouting the pipeline in this area would result in greater impacts on pine plantations and other sensitive resources on other properties. Therefore, we agree with the EA's conclusions.

4. Geologic Hazards

50. South Carolina DNR requests that Dominion Carolina implement the measures outlined in its Horizontal Directional Drilling (HDD) Contingency and Inadvertent Release Plan. In addition, South Carolina DNR recommends the HDD contractor employ a full-time, qualified on-site mud engineer to continuously monitor the drilling fluid circulation and returns as a preventative measure. As described in the EA,⁸⁴ and required by Environmental Condition 1 of this order, Dominion Carolina is required to implement the measures outlined in its HDD Contingency and Inadvertent Release Plan, which includes a full-time, qualified on-site mud engineer.⁸⁵

51. South Carolina DNR requests sources and dates for the mine inventory and peak ground acceleration data presented in the EA. The South Carolina Department of Health and Environmental Control provided the mining information in October and November

⁸³ EA at 136.

⁸⁴ EA at 19.

⁸⁵ Application, Appendix 1E (section 2.5.1 of Dominion Carolina's HDD Plan).

2015, and copies of correspondence were filed with the Commission.⁸⁶ Information regarding seismic activity and liquefaction,⁸⁷ including peak ground acceleration, was derived from South Carolina DNR's 2012 geologic hazards maps, U.S. Geological Survey's 2010 map summarizing the history of earthquakes in South Carolina (1698-2009),⁸⁸ U.S. Geological Survey geohazard mapping,⁸⁹ South Carolina Geologic Survey geologic maps, as well as site-specific studies filed by Dominion Carolina.⁹⁰

52. South Carolina DNR states there is cause for concern with potential liquefaction at sites in the Coastal Plain. South Carolina DNR states that several faults exist along the Moore to Chappells Pipeline route, and that some of these faults may be associated with different types of quartz formations that may require blasting. In addition, South Carolina DNR states that the Dillon Pipeline route intersects an inferred geophysical lineament, which South Carolina DNR geologists interpret as a fault. However, due to mixed georeferencing and scales, South Carolina DNR cautions that it is possible that the Dillon Pipeline may not be directly on the fault.

53. With regard to the project's aboveground facilities, South Carolina DNR states that all of the aboveground facilities lie on or close to a fault structure. In particular, South Carolina DNR indicates that the Charleston Town Border Station is near Summerville, along the Ashley River, which was the epicenter of the historic 1886 Charleston, South Carolina earthquake that registered approximately Magnitude 6.7 on the Richter Scale. South Carolina DNR reports that small (Magnitude 1-2 range) monthly earthquake activity persists in this area.

54. The EA states that "there have been no mapped epicenters with magnitudes greater than 3.0 on the Richter Scale in the immediate vicinity of any of the project areas, except

⁸⁶ Application, Appendix 6B.

⁸⁷ Soil liquefaction refers to the process that occurs when a saturated soil loses its load bearing capability through an increase in pore water pressure that results from seismic ground shaking.

⁸⁸ Richard L. Dart, Pradeep Talwani, and Donald Stevenson, U.S. Geological Survey, *Earthquakes in South Carolina and Vicinity, 1698-2009* (2010), <https://pubs.usgs.gov/of/2010/1059/>.

⁸⁹ U.S. Geological Survey, *Custom Hazard Maps*, <https://geohazards.usgs.gov/hazards/apps/cmmaps/>.

⁹⁰ Application, Appendix 6C.

for the Charleston Town Border Station, where numerous earthquakes have been recorded with magnitudes above 6.0 on the Richter Scale.”⁹¹ The EA incorrectly concluded that this area has a low potential for seismic activity (earthquakes), and related liquefaction potential.⁹² Based on the additional information provided, we recognize South Carolina DNR’s concern for the potential for soil liquefaction to occur at the sites located in the Coastal Plain.

55. The areas of South Carolina with the highest potential for soil liquefaction are along or within close proximity to the coastline where seismic conditions coupled with saturated surface soils may be present. While the Charleston Town Border Station is located in close proximity to the coast, a review of the South Carolina Geologic Survey 7.5-Minute Geologic Map of the Ladson Quadrangle,⁹³ shows that the Charleston Town Border Station site is underlain by the Ladson Formation which is comprised of Quaternary-age, poorly consolidated clayey sands that are not susceptible to soil liquefaction. To confirm this information, Environmental Condition 12 requires Dominion Carolina to conduct a field assessment of the Charleston Town Border Station for soil conditions that could be prone to soil liquefaction and file the results of the assessment with the Secretary.

