Protecting the heritage, resources and economy of the Allegheny-Blue Ridge region
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Why Support for the Atlantic Coast Pipeline Adds Risks to Shareholders and Ratepayers

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Executive Summary

Continued efforts to complete the Atlantic Coast Pipeline (ACP) are fraught with risks.

A huge surplus of generating capacity exists within the region. S&P Global Market Intelligence says we have a glut of gas-fired generation. The surplus capacity in the PJM region is growing and will last past 2050.

About 80% of the capacity of the ACP was reserved for new power plants. Large gas-fired facilities, once thought necessary when the pipeline was proposed, have been cancelled or significantly postponed.

Existing pipelines serving Virginia and the Carolinas have already increased in capacity by more than what the ACP would provide.

Our region has access to all the gas we need without the Atlantic Coast Pipeline.

Rather than saving us money, the ACP will add tens of billions of dollars to our energy costs in just 20 years.

Utility customers will be asked to pay in full for the capacity reservations on the ACP whether all of it is used or not.

Shortcuts were taken in permitting the pipeline and courts have revoked many of the permits.

There were many options for crossing the Appalachian Trail. The ACP chose a way that was not authorized by law. By June of 2020, the Supreme Court should decide the issue.

The Forest Service did not follow their regulations or several federal laws when they approved the ACP to cross National Forest land. The court said a new Forest Service permit must be issued in a way that follows federal laws. It might not be possible for that to happen.

The court said a federal agency lost sight of its mandate to protect endangered species. Protecting endangered species has "priority" over the primary missions of federal agencies, according to the court.

The FERC Certificate for the ACP is being challenged in the DC Circuit. The case has been postponed until the Supreme Court renders its judgment about the AT crossing.

The Air Quality permit for the Buckingham compressor station has been vacated because of improper consideration of Environmental Justice issues, the possible unsuitability of the site due to the health effects on the adjacent population and the failure to consider using electric turbines for the compressor that would reduce health effects on the Union Hill population.

Nationwide Permit 12 has been suspended which authorized construction at pipeline water crossings. Revisions of the permit are expected in 2020.

Safety and environmental considerations due to the steep slopes and unstable land crossed by the ACP were not properly considered by the Forest Service. The ACP never provided the information necessary to determine if the pipeline could be built safely and without adverse effects.

The "Best in Class" pipeline that the ACP used as an example that large pipelines can be constructed safely in steep terrain exploded six months after initial operation. This occurred as a result of a landslide on a slope that is much less severe than many of those proposed for the location of the ACP.

History

When the application to the Federal Energy Regulatory Commission was filed for the ACP in September, 2015, it said that the pipeline was necessary to serve the growing energy needs in Virginia and North Carolina. The application stated that nearly 80% of

the pipeline capacity was necessary to supply new power plants planned by Duke and Dominion in Virginia and North Carolina.[1]

The Atlantic Coast Pipeline was portrayed as the only way the necessary amount of gas could be supplied to the region, that it would save customers a huge amount in energy costs, and be an economic driver for job creation and business development. It is a compelling story. Unfortunately, the information provided does not support it. FERC never performed an independent analysis to determine if it was true.

Our regulated utilities face a difficult situation. The rules that govern them were first created 100 years ago. Utilities were rewarded for building more power plants and other projects to meet the needs of our growing economy. In this century, electricity use has been flat or declining despite continued economic growth and an increasing population. Now, when we add new power plants or other related projects, the cost of our electricity goes up. To offset this situation, innovative new technology allows us to produce more goods and services using less energy. This is a good thing and we should do more of it.

However, the unregulated parent companies of utilities like Duke and Dominion need a continued stream of increasing revenues and profits to keep shareholders happy and boost the stock price. In the 20th century, the interests of shareholders and utility customers were aligned. Regulators established a fair price to customers and a fair return for shareholders.

Currently, an outdated regulatory scheme pits the owners of the company against its customers. Shareholders make more only when regulated utilities, in states like Virginia and North Carolina, build more. When the utilities build another project, the customers pay more for a unit of energy. This is unsustainable.

