



April 6, 2017

The Honorable Roy Cooper
Governor of North Carolina
Raleigh, NC 27603

Re: Atlantic Coast Pipeline

Dear Governor Cooper:

The Sierra Club appreciates your long history of support for a clean environment, and for reducing the harmful effects of fossil fuel on the climate and public health.

On behalf of more than 65,000 Sierra Club members and supporters in North Carolina, we urge you to not support the proposed Atlantic Coast Pipeline (ACP), to request that the Federal Energy Regulatory Commission complete a robust analysis and reissue a new Draft EIS, and to direct the Department of Environmental Quality to make an individual determination about the 401 water quality determination and not rely on the US Army Corps of Engineers' Nationwide Wetlands Permit 12.

We believe that the ACP is not in North Carolina's best interest, economically or environmentally. The large-diameter pipeline would cross more than 200 miles of North Carolina's coastal plain, fragmenting North Carolina's forested wetlands and pristine streams, sometimes using in-stream blasting in important habitats that support many imperiled species, including birds, bats, fish, and crayfish. The pipeline also is routed through rural, largely African American communities as well as those of four state-recognized tribes. These communities are thus faced with both safety and health risks and the possible loss of property values. Finally, the ACP could lock North Carolinians into funding a massive fossil fuel infrastructure project that could preclude investment in the renewable sector -- an investment that would provide many more permanent jobs and even cheaper energy sources to the state of North Carolina.

All of these risks are unnecessary, as Duke Energy and Dominion have not demonstrated a clear need for another gas pipeline. In justifying the pipeline in 2014 before the North Carolina Utility Commission,¹ Duke Energy cited not market data but contracts with its own affiliate companies -- a self-dealing tactic that experts agree can spur the development of pipeline infrastructure untethered to market demand.²

¹ [Duke Energy Carolinas, LLC and Duke Energy Progress, Inc. Advance Notice and Petition for Limited Waiver Docket Nos. E-7, Sub 1062 and E-2, Sub 1052](#)

² See [J.F. Wilson, Evaluating Market Need for the Atlantic Coast Pipeline at 6-12](#) (Sep 2016); S. Isser, Natural Gas Pipeline Certification and Ratemaking at 24 (Oct. 7, 2016); [C. Kunkel & T. Sanzillo, Inst. For Energy Economics & Financial Analysis, Risks Associated with Natural Gas Pipeline Expansion in Appalachia](#) at 5-6 (April 2016).

Further, the demand for gas-fired power generation in North Carolina is static or dropping.³ In fact, Duke Energy's own load growth projections have dropped considerably since 2014. In its 2016 Integrated Resource Plan, Duke Energy Progress confirms that additional pipeline capacity is not needed to support gas-fired power plants until 2034.⁴

Without requiring that the Draft EIS be updated to include realistic market demand, FERC simply cannot fairly evaluate the need for the project or alternatives to Atlantic's proposal. We ask your office to request that FERC complete a robust analysis and reissue a new Draft EIS, and we urge you to not to finalize your administration's position with respect to the Atlantic Coast pipeline without this complete information.

Enforcing North Carolina's Water Quality Standards Through a Separate 401 Certification

In addition to the FERC Draft EIS review, we would respectfully request that your administration direct its attention to the important issue of Clean Water Act Section 401 water quality certification. Project-specific 401 certification of pipeline projects is necessary to ensure that pipeline-related activities do not cause or contribute to a violation of state water quality standards. Water quality impacts from pipeline construction, operation, and right-of-way maintenance include stream bank destabilization, sedimentation and burial of streambed gravels and habitat for endangered freshwater aquatic and benthic species, loss of vegetative cover, higher water temperatures, lower dissolved oxygen, higher nutrient load, exposure to drilling chemicals and herbicides, increased predation, and introduction of invasive species.

A recent example from New York demonstrates the need for close scrutiny by states in the pipeline context. In April 2016, the New York State Department of Environmental Conservation denied a section 401 Water Quality Certification for the proposed Constitution Gas Pipeline.⁵ The department's rationale for denial included an examination of the pipeline's cumulative impacts on waterways:

[C]umulatively, impacts to both small and large streams from the construction and operation of the Project can be profound and include loss of available habitat, changes in thermal conditions, increased erosion, creation of stream instability and turbidity, impairment of best usages, as well as watershed-wide impacts resulting from placement of the pipeline across water bodies in remote and rural areas.⁶

³ See [U.S. Energy Info. Admin., Annual Energy Outlook 2017, Table 2. Energy Consumption by Sector and Source \(Jan. 5, 2017\)](#). See [J.F. Wilson, Wilson Energy Economics, Evaluating Market Need for the Atlantic Coast Pipeline](#) at 3 (Sep, 2016)

⁴ 2016 Integrated Resource Plans submitted to NCUC by Duke Energy Progress and Duke Energy Carolinas.

⁵ [New York State Department of Environmental Conservation Notice of Denial Addressed to Constitution Pipeline Company, LLC \(April 22, 2016\)](#).

⁶ Id. at 12.

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We urge North Carolina to reserve the right to similarly make individual determinations regarding Section 401 water quality certification for specific pipeline projects, including the Atlantic Coast Pipeline and its related laterals.

In conclusion

An imprudent investment into the Atlantic Coast Pipeline would lock the state into using – or at least paying for -- fossil fuel infrastructure for decades. We imagine a better future for the North Carolina counties in the proposed pipeline route. With the state's continued leadership in solar investment and wind generation, the coastal plain could serve as an economic engine for the region, providing clean, new sources of energy and jobs while also helping slow the effects of climate change, including the coastal flooding that puts communities and state coffers at risk.

We look forward to an opportunity to engage with your office and staff around the FERC Draft EIS review and what we hope will be the state's independent 401 water quality certification process. Please let us know how we can provide further information or support in either of these important processes. I may be reached by email at deb.self@sierraclub.org or by phone at 510-882-1882. Thank you for again your longstanding commitment to protecting our state's natural resources.

