UNITED STATES OF AMERICA

BEFORE THE

FEDERAL ENERGY REGULATORY COMMISSION

In the Matter of the Applications of:	
	Docket Nos. CP15-554-000
Atlantic Coast Pipeline, LLC	**CP15-554-001**
Dominion Transmission, Inc.	**CP15-555-000**

MOTION FOR AN EVIDENTIARY HEARING

BY

SHENANDOAH VALLEY NETWORK,

HIGHLANDERS FOR RESPONSIBLE DEVELOPMENT,

VIRGINIA WILDERNESS COMMITTEE,

SHENANDOAH VALLEY BATTLEFIELDS FOUNDATION,

NATURAL RESOURCES DEFENSE COUNCIL,

COWPASTURE RIVER PRESERVATION ASSOCIATION,

FRIENDS OF BUCKINGHAM, AND

WINYAH RIVERS FOUNDATION

In the three years since Dominion Energy announced the Atlantic Coast Pipeline, the purported justifications for this project have eroded, if they ever existed. The pipeline, which is slated to fuel gas-fired power plants in Virginia and North Carolina, is not needed to keep the lights on. Demand for gas-fired generation is not growing in the region or across the country, thanks to increased energy efficiency and the availability of solar and wind alternatives.

To resolve these issues and to protect ratepayers and landowners are protected from the costs and harms of an unnecessary pipeline, and as authorized by 15 U.S.C. § 717f(c)(1)(B), 18 C.F.R. § 385.212, and 18 C.F.R. § 385.502, Shenandoah Valley Network, Highlanders for Responsible Development, Virginia Wilderness Committee, Shenandoah Valley Battlefields Foundation, Natural Resources Defense Council, Cowpasture River Preservation Association, Friends of Buckingham, and Winyah Rivers Foundation (Conservation Groups) respectfully request an evidentiary hearing, with an opportunity for discovery as authorized by 18 C.F.R. § 385, Subpart D, concerning the public convenience and necessity for the Atlantic Coast Pipeline. The Conservation Groups allege that:

1. Atlantic Coast Pipeline, LLC's (Atlantic's) precedent agreements with affiliated shippers, which are or serve a regulated utility with captive ratepayers, distort market signals and are not a reliable market proxy.

2. Demand for natural gas for power generation in the region that includes Virginia and North Carolina is level through 2030, undermining market demand for the Atlantic Coast Pipeline.

3. Electricity load forecasts for Virginia remain level through 2030, undermining market demand for the Atlantic Coast Pipeline.

4. Electricity load forecasts for North Carolina have declined since 2014, undermining market demand for the Atlantic Coast Pipeline.

5. The capacity of existing natural gas pipeline and storage infrastructure, with planned modifications, is sufficient to meet demand for natural gas in Virginia and North Carolina.

6. Rapidly declining costs of renewable energy will render gas-fired power generation uneconomic in coming years.

Because these factual allegations go to the very heart of the Commission's evaluation of the public convenience and necessity for the Atlantic Coast Pipeline, they are material. They are also disputed—Atlantic offers its precedent agreements as conclusive proof of the need for its proposed pipeline. And they cannot be resolved in a paper hearing because the Commission must assess Atlantic's motivation and the credibility of its witnesses through live testimony and cross examination. Moreover, these complex issues implicate the Commission's core function to protect consumers from exploitation.

The Commission must resolve these factual issues before making a decision on Atlantic's application or risk a decision clouded by uncertainty or, worse, construction of an unnecessary pipeline with significant adverse impacts for ratepayers and landowners.

INTRODUCTION

The energy landscape that prompted Dominion Energy and Duke Energy to propose the Atlantic Coast Pipeline in 2014 has changed dramatically in the last

three years. Independent forecasters, such as PJM Interconnection, have revised predictions of electricity demand in Virginia and North Carolina downward as a result of energy efficiency improvements. Historic shifts in the direction of gas flow on existing pipelines are underway. And renewable alternatives—solar, wind, and battery storage—are gaining market share as their costs continue to drop. In light of these developments, the Commission must not accept Atlantic's precedent agreements for the Atlantic Coast Pipeline as its sole evidence that this project is "required by the present or future public convenience and necessity."

These precedent agreements, among affiliates of Dominion Energy and Duke Energy, the principal owners of Atlantic Coast Pipeline, LLC, rely on captive ratepayers to finance an otherwise risky and uneconomic project. In other words, these companies are gambling with ratepayer money in order to build their $5-6 billion project on which pipeline developers will receive a lucrative 14-15% rate of return. Not only do they own the pipeline developer, they also own the shippers that are or serve regulated utilities and have signed precedent agreements for the pipeline's capacity. Captive ratepayers of those utilities—Dominion Energy Virginia, Duke Energy Progress, and Duke Energy Carolinas—will pay the cost of those 20-year contracts for firm capacity on the Atlantic Coast Pipeline regardless of whether that capacity is ever used for power generation. Precedent agreements between affiliates, with electric ratepayers held hostage on one end of the deal, ensure that Duke Energy and Dominion Energy shareholders will reap the

financial rewards of building the Atlantic Coast Pipeline while shouldering very little risk.

If the Commission looks behind Atlantic's precedent agreements, it will see that the purported justifications for the Atlantic Coast Pipeline are eroding. The primary stated purpose of this project is to fuel gas-fired power plants in Virginia and North Carolina. But the demand for electricity in these states has remained level over the last ten years, a trend reflected in the demand forecasts from the Energy Information Agency and the regional grid manager, PJM Interconnection. Even the utilities have revised their forecasts downward from 2014 levels.

Moreover, the energy system is at the threshold of a dramatic transition away from fossil fuels to low-cost renewable alternatives. The cost of wind, solar, and battery storage continues to drop, and these resources will soon be, and in some cases already are, the lowest cost options on the grid, even according to the utilities involved in this docket. Additionally, large energy consumers in the region are increasingly demanding or planning to switch to 100% renewable energy to meet their needs, further reducing expected natural gas demand. Existing pipeline capacity, with planned modifications like the conversion of the Transco Mainstem to bidirectional flow, can provide a sufficient supply of natural gas for the demand that does exist without the costly infrastructure investment, borne by captive ratepayers, required for the Atlantic Coast Pipeline.

Atlantic disputes the factual issues presented in this motion and has announced that it expects Commission approval for the Atlantic Coast Pipeline in the coming months. But these disputed facts implicate the Commission's core function under the Natural Gas Act—the protection of consumers from exploitation by natural gas companies. In order to protect consumers and landowners, the Commission must conduct a careful and searching inquiry of the public benefit and necessity for this project and resolve the disputed factual issues raised here. The proper mechanism for this inquiry is a trial-like evidentiary hearing.