The federal regulator has authorized a 15% overall rate of return to calculate the rates for the Atlantic Coast Pipeline.[2] This extremely high rate of return, in an era of very low interest rates, has lured utility holding companies into the pipeline building business. Especially since growth in demand for electricity is relatively flat. Utilities are typically awarded rates of return in the 9% -10% range for building power plants and transmission lines.[3] Owning a pipeline provides a long-term stream of windfall profits. It works as long as there are customers that pay to use the pipeline.

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[1] Application for a Certificate of Public Convenience and Necessity, Atlantic Coast Pipeline, LLC, September 18, 2015, Federal Energy Regulatory Commission, Docket No. CP15-000, p6

[2] Amendment to Application for a Certificate of Public Convenience and Necessity and Blanket Certificates, Atlantic Coast Pipeline, Docket No. CP15-554-001, Volume I Public, March 11, 2016, Exhibit P

[3] "Moody's upgrades Duke Energy and five subsidiaries; outlooks stable", Moody's Global Credit Research, January 31, 2014, https://www.moodys.com/research/Moodys-upgrades-Duke-Energy-and-five-subsidiaries-outlooks-stable--PR_291348

FERC assumes that if an organization is willing to sign a long-term contract to pay for capacity on a pipeline, it must have a need for it. This might have been true at one time. Developers have since learned to have their subsidiaries or affiliates sign contracts for reserving the capacity of the new pipeline. It is easy for the holding-company owners of the ACP to propose a new pipeline when FERC gives the go-ahead without further analysis of the actual need for the project and they expect that state regulators will pass through the costs and risks of the project to the ratepayers of their utility subsidiaries.

Over 400 applications have been submitted to FERC in the past 20 years. Only one failed to pass muster. It lacked a signed capacity contract. During that 20-year period, twice the pipeline capacity needed to transport the peak national gas usage was constructed.[4] This does not include the gas transmission pipelines built in the 20th century or those still under development.

For the Atlantic pipeline, FERC failed to consider studies of the actual market demand for new capacity, the ability of existing pipelines in the area to serve any new demand, and a host of other factors the Commission had earlier identified as necessary to be considered when approving new pipeline projects.[5]

Absent any objective analysis of the need for the ACP by FERC, what has actually happened since the project was proposed?

Need

Nearly 80% of ACP Capacity Needed for New Power Plants

At the time of the FERC application, Dominion planned to build two large gas-fired plants, beyond what was already in development.[6] Duke planned to add six more of these combined cycle gas turbine facilities to its system in North Carolina.[7]

Since that time, Dominion has cancelled plans to build more large gas-fired units and says it plans to build no more.[8] The company has also just announced that it will discontinue plans to build 1,500 MW of new gas-fired peaking units.[9]

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[4] Susan Tierney, *Natural Gas Pipeline Certification: Policy Considerations for a Changing Industry*, ANALYSIS GROUP (Nov. 6, 2017), at 12.
[5] United States of America 88 FERC ¶ 61,227, Federal Energy Regulatory, Guidelines Issued September 15, 1999
[6] Integrated Resource Plan, Dominion Virginia Power, Virginia State Corporation Commission, May 1, 2015
[7] Duke Energy Carolinas, Integrated Resource Plan, September 1, 2016; Duke Energy Progress, Integrated Resource Plan, November 1, 2016
[8] *No New Natural Gas Plants for Vistra, Dominion, As Solar Soars, Reuters Reports,* Frank Andorka, SolarWakeUp, http://www.solarwakeup.com/2018/05/29/natural-gas-plants-vistra-dominion/

Testimony to the state regulator shows that Dominion has sufficient long-term contracts for pipeline capacity to serve all of its existing gas-fired units.[10] With plans to build no more, Dominion has no need for the ACP.

Duke has been under fire for some time, like many other utilities, for consistently over-forecasting the growth in demand for electricity in order to support the need to build more power plants. Current growth levels do not appear to support the need for new gas-fired generation. The latest plans are only projections. Construction of new gas-fired units has not been approved by regulators. At the earliest, the first new unit might be needed in the mid- to late-2020s, according to the company's latest forecasts. [11]

At most, the ACP would be used at only 20% capacity for years to supply the gas distribution companies that are shippers on the pipeline before there might be any need to supply a new power plant. And it is becoming clear that new power plants are unnecessary to maintain a reliable supply of electricity.