56. South Carolina DNR also notes karstic and sinkhole problems in the Coastal Plain, and states that further study at the Dillon Pipeline site may be necessary. As stated in the EA,⁹⁴ Dominion Carolina did not identify any sinkholes or karst features within the project area. However, Dominion Carolina has committed to monitor clearing, grading, and trenching activities to identify potential karst features that may have been unidentifiable on the surface during the pre-construction survey. If sinkholes and karst features are encountered during construction, Dominion Carolina will avoid these features to the extent practicable. If avoidance is not possible, Dominion Carolina will incorporate preventive construction techniques into the pipeline design to alleviate potential safety concerns. If conditions that could lead to a sinkhole are encountered, Dominion Carolina will remediate the sinkhole by excavating the sinkhole to expose the throat and plugging the throat using graded rock fill. The EA finds, and we agree, that

⁹¹ EA at 30.

⁹² *Id.*

⁹³ R.E. Weems and Earl M. Lemon, U.S. Geological Survey, *Geologic Map of the Ladson Quadrangle, Berkeley, Charleston, and Dorchester Counties, South Carolina* (1988), <https://pubs.er.usgs.gov/publication/gq1630>.

⁹⁴ EA at 22.

Dominion Carolina's measures will avoid karst features and sinkholes to the extent practicable and appropriately mitigate potential impacts.

5. Water Resources

57. Several individuals express general concern for impacts on waterbodies. The project will cross 84 waterbodies. South Carolina DNR states that it prefers the use of HDD methods whenever possible. As described in the EA,⁹⁵ Dominion Carolina will utilize a trenchless crossing method (e.g., either HDD or conventional bore) to cross major (greater than 100 feet wide) perennial waterbodies and many intermediate (between 10 and 100 feet wide) waterbodies. The EA further explains that waterbodies not crossed by HDD or bore methods will be crossed using a dry-ditch method (e.g., flume or dam-and-pump) that isolates water flow from trenching activities during construction to minimize downstream impacts. South Carolina DNR states that it prefers the flume method to the dam-and-pump method for stream crossings to reduce fish impingement on screens or entrainment through pumps. In particular, South Carolina DNR requests that Dominion Carolina use the flume method to cross tributaries to the Enoree River at mileposts (MP) 17.5, 17.7, and 17.9 of the Moore to Chappells Pipeline. South Carolina DNR states that Dominion Carolina informed them on November 4, 2016, that it will utilize the flume method for open-cut crossings where water is flowing. This commitment is consistent with the EA's waterbody crossing descriptions and conclusions.

58. South Carolina DNR questions whether Access Road 030.00 between MP 14 and 15 could avoid crossing a waterbody. We clarify that Access Road 030.00 will not cross any waterbodies.

59. South Carolina DNR states that some waterbody names in appendix E were truncated and unable to be distinguished. The complete waterbody names at these locations on the Moore to Chappells Pipeline include: MP 17.7 and 22.9 - Unnamed Tributaries to the Enoree River; MP 25 - Unnamed Tributary to Duncan Creek; MP 38.8 - Unnamed Tributary to Little River; MP 42.5 - Unnamed Tributary to Watkins Creek; and MP 52.7, 53.1, and Access Road 113 - Unnamed Tributaries to Saluda River.

60. Upstate Forever requests that no additional temporary workspace be allowed within 10 feet of wetlands or waterbodies without additional sediment control methods beyond those identified in the EA. Dominion Carolina identified five locations along the Moore to Chappells Pipeline route where it could not establish a 50-foot setback between extra workspace and waterbodies due to constructability constraints. In each of these

⁹⁵ EA at 20, and Appendix E.

cases, Dominion Carolina will use a 10-foot setback. In addition, Dominion Carolina will install and maintain a double row of silt fencing at the edge of the workspace and at the top of the bank of the waterbody. The EA concluded, and we agree, that Dominion Carolina's proposed measures for these extra workspaces were acceptable and that project construction and operation would not significantly impact surface water resources.⁹⁶ There is no need to require use of additional sediment control methods.

61. We received comments objecting to Dominion Carolina's application for a Permit to Construct in South Carolina Navigable Waters. This permit is not under the Commission's jurisdiction; it is under the jurisdiction of the South Carolina Department of Health and Environmental Control. Accordingly, Dominion Carolina will submit its application to the state agency for review.

62. Upstate Forever is concerned about the project's impact on the Ferguson Creek and South Tyger River Conservation Focus Area (CFA), which the organization has identified for its significant environmental value, as described in Upstate Forever's 2010 *Special Places Inventory for Spartanburg County*. Upstate Forever requests that all waterbodies in the Ferguson Creek and South Tyger River CFA be crossed using HDD or directional bore methods. As described in the EA,⁹⁷ Dominion Carolina will cross two intermediate waterbodies and one minor waterbody (less than or equal to 10 feet wide) using the HDD method within the Ferguson Creek and South Tyger River CFA. Dominion Carolina will cross the remaining one intermediate and two minor waterbodies using the open-cut method if no flow is present during construction. If water is flowing, Dominion Carolina will cross the streams using a dry-ditch technique. Dominion Carolina will implement the measures in its *Wetland and Waterbody Construction and Mitigation Procedures* to minimize impacts on waterbodies during construction and restoration. We find this to be sufficiently protective of surface waters and will not require use of HDD for these crossings.