Sincerely,



Deb Self
Senior Campaign Representative
Beyond Dirty Fuel Campaign

cc: The Honorable Michael Regan, Secretary, NC Department of Environmental Quality
William McKinney, General Counsel, Office of the Governor
Sheila Holman, Assist. Secretary for Environment
Jenni Owen, Policy Director, Office of NC Governor Roy Cooper
Lyn Hardison, Environmental Assistance and SEPA Coordinator
Tracey Davis, Director, Division of Energy, Mineral & Land Resources

ATTACHMENT 1

****DRAFT** PARTIAL COMMENTS OF THE SIERRA CLUB, ET AL, ON THE ATLANTIC COAST PIPELINE'S DRAFT ENVIRONMENTAL IMPACT STATEMENT APRIL 5, 2017**

I. The Commission relies on untested, incomplete, and inaccurate market information that biases the agency's evaluation of the project, misleads the public, and violates NEPA.

Commission approval of the pipeline authorizes Atlantic to recover a certain rate of return – the “recourse rate.” Atlantic will then pass on the costs of that recourse rate to its shippers, who in turn pass on the cost to the end users. When the end user is a regulated utility, that utility's ratepayers bear the increases in gas prices attributable to the recourse rate. When a regulated utility's parent company also owns the pipeline, that utility has a vested interest in buying gas shipped on its pipeline, even if adequate lower-cost gas is available from a pre-existing, and lower-cost, pipeline. This structure allows the parent company to profit from the pipeline's recourse rate while passing the increased fuel costs onto captive ratepayers.

The various affiliated entities involved in building the Atlantic Coast Pipeline and then shipping gas along it have colluded to manufacture “need,” in the form of precedent agreements, which they now claim justifies the pipeline. The record before the Commission to date omits several key facts. First, expert analysis demonstrates that both Dominion Resources and Duke Energy have over-estimated future electricity demand in their territories. As such, their ratepayers likely do not need the natural gas-powered generating resources these utilities plan to build. Second, even assuming these utilities do build the power plants in their respective IRPs, none of those new power plants needs the Atlantic Coast Pipeline for fuel supply. In fact, these companies have testified to their respective state utility commissions that adequate pipeline capacity already exists to fuel all of their planned construction projects. As such, the market does not need another pipeline, and the Commission should view with great scrutiny any application that provides only precedent agreements between affiliated companies as a pretext to construction.

The Commission's draft EIS for the Atlantic Coast Pipeline fails to analyze the market demand for

the project and, instead, merely adopts the developer's blanket, but wholly untested, inaccurate, and misleading statements that the public needs this project.¹ The Commission accepts that Atlantic's precedent agreements demonstrate that the project is needed without looking behind them to evaluate actual market demand. But these agreements are between Atlantic and affiliates. As such, they do not reflect actual competitive market needs. This is especially true where, as here, the affiliated entities are regulated utilities with captive ratepayers, which allows Atlantic to shift the market risks of building the Atlantic Coast Pipeline to those captive ratepayers while simultaneously allowing the shareholders of Dominion Resources, Duke Energy and Southern Company to reap the benefits. This structure can spur pipeline development even in the absence of market demand, yet the Commission fails to consider how this shifting of risk can skew the development incentives, offering only one side of the story—Atlantic's—in the draft EIS.

Under NEPA, an agency cannot base an EIS on inaccurate or incomplete information that undermines informed agency decision-making and informed public comment.² Courts recognize that inflated or inaccurate market information can skew agency decisions about a project and mislead the public in its evaluation of project impacts.³ Thus, inaccurate market information can render the EIS defective when it is a barrier to “a well-informed and reasoned decision.”⁴

¹ See, e.g., DEIS at 1-2, 1-3, 3-3.

² See *N.C. Wildlife Fed'n v. N.C. Dep't of Transp.*, 677 F.3d 596, 603 (4th Cir. 2012); *Hughes Watershed Conservancy v. Glickman*, 81 F.3d 437, 446 (4th Cir. 1996); *Nat. Res. Def. Council v. U.S. Forest Serv.*, 421 F.3d 797, 811-12 (9th Cir. 2005).

³ See *Hughes Watershed Conservancy*, 81 F.3d at 446 (“Misleading economic assumptions can defeat the first function of an EIS by impairing the agency's consideration of the adverse environmental effects of the proposed project. . . . Similarly, misleading economic assumptions can also defeat the second function of an EIS by skewing the public's evaluation of a project.”).

⁴ *Nat. Res. Def. Council v. U.S. Forest Serv.*, 421 F.3d at 812. See also *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 235 F.Supp.2d 1143, 1157 (W.D. Wash. 2002) (“An EIS that relies on misleading economic information may violate NEPA if the errors subvert NEPA's purpose of

Here, the Commission cannot fulfill its NEPA obligations without revising its draft EIS to include a thorough evaluation and discussion of the actual need for the pipeline and reissuing it for public comment. In this section, we explain the significant problems with the Commission's statements about the need for the Atlantic Coast Pipeline and how those defects undermine the agency's analysis, mislead the public, and diminish the opportunity for meaningful public comment, all in violation of NEPA.

A. The Commission fails to evaluate the need for the pipeline and relies on an incomplete, inaccurate, and misleading analysis from Atlantic.

1. The Commission relies on precedent agreements between affiliates as demonstrating need for the Atlantic Coast Pipeline despite substantial risk that these contracts do not reflect actual market demand.