ARGUMENT

A. The Commission must hold a trial-like evidentiary hearing to ensure the protection of consumers and landowners from an unnecessary natural gas pipeline.

Section 7(e) of the Natural Gas Act requires that the Commission determine whether a proposed interstate pipeline "is or will be required by the present or future public convenience and necessity."[1] In undertaking this evaluation, the Commission is supposed to consider "all relevant factors reflecting on the need for the project," including "precedent agreements, demand projections, potential cost savings to consumers, or a comparison of the projected demand with the amount of capacity currently serving the market."[2] Projects with significant adverse

[1] Natural Gas Act of 1938, 15 U.S.C. § 717f(e) (2012).

[2] Certification of New Interstate Natural Gas Pipeline Facilities, 88 FERC ¶ 61,227, 61,747 (Sept. 15, 1999), *clarified* 154 FERC ¶ 61,190 (Feb. 24, 2000), *further clarified* 92 FERC ¶ 61,094 (July 18, 2000).

impacts must make a "greater [ ] showing of need and public benefits."[3] The Commission observed in a recent order that "the strength of the benefit showing will need to be proportional to the applicant's proposed exercise of eminent domain procedures."[4]

The Natural Gas Act also states that the Commission shall set "for hearing" each application for a certificate of public convenience and necessity.[5] This requirement "permits all interested parties to be heard and therefore facilitates full presentation of the facts necessary" for the Commission's evaluation of the application.[6] But a trial-like evidentiary hearing with an opportunity to present oral testimony and cross-examine witnesses is not guaranteed.[7] Parties seeking such a hearing must satisfy three threshold conditions. First, they "must make allegations of *fact* material to the Commission's determination."[8] Second, they "must make an adequate proffer of evidence to support" their allegations of fact.[9] And third, the material facts alleged by parties seeking a hearing "must be *in dispute*."[10]

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[3] *Id.* at 61,748.

[4] *Jordan Cove Energy Project, L.P.*, Order Denying Application for Certificate and Section 3 Authorization, 154 FERC ¶ 61,190 at ¶ 38 (Mar. 11, 2016) (quoting Certification of New Interstate Natural Gas Pipeline Facilities, 88 FERC ¶ at 61,749).

[5] 15 U.S.C. § 717f(c).

[6] *Cascade Nat. Gas Corp. v. FERC*, 955 F.2d 1412, 1425 (10th Cir. 1992) (quoting *United Gas Pipeline Co. v. McCombs*, 442 U.S. 529, 538 (1979)).

[7] *Id*. at 1426.

[8] *Id*. at 1425 (emphasis in original).

[9] *Id.* at 1425–26 (internal quotations and citations omitted).

[10] *Id.* at 1426 (emphasis in original).

However, even when these conditions are met, the Commission may determine that factual disputes can be resolved on a written record.[11] Here, Conservation Groups make allegations of material facts that are supported by an offer of evidence and are in dispute. Further, for the reasons explained below, the Commission cannot resolve these allegations on the basis of a written record.

Conservation Groups make six factual allegations that go to the heart of the Commission's review of the need for the Atlantic Coast Pipeline:

1. Atlantic's precedent agreements with affiliated shippers, which are or serve a regulated utility with captive ratepayers, distort market signals and are not a reliable market proxy.
2. Demand for natural gas for power generation in the region that includes Virginia and North Carolina is level through 2030.
3. Electricity load forecasts for Virginia remain level through 2030, undermining market demand for the Atlantic Coast Pipeline.
4. Electricity load forecasts for North Carolina have declined since 2014, undermining market demand for the Atlantic Coast Pipeline.

[11] *Id.*

5. The capacity of existing natural gas pipeline and storage infrastructure, with planned modifications, is sufficient to meet demand for natural gas in Virginia and North Carolina.

6. Rapidly dropping costs of renewable energy will render gas-fired power generation uneconomic in coming years.

These facts are material to the Commission's evaluation of Atlantic's certificate application, supported by an adequate proffer of evidence, and disputed by Atlantic. Conservation Groups have therefore satisfied the three threshold conditions for obtaining an evidentiary hearing.

These allegations cannot be resolved on the basis of the written record. Parsing the disputed facts will depend on live testimony from multiple conflicting experts offering opinions on complex technical issues related to pipeline financing, electricity demand forecasting, existing pipeline capacity, and renewable energy forecasting. The presentation of conflicting testimony and cross examination by adverse parties will be essential for the Commission to effectively evaluate the credibility and reliability of each witness, a critical determination in light of

Atlantic's precedent agreements with affiliates that guarantee lucrative returns for Dominion Energy and Duke Energy shareholders.[12]

Moreover, Conservation Groups' allegations implicate the Commission's core function to protect consumers.[13] The primary aim of the Natural Gas Act is "to protect consumers against exploitation at the hands of natural gas companies."[14] "The Commission is the guardian of the public interest" and "must consider all factors bearing on the public interest."[15] Here, because of the significant risks to consumers, the Commission should consider the facts alleged by Conservation Groups in a trial-like proceeding.

The Atlantic Coast Pipeline threatens exploitation of consumers—in this case, captive utility ratepayers—in Virginia and North Carolina. Dominion Energy and Duke Energy have engineered arrangements between their affiliates that will transfer the risk of the project from their shareholders to their captive ratepayers. These ratepayers will, in effect, subsidize the project by unknowingly

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[12] *See Union Pac. Fuels, Inc. v. FERC*, 129 F.3d 157, 164 (D.C. Cir. 1997) (recognizing that live presentation of testimony and cross examination of witnesses is required when "motive, intent, or credibility are at issue").

[13] *See, e.g., Cajun Elec. Power Coop, Inc. v. FERC*, 28 F.3d 173, 178–180 (D.C. Cir. 1994) (holding that an evidentiary hearing was required for a factual dispute "central to the Commission's approval").

[14] *Fed. Power Comm'n v. Transcontinental Gas Pipe Line Corp.*, 365 U.S. 1, 19 (1961) (internal quotations and citations omitted); *Sunray Mid-Con Oil Co. v. Fed. Power Comm'n*, 364 U.S. 137, 147 (1960) (internal quotations and citations omitted).

[15] *Cascade Nat. Gas Corp.*, 955 F.2d at 1421 (citing *Atlantic Ref. Co. v. Pub. Serv. Comm'n of N.Y.*, 360 U.S. 378, 391 (1959); *Transcontinental Gas Pipe Line Corp.*, 365 U.S. at 19).

guaranteeing payment for firm capacity regardless of whether that capacity is ever used.