63. Upstate Forever states that Dominion Carolina should be required to revegetate disturbed riparian areas and include monitoring and maintenance for one year to ensure streambank clearings and riparian areas are restored to original conditions or better. Dominion Carolina will construct and restore disturbed riparian areas in accordance with applicable laws, regulations, permits, approvals and its *Upland Erosion Control, Revegetation, and Maintenance Plan* and *Wetland and Waterbody Construction and Mitigation Procedures*, which includes at least two years of monitoring. Within the CFA, Dominion Carolina will cross the waterbodies via HDD or dry-ditch methods. For HDD

⁹⁶ EA at 48-49.

⁹⁷ EA at page 57, and Appendix E.

crossings, there will be no vegetation mowing or clearing in the areas between the entry and exit points. Riparian clearing will be necessary for dry-ditch crossings to access the workspace and safely construct the crossing. However, Dominion Carolina's *Wetland and Waterbody Construction and Mitigation Procedures* require restoration and revegetation of riparian areas with native species of conservation grasses, legumes, and woody species, similar in density to adjacent undisturbed areas. Once vegetation in riparian areas is established, Dominion Carolina will limit routine vegetation mowing or clearing adjacent to those waterbodies to allow a riparian strip at least 25 feet wide. Dominion Carolina will monitor revegetation success and Commission staff will conduct periodic inspections of project activities during construction and restoration to confirm compliance with all Commission orders and approvals, and to ensure that the project area is properly restored and stable.

64. Several commenters express concern regarding stream and drinking water contamination as a result of a pipeline spill or leak. The Transco to Charleston Project will transport natural gas, which is not capable of being mixed with water. Unlike a spill from a pipeline that transports a liquid such as oil or gasoline, a release of natural gas from a pipeline will dissipate quickly into the atmosphere and will not contaminate streams or underlying groundwater resources. As further explained in the EA, hazardous materials will be stored and managed in accordance with applicable regulations designed to prevent spills.⁹⁸

65. The EA also discusses Surface Water Protection Areas associated with public water supply intakes.⁹⁹ The project will cross waterbodies upstream of Surface Water Protection Areas maintained by the Woodruff Roebuck Water District, City of Clinton, and City of Newberry. The EA concludes that construction will not affect the quality of public surface water in these areas. All but one of these crossings (an unnamed tributary of Ferguson Creek 1.7 miles upstream of a source water intake in the City of Clinton) will be accomplished via HDD. The unnamed tributary of Ferguson Creek will be crossed using open cut methods (if dry) or dry-ditch method (if water is flowing). To ensure appropriate notification and coordination with the public water supply intake operators, Environmental Condition 13 requires Dominion Carolina to contact the Woodruff Roebuck Water District and the City of Clinton to determine notification procedures and file documentation of this consultation.

⁹⁸ EA at 42.

⁹⁹ EA at 45.

6. Fisheries

66. The EA recommended that Dominion Carolina consult with South Carolina DNR to develop mitigation measures for surface water withdrawals for hydrostatic testing, and file that information with the Commission. In its comments on the EA, South Carolina DNR states that on November 4, 2016, Dominion Carolina committed to the use of a surface skimmer, away from the shoreline with a minimum three feet of clearance over the stream for all surface water withdrawal needed for hydrostatic testing. The intake structure will consist of 5-millimeter diameter openings combined with an approach velocity of less than or equal to 0.5 foot/second. South Carolina DNR finds this to be adequate and appropriate to prevent fish impingement and reduce the likelihood of entrainment. Because Dominion Carolina has not yet filed this information with the Commission, Environmental Condition 15 requires that Dominion Carolina file this information for review and approval prior to construction.

67. To reduce impact on fish during spawning, the EA recommended that Dominion Carolina revise its *Wetland and Waterbody Construction and Mitigation Procedures* to conduct all in-water work from June 1 through November 30, or consult with South Carolina DNR regarding alternative timing restrictions. In its comments on the EA, South Carolina DNR recommends that in-stream work be avoided from March 1 to June 30 if streams are wet at the time of crossing, with the exception of streams to be crossed by HDD. Therefore, Environmental Condition 16 is modified to require Dominion Carolina to adhere to the waterbody crossing timing restrictions recommend by South Carolina DNR.

68. South Carolina DNR notes that chain pickerel should have been listed as a game fish in table B.3.1 in the EA. We acknowledge that chain pickerel was inadvertently omitted from this table.