In the draft EIS, the Commission relies on precedent agreements as evidence of need for the pipeline despite unchecked self-dealing between affiliated companies and the substantial risk that these contracts do not reflect actual market demand. 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.⁵ However, each 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. Specifically:

- Dominion Resources owns Virginia Power Services which has contracted for 300,000 dekatherms/day from Atlantic. Dominion Resources also owns Dominion Virginia Power, a regulated utility in Virginia that purchases gas from Virginia Power Services.

providing an accurate assessment upon which to evaluate the proposed project.”), *overruled on other grounds by Winter v. Nat. Res. Def. Council*, 555 U.S. 7 (2008).

⁵ See M. 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.

- Duke Energy owns Duke Energy Progress, a regulated utility in North Carolina that has contracted for 452,750 dekatherms/day from Atlantic.
- Duke Energy also owns Duke Energy Carolinas, regulated utility in North Carolina that has contracted for 272,250 dekatherms/day from Atlantic.
- Duke Energy also owns Piedmont Natural Gas, a regulated local distribution company in North Carolina that has contracted for 160,000 dekatherms/day from Atlantic.
- Southern Company owns Virginia Natural Gas, a regulated local distribution company in Virginia that has contracted for 155,000 dekatherms/day from Atlantic.⁶

Together, these affiliates of Dominion Resources, Duke Energy, and Southern Company have entered precedent agreements with Atlantic for 93% of the pipeline's contracted capacity.⁷ 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.⁸

To date, public utility commissions in Virginia and North Carolina have not conducted meaningful reviews of whether ratepayers in their states need this pipeline. While the self-dealing relationships between Atlantic and its affiliates will produce millions of dollars in profits for Dominion Resources and Duke Energy, they create a substantial risk that captive utility ratepayers will foot the bill for a pipeline that is not necessary or driven by actual market demand.

More and more, experts, including former Commission Chair Norman Bay, agree that pipeline developers use precedent agreements between the developer and an affiliated regulated utility with

⁶ Atlantic Coast Pipeline, Abbreviated Application for a Certificate of Public Convenience and Necessity and Blanket Certificates at 7-8, 12 (Sept. 18, 2015) (eLibrary No. 20150918-5212).

⁷ *See id.* at 12.

⁸ *See* DEIS at 1-2.

captive ratepayers—like the contracts described above—to justify building pipeline infrastructure in the absence of actual market demand.⁹ Interstate natural gas pipelines like the Atlantic Coast Pipeline are multi-billion dollar projects. When the Commission accepts precedent agreements between affiliated companies, one of which, the shipper, is a regulated utility, for a project of this scale, it allows the shipper utility to “impose long-term financial obligations on captive ratepayers.”¹⁰ Utility ratepayers bear the risk of the project while the project’s financial rewards accrue to the shareholders of the utility’s parent company. Or, to put it another way, the captive utility ratepayers subsidize the new pipeline construction to the benefit of the parent company’s shareholders. This structure, which shifts the risk from the shareholders to the ratepayers, subverts the “price signals sent by a rational market”¹¹ and allows companies to pursue unneeded projects “at the expense of alternative transport options.”¹²

Atlantic’s owners—Dominion Resources, Duke Energy, and Southern Company—are using exactly such a structure here, but the Commission ignores the risk that this arrangement may result in the approval of an unnecessary pipeline by accepting Atlantic’s precedent agreements as evidence of need for the pipeline without further inquiry into actual market demand. Because the precedent agreements offered by Atlantic are between Atlantic and affiliated regulated utilities, captive ratepayers—not shareholders of Dominion Resources, Duke Energy, and Southern Company—will bear the risks associated with building

⁹ See J.F. Wilson, Evaluating Market Need for the Atlantic Coast Pipeline 6-12 (2017), included as **Attachment 2**; Separate Statement of Commissioner Bay, FERC Docket No. CP15-115 3 (Feb. 3, 2017); S. Isser, Natural Gas Pipeline Certification and Ratemaking 24 (2016), included as **Attachment 6**; *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) (statement of N. Jonathan Peress, Env’tl Def. Fund at 5) [hereinafter Testimony of N. Jonathan Peress], included as **Attachment 7**; 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 8**.

¹⁰ Testimony of N. Jonathan Peress, *supra* note 9 at 5.

¹¹ *Id.*

¹² Isser, *supra* note 9, at 24.

the pipeline,¹³ and these contracts can finance the project without market support. This structure can divorce market demand from a company's calculus when it elects to pursue a new interstate pipeline project.

In the event that the Commission determines that Atlantic's precedent agreements demonstrate market need for the pipeline, market conditions have changed since Atlantic first proposed the pipeline almost three years ago. Even if Atlantic believes market conditions justified its precedent agreements in 2014, the Commission must recognize that market conditions have altered dramatically in the intervening years. According to utility expert James Wilson:

At the present time, the future need for incremental gas supply for new gas-fired electric generation is highly uncertain, due to weak or non-existent electric load growth, the uncertain pace of coal and nuclear plant retirements, and the increasing penetration of wind, solar and other renewable resources, among other factors.¹⁴

For example, Dominion Virginia Power is the electric utility affiliate of Atlantic and shipper Virginia Power Services. Between 2007 and 2015, electricity demand for Dominion Virginia Power's service territory did not increase, even with the modest economic growth that followed the 2008 economic recession.¹⁵ And, as discussed in detail in the next section, Dominion Virginia Power's load forecasting has not kept pace with significant industry changes, particularly those undertaken by PJM Interconnection (PJM).¹⁶ Further, recent analysis from the Energy Information Administration (EIA) suggests that demand for natural gas for power generation will remain at, or below, 2015 levels until 2034.¹⁷

¹³ See Kunkel & Sanzillo, *supra* note 9, at 18-21.

¹⁴ See Wilson, *supra* note 9, at 3.

¹⁵ See *id.* at 13-15.

¹⁶ See *id.* at 15-16.

¹⁷ See *Annual Energy Outlook 2017, Table: Energy Consumption by Sector and Source*, U.S. Energy Info. Admin., <https://www.eia.gov/outlooks/aeo/data/browser/#/?id=2-AEO2017&cases=ref2017&sourcekey=0> (last visited Jan. 5, 2017).