Additionally, the Atlantic Coast Pipeline will require the extensive exercise of eminent domain, further underscoring the need a careful, transparent review of the necessity for this project. If, as the Commission acknowledges, the "strength of the benefit showing will need to be proportional to the applicant's proposed exercise of eminent domain procedures," Atlantic must make a very strong benefit showing.[16] The vast majority of the proposed route is privately owned—576.4 miles of the pipeline's total length of 603.8 miles would cross private lands.[17] Many landowners have refused to negotiate easements for the pipeline, and Atlantic may be faced with using eminent domain for close to 40% of its route on over a thousand parcels, far more than "a few holdout landowners."[18]

These risks to ratepayers and landowners are too great for the Commission to rely on a paper record. Under these circumstances, the proper mechanism for the Commission to weigh complex technical evidence regarding genuine market demand is a trial-like hearing in which the Commission and opponents can cross-examine Atlantic's witnesses. The Commission must weigh the evidence and

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[16] Certification of New Interstate Natural Gas Pipeline Facilities, 88 FERC ¶ 61,227, 61,749 (Sept. 15, 1999).

[17] *See* FERC, Atlantic Coast Pipeline & Supply Header Project, Draft Environmental Impact Statement at 4-297 (Dec. 2016) [hereinafter DEIS].

[18] Certification of New Interstate Natural Gas Pipeline Facilities, 88 FERC at ¶ 61,749.

resolve these critical factual issues at this juncture or risk a decision clouded by uncertainty or, worse, approval of an unnecessary pipeline with significant harm to ratepayers and landowners.

B. Conservation Groups allege facts that are material to the Commission's evaluation of need for the Atlantic Coast Pipeline, supported by proffered evidence, and in dispute.

1. Atlantic's precedent agreements with affiliated shippers, which are or serve a regulated utility with captive ratepayers, distort market signals and are not a reliable market proxy.

Conservation Groups allege that Atlantic's precedent agreements with affiliated shippers, which are or serve a regulated utility with captive ratepayers, distort market signals and therefore are not a reliable market proxy. This allegation is material to the Commission's evaluation of Atlantic's application and in dispute because Atlantic has offered its precedent agreements as conclusive proof of the market need for the Atlantic Coast Pipeline. To support this allegation, Conservation Groups submit the following evidence:

(1) James F. Wilson, Wilson Energy Economics, *Evaluating Market Need for the Atlantic Coast Pipeline* (2017). Mr. Wilson concludes that because "the future need for incremental gas supply for new gas-fired generation is highly uncertain," precedent agreements between affiliates involving

captive ratepayers "may not be a reliable indicator of the market need" for new natural gas pipelines.[19]

(2) Steve Isser, Ph.D., *Natural Gas Pipeline Certification and Ratemaking* (2016). Dr. Isser concludes that "[w]here pipelines are financed through long-term contracts with LDCs or utilities that are subsidiaries of the parent company building the pipeline, the efficiency of the pipeline cannot be presumed by a full subscription to its capacity. . . . An uneconomic project that creates excess capacity can be financed in this manner by guaranteeing its income stream at the expense of alternative transport options."[20]

(3) N. Jonathan Peress, Environmental Defense Fund, *Hearing to Examine Oil and Gas Pipeline Infrastructure and the Economic, Safety, Environmental, Permitting, Construction, and Maintenance Considerations Associated with that Infrastructure: Hearing Before the S. Comm. on Energy & Nat. Res.*, 114th Cong. (June 14, 2016). Mr. Peress observes that "we are seeing a disturbing trend of utilities pursuing a capacity expansion strategy by imposing transportation contract costs on state-regulated retail utility ratepayers so that affiliates of those same utilities can earn shareholder returns as pipeline developers. . . . Thus ratepayer costs which may not be

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[19] J.F. Wilson, Wilson Energy Economics, *Evaluating Market Need for the Atlantic Coast Pipeline* 3 (2017), included as **Attachment 1**.

[20] S. Isser, *Natural Gas Pipeline Certification and Ratemaking* 24 (2016), included as **Attachment 2**.

justified by ratepayer demand are being converted into shareholder return."[21]

(4) Cathy Kunkel & Tom Sanzillo, Institute for Energy Economics & Financial Analysis, *Risks Associated with Natural Gas Pipeline Expansion in Appalachia* (2016). Ms. Kunkel and Mr. Sanzillo conclude that precedent agreements between affiliates of Dominion Energy and Duke Energy pose significant risk for utility ratepayers, including the risk that the pipeline will be "underutilitized."[22]

The Atlantic Coast Pipeline is a joint venture of Dominion Resources, Duke Energy, and Southern Company; these three companies own 100% of Atlantic Coast Pipeline, LLC, which is the project developer.[23] However, each is also the parent company of one or more of the pipeline's customers, *i.e.* shippers, that are either regulated utilities or, in the case of Dominion Resources' subsidiary Virginia Power Services, provide natural gas to a regulated utility.

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[21] *Hearing to Examine Oil and Gas Pipeline Infrastructure and the Economic, Safety, Environmental, Permitting, Construction, and Maintenance Considerations Associated with that Infrastructure: Hearing Before the S. Comm. on Energy & Nat. Res.*, 114th Cong. 5 (June 14, 2016) (statement of N. Jonathan Peress, Envt'l Def. Fund) [hereinafter Testimony of N. Jonathan Peress], included as **Attachment 3**.

[22] C. Kunkel & T. Sanzillo, Inst. for Energy Econ. & Fin. Analysis, *Risks Associated with Natural Gas Pipeline Expansion in Appalachia* 5–6 (2016), included as **Attachment 4**.

[23] *See* Michael Martz, *Dominion Retains Controlling Share in Pipeline Company in Restructuring After Piedmont Sale*, Richmond Times Dispatch (Oct. 3, 2016), http://www.richmond.com/business/local/dominion-retains-controlling-share-in-pipeline-company-in-restructuring-after/article_fd7bb234-0fc5-5351-8cea-b2f867fdde7a.html.

Table 1. Affiliate relationships behind the Atlantic Coast Pipeline. [24]

Parent Company	% Ownership of ACP, LLC	Subsidiary Shippers	Contracted Capacity on the Atlantic Coast Pipeline
Dominion Resources, Inc.	48%	Virginia Power Services	300,000 dekatherms/day (20% of total capacity)
Duke Energy	47%	Duke Energy Progress Duke Energy Carolinas Piedmont Natural Gas	885,000 dekatherms/day (59% of total capacity)
Southern Company	5%	Virginia Natural Gas	155,000 dekatherms/day (10.3% of total capacity)

Together, these affiliates of Dominion Resources, Duke Energy, and Southern Company have entered into precedent agreements with Atlantic for 93% of the pipeline's contracted capacity (89% of total capacity).[25] Moreover, affiliates of Dominion Resources and Duke Energy hold the bulk of the contracted capacity for use by power plants, and Atlantic anticipates that eventually about 79% of the pipeline's total capacity will fuel gas-fired generation.[26]

Energy experts have concluded that pipeline developers use precedent agreements between the developer and an affiliated regulated utility with captive

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[24] Atlantic Coast Pipeline, LLC, Abbreviated Application for a Certificate of Public Convenience and Necessity and Blanket Certificates at 7–8, 12 (Sept. 18, 2015) (eLibrary No. 20150918-5212) [hereinafter Application].