69. South Carolina DNR notes several species of crayfish, mussels, and fish that are State Wildlife Action Plan Priority Species and were not included in appendix G of the EA, including: an unnamed crayfish, Carolina needlenose crayfish, Carolina elephant ear creeper, eastern creekshell, eastern lampmussel, Carolina darter, fieryblack shiner, flat bullhead, greenfin shiner, highback chub, highfin shiner, notchlip redhorse, Piedmont darter, rosyfaced chub, rosieside dace, sandbar shiner, Santee chub, seagreen darter, snail bullhead, swallowtail shiner, thicklip chub, and white catfish. Appendix G of the EA includes species that may potentially occur within the project area. Some of the State Wildlife Action Plan species were inadvertently omitted from appendix G; however, potential impacts on these species are addressed in the EA.¹⁰⁰ In addition, Dominion

¹⁰⁰ EA at 72.

Carolina will coordinate with South Carolina DNR to develop appropriate mitigation measures to minimize impacts on these species.

70. South Carolina DNR also notes that although appendix G states that the mimic crayfish was analyzed further in the EA, such analysis is not included in the EA. We acknowledge this discrepancy. The EA does not contain detailed analysis of the mimic crayfish because this species was not identified during site-specific burrow surveys and therefore project impacts are not anticipated.

7. Land Use

71. South Carolina DNR requests coordination with Dominion Carolina prior to construction activities between MP 43 and 45 to ensure that any scheduled deer, turkey, or scheduled youth or mobility-impaired hunting participants will not be affected by such activities near the Belfast Wildlife Management Area property. Environmental Condition 22 requires Dominion Carolina to consult with South Carolina DNR prior to project construction in this area.

72. South Carolina DNR notes that MP 35 and 36 of the Moore to Chappells Pipeline will be approximately 285 feet east of a 209-acre conservation easement held by the Upper Savannah Land Trust. In addition, South Carolina DNR states that the Moore to Chappells Pipeline will cross an Upper Savannah Land Trust conservation easement for 0.23 mile at MP 53. Dominion Carolina will cross the Saluda River via HDD from MP 53 to 53.35; therefore, we do not anticipate surface impacts on the conservation easement. To confirm this information, Environmental Condition 23 requires Dominion Carolina to consult with the Upper Savannah Land Trust to minimize potential impacts on the conservation easement, if necessary.

73. Several commenters express concerns about potential project impacts on timber operations, dissatisfaction with Dominion Carolina's easement compensation, and property values. As discussed in the EA, Dominion Carolina will offer compensation for the easements, including the temporary loss of land use and any damages, including crop loss.¹⁰¹ Dominion Carolina states that it will consult with landowners to determine any special requirements for safe access for timbering equipment and vehicles. While easement negotiations are a private matter between a pipeline company and a landowner, the Commission expects companies to engage in good faith negotiations with landowners. If negotiations fail to produce an agreement, section 7(h) of the Natural Gas Act grants Dominion Carolina the right of eminent domain. In such cases, the fair value

¹⁰¹ EA at 74 (describing impacts on pine plantations).

of the easement will be determined by the appropriate courts in the condemnation proceeding.

74. As described in the EA,¹⁰² the impact the project could have on property values depends upon many tract-specific variables, including the size of the parcel, the parcel's current value and land use, the utilities and services available or accessible, the current land use, and the value of nearby properties. We agree with the EA's conclusion that the presence of a pipeline, and the restrictions associated with a pipeline easement, could influence a potential buyer's decision to purchase a property. However, any loss of productivity associated with an easement, is more appropriately addressed through compensation negotiations or eminent domain proceedings. Here, we are satisfied that Dominion Carolina is taking appropriate steps to minimize adverse impacts on landowners and conclude that the proposed project is not likely to significantly impact property values in the project area.

8. Cultural Resources

75. The Muscogee (Creek) Nation filed comments on the Revised Phase I Cultural Resources Survey Report for the Dillon and Moore to Chappells Pipeline and the Phase I and Phase II Archaeological Survey and Testing Reports for the Dorchester Compressor Station. Muscogee (Creek) Nation requests clarification of site delineations and an HDD contingency plan in the event of inadvertent returns in sensitive areas. Commission staff will continue to consult with the Muscogee (Creek) Nation to ensure their concerns are addressed.

76. In addition, an affected landowner, Joy Blanton Scurry, is concerned about the project's potential impacts on Native American artifacts. As discussed in the EA,¹⁰³ Dominion Carolina is required to conduct cultural resource surveys in all areas of potential affect. Survey of all project areas and consultation with the State Historic Preservation Office and interested Indian Tribes is not complete. Therefore, Environmental Condition 25 requires that Dominion Carolina not begin construction until the surveys and consultation are complete, and the Commission has completed the process of complying with section 106 of the National Historic Preservation Act. Furthermore, if previously unidentified cultural resources are encountered during project construction, Dominion Carolina has developed an Unanticipated Discovery Plan that Commission staff has reviewed and found appropriate.

¹⁰² EA at 89.