S&P Global Market Intelligence released a series of articles that have identified a glut in generating capacity resulting from the exuberant build-out of gas-fired power plants. Since 2008, "a period of essentially flat demand, the U.S. added 120,498 MW of natural gas-fired capacity to its generation fleet."[12] The article notes that at least 200 more gas-fired plants are planned or in development in the U.S. The North American Reliability Council (NERC), the organization responsible for assuring that we have a reliable supply of electricity, found that by 2023, we "will have more power generating capacity – in some cases far more – than needed to maintain reliability."[13]

PJM, the Independent System Operator that oversees the reliable supply of electricity to 65 million customers in a 13-state region that includes Virginia, expects to have surplus generating capacity in 2023 that is nearly 35% greater than its peak demand. Despite stable demand, nearly 30,000 MW of new gas-fired capacity is expected to be added in PJM by 2027, based on current plans.[14] This would cause surplus generation to surge to nearly 60% greater than peak demand. PJM requires only about a 16% reserve margin above its peak requirements to maintain highly reliable service.

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[9] "Dominion suspends plan to add 1.5 GW of peaking capacity as Virginia faces gas glut," Robert Walton, December 5, 2019, Utility Dive, https://www.utilitydive.com/news/dominion-suspends-plan-to-add-15-gw-of-peaking-capacity-as-virginia-faces/568489/

[10] Supplemental Testimony, Bernadette Johnson, SCC PUR-2019-00070, July 19, 2019; Lander, June 19, 2019

[11] Duke Energy Progress, Integrated Resource Plan, September 5, 2018

[12] "Overpowered: Why a US gas-building spree continues despite electricity glut," Stephanie Tsao and Richard Martin, December 2, 2019, S&P Global Market Intelligence, https://www.spglobal.com/marketintelligence/en/news-insights/videos/power-forecast-briefing-capacity-shortfalls-to-test-the-renewable-energy-transition

[13] Ibid.

[14] Ibid.

The glut of generating capacity is driving down capacity factors. S&P Global identifies 33,000 MW of gas-fired combined cycle units less than 20 years old that have capacity factors below 40%.[15]

New large gas-fired units are unnecessary in Virginia and the Carolinas. If they were built, they would be a burden on ratepayers.

Abundant Capacity in Existing Pipelines

FERC is supposed to "consider all relevant factors reflecting on the need for the project."[16] If a market study identifies a probable increase in demand, the Commission is supposed to make "a comparison of projected demand with the amount of capacity currently serving the market."[17]

The ACP application identified that about 80% of the capacity of the pipeline (1.2 million Dth/d) was needed for proposed new power plants in Virginia and the Carolinas. This same potential market demand was used to justify the Atlantic Sunrise Pipeline and the Mountain Valley Pipeline (MVP). The MVP claimed that 60% of its capacity (1.2 million Dth/d) was needed to supply new power plants in the region.[18]

FERC was considering all three of these projects simultaneously, but there is no indication on the record that they were approving three different pipelines to serve the same potential need. The Commission was aware that three pipelines were vying for the same market, but they applied no comprehensive analysis to determine which project might best meet the need. Instead, they approved all three projects.

The ACP and MVP are bogged down in multiple permitting issues. Transco's Atlantic Sunrise project is in operation.

When the ACP was announced in 2014, Transco had 11 million Dth/d of capacity.[19] It has since expanded to 15.68 million Dth/d of capacity, as delivered on January 21,

[15] Ibid.
[16] UNITED STATES OF AMERICA 88 FERC ¶ 61,227, FEDERAL ENERGY REGULATORY COMMISSION, Statement of Policy, September 15, 1999, p2
[17] Ibid.
[18] Application for a Certificate of Public Convenience and Necessity, Mountain Valley Pipeline, LLC, October 23, 2015, Federal Energy Regulatory Commission, Docket No. CP16-000
[19] Transco Update 2014, Williams Company, Spring 2014 Customer Meetings

2019.[20] That is more than a 42% increase in capacity, only some of which is allocated to actual end-users of the gas.