[25] *See id.* at 12.

[26] *See* DEIS, *supra* note 16, at 1–2.

ratepayers—like the contracts described above—to justify building pipeline infrastructure even if market demand is weak or absent.[27] Where the Commission accepts precedent agreements between affiliated companies, where the shipper is or serves a regulated utility as the sole evidence of need, it allows the shipper to "impose long-term financial obligations on captive ratepayers."[28] Utility ratepayers bear the risks associated with the project while the project's financial rewards accrue to the shareholders of the utility's parent company. This structure subverts the "price signals sent by a rational market"[29] and allows companies to pursue unneeded projects "at the expense of alternative transport options."[30]

Whether or not the Commission can rely on Atlantic's precedent agreements is material to its review of the certificate application. Atlantic disputes that the Commission should look behind its precedent agreements, stating that the agreements "demonstrate the long-term market need for the Project from major electric utilities and local distribution companies in Virginia and North Carolina."[31] The Commission must resolve this disputed factual issue before making a final decision on this project.

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[27] *See* Wilson, *supra* note 19, at 6–12; S. Isser, *supra* note 20, at 24; Testimony of N. Jonathan Peress, *supra* note 21, at 5; C. Kunkel & T. Sanzillo, *supra* note 22, at 5–6.

[28] Testimony of N. Jonathan Peress, *supra* note 21, at 5.

[29] *Id.*

[30] S. Isser, *supra* note 20, at 24.

[31] Application, *supra* note 23, at 33.

2. New forecasts from the U.S. Energy Information Administration show no growth in the demand for natural gas for power generation through 2030.

The Atlantic Coast Pipeline will primarily fuel gas-fired power plants in Virginia and North Carolina. Conservation Groups allege that demand for natural gas for power generation in the region that includes Virginia and North Carolina is level through 2030. To support this allegation, Conservation Groups offer the following evidence:

(1) Table: Energy Consumption for the Electric Power Sector: Natural Gas, South Atlantic Region, from Energy Information Administration, *Annual Energy Outlook 2017* (Jan. 5, 2017), https://www.eia.gov/outlooks/aeo/.

Projections from the Energy Information Administration (EIA) show that demand for natural gas for power generation is not growing in the region that includes Virginia and North Carolina. In EIA's 2017 Energy Outlook, the reference case for the South Atlantic region, *i.e.* a scenario reflecting improvements in known technologies and the views of leading economic forecasters and demographers,[32] projects that the demand for natural gas for electricity generation will decrease from 2015 to 2020 and will not return to 2015 levels until approximately 2034.[33]

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[32] U.S. Energy Info. Admin., *Annual Energy Outlook 2017* 5 (2017), https://www.eia.gov/outlooks/aeo/pdf/0383%282017%29.pdf.

[33] *See* U.S. Energy Info. Admin., *Annual Energy Outlook 2017, Table: Energy Consumption by Sector and Source*, https://www.eia.gov/outlooks/aeo/data/browser/#/?id=2-AEO2017&cases=ref2017&sourcekey=0 (last visited June 21, 2017).

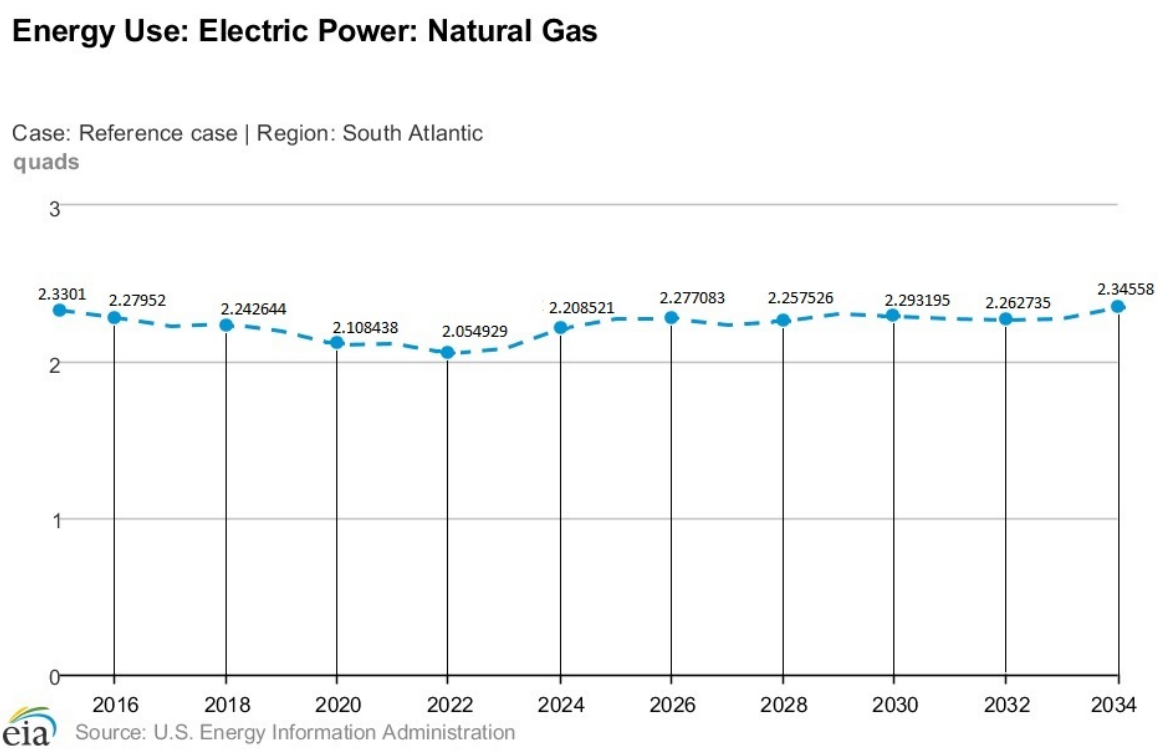

Figure 1. Demand for natural gas for electricity generation in the South Atlantic region from EIA's Annual Energy Outlook 2017.

In other words, EIA's most recent projections, made almost three years after Atlantic signed the precedent agreements with its affiliates, do not support the company's claim that the Atlantic Coast Pipeline is needed. According to EIA's analysis, new gas transmission capacity is not needed until 2034 at the earliest.

If new gas-fired power plants are not needed in Virginia and North Carolina, then the Atlantic Coast Pipeline is not needed to fuel them. This is a disputed material issue that the Commission must resolve before making a final decision on this project.