¹⁰³ EA at 90

9. Safety

77. Jennifer Copeland expressed concerns regarding previous Dominion Carolina violations related to environmental pollution and railway safety. Several individuals also raised issues regarding the safety of the proposed project. As discussed in the EA,¹⁰⁴ the pipeline and aboveground facilities associated with the project must be designed, constructed, operated, and maintained in accordance with the U.S. Department of Transportation's Minimum Federal Safety Standards.¹⁰⁵ These regulations, intended to protect the public and to prevent natural gas facility accidents and failures, include specifications for material selection and qualification; minimum design requirements; and protection of the pipeline from internal, external, and atmospheric corrosion. In addition, Dominion Carolina will implement specific safety measures to ensure its facilities will not significantly impact public safety. Dominion Carolina's previous violations should be addressed by the agencies that issued the violations. The Commission reviews each project based on its own merits. Finally, the EA discloses the incident rate and causes of natural gas transmission pipeline accidents, finding that the minimal number of incidents distributed over more than 300,000 miles of natural gas transmission pipelines indicates a low risk for an incident at any given location.¹⁰⁶

10. Wildlife

78. Several affected landowners are concerned about the project's potential impacts on aquatic resources, wildlife, and special status species, including the Carolina heelsplitter mussel, frosted flatwoods salamander, American bald eagle, red-cockaded woodpecker, eastern bluebird, and beavers, in addition to endangered plant species, such as the mountain sweet pitcher and persistent trillium. The EA describes potential impacts on fisheries and wildlife, including the identified species.¹⁰⁷ Based on the species range and distribution, the EA concludes that the Carolina heelsplitter, frosted flatwoods salamander, persistent trillium, and mountain sweetpitcher plant do not occur in the project area and, therefore, will not be affected by the project. The EA also concludes that the project may affect, but will not likely adversely affect the red-cockaded

¹⁰⁴ EA at 114-117.

¹⁰⁵ 49 C.F.R. Pt. 192 (2016).

¹⁰⁶ EA at 120.

¹⁰⁷ EA at 52-55 (describing impacts on fisheries), 63-68 (describing impacts on wildlife), and 68-72 (describing impacts on special status species).

woodpecker (federally and state endangered species). FWS concurs with this determination; therefore, our consultation with FWS is complete.

79. Potential impacts on other wildlife species, including the American beaver, include habitat disturbance, displacement, and loss. As discussed in the EA, the anticipated displacement impacts on wildlife will be short-term, localized, and minor.¹⁰⁸ Individual mortality could occur if species are crushed or buried by vehicular traffic and/or vegetation clearing. Dominion Carolina will minimize impacts on habitat by following the measures in its *Upland Erosion Control, Revegetation, and Maintenance Plan* to ensure successful restoration and revegetation following construction.

80. Potential impacts on migratory birds include disturbance to breeding individuals during the breeding season; indirect displacement from increased noise and human presence; and reduction in cover, nesting, and foraging habitat. The closest bald eagle nest is 2.7 miles from the Moore to Chappells Pipeline route. Dominion Carolina will continue to coordinate with FWS and South Carolina DNR to develop avoidance, minimization, or mitigation measures for the bald eagle. Environmental Condition 18 requires Dominion Carolina to file documentation of consultation with the FWS regarding project-related impacts on migratory bird species, including any additional conservation measures to be implemented.

11. Greenhouse Gas

81. Upstate Forever, observing that the U.S. Environmental Protection Agency (EPA) has encouraged the Commission to use a more comprehensive approach when analyzing greenhouse gas (GHG) emissions from natural gas pipelines, asserts that the EA should have included a life-cycle analysis of emissions facilitated by proposed project. As explained in the EA,¹⁰⁹ the majority of operational emissions from the project would result from the new Dorchester Compressor Station and the uprated Moore Compressor Station. As stated above, the project will transport up to 80,000 Dth/d of natural gas to South Carolina Electric and Gas (75,000 Dth/d), Flakeboard Company Limited (2,000 Dth/d), and Wyman-Gordon (3,000 Dth/d). Based on the assumption that a maximum quantity of gas is transported and used in combustion, downstream end-use would result in up to 1.6 million metric tons per year, CO₂-equivalent (metric tpy CO_{2e}). Combustion uses include electrical generation, boiler or furnace fuel, residential cooking, and as a vehicle fuel. This estimate represents an upper bound for the amount of end-use combustion that could result from the gas transported by this

¹⁰⁸ EA at 63.

¹⁰⁹ EA at 95.

project. This is because some of the gas may displace other fuels, which could actually lower total carbon dioxide emissions. It may also displace gas that otherwise would be transported via different means, resulting in no change in carbon dioxide emissions. As such, this upper bound estimate involves a significant amount of uncertainty.