Recent expansions to Transco, approved by FERC, provide more available capacity than the ACP would provide. Below are examples of Transco projects that provide added capacity to Virginia and the Carolinas:

Transco – Leidy Southeast (0.525 million Dth/d)

This project went into service in 2016. It demonstrates how easy it is to add incremental firm capacity to serve utilities in North Carolina. This project provided 100,000 Dth/d to PSNC (now a Dominion subsidiary) and an equal amount to Piedmont Natural Gas (now owned by Duke). Both of these companies have signed contracts with the ACP (owned by their parent companies).

Transco – Atlantic Sunrise (1.700 million Dth/d)

This project added capacity to southbound gas supply on Transco after it went into service on October 6, 2018. Dominion's Cove Point LNG facility has reserved 350,000 Dth/d from Atlantic Sunrise and other amounts have been reserved by customers in Pennsylvania. All of the subscribers to the capacity of this pipeline are either gas producers or gas marketing companies looking for more customers. In its FERC application, the ACP claimed that because the Atlantic Sunrise was "fully subscribed" its capacity could not be used to serve the intended customers for the ACP. In 2018, Dominion admitted to FERC that volume on the Transco system available to serve markets in Virginia and North Carolina "could exceed 885,000 Dt/day."[21]

The gas distribution companies in North Carolina (PSNC and Piedmont Natural Gas) are long-time customers of Transco and have existing connections to its mainline. Connecting to the ACP instead of Transco adds considerable expense for utility customers but benefits the owners of the ACP.

Transco – Southeastern Trail (0.296 million Dth/d)

This is another Transco project that shows the ease by which new capacity can be accessed, as needed, by utilities in North Carolina. Upgrades to nearby compressor facilities will increase pressure and capacity in the segment of Transco serving the

[20] Williams' Transco Pipeline delivers record volumes this winter, Staff Reports, February 7, 2019, https://blog.williams.com/energy-and-infrastructure/williams-transco-pipeline-delivers-record-volumes-this-winter/
[21] Letter from Matthew R. Bley, Dominion Energy Transmission, Inc., to Kimberly D. Bose, FERC, at 3 (Aug. 13, 2018), Elibrary No. 20180813-5065

Carolinas. An additional 60,000 Dth/d of capacity will be provided to PSNC by November 1, 2020.

Transco – Leidy South (0.582 million Dth/d)

This expansion to the Transco system will provide added supply to market centers along the eastern seaboard in time for the 2021-2022 winter heating season, before the ACP is expected to be in operation. The project is subscribed by two gas producers and a gas marketing company looking for end-user customers.

These projects illustrate that Transco is committed to an ongoing program of expanding its capacity to serve the needs of its customers. More than 4 million Dth/d of capacity has been added to the system in the last five years. There is significant available capacity on the Transco system to serve markets in Virginia and the Carolinas. The power plants that remain in the plans for North Carolina must build a connection to the ACP. Rather than going east to meet the ACP, those plants (if ever built) could just as easily go west to connect to the Transco corridor. This is what Duke's CEO was alluding to in her comments to analysts in March, 2019. She said if Duke cannot get more gas supply from north to south (via the ACP), Duke could get any necessary new capacity by going east to west (accessing the abundant capacity available in the Transco system).

The Columbia Gas Pipeline expanded its capacity by 1.3 million Dth/d in 2018. Up to 800,000 Dth/d can be transported to the west and south and all 1.3 million Dth/d can be transported to the east and north on the Columbia Gas system. The capacity is subscribed by two gas producers and a gas marketing company looking for end-user customers. A significant portion of the added capacity on the Columbia Gas system can be transferred to Transco via a new connection in northern Virginia.

There is abundant capacity in the existing pipelines that serve Virginia and the Carolinas. Power plants, businesses and families can have all the gas they need without the Atlantic Coast Pipeline. The Atlantic Coast Pipeline was justified by saying it was the only way to provide enough gas supply for all of the new power plants needed in Virginia and the Carolinas. Actual events have shown that assumption to be incorrect.

Public Benefit

The Natural Gas Act requires FERC to certify that a new pipeline serves the public convenience. The Commission relied on an economic study produced by the ACP that

ignored the cost of using the pipeline. FERC failed to conduct any independent evaluation of its own.