Moreover, market share for renewable technologies like wind and solar is growing rapidly. In North Carolina, solar capacity has grown to 2.4 GW as of February 2017, making the state second in the nation in installed solar capacity,¹⁸ while the price of solar has declined by 64% over the past five years.¹⁹ In light of these trends in energy demand and the availability of low-cost renewable resources, Atlantic's shipper agreements with its affiliates are not indicative of actual market need. In the event that electric demand remains flat as expected, and purported market demand does not materialize, captive ratepayers of affiliated utilities will likely shoulder the burden.

The Natural Gas Act establishes the Commission's primary function: "protection of the consumer."²⁰ To fulfill that directive, the Commission must conduct an independent and robust investigation of the actual need for the Atlantic Coast Pipeline; the Commission cannot merely substitute precedent agreements between affiliates of Dominion Resources, Duke Energy, and Southern Company accurately reflect market need.²¹ If the Commission does not act, it is unlikely that state public utility commission in Virginia and North Carolina will have the capacity or opportunity to examine the economic necessity for the pipeline prior to a decision on Atlantic's certificate application. Only the utility customers suffer in a scenario where the certificate is approved and construction commences without a full analysis of actual market need.

In Virginia, Dominion Virginia Power, the utility subsidiary of Dominion Resources, has not sought approval from the Virginia State Corporation Commission for its affiliate contracts to accept gas from the pipeline. In fact, it has not had to, because Dominion has injected yet a third affiliated entity into the

¹⁸ *Market Intelligence*, N.C. Sustainable Energy Ass'n, <http://www.energync.org/?page=MarketIntelligence> (last visited Mar. 27, 2017).

¹⁹ Solar Energy Industries Ass'n, <http://www.seia.org/state-solar-policy/north-carolina> (last visited Mar. 27, 2017).

²⁰ *Cal. Gas Producers Ass'n v. Fed. Power Comm'n*, 421 F.2d 422, 428-29 (9th Cir. 1970).

²¹ Testimony of N. Jonathan Peress, *supra* note 9, at 5; Isser, *supra* note 9, at 24; Wilson, *supra* note 9, at 4.

equation: Virginia Power Services. The Virginia State Corporation Commission will not review contracts for gas purchases on the Atlantic Coast Pipeline until *after* pipeline construction concludes, at which point it is too late.

And even though the North Carolina Utilities Commission authorized Duke Energy Progress, Duke Energy Carolinas, and Piedmont Natural Gas to enter into affiliated contracts with Atlantic in 2014, it did not evaluate the necessity for the pipeline or consider whether the affiliated contracts would allow an unnecessary project to proceed.²² Moreover, that approval occurred more two and a half years ago, and, according to Duke Energy's own analysis, the market demand for natural gas for electricity generation in North Carolina has dropped since then.²³

Mounting expert opinion indicates that precedent agreements between affiliated companies, in which the shippers are regulated utilities with captive ratepayers, subvert market signals and spur unnecessary pipeline development. Thus, the Commission's reliance on Atlantic's precedent agreements to establish need for the Atlantic Coast Pipeline presents an incomplete, inaccurate, and misleading picture of the true market demand for the project.

2. The draft EIS omits evidence that Dominion Virginia Power does not need gas from the Atlantic Coast Pipeline to meet electricity demand in its service territory.

Nowhere is the problem of self-dealing with the Atlantic Coast Pipeline more apparent than in the discrepancies between the electricity demand forecasts from PJM and Dominion Virginia Power. PJM is

²² *In the Matter of: Advance Notice by Duke Energy Carolinas, LLC, and Duke Energy Progress, Inc., of Intent to File Proposed Precedent, Service, and Negotiated Rate Agreements with Atlantic Coast Pipeline, LLC, Request for Approval to Enter into the Proposed Agreements, and Request for Waiver of Code of Conduct*, Docket Nos. E-2, Sub 1052 & E-7, Sub 1062 (N.C.U.C. Oct. 29, 2014).

²³ See Wilson, *supra* note 9, at 18-22.

the regional transmission organization that manages the electrical transmission grid in all or parts of thirteen states, including Virginia and North Carolina, and the District of Columbia.²⁴ Recognizing that electricity demand growth is no longer coupled to economic growth and that demand growth has been flat since 2007, PJM implemented enhancements to its demand modeling in 2015 to account for these changes in the electric sector.²⁵ In 2016, and then again in 2017, PJM significantly revised its electricity demand projections downward for Dominion Virginia Power's service territory—the Dominion zone—using this more accurate model.²⁶ And even with its recent model enhancements, it is likely still over-projecting the electricity demand in the Dominion zone.²⁷

Over time, these divergent load forecasts produce massive capacity differences. In fact, for 2027, PJM's 2017 forecast for the Dominion zone is substantially less—approximately 3,500 MW less—than Dominion Virginia Power's own projection from its 2016 integrated resource plan proceeding at the Virginia State Corporation Commission.²⁸ The utility has not adopted the enhanced methods used by PJM in its forecast modeling.²⁹ The 3,500 MW difference between PJM's projections and Dominion Virginia Power's projections represents the output of approximately 2.2 gas-fired power plants and accounts for a substantial share of Atlantic's claimed demand for the Atlantic Coast Pipeline in Virginia. If the dispatcher of electric plants in Dominion's territory, PJM, is indeed correct, and these plants are not needed, then gas transmission capacity on the pipeline is not needed to serve them.³⁰ As the entity in charge of ensuring the reliability of the electric grid in parts of thirteen states and the District of

²⁴ *See id.* at 13.

²⁵ *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 9.

²⁶ *See id.*; Wilson, *supra* note 9, at 13.