3. The regional grid manager, PJM Interconnection, has revised its load forecasts downward for Dominion Energy Virginia's service area since 2014, sharply contradicting forecasts from the utility.

Conservation Groups allege that electricity load forecasts for Virginia remain level through 2030 and undermine the purported market demand for the Atlantic Coast Pipeline. To support this allegation, they submit the following evidence:

(1) James F. Wilson, Wilson Energy Economics, *Evaluating Market Need for the Atlantic Coast Pipeline* (2017). Mr. Wilson concludes that PJM Interconnection, using enhanced and more accurate modeling techniques, "anticipates much slower growth" than Dominion Energy Virginia does for its service territory. "The electric demand that [Dominion Energy Virginia] was forecasting for 2020 now appears unlikely to be reached for at least a decade."[34]

(2) PJM Resource Adequacy Planning Department, *PJM Load Forecast Report* (Jan. 2017), http://www.pjm.com/~/media/library/reports-notices/load-forecast/2017-load-forecast-report.ashx.[35]

Dominion Energy Virginia's load forecasting has not kept pace with significant industry changes, particularly those undertaken by PJM Interconnection.[36]

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[34] Wilson, *supra* note 19, at 4–5.

[35] *See* PJM Resource Adequacy Planning Department, *PJM Load Forecast Report* (Jan. 2017), http://www.pjm.com/~/media/library/reports-notices/load-forecast/2017-load-forecast-report.ashx, included as **Attachment 5**.

[36] *See* Wilson, *supra* note 19, at 15–16.

Between 2007 and 2015, electricity demand for Dominion Energy Virginia's service territory did not increase, even with the modest economic growth that followed the 2008 economic recession.[37] PJM, the regional transmission organization that manages the electrical transmission grid in parts of Virginia and North Carolina, implemented enhancements to its demand modeling in 2015.[38] It designed these changes to reflect an important new trend—electricity demand growth is no longer coupled in lockstep with economic growth.[39] Using the enhanced models, PJM significantly revised its electricity demand projections downward for Dominion Energy Virginia's service territory in 2016 and 2017.[40] And even with its recent model enhancements, PJM is likely still over-projecting the electricity demand in the Dominion service territory.[41]

Over time, the divergent load forecasts from Dominion Energy and PJM produce significant capacity differences. In fact, by 2027, PJM's 2017 forecast for the Dominion zone is approximately 2,700 MW less than Dominion Virginia Power's own 2017 projection.[42]

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[37] *See id.* at 13–15.

[38] *See id.* at 13.

[39] *See* Direct Testimony of James F. Wilson, Va. State Corp. Comm., Case No. PUE-2016-00049, at 11-17 (Aug. 17, 2016) [hereinafter Direct Testimony of James F. Wilson], included as an attachment to Wilson, *supra* note 19.

[40] *See id.*; Wilson, *supra* note 19, at 13.

[41] Direct Testimony of James F. Wilson, *supra* note 39, at 16.

[42] *See In re Virginia Electric and Power Company's Integrated Resource Plan filing pursuant to Va. Code § 56-597 et seq.*, Case No. PUR-2017-00051, Appendix 2G (May 2, 2017).

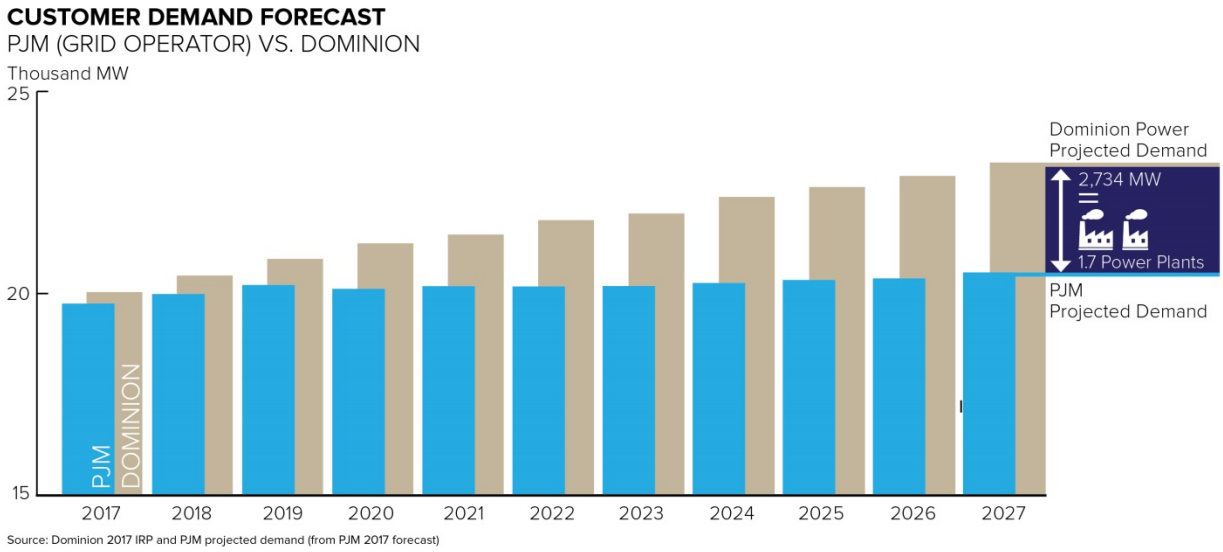

Figure 2. Electricity demand forecasts from PJM Interconnection and Dominion Energy Virginia.

This 2,700 MW difference between projections represents the output of approximately 1.7 gas-fired power plants, enough to eliminate a substantial share of Atlantic's claimed demand for the Atlantic Coast Pipeline in Virginia. If PJM, the dispatcher of electric plants in Dominion's territory, is indeed correct, and these new gas-fired power plants are not needed, then gas transmission capacity on the pipeline is not needed to serve them.[43]

Furthermore, both PJM's and Dominion Energy Virginia's demand forecasting includes a significant amount of projected load to accommodate the growth of data centers.[44] While demand for data centers continues to grow, these facilities have significantly improved their energy efficiency and will drive little additional

[43] *See, e.g.*, Wilson, *supra* note 19, at 16.