ACP's economic study compared differences in pricing at the Dominion South Hub in West Virginia, the proposed source of gas supply for the ACP, with the price at Henry Hub in Louisiana, where the gas price is set for the futures market. The study focused on a few weeks in the winter of 2013-2014 during a rare meteorological event called the Polar Vortex.

At this time, many of the pipelines planned to take Appalachian Basin gas to national markets were not yet in service. The stranded gas at Dominion South had to be priced well below the market in order to find buyers.

Meanwhile, the Polar Vortex cold snap caused gas usage to significantly increase and prices to temporarily spike at Henry Hub.

The study assumed this rare short-term occurrence was representative of the price differential that would occur over the first 20 years of ACP operation and would actually grow over time. The report concluded that the ACP would save $1.61/Dth "on average by transporting Appalachian Basin gas on the ACP – far exceeding the proposed transportation rate on the pipeline."[22]

The company conducting the study is an experienced industry consultant and should have known that the published rate for transportation on the ACP (including the supply header) was $1.88/Dth, well above even the questionable savings in gas price. Had they used the actual price of transportation on the ACP, no savings would have been attributable to the Atlantic pipeline, even using the many dubious assumptions.

Alas, that calculation was never made. Instead, the consultant assumed its unadjusted gas price cost savings would lower customers' energy cost, create 2,200 permanent jobs, and other indirect economic effects as a result of increased consumer spending due to the energy cost savings. In total, the disputed cost savings, run through an economic multiplier, produced an average of $377 million in consumer cost savings annually over a 20-year period.[23]

This has been the basis for a powerful PR campaign about how beneficial the ACP will be for Virginia and the Carolinas. No regulator, politician, financial analyst, business or labor leader questioned whether it was really true. We live in an age when people hear something that they want to believe, they accept it – no questions asked. But our regulators should be objective and examine the facts. FERC never did.

[22] The Economic Impacts of the Atlantic Coast Pipeline, ICF International, February 9, 2015, p 9
[23] Ibid. pp 10-13

Let's leave the land of make-believe and review what actually occurred.

As take-away pipelines were completed in the Appalachian Basin, gas was delivered to markets throughout the U.S. and prices equalized between production zones. This typically happens when ready access to markets exists. For the past several years, gas prices at Dominion South have been about the same as other production zones that serve this region. There are still variations in prices due to a variety of circumstances, but despite occasional blips, the consistent differences in price are in nickels and dimes, not the ongoing $1.61 price advantage for Dominion South proposed by the ACP. For example, wholesale gas prices at Transco Zone 5, which includes Virginia and the Carolinas, have been about the same as Dominion South over the past several years.

Transco also added projects that increased supply to the New York City market which was often the cause of price spikes during cold spells.

The situation now, and what is expected in the foreseeable future, is that differences in delivered gas prices will be due primarily to differences in pipeline transportation costs.

A simple comparison of the cost of transportation using the ACP versus existing pipelines will illustrate whether the ACP provides a cost savings to customers of the utilities that have signed up as shippers on the ACP.

Although, Dominion Energy Virginia (the utility) does not need more pipeline capacity, the ACP is intended to connect to both the Brunswick and Greensville plants. We can compare whether the ACP offers any advantage. Together, the plants use a total of 500,000 Dth/d, but Dominion's reservation from the ACP is just 300,000 Dth/d.

Most of Piedmont's capacity reservation was allocated for power plants rather than gas customers. But the cost difference between pipelines is still useful to see. The company is responsible to pay in full for the 20-year capacity reservation even if the portion for power plant use is not needed for years after initial operation of the ACP.

The costs shown in the table below are based on the preliminary rates established by FERC for the ACP, Transco Virginia Southside and the Atlantic Sunrise pipelines. [24,25,26] The "ACP Current" costs are an extrapolation based on what the rates might be if the pipeline is constructed at the current estimated cost of $7.8 billion[27] instead of the $5.1

[24] Amendment to Application for a Certificate of Public Convenience and Necessity and Blanket Certificates, Atlantic Coast Pipeline, Docket No. CP15-554-001, Volume I Public, March 11, 2016, Exhibit P

[25] Application for Certificate of Public Convenience and Necessity, Virginia Southside Expansion Project II, Filed March 23, 2015, Exhibit P

[26] Application for Certificate of Public Convenience and Necessity, Atlantic Sunrise, March 31, 2015, Exhibit P

[27] "In face of litigation, Dominion reiterates Atlantic Coast Pipeline timeline, cost estimate," Jim Magill, S&P Global/Platts, November 1, 2019

estimate used to establish the initial rate. The increased allowance for funds used during construction that is accruing because of the significant delays could further increase the capital costs used for setting permanent rates, increasing the ACP final costs to values higher than what are shown here.