²⁷ Direct Testimony of James F. Wilson, *supra* note **Error! Bookmark not defined.**, at 16.

²⁸ *See* Wilson, *supra* note 9, at 15-17, fig.3.

²⁹ *See id.* at 15.

³⁰ *See, e.g.*, Wilson, *supra* note 9, at 16.

Columbia, the Commission must consider and incorporate PJM's analysis when assessing Atlantic's stated need for the pipeline for the purposes of serving additional gas-fired electric generating units.

Furthermore, both PJM's and Dominion Virginia Power's demand forecasting includes a significant amount of projected load to accommodate the growth of data centers.³¹ However, while demand for data centers continues to grow, these facilities have significantly improved their energy efficiency and will drive little additional growth in electricity usage.³² Moreover, many companies that are expanding their data centers in Virginia have committed to using renewable energy and are installing solar and wind energy sources to offset their energy use. 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.³³ Remove data centers from PJM's projections, and demand for electricity drops by 1,500 MWs, approximately equal to the output of yet another gas-fired power plant.³⁴

Dominion Virginia Power also does not need the Atlantic Coast Pipeline to serve 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 Greenville 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 Greenville facility, Dominion Virginia Power expressly stated that

The Greenville 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

³¹ *See id.* at 13-15.

³² Direct Testimony of James F. Wilson, *supra* note **Error! Bookmark not defined.**, at 19.

³³ *See Global Infrastructure*, Amazon Web Servs., <https://aws.amazon.com/about-aws/global-infrastructure/> (last visited Apr. 3, 2017); *AWS & Sustainability*, Amazon Web Servs., <https://aws.amazon.com/about-aws/sustainability/> (last visited Apr. 3, 2017).

³⁴ *See* Wilson, *supra* note 9, at 14, fig.3.

Greensville County Power Station with access to *abundant* natural gas supplies from the Gulf to the Marcellus/Utica Shale regions.³⁵

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”³⁶

To date, Dominion Virginia Power 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 clause, fuel factor or other type of proceeding governed by different statutes.³⁷

In light of Dominion Virginia Power’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 carefully and thoroughly scrutinize Atlantic’s claims of necessity for its project.

³⁵ *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 (emphasis added).

³⁶ *Id.* at 8.

³⁷ *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, Final Order (Dec. 14, 2016) at 2.

3. The draft EIS fails to analyze whether Duke Energy Carolinas and Duke Energy Progress need gas from the Atlantic Coast Pipeline to meet electricity demand in their service territories.

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.³⁸ 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 (DEC and DEP) identified a need for approximately 725,000 MMBtu/day of additional long-term natural gas transportation service.³⁹

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 1.4% and winter peak load growth of 1.5%, after energy efficiency impacts.⁴⁰ By spring 2016, DEC’s projected growth rate for summer peak demand had dropped to 1.2%, while winter peak demand growth dropped to 1.3%.⁴¹ 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 EE impacts,⁴² 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%.⁴³

³⁸ 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.

³⁹ Direct Testimony of Swati V. Daji, Docket No. E-100, Sub 147 (Feb. 16, 2017) at 9.

⁴⁰ 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>.

⁴¹ DEC 2016 IRP.

⁴² Duke Energy Progress, Integrated Resource Plan (Annual Report) 14, NCUC Docket E-100, Sub 141 (Sept. 1, 2014).

⁴³ DEP 2016 IRP at 17.

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.”⁴⁴

Historically, both DEC and DEP have over-estimated 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 2010-2016 in DEC’s 2009 IRP, compared with actual peak loads for those years, “indicates a forecast error of 4%, resulting in an average annual estimation of 629 MW of demand.”⁴⁵ DEC’s 2009 energy sales forecast was somewhat more accurate, but still reflects a 2% error rate.⁴⁶ DEP’s pattern of high-balling its load forecasts is even more glaring: a review of the peak load forecasts for 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.”⁴⁷ 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, and 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.⁴⁸ This failure to fully justify their shift to a winter-peaking paradigm, coupled with the potential for growth of renewable energy resources and energy efficiency, means that the Duke utilities may be planning to build wholly unnecessary natural gas

⁴⁴ DEC IRP at 16; DEP IRP at 16.

⁴⁵ Public Staff Initial Comments, NCUC Docket No. E-100, Sub 147 (Feb. 17, 2017) at 21.

⁴⁶ *Id.*

⁴⁷ Public Staff Initial Comments, NCUC Docket No. E-100, Sub 147 (Feb. 17, 2017) at 19.

⁴⁸ *See Wilson, supra* note 9, at 18-21.

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.⁴⁹

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 "undesigned" natural gas-fired capacity over the 15-year planning horizon are a 1,123 MW CC in 2023 and a 435 MW CT in 2025-2026.⁵⁰ Although DEP plans to build more natural gas plants than does DEC, only two would be added before 2026—a 1,123 MW CC in 2022 and a 435 MW CT in 2023—with the other plants coming online in later years of the planning horizon.⁵¹

Recent testimony filed by the Duke Energy executive responsible for natural gas procurement for DEC and DEP confirms that existing pipeline capacity is adequate 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."⁵² 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

⁴⁹ Public Staff Initial Comments, NCUC Docket No. E-100, Sub 147 (Feb. 17, 2017) at 23-24.

⁵⁰ DEC 2016 IRP, Table 8-D.

⁵¹ DEP 2016 IRP, Table 8-D.

⁵² Direct Testimony of Swati V. Daji, *supra* note **Error! Bookmark not defined.**, at 14.

the proposed pipeline.⁵³

4. The Commission embraces demand projections that are overly generalized and fails to consider the capacity of existing infrastructure to meet demand.