[44] *See id.* at 13–15.

growth in electricity usage.[45] Moreover, many companies building data centers are committed to using renewable energy. Amazon, for example, has six solar farms operating, or set to begin operating in 2017, to help achieve its corporate goal of 100% renewable energy for its Virginia data centers.[46] Removing data centers from PJM's projections reduces demand for electricity by 1,500 MWs, approximately equivalent to the output of yet another gas-fired power plant.[47]

Further, Dominion Energy Virginia does not need the Atlantic Coast Pipeline to supply gas to its approved power plants. The utility currently operates 6,597 MW of natural-gas fired generating capacity in Virginia, with an additional 1,588 MW under construction at the Greensville combined cycle facility. Not a single one of these facilities requires gas from the Atlantic Coast Pipeline for operation. In fact, in its application to the Virginia State Corporation Commission for permission to build the Greensville facility, Dominion Virginia Power expressly stated that

> The Greensville County Power Station will be fueled using 250,000 Dth per day of natural gas with reliable firm transportation provided by Transcontinental Gas Pipe Line Company, LLC ("Transco") at a cost-effective rate. This arrangement will provide the Greensville

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[45] Direct Testimony of James F. Wilson, *supra* note 39, at 19.

[46] *See* Amazon Web Servs., *Global Infrastructure*, https://aws.amazon.com/about-aws/global-infrastructure/ (last visited June 21, 2017); Amazon Web Servs., *AWS & Sustainability*, https://aws.amazon.com/about-aws/sustainability/ (last visited June 21, 2017).

[47] *See* Wilson, *supra* note 19, at 14, fig.3.

> County Power Station with access to *abundant* natural gas supplies from the Gulf to the Marcellus/Utica Shale regions.[48]

Of the Atlantic Coast Pipeline, Dominion merely stated that "[the] Greensville County Power Station site will also have access to another interstate pipeline, the Atlantic Coast Pipeline ("ACP"), which is scheduled to commence service in 2018 . . . ."[49]

To date, Dominion Energy Virginia has not applied for or obtained approval to construct any new natural gas-fired facilities, much less any plant that will rely exclusively on the Atlantic Coast Pipeline for fuel supply. Further, in its various Virginia State Corporation Commission proceedings, the utility has not even identified—much less sought approval for—a specific, future natural gas-fired generating project that will rely solely on the Atlantic Coast Pipeline for fuel supply. The Virginia State Corporation Commission approved Dominion Virginia Power's 2016 integrated resource plan (IRP) only as a "planning document," noting that its approval

> does not in any way create the slightest presumption that resource options contained in the approved IRP will be approved in a future certificate of public convenience and necessity, rate adjustment

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[48] *Application of Virginia Electric and Power Company For Approval and Certification of the Proposed Greensville County Power Station Electric Generation and Related Transmission Facilities under §§ 56-580 D, 56-265.2 and 56-46.1 of the Code of Virginia and for Approval of a Rate Adjustment Clause, Designated Rider GV, under § 56-585.1 A 6 of the Code of Virginia,* Case No. PUE-2015-00075 at 7 (July 1, 2015) (emphasis added).

[49] *Id.* at 8.

clause, fuel factor or other type of proceeding governed by different statutes.[50]

In light of Dominion Energy Virginia's inflated projections of electricity demand and the lack of identification of—or approval for—any gas-fired resources that rely exclusively on the Atlantic Coast Pipeline, the Commission must be wary of relying on Atlantic's precedent agreements as conclusive evidence of need.

Again, if new gas-fired power plants are not needed in Virginia, then the Atlantic Coast Pipeline is not needed to fuel them. This is a disputed issue of fact that the Commission must resolve before making a final decision on this project.

4. Duke Energy utilities, Duke Energy Carolinas and Duke Energy Progress, have revised their demand forecasts downward for North Carolina since 2014.

Conservation Groups allege that electricity load forecasts for North Carolina have declined since 2014 and undermine the actual market demand for the Atlantic Coast Pipeline. To support this allegation, they submit the following evidence:

(1) James F. Wilson, Wilson Energy Economics, *Evaluating Market Need for the Atlantic Coast Pipeline* (2017). Mr. Wilson concludes that both Duke Energy Carolinas and Duke Energy Progress have lowered their load forecasts since 2014. If these utilities "were to re-evaluate [their] commitment to ACP, [they] would likely find that the commitment is not needed at this time, it is unclear when such capacity might be needed, and it

[50] *In re Virginia Electric and Power Company's Integrated Resource Plan filing pursuant to Va. Code § 56-597 et seq.*, Case No. PUE-2016-00049 at 2, Final Order (Dec. 14, 2016).

is also unknown whether better options might be available at such time as incremental pipeline capacity does become needed."[51]

As discussed previously, Duke Energy, through its Gas Utilities and Infrastructure segment, is a 47 percent equity member of Atlantic Coast Pipeline, LLC, the entity that plans to build and own the proposed pipeline.[52] Duke Energy owns two electric utilities in the Carolinas, Duke Energy Carolinas (DEC) and Duke Energy Progress (DEP). Duke justifies its decision to pursue development of the pipeline on a need that was identified back in 2014: According to recent testimony filed with the North Carolina Utilities Commission, in 2014, Duke Energy (both DEC and DEP) identified a need for approximately 725,000 MMBtu/day of additional long-term natural gas transportation service.[53] To Conservation Group's knowledge, Duke has not performed, or in any event has not publicly disclosed, any update to the now-stale 2014 assessment of its need for additional gas transportation.

Duke's load growth projections have dropped considerably since 2014, casting doubt on whether the "need" for new natural gas transportation capacity remains—if it ever existed. In 2014, DEC projected summer peak load growth of

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[51] Wilson, *supra* note 19, at 5.

[52] Duke Energy, *Annual Report (Form 10-K)* 17 (Feb. 24, 2017), https://www.duke-energy.com/_/media/pdfs/our-company/investors/2016-duke-energy-form-10-k.pdf.

[53] Direct Testimony of Swati V. Daji, Docket No. E-100, Sub 147 at 9 (Feb. 16, 2017).

1.4% and winter peak load growth of 1.5%, after energy efficiency impacts.[54] By spring 2016, DEC's projected growth rate for summer peak demand had dropped to 1.2%, while winter peak demand growth had dropped to 1.3%.[55] DEP's 2014 load forecast showed a similar decrease: In 2014, DEP projected summer peak load growth of 1.4% and winter peak load growth of 1.3%, after energy efficiency impacts,[56] but by 2016, DEP's projected growth rate for summer peak demand had dropped to 1.1%, while winter peak demand growth remained at 1.3%.[57]

Moreover, even these more modest 2016 load growth projections must be viewed with skepticism. For one thing, DEC and DEP each acknowledge in their most recent IRPs that "[t]he outlook for usage per customer is slightly negative to flat through much of the forecast horizon, so most of the growth is primarily due to customer increases."[58]

Historically, both DEC and DEP have overestimated their load and energy forecasts, skewing high their assessment of future capacity and fuel needs. As observed by the Public Staff of the NCUC, a review of the load forecasts for 2010-

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[54] Duke Energy Carolinas, *Integrated Resource Plan (Annual Report)* 13, NCUC Docket E-100, Sub 141 (Sept. 1, 2014), http://www.energy.sc.gov/files/view/2014DukeEnCarIRP.pdf [hereinafter DEC 2014 IRP].