Transco rates could vary depending on which project is used to provide the capacity. The rate for Transco is assumed to be the rate for the Atlantic Sunrise project, since that is the highest Transco rate identified for this region. The Transco cost for service to Dominion in Virginia uses the rate for the Transco connector that currently serves the two new power plants in Southside Virginia.

Shipper	Capacity Dth/d	Transco 20-Yr Total	ACP Initial 20-Yr Total	ACP Current 20-Yr Total
Dominion			in Billions of $	
Virginia Power	300,000	$ 1.16	$ 4.12	$ 6.26
PSNC	100,000	$ 0.56	$ 1.37	$ 2.09
Duke				
Piedmont	160,000	$ 0.90	$ 2.20	$ 3.34
Duke Progress	452,750	$ 2.54	$ 6.21	$ 9.45
Duke Carolinas	272,250	$ 1.53	$ 3.74	$ 5.68

In simple terms, the cost of a 20-year capacity reservation for Dominion subsidiaries would be $1.72 billion to use Transco compared to $8.35 billion to use the ACP.

The cost for all Duke subsidiaries would be $4.97 billion to use Transco compared to $18.47 billion to obtain a 20-year capacity reservation from the ACP.

A 20-year capacity reservation with the ACP for Virginia Natural Gas would cost $3.24 billion. Gas is purchased separately from the capacity reservations.

Decision-makers should carefully examine these numbers. Thus far, they have been told about the hundreds of millions of dollars in profits that the parent companies would receive from the ACP. No one has mentioned that it requires burdening the customers of the utilities with tens of billions of dollars in added costs. This burden can be increased

by higher rates authorized by FERC. The parent companies are likely to keep asking their utility subsidiaries to sign new contracts every 20 years.

The chart above is misleading. The cost of adding capacity via Transco is much cheaper than what is shown. To make an equal comparison with the ACP numbers, the Transco capacity was assumed to be purchased in the same amount at the same time as the ACP reservation. If the utilities were concerned about the welfare of their customers, they wouldn't do it that way. The need for capacity additions doesn't occur in the huge chunks that the ACP contracts require.

The gas distribution companies such as PSNC and Piedmont don't have an immediate need for new capacity. They could add it in small increments from Transco, as the need arises. They are already connected to the Transco system. It would be a matter of negotiating new long-term contracts with Transco, in amounts and terms that good business strategy dictates. There would be no reason to burden customers with paying for unused capacity for years or decades, as the ACP contracts require.

The same would apply to the Duke electric utilities. If the first power plant is 6 -10 years away, if ever, why make customers pay for years in advance for something that is not necessary? The utility makes no money on the transaction. They are only the bill collectors that hand the proceeds over to their parent company via the ACP. The arrangement with the ACP shows a great disdain for the well-being of families and businesses in Virginia and North Carolina. Is this really a good way to do business?

We need financially healthy utilities, but they should prosper by doing what is good for their customers.

Legal, Social and Environmental Issues

Construction of the ACP is stalled because numerous permits have been vacated by the courts. ACP owners have blamed the delays on environmental groups, however, courts revoke permits only when issuing agencies have not followed the law or done their job properly.

Much of the damage has been self-inflicted. Energy planners typically take months using teams of experts and data verified by site-visits when selecting the location of major energy projects. Experts identify areas with endangered species, national parks or other areas that might require special authorizations. Historic locations, conservation areas, environmental justice communities and other sensitive areas are marked out prior to route selection. Steep slopes, stream crossings, and areas susceptible to sinkholes and widespread water contamination are also identified.

It is easier, faster, and less costly to avoid these areas at the beginning rather than have to address them after the primary project location has been selected.