82. Ms. Copeland expressed concern about the impact of methane leaks, known technically as “fugitive emissions,” and their impact on climate change. The EA includes a quantitative estimate of fugitive emissions from both of the compressor stations, the pipeline, and minor aboveground facilities.¹¹⁰ The estimates are presented as carbon dioxide equivalents (CO_{2e}), which account for the potency of methane as a GHG. As recognized in the EA, all compressor stations are subject to the EPA’s Greenhouse Gas Reporting rule, which requires reporting of annual emissions greater than 25,000 metric tpy CO_{2e}.¹¹¹ In addition, the Dorchester and Moore Compressor Stations will be subject to a new EPA rule – New Source Performance Standards Subpart OOOOa – that requires oil and natural gas production and transmission companies to implement specific measures to reduce fugitive emissions, and identify and repair leaks.¹¹²

83. Based on the analysis in the EA, as supplemented herein, we conclude that if the project is constructed and operated in accordance with Dominion Carolina’s application and supplements, and in compliance with the environmental conditions in the Appendix to this order, our approval of this proposal would not constitute a major federal action significantly affecting the quality of the human environment.

84. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this certificate. The Commission encourages cooperation between interstate pipelines and local authorities. However, this does not mean that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.¹¹³

¹¹⁰ EA at 98.

¹¹¹ EA at 100.

¹¹² EA at 101.

¹¹³ See 15 U.S.C. § 717r(d) (state or federal agency’s failure to act on a permit considered to be inconsistent with Federal law); see also *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293, 310 (1988) (state regulation that interferes with FERC’s regulatory authority over the transportation of natural gas is preempted) and *Dominion Transmission, Inc. v. Summers*, 723 F.3d 238, 245 (D.C. Cir. 2013) (noting that state and

(continued...)

IV. Conclusion

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

The Commission orders:

(A) A certificate of public convenience and necessity is issued authorizing Dominion Carolina to construct and operate the Transco to Charleston Project, as described more fully in this order and in the application.

(B) The certificate authorized in Ordering Paragraph (A) is conditioned on Dominion Carolina's:

- (1) completion of construction of the proposed facilities and making them available for service within two years of the date of this order pursuant to section 157.20(b) of the Commission's regulations;
- (2) compliance with all applicable Commission regulations including paragraphs (a), (c), (e), and (f) of section 157.20 of the Commission's regulations;
- (3) compliance with the environmental conditions listed in the appendix to this order; and
- (4) execution, prior to commencement of construction, of firm contracts for the volumes and service terms equivalent to those in its precedent agreements.

(C) Dominion Carolina's proposed initial incremental recourse rate for firm transportation service under Rate Schedule FT using the Transco to Charleston Project capacity is approved, subject to the conditions described herein.

(D) Dominion Carolina shall file actual tariff records no earlier than 60 days, and no later than 30 days, prior to the date the project facilities go into service.

local regulation is preempted by the NGA to the extent it conflicts with federal regulation, or would delay the construction and operation of facilities approved by the Commission).

(E) Dominion Carolina shall keep separate books and accounting of costs attributable to the proposed incremental services, as described above.

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

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Appendix

Environmental Conditions

Dominion Carolina's Transco to Charleston Project, Docket No. CP16-98-000

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

1. Dominion Carolina Gas Transmission, LLC (Dominion Carolina) shall follow the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests) and as identified in the environmental assessment (EA), unless modified by the Order. Dominion Carolina must:
 - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary of the Commission (Secretary);
 - b. justify each modification relative to site-specific conditions;
 - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
 - d. receive approval in writing from the Director of the Office of Energy Projects (OEP) **before using that modification.**
2. The Director of OEP has delegated authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the project. This authority shall allow:
 - a. the modification of conditions of the Order; and
 - b. the design and implementation of any additional measures deemed necessary (including stop-work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from project construction and operation.
3. **Prior to any construction**, Dominion Carolina shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors (EIs), and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs before becoming involved with construction and restoration activities.

4. The authorized facility locations shall be as shown in the EA, as supplemented by filed alignment sheets. **As soon as they are available, and before the start of construction,** Dominion Carolina shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the Order. All requests for modifications of environmental conditions of the Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

Dominion Carolina's exercise of eminent domain authority granted under the Natural Gas Act Section 7(h) in any condemnation proceedings related to the Order must be consistent with these authorized facilities and locations. Dominion Carolina's right of eminent domain granted under the Natural Gas Act Section 7(h) does not authorize it to increase the size of its natural gas pipelines or aboveground facilities to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

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

This requirement does not apply to extra workspace allowed by the Federal Energy Regulatory Commission (FERC or Commission) *Upland Erosion Control, Revegetation, and Maintenance Plan* and/or minor field realignments per landowner needs and requirements which do not affect other landowners or sensitive environmental areas such as wetlands.