The Commission embraces demand projections that are overly generalized, and it fails to evaluate the capacity of existing infrastructure to meet demand. The Commission reports that the “consumption of natural gas grew by 12 and 49 percent, respectively in Virginia and North Carolina between 2010 and 2014” primarily as a result of the growth in gas-fired power plants.⁵⁴ But the Commission offers no information about the quantity of gas that growth represents. Furthermore, it does not analyze the impact of that growth on the capacity of existing pipeline infrastructure or why that growth warrants a new pipeline. Nor does the Commission explain why increased demand between 2010 and 2014 has any bearing on demand in 2018 or 2019, when this pipeline would be put into service if approved.

According to the Commission, EIA projects that natural gas consumption will continue to grow “due to population growth, industrial consumption, and electric power generation.”⁵⁵ But again, the Commission offers no analysis of these blanket statements, and it does not attempt to quantify the level of demand that would bear on the need for a new interstate natural gas pipeline delivering gas in Virginia and North Carolina.

The Commission must give EIA’s Energy Outlook for 2017 a more thorough evaluation than the cursory and overly generalized statements about the demand for natural gas presented in the draft EIS. The primary purpose of the Atlantic Coast Pipeline will be to fuel gas-fired power plants in Virginia and North Carolina. According to the draft EIS, 79% of its capacity, approximately 1.185 bcf/day, is

⁵³ Duke Energy Carolinas 2016 IRP, Appendix E; DEP 2016 IRP, Appendix E.

⁵⁴ DEIS at 3-3.

⁵⁵ *Id.*

committed to this purpose.⁵⁶ Duke Energy Progress, Duke Energy Carolinas, and Virginia Power Services are the subscribers that will use their pipeline capacity for gas-fired power generation. Yet, these companies are not facing the same demand for new gas-fired generation that existed in 2014.

In EIA's 2017 Energy Outlook, the reference case, *i.e.* a scenario reflecting improvements in known technologies and the views of leading economic forecasters and demographers,⁵⁷ projects that nationally the demand for natural gas for electricity generation will decrease from 2015 to 2020 and will not return to 2015 levels until approximately 2032. The national trend is also reflected in EIA's analysis for the South Atlantic census region, a portion of the East Coast that includes Virginia and North Carolina. EIA projects decreasing demand for natural gas for electricity generation from 2015 to 2020 in this region with demand returning to 2015 levels after 2034. To explain these trends, EIA notes that the near-term decline in gas demand is driven by "strong growth in renewables generation and price competition with coal."⁵⁸ The bottom line is that EIA's most recent projections of natural gas demand for electricity production, which, like PJM's projections show a decrease in demand for natural gas, do not support Atlantic's claims—new capacity is not needed until 2034 at the earliest. If demand projections continue to drop as they have in recent years, the need for new capacity may be many years distant.

Moreover, the Commission fails to consider at all how demand projections affect the capacity of the existing natural gas infrastructure system. In 2016, a study prepared by Synapse Energy Economics examined the implications for pipeline infrastructure resulting from increased demand for natural gas in

⁵⁶ *See id.* at 4-513.

⁵⁷ U.S. Energy Info. Admin., Annual Energy Outlook 2017 5 (Jan. 5, 2017), <https://www.eia.gov/outlooks/aeo/pdf/0383%282017%29.pdf>.

⁵⁸ *Id.* at 62.

Virginia, North Carolina, and South Carolina.⁵⁹ Synapse concluded that the existing pipeline system and upgrades to that system already proposed, like the planned reversal of the Transco Mainstem, would provide enough gas to this three state region to meet demand even under an unlikely high-gas demand scenario.⁶⁰ 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: this region has sufficient natural gas infrastructure capacity.

Faced with the Commission's overly generalized assertions that do not connect demand to capacity, the public is left with an unreasonable burden: It must either blindly accept these blanket statements that the project is needed or guess as to what might be the more complete story. The Commission has abdicated its NEPA obligation to provide the analysis of the expert agency for public comment in the draft EIS.

5. The Commission's claim that the Atlantic Coast Pipeline will relieve capacity constraints is not supported.

The analysis that followed the polar vortex of 2013-2014 does not support the Commission's claim that the Atlantic Coast Pipeline will relieve capacity constraints. Project proponents 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 electricity prices to spike.⁶¹ However, neither the Commission nor Atlantic explain how increased capacity would alleviate the problems encountered during the polar vortex, and the Commission has failed to provide its own analysis of that question in the draft EIS.

It is now well-established that curtailments and price spikes during the polar vortex were the result of

⁵⁹ 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* (Sept. 12, 2016), included as **Attachment 9**.

⁶⁰ *See id.* at 3-4.

⁶¹ *See ICF Int'l, Economic Impacts of the Atlantic Coast Pipeline* 6-7 (Feb. 9, 2015).

multiple factors, many of which were unrelated to pipeline capacity constraints.⁶² 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 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.”⁶³ In addition, PJM reported that 76% of outages during the polar vortex were unrelated to gas supply, including 42% caused by equipment failure.⁶⁴ Similarly, the North America Electric Reliability Corporation concluded that frozen equipment resulted in 50% of all outages during the polar vortex.⁶⁵ Yet, the Commission ignores this body of evidence into issues associated with the polar vortex, including the results of its own investigation and the steps it has already taken to remedy these problems, in the draft EIS for the Atlantic Coast Pipeline. In doing so, the Commission misleads the public about the necessity for this project.

6. The Commission ignores the rapidly dropping cost and increasing penetration of renewable energy technologies like solar, wind, and battery storage.

The Commission ignores the rapidly dropping cost and increasing penetration of renewable energy technologies like solar, wind, and battery storage in the draft EIS. These technologies are poised to

⁶² See FERC, Commission and Industry Actions Relevant to Winter 2013-14 Weather Events, Docket No. AD14-8 (Oct. 16, 2014) (eLibrary no. 20141016-3038).

⁶³ See *id.* at 10-11.