[55] *Id.* at 17.

[56] Duke Energy Progress, *Integrated Resource Plan (Annual Report)* 14, NCUC Docket E-100, Sub 141 (Sept. 1, 2014), http://www.energy.sc.gov/files/view/PROGRESS2014IRP.pdf [hereinafter DEP 2014 IRP].

[57] *Id.* at 17.

[58] DEC 2014 IRP, *supra* note 54, at 16; DEP 2014 IRP, *supra* note 56, at 16.

2016 in DEC's 2009 IRP, compared with actual peak loads for those years, "indicates a forecast error of 4%, resulting in an average annual overestimation of 629 MW of demand."[59] DEC's 2009 energy sales forecast was somewhat more accurate, but still reflects a 2% error rate.[60] DEP's pattern of high-balling its load forecasts is even more glaring: a review of the peak load forecasts for the years 2010-2016 in DEP's 2009 IRP "indicates a forecast error of 6%, resulting in an average annual overestimation of 766 MW." DEP's energy forecast from the 2009 IRP "also reflects a 6% error rate."[61] The discrepancy between projected and actual load growth raises serious questions about the 2014 load growth projections that formed the basis for Duke's assessment of its need for additional firm natural gas transportation capacity, as well as its resulting decision to pursue approval of the pipeline.

Additionally, DEC and DEP have declared for the first time in their 2016 IRPs that each utility's annual peak load now occurs in the winter, rather than in the summer—without fully justifying the change based on their data and analytical methodology.[62] This failure to fully justify their shift to a winter-peaking paradigm, coupled with significant existing installed solar capacity[63] and potential

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[59] Public Staff Initial Comments, NCUC Docket No. E-100, Sub 147 at 21 (Feb. 17, 2017).

[60] *Id.*

[61] *Id.* at 19.

[62] *See* Wilson, *supra* note 19, at 18–21.

[63] N.C. Sustainable Energy Ass'n, *Market Intelligence*, http://www.energync.org/?page=MarketIntelligence (last visited Mar. 27, 2017).

for growth of renewable energy resources and energy efficiency, means that the Duke utilities may be planning to build wholly unnecessary natural gas capacity. For example, as the Public Staff of the NCUC pointed out in comments on the 2016 IRPs:

> [I]n the event that DEC's estimated winter peak loads and temperatures are overstated and [its] summer peaks remain dominant, the lower growth in peak demands combined with the predicted increase in solar generation eliminates or significantly reduces the need for 435 MW of combustion turbine CT capacity planned for 2025 in DEC's IRP.[64]

Moreover, even if their questionable load growth assertions could withstand scrutiny, Duke Energy's operating utilities in the Carolinas do not need the Atlantic Coast Pipeline to supply fuel for their natural gas-fired power plants. The current targeted in-service date of the pipeline is 2019. Other than the already-approved Lee gas plant scheduled to come online in 2018, DEC is not planning to put any new gas-fired power plants into service until 2022. DEC's 2016 IRP shows that the only planned additions of new "undesignated" natural gas-fired capacity over the 15-year planning horizon are a 1,123 MW combined cycle in 2023 and a 435 MW combustion turbine in 2025-2026.[65] Although DEP plans to build more natural gas plants than does DEC, only two would be added before

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[64] Public Staff Initial Comments, *supra* note 59, at 23–24.

[65] *Duke Energy Carolinas, Integrated Resource Plan (Biennial Report)* 41, Table 8-D (Sept. 1, 2016), http://www.energy.sc.gov/files/view/DEC%20IRP%202016%20Corrected%2010-2016%20Clean%20Copy.pdf [hereinafter DEC 2016 IRP].

2026—a 1,123 MW combined cycle in 2022 and a 435 MW combustion turbine in 2023—with the other plants coming online in later years of the planning horizon.[66]

Recent testimony filed by the Duke Energy executive responsible for natural gas procurement for DEC and DEP confirms that existing pipeline capacity is sufficient to fuel its natural gas-fired power plants in the Carolinas: "Currently, Duke Energy has agreements in place that provide firm transportation to eleven current and future gas generation facilities in North and South Carolina including all of Duke Energy's current and approved CC facilities as well as several CT sites."[67] Tellingly, the DEC and DEP 2016 IRPs—despite devoting multiple pages and an entire appendix to a detailed discussion of the utilities' natural gas fuel supply and procurement strategies—do not contain a single specific mention of the proposed Atlantic Coast Pipeline.[68]

Again, if new gas-fired power plants are not needed to meet electricity demand in North Carolina, the Atlantic Coast Pipeline is not needed to fuel them. This is a disputed issue that the Commission must resolve before making a final decision on this project.

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[66] *Duke Energy Progress, Integrated Resource Plan (Biennial Report)* 42, Table 8-D (Nov. 1, 2016), http://www.energy.sc.gov/files/view/2016%20DEP%20IRP.pdf [hereinafter DEP 2016 IRP].

[67] Direct Testimony of Swati V. Daji, *supra* note 53, at 14.

[68] DEC 2016 IRP, *supra* note 65, at Appendix E; DEP 2016 IRP, *supra* note 66, at Appendix E.

5. The capacity of existing pipelines and storage facilities, with planned modifications, is sufficient to meet demand for natural gas in Virginia and North Carolina.

Conservation Groups allege that the capacity of existing pipelines and gas storage facilities, with planned modifications, is sufficient to meet demand for natural gas in Virginia and North Carolina. To support their allegations, they submit the following evidence:

(1) Rachel Wilson et al., Synapse Energy Economics, *Are the Atlantic Coast Pipeline and the Mountain Valley Pipeline Necessary? An Examination of the Need for Additional Pipeline Capacity into Virginia and the Carolinas* (2016). Comparing a high natural gas demand scenario with the reported capacity of existing gas pipelines and storage, Ms. Wilson and her co-authors conclude that "the supply capacity of the Virginia-Carolinas region's existing natural gas infrastructure is more than sufficient to meet expected future peak demand."[69]

In 2016, Synapse Energy Economics examined the implications for pipeline infrastructure resulting from increased demand for natural gas in Virginia, North Carolina, and South Carolina.[70] Synapse concluded that the existing pipeline system and proposed upgrades to that system, such as bidirectional flow on the

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[69] Rachel Wilson et al., Synapse Energy Economics, *Are the Atlantic Coast Pipeline and the Mountain Valley Pipeline Necessary? An Examination of the Need for Additional Pipeline Capacity into Virginia and the Carolinas* 1 (2016), included as **Attachment 6**.

[70] *See id.* at 1–4.