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

- a. implementation of cultural resources mitigation measures;
- b. implementation of endangered, threatened, or special concern species mitigation measures;
- c. recommendations by state regulatory authorities; and

- d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.
6. **Within 60 days of the acceptance of the Certificate and before construction begins**, Dominion Carolina shall file an Implementation Plan with the Secretary for review and written approval by the Director of OEP. Dominion Carolina must file revisions to the plan as schedules change. The plan shall identify:
- a. how Dominion Carolina will implement the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests), identified in the EA, and required by the Order;
 - b. how Dominion Carolina will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;
 - c. the number of EIs assigned, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
 - d. company personnel, including EIs and contractors, who will receive copies of the appropriate material;
 - e. the location and dates of the environmental compliance training and instructions Dominion Carolina will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change) with the opportunity for OEP staff to participate in the training session(s);
 - f. the company personnel and specific portion of Dominion Carolina's organization having responsibility for compliance;
 - g. the procedures (including use of contract penalties) Dominion Carolina will follow if noncompliance occurs; and
 - h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
 - i. the completion of all required surveys and reports;
 - ii. the environmental compliance training of onsite personnel;
 - iii. the start of construction; and

- iv. the start and completion of restoration.
7. Dominion Carolina shall employ at least one EI per construction spread. The EI shall be:
- a. responsible for monitoring and ensuring compliance with all mitigation measures required by the Order and other grants, permits, certificates, or other authorizing documents;
 - b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract (see condition 6 above) and any other authorizing document;
 - c. empowered to order correction of acts that violate the environmental conditions of the Order, and any other authorizing document;
 - d. a full-time position, separate from all other activity inspectors;
 - e. responsible for documenting compliance with the environmental conditions of the Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
 - f. responsible for maintaining status reports.
8. Beginning with the filing of its Implementation Plan, Dominion Carolina shall file updated status reports with the Secretary on a **bi-weekly** basis until all construction and restoration activities are complete. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
- a. an update on Dominion Carolina's efforts to obtain the necessary federal authorizations;
 - b. the construction status of the project, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally-sensitive areas;
 - c. a listing of all problems encountered and each instance of noncompliance observed by the EI during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);
 - d. a description of the corrective actions implemented in response to all instances of noncompliance, and their cost;
 - e. the effectiveness of all corrective actions implemented;

- f. a description of any landowner/resident complaints which may relate to compliance with the requirements of the Order, and the measures taken to satisfy their concerns; and
 - g. copies of any correspondence received by Dominion Carolina from other federal, state, or local permitting agencies concerning instances of noncompliance, and Dominion Carolina's response.
9. **Prior to receiving written authorization from the Director of OEP to commence construction of any project facilities,** Dominion Carolina shall file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).
10. Dominion Carolina must receive written authorization from the Director of OEP **before placing the project into service.** Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way and other areas affected by the project are proceeding satisfactorily.
11. **Within 30 days of placing the authorized facilities in service,** Dominion Carolina shall file an affirmative statement with the Secretary, certified by a senior company official:
 - a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
 - b. identifying which of the certificate conditions Dominion Carolina has complied with or will comply with. This statement shall also identify any areas affected by the project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
12. **Prior to construction,** Dominion Carolina shall conduct a field assessment of the Charleston Town Border Station for soil conditions that could be prone to soil liquefaction and file the results of the assessment with the Secretary.
13. **Prior to construction,** Dominion Carolina shall contact the Woodruff Roebuck Water District and the City of Clinton to determine notification procedures in regard to construction of the project within three miles of the public water supply intakes, and file documentation of this consultation with the Secretary.
14. **Prior to construction,** Dominion Carolina shall file with the Secretary the locations, rates, and volumes of water that would be withdrawn from surface waters for hydrostatic testing activities. This shall include the watershed associated with the source water, and the respective discharge locations.

15. **Prior to construction**, Dominion Carolina shall file with the Secretary, for review and written approval by the Director of OEP, its proposed mesh size or water intakes for hydrostatic test water withdrawals, and the proposed pump velocity at the intake to minimize impingement of smaller nongame fish. Dominion Carolina shall include in its filing, documentation of its consultation with the South Carolina DNR regarding both the proposed mesh size and pump velocity limits.
16. **Prior to construction**, Dominion Carolina shall revise its *Transco to Charleston Project Wetland and Waterbody Construction and Mitigation Procedures* to conduct all in-water work from July 1 to February 28, or file with the Secretary documentation of consultation with the South Carolina DNR in regard to alternative timing.
17. **Prior to construction**, Dominion Carolina shall consult with the Natural Resources Conservation Service (NRCS) in regard to the proposed access road modification and related disturbance on the Wetland Reserve Program (WRP) conservation easement along the Dillon Pipeline. Dominion Carolina shall file copies of this consultation with the Secretary, and any proposed avoidance or mitigation measures, for review and written approval by the Director of OEP.
18. **Prior to construction**, Dominion Carolina shall file with the Secretary documentation of consultation with the USFWS regarding project-related impacts on migratory bird species, including any additional conservation measures it will implement.
19. **Prior to construction**, Dominion Carolina shall file with the Secretary documentation of consultation with the USFWS and South Carolina DNR for the Newberry burrowing crayfish and for the Broad River spiny crayfish.
20. Dominion Carolina shall develop and implement an environmental complaint resolution procedure. The procedure shall provide landowners with clear and simple directions for identifying and resolving their environmental mitigation problems/concerns during construction of the project and restoration of the right-of-way. **Prior to construction**, Dominion Carolina shall mail the complaint procedures to each landowner whose property would be crossed by the project.
 - a. In its letter to affected landowners, Dominion Carolina shall:
 - i. provide a local contact that the landowners should call first with their concerns; the letter should indicate how soon a landowner should expect a response;
 - ii. instruct the landowners that if they are not satisfied with the response, they should call Dominion Carolina's Hotline; the letter should indicate how soon to expect a response; and