⁶⁴ PJM Interconnection, Analysis of Operational Events and Market Impacts During the January 2014 Cold Weather Events 24-26 (May 8, 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>.

⁶⁵ N. Am. Elec. Reliability Corp., Polar Vortex Review 4-5 (Sept. 2014), http://www.nerc.com/pa/rrm/January%202014%20Polar%20Vortex%20Review/Polar_Vortex_Review_29_Sept_2014_Final.pdf.

transform how the United States produces and distributes energy. 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.⁶⁶

The costs of renewables have dropped drastically in recent years and are expected to continue to drop as growing global demand translates into manufacturing and supply chain efficiencies. For example, the U.S. Department of Energy's National Renewable Energy Laboratory (NREL) found that distributed solar photovoltaic (PV) system prices dropped by 12–19 percent nationwide in 2013 and forecasted another reduction of 3–12 percent in 2014,⁶⁷ depending on system location and market segment. These price drops are even greater than expected, such that utility-scale solar photovoltaic systems prices per watt are 59 percent less than were projected as recently as 2010.⁶⁸ Another estimate predicted an additional 40 percent drop in costs of solar power over the next three to four years.⁶⁹ In 2014, the International Renewable Energy Agency (IRENA) released a report finding that renewables such as biomass, hydropower, geothermal and onshore wind are all competitive with or cheaper than coal, oil and gas-fired power stations, even without financial support and despite falling oil prices.⁷⁰ That report found that the

⁶⁶ 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* (2017), included as **Attachment 10**.

⁶⁷ NREL, Solar Energy Prices See Double-digit Declines in 2013; Trend Expected to Continue, <http://www.nrel.gov/news/press/2014/15405.html>.

⁶⁸ Id.

⁶⁹ Clean Technica, “Deutsche Bank Predicts Solar Grid Parity In 80% Of Global Market By 2017,” January 14th, 2015, <http://cleantechnica.com/2015/01/14/deutsche-bank-predicts-solar-grid-parity-80-global-market-2017/>.

⁷⁰ International Renewable Energy Agency (IRENA), *Renewable Power Generation Costs in 2014*, available at http://www.irena.org/DocumentDownloads/Publications/IRENA_RE_Power_Costs_2014_report.pdf.

cost of solar PV equipment fell by 75 percent and the cost of wind generation by almost a third since the end of 2009, while utility scale solar PV system costs fell by about 50 percent on average since 2010.⁷¹ The price declines for clean energy sources have only continued since then.⁷²

Indeed, Dominion's own 2016 Levelized Cost of Electricity (LCOE) analysis in its 2016 Integrated Resource Plan shows that solar photovoltaic (PV) is now the cheapest form of generation available in almost every scenario assessed.⁷³ LCOE reflects the real-dollar cost per megawatt-produced by building and operating a resource and is thus "a convenient summary measure of the overall competitiveness of different generating technologies."⁷⁴ This analysis shows that, at a 25% capacity factor, new solar PV costs \$171/kilowatt-year, roughly half as much as the next cheapest source. Moreover, the 25% capacity factor that Dominion used for solar PV is quite low and likely skews its cost analysis to disfavor that resource. In contrast, the 2016 Integrated Resource Plan for Appalachian Power used a 38% capacity factor for solar PV.⁷⁵ The higher the capacity factor, the more energy can be derived from the same resource, thus causing the price per kW-year to drop even further.

Those renewable resources are ready to be added to the generation mix right now, and do not pose

⁷¹ Id. at 12.

⁷² See, e.g., Appalachian Power, Integrated Resource Planning Report to the Commonwealth of Virginia State Corporation Commission, PUE-2016-00050, April 29, 2016 ("Appalachian Power 2016 IRP"), at 109 (discussing a 50% decline in cost of residential, commercial, and utility-scale solar between 2010 and 2016).

⁷³ Dominion Virginia Power's and Dominion North Carolina Power's Report of Its Integrated Resource Plan, Before the Virginia State Corporation Commission and North Carolina Utilities Commission, PUE-2016-00049, Docket No. E-100, Sub 147, April 29, 2016 ("Dominion 2016 IRP").

⁷⁴ Energy Information Administration, "Levelized Cost and Levelized Avoided Cost of New Generation Resources," *Annual Energy Outlook 2015*, 1 (June 2015), available at https://www.eia.gov/outlooks/aeo/pdf/electricity_generation.pdf.

⁷⁵ Appalachian Power 2016 IRP at 109.

any significant grid integration challenges. A study conducted by General Electric for PJM Interconnection, the grid operator that covers Virginia & West Virginia, concludes that PJM won't have any trouble integrating up to 30% renewable energy into its grid.⁷⁶ That level far exceeds any reasonable forecast of increased electric generation demand in the foreseeable future, such that any proposed expansion in gas-fired generation could be met with renewable without any adverse impact to grid stability. Indeed, the study predicts that 39% of new renewables will displace gas-fired units within the PJM grid.⁷⁷ FERC's failure to account for these trends undermines its reliance on future projected demand growth for new gas-fired generation to demonstrate need for the ACP.

B. The Commission's reliance on untested, inaccurate, and incomplete information about the market demand for the Atlantic Coast Pipeline biases its analysis and skews public review.

The Commission's reliance on untested, inaccurate, and incomplete information about the market demand for the Atlantic Coast Pipeline permeates the draft EIS. Far from harmless, this flaw allows the agency to brush aside serious environmental impacts as insignificant.⁷⁸ For example, the Commission concludes the effects, including Atlantic's proposals to (i) cross 84 miles of steep slopes with high landslide potential,⁷⁹ (ii) build construction platforms by blasting away the ridgeline along miles of mountain ridges,⁸⁰ and (iii) level a permanent pipeline corridor through twenty-one miles of intact forestland of the George Washington and Monongahela National Forests⁸¹ can be reduced to "less-than-significant" levels. As observed earlier, it reached this conclusion even before it had analyzed necessary

⁷⁶ GE Energy Consulting, PJM Renewable Integration Study, Executive Summary Report, March 31, 2014 ("PJM Study"), at 6-7, included as Attachment XX. *See also* Dominion 2016 IRP at 111 (citing Department of Energy study concluding that grids nationwide can support 20%-30% renewable saturation between 2020-2030).