Transco Mainstem, would provide enough gas to this three state region to meet demand through 2030 even under an unlikely high-gas demand scenario.[71] Synapse's results are consistent with the conclusions, discussed below, from the Commission, PJM, and others that curtailments during the 2014 polar vortex were the result of multiple factors unrelated to pipeline capacity. In other words, Virginia and North Carolina have sufficient natural gas infrastructure capacity for the next decade or longer.

Proponents of the Atlantic Coast Pipeline have claimed that the cold weather during the winter of 2013-2014—the polar vortex—resulted in capacity constraints on the existing pipeline system that caused gas and electricty prices to spike.[72] However, it is now well-established that curtailments and price spikes during the polar vortex were the result of multiple factors, many of which were unrelated to pipeline capacity constraints.[73]

Commission staff reported that the "general consensus in the industry" is that the gas shortages and price spikes during the polar vortex were caused by the combination of: (i) "reduced hedging of natural gas" which exposed entities to volatile price fluctuations; (ii) depleted natural gas storage reserves; (iii) "market psychology;" (iv) the fact that "PJM committed certain natural gas-fired

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[71] *See id.* at 3–4.

[72] *See* ICF Int'l, *Economic Impacts of the Atlantic Coast Pipeline* 6–7 (2015).

[73] *See* FERC, *Commission and Industry Actions Relevant to Winter 2013–14 Weather Events*, Docket No. AD14-8 (Oct. 16, 2014) (eLibrary no. 20141016-3038).

generation in advance of the normal process;" and (v) problems coordinating between gas providers and electric generators, including "the misalignment of the power and natural gas trading days."[74] In addition, PJM reported that 76% of outages during the polar vortex were unrelated to gas supply, including 42% caused by equipment failure.[75] Similarly, the North America Electric Reliability Corporation concluded that frozen equipment resulted in 50% of all outages during the polar vortex.[76]

If existing pipelines and storage facilities can meet the demand for natural gas in the region that would be served by the Atlantic Coast Pipeline, the project is a costly and unnecessary duplication of that capacity. This is a disputed material issue that the Commission must resolve before making a final decision on this project.

6. Rapidly declining costs of renewable energy will render gas-fired power generation uneconomic in coming years.

Conservation Groups allege that the rapidly declining costs of renewable energy will render the gas-fired power generation uneconomic in coming years

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[74] *Id.* at 10–11.

[75] PJM Interconnection, *Analysis of Operational Events and Market Impacts During the January 2014 Cold Weather Events* 24–26 (2014), http://www.pjm.com/~/media/library/reports-notices/weather-related/20140509-analysis-of-operational-events-and-market-impacts-during-the-jan-2014-cold-weather-events.ashx.

[76] N. Am. Elec. Reliability Corp., *Polar Vortex Review* 4–5 (2014), http://www.nerc.com/pa/rrm/January%202014%20Polar%20Vortex%20Review/Polar_Vortex_Review_29_Sept_2014_Final.pdf.

and undermine the purported justification for the Atlantic Coast Pipeline. To support this allegation, Conservation Groups submit the following evidence:

(1) Matt Cox, Ph.D., Greenlink, *Clean Energy Has Arrived: Tapping Regional Resources to Avoid Locking In Higher Cost Natural Gas Alternatives in the Southeast* (April 2017).[77]

The Commission must determine whether the rapidly dropping cost of renewable energy sources will outweigh the purported demand for the Atlantic Coast Pipeline for gas-fired power generation. The rapidly dropping cost and increasing availability of solar, wind, and energy storage are expected to displace traditional fossil fuel generation in coming years.[78] These technologies are poised to transform how the United States produces and distributes energy. Dr. Cox concludes in his report that "[b]uilding additional conventional power generating resources, along with the infrastructure necessary for fuel supply and waste disposal, will cease to be economic as these resources lose the ability to compete on a marginal price basis." Moreover, Virginia recently announced a plan to limit carbon pollution, an effort that will create further incentives for renewable energy

[77] *See* Matt Cox, The Greenlink Group, *Clean Energy Has Arrived: Tapping Regional Resources to Avoid Locking in Higher Cost Natural Gas Alternatives in the Southeast* 3 (2017), included as **Attachment 7**.

[78] *See id.* at 3.

development in the Commonwealth.[79] Because the Atlantic Coast Pipeline would be an investment in natural gas infrastructure that would operate for decades, the Commission cannot accurately assess the need for this project without taking into account these important energy trends.

If the increased availability of solar, wind, and battery storage could render the Atlantic Coast Pipeline a costly stranded asset in coming years, the project is not supprted by long-term market demand. This is a disputed material issue that the Commission must resolve before making a final decision on this project.

CONCLUSION

Taken together, Conservation Groups' factual allegations cast genuine doubt on Atlantic's claim that its precedent agreements with affiliates are sufficient evidence that the Atlantic Coast Pipeline is "required by the present or future public convenience and necessity." The primary stated purpose of this pipeline is to fuel gas-fired power plants in Virginia and North Carolina. But the energy landscape that prompted Dominion Energy and Duke Energy to propose this project in 2014 has shifted dramatically, and the purported justification for the project is eroding, if it ever existed at all.

Conservation Groups allege that the Atlantic Coast Pipeline is not necessary because of level demand for electricity generation, the sufficiency of existing

[79] Commonwealth of Va., Exec. Dep't., Exec. Directive 11 (2017), http://governor.virginia.gov/media/9155/ed-11-reducing-carbon-dioxide-emissions-from-electric-power-facilities-and-growing-virginias-clean-energy-economy.pdf.

pipeline infrastructure to meet the demand that does exist, and the expanding role of renewable energy sources. If Conservation Groups' factual allegations are true, and they have presented strong evidence that they are, Atlantic's justification for this project falls apart, and the Commission will be unable to grant a certificate of public convenience and necessity as required by the Natural Gas Act.

Atlantic and its owners, Dominion Energy and Duke Energy, are deeply invested in this project and the lucrative financial returns that it guarantees. Only a trial-like evidentiary hearing will allow the Commission to parse these facts, assess the motivation of Atlantic and the credibility and reliability of witnesses, and find the truth. Conservation Groups therefore respectfully request a trial-like evidentiary hearing, with an opportunity for discovery, before the Commission to allow for resolution of the factual allegations raised in this motion.

Respectfully submitted,

/s/ Gregory Buppert
Gregory Buppert
Charmayne G. Staloff
Southern Environmental Law Center
201 West Main Street, Suite 14
Charlottesville, VA 22902
434.977.4090
gbuppert@selcva.org
cstaloff@selcva.org

On behalf of Conservation Groups

June 21, 2017

CERTIFICATE OF SERVICE

I hereby certify that I have on June 21, 2017, caused the foregoing document to be served upon each person designated on the official service list compiled by the Secretary in this proceeding.

/s/ Gregory Buppert
Gregory Buppert

On behalf of Conservation Groups