- iii. instruct the landowners that if they are still not satisfied with the response from Dominion Carolina's Hotline, they should contact the Commission's Landowner Helpline at 877-337-2237 or at LandownerHelp@ferc.gov.
 - b. In addition, Dominion Carolina shall include in its biweekly status report a copy of a table that contains the following information for each problem/concern:
 - i. the identity of the caller and date of the call;
 - ii. the location by milepost and identification number from the authorized alignment sheet(s) of the affected property;
 - iii. a description of the problem/concern; and
 - iv. an explanation of how and when the problem was resolved, will be resolved, or why it has not been resolved.
21. **Prior to construction**, Dominion Carolina shall provide evidence of landowner concurrence for the construction work area and fencing located within 10 feet of the residences at Milepost (MP) 0.7, 1.0R, 15.6R, and 15.8R.
22. **Prior to construction between MP 43 and 45**, Dominion Carolina shall coordinate with the South Carolina DNR to minimize impacts on any scheduled hunting activities in the Belfast Wildlife Management Area property, and file with the Secretary copies of this consultation.
23. **Prior to construction between MP 53 and 53.35**, Dominion Carolina shall confirm that the Saluda River horizontal directional drill (HDD) in this area will not impact the Upper Savannah Land Trust conservation easement. If the conservation easement will be affected, Dominion Carolina shall consult with the Upper Savannah Land Trust to minimize potential impacts on the conservation easement, and file with the Secretary copies of this consultation.
24. **Prior to construction**, Dominion Carolina shall file with the Secretary documentation of concurrence from the South Carolina Department of Health and Environmental Control's Office of Ocean and Coastal Resource Management that the project is consistent with the South Carolina Coastal Zone Management Program.
25. Dominion Carolina shall **not** begin implementation of any treatment plans/measures (including archaeological data recovery); construction of facilities; or use staging, storage, or temporary work areas and new or to-be-improved access roads **until**:

- a. Dominion Carolina files with the Secretary all survey reports, evaluation reports, avoidance plans and treatment plans, and the South Carolina State Historic Preservation Office's comments on the reports and plans;
- b. the Advisory Council on Historic Preservation is afforded an opportunity to comment if historic properties will be adversely affected; and
- c. FERC staff reviews and the Director of the OEP approves all reports and plans and notifies Dominion Carolina in writing that construction may proceed.

All material filed with the Commission containing location, character, and ownership information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: **“CONTAINS PRIVILEGED INFORMATION – DO NOT RELEASE.”**

26. **Prior to construction**, Dominion Carolina shall file with the Secretary, for the review and written approval by the Director of OEP, an HDD noise mitigation plan to reduce the projected noise level attributable to the proposed drilling operations at nearby noise sensitive areas (NSAs) for HDD 02, 03, 04, 05, 06, 08, 11, 12, 13, 17, and 24. During drilling operations, Dominion Carolina shall implement the approved plan, monitor noise levels, include the noise level results in its bi-weekly construction status reports, and make all reasonable efforts to restrict the noise attributable to the drilling operations to no more than a day-night averaged sound level (L_{dn}) of 55 decibels on the A-weighted scale (dBA) at the NSAs.
27. Dominion Carolina shall file with the Secretary a noise survey for the Moore and Dorchester Compressor Stations **no later than 60 days** after placing each station into service. If a full power load condition noise survey is not possible, Dominion Carolina shall file an interim survey at the maximum possible power load **within 60 days** of placing the station into service and file the full power load survey **within 6 months**. If the noise attributable to operation of all equipment at the station under interim or full power load conditions exceeds an L_{dn} of 55 dBA at any nearby NSA, Dominion Carolina shall:
 - a. file a report with the Secretary, for review and written approval by the Director of OEP, on what changes are needed;
 - b. install additional noise controls to meet that level **within 1 year** of the in- service date; and
 - c. confirm compliance with this requirement by filing a second full power load noise survey with the Secretary for review and written approval by the Director of OEP **no later than 60 days** after it installs the additional noise controls.