⁷⁷ PJM Study at 7.

⁷⁸ *See* DEIS at ES-14.

⁷⁹ *Id.* at ES-4.

⁸⁰ *See, e.g., id.* at 4-36, 4-40.

⁸¹ *See id.* at 1-8.

information.

The Commission relies on the untested, inaccurate, and incomplete information on market demand for the pipeline to give terse treatment to important alternatives, including the “no action” alternative and the use of available capacity in existing pipeline infrastructure.⁸² Under NEPA, the alternatives analysis is the “heart of the environmental impact statement,”⁸³ and requires that agencies “rigorously explore and objectively evaluate” all reasonable alternatives.⁸⁴ Here, the Commission rejected the “no-action alternative,” seemingly concluding that it must approve the project because the pipeline is necessary to meet growing gas demand and to avoid supply constraints.⁸⁵ Yet nowhere has the Commission independently evaluated those claims of necessity from Atlantic, or even acknowledged the existence of contrary information.

The Commission’s bias in accepting Atlantic’s claims that its pipeline is needed also allows it to dismiss existing infrastructure system alternatives with little or no analysis. While the draft EIS lists Transco pipelines as a system alternative, it fails to mention the slated reversal of the Transco Mainstem, the largest North-South pipeline on the East Coast, or that the Commission approved the project that would complete the reversal earlier this year.⁸⁶ Moreover, the subscribers to the approved reversal, which would move 1.7 bcf/day of Marcellus gas into the Southeast, are gas producers and marketers looking for customers—in other words, this approved project would move more Marcellus gas into the Southeast than the Atlantic Coast Pipeline.⁸⁷ The existing Columbia pipeline network is another important system

⁸² See Rachel Wilson, et al., *supra* note **Error! Bookmark not defined.**, at 3-4.

⁸³ 40 C.F.R. § 1502.14 (2017).

⁸⁴ *Id.* § 1502.14(a).

⁸⁵ See DEIS at 3-3.

⁸⁶ See DEIS at 3-4; FERC, Order Issuing Certificate re Transcontinental Gas Pipe Line Company, LLC under CP15-138 (Feb. 3, 2017) (eLibrary No. 20170203-3047).

⁸⁷ See *id.* at 5-6.

alternative that the Commission summarily dismisses.⁸⁸ It is well-established that existing pipeline systems can move gas at lower costs than new, greenfield infrastructure, even with upgrades and modifications. Because they offer significantly lower environmental impacts than new infrastructure and because they can reduce costs for ratepayers, the Commission must thoroughly investigate and compare system alternatives to the Atlantic Coast Pipeline. As discussed earlier, Synapse Energy Economics concluded that that existing infrastructure, with modifications and upgrades already proposed, could meet demand for natural gas in Virginia, North Carolina, and South Carolina, through 2030 even under a high-gas demand scenario.⁸⁹

Finally, the Commission's reliance on Atlantic's claims of necessity misleads the public by framing the project as necessary, when, in fact, no agency—not the Commission and not the state public utilities commissions of Virginia and North Carolina—has made that finding. In doing so, the Commission deprives the public of an opportunity to understand and comment on a complete and fair analysis of the actual need for the Atlantic Coast Pipeline and a robust consideration of its impacts and viable alternatives to the project. The public cannot fairly weigh the need for the project against its environmental impacts because the Commission has only told one side of the story in its draft EIS.

Conservation Groups are not the only parties to recognize this critical defect in the Commission's analysis. In its comments on the proposed Mountain Valley Pipeline, which, like the Atlantic Coast Pipeline would deliver Marcellus gas to the Southeast, the Environmental Protection Agency wrote that the agency "is concerned that the deferring evaluation of need may compromise the NEPA process."⁹⁰ EPA encouraged the Commission to include analysis of project need in its EIS, to provide "transparency and disclosure" for the public, to provide an opportunity for the public to comment on the analysis, and to

⁸⁸ See DEIS at 3-5.

⁸⁹ See Rachel Wilson, et al., *supra* note **Error! Bookmark not defined.**, at 3-4.

⁹⁰ Letter from Jeffrey D. Lapp, Assoc. Dir., EPA Region III, to Nathaniel J. Davis, Deputy Sec'y, FERC at 2 (Dec. 20, 2016) (eLibrary No. 20161229-0033), included as **Attachment 5**.

allow a robust assessment and comparison of alternatives.⁹¹ It emphasized that “[e]stablishing a project need is critical to help determine alternatives that should be studied” in an EIS, a position that is well-grounded in NEPA precedent.⁹²

Indeed, the former Chairman of the Commission itself has recognized the problems with FERC’s reliance on precedent agreements, without a more in-depth market analysis, in determining whether a project is needed. In a recently released separate statement in FERC Docket No. CP15-115, then-Chairman Norman Bay encouraged FERC to reconsider how it establishes need in its certificate reviews under section 7(c) of the Natural Gas Act. Chairman Bay explained that the Commission’s reliance on signed precedent agreements may not take into account a variety of considerations, including “whether the precedent agreements are largely signed by affiliates” and therefore other long-term issues—such as protecting against ratepayer-funded overbuild—should be considered.⁹³ Former Chairman Bay’s statement makes even clearer that FERC may not look at affiliate contracts in isolation when determining the need for a project under NEPA.

⁹¹ *Id.*

⁹² *Id.* at 2.

⁹³ Separate Statement of Commissioner Bay, FERC Docket No. CP15-115 at 3 (February 3, 2017).