Much of the difficulty for the ACP occurred because its route was selected using an abbreviated process. Instead of undertaking the typical intensive initial review, the pipeline corridor was selected by two Dominion employees, using only maps and aerial photographs, in just one week.[28] They never left the office. No visual inspection was done initially to determine if the selected route was actually a suitable location for a 42-inch pipeline project. Although, more work was done during the application process, the primary flaws in the route remain in the final design.

Legal

Rather than remedy the design and process flaws, the ACP pressed forward for permit authorizations without fully responding to what the law required. The ACP corridor crosses unique habitats, affects endangered species, and traverses steep terrain never attempted by a pipeline of this size. Instead of revising the project, Dominion, the project developer, used its considerable political influence to push for approvals, in some cases obtaining unexplained reversals in agency positions. When the courts determined that proper procedures or legal requirements were not followed by the issuing agencies, the permits were revoked. The courts were specific about the actions that must be taken to satisfy judicial review. Some requirements might be difficult to meet and could jeopardize successful authorization of the project.

Forest Service – 4th Circuit and Supreme Court Appeal

The U.S. Forest Service authorized the ACP to cross the Appalachian National Scenic Trail (ANST). It has this authority, ***except for lands in the National Park System***, of which the Appalachian Trail is a part.

The U.S. Court of the Appeals for the Fourth Circuit ruled that "the Forest Service does not have statutory authority to grant pipeline rights of way across" the Appalachian Trail.[29]

The ACP claims that such a ruling would create a 2000-mile barrier to pipeline projects across the east coast. This is incorrect. The Mineral Leasing Act prohibits pipeline

[28] "Pipeline architects with project since inception work through obstacles, criticism," Emily Brown, December 27, 2017, Nelson County Times
[29] United States Court of the Appeals for the Fourth Circuit, Cowpasture River Preservation Association, No. 18-1144, Filed December 13, 2018
[28] Ibid. p54 and p56.

crossings only on federal land, not on state or private land. An analysis identified 55 existing oil and gas pipelines that cross the Appalachian Trail at 34 separate locations.[30]

There are abundant options for routing pipelines in the east, such as crossing the Trail on state or private land. Atlantic identified at least two locations where it could cross the Trail on parcels that were not federal lands.[31] The Supreme Court will decide this issue and likely render its opinion by June, 2020.

Forest Service – 4th Circuit Remaining Issues

In addition to the AT crossing, the Forest Service "violated its obligations" under the National Forest Management Act and its own Forest Plans in other areas too, according to the 4th Circuit. [32]

The Forest Service is supposed to require a route alternative that does not require national forest land. The Forest Service initially objected to the ACP failing to provide such an alternative. But then it reversed course one day after a new federal administration was appointed.

The Forest Service must also determine if the ACP's "Best in Class" designs would meet Forest Plan standards "that limit activities in areas that are at high risk for slope and soil instability." The Forest Service noted that it was "skeptical" that the proposed techniques will work, telling the ACP they needed more details and ten "site specific" stabilization designs in order to conduct their analyses. Staff said they that they needed to "see actual information, including specs on the actual controls and protocols on how they will be installed, not conceptual drawings."[33] The ACP said they would provide only two of the requested designs for "demonstration purposes."

Months later, the Forest Service's comments on ACP's draft biological evaluation, issued on April 24, 2017, described a "grim picture of the ACP project's effects on erosion and on threatened and endangered species."[34]

After inauguration, the new administration appointed cabinet secretaries who brought in their own deputies. Many of the principal staff in the Forest Service who had been

[29] FERC Docket CP15-554-000, SELC, June 24, 2019
[30] United States Court of the Appeals for the Fourth Circuit, Cowpasture River Preservation Association, No. 18-1144, Filed December 13, 2018

[33] Ibid. p8
[34] Ibid. p9

involved in the ACP review were given new assignments or were transferred to other locations.

For the first time, on May 14, 2017, the Forest Service notified FERC that it would not require the remaining eight site-stabilization designs before authorizing the project. The letter did not provide any explanation for the agency's change in position.

On November 16, 2017 the Forest Service informed the ACP that it had updated its opinion about the project's biological evaluation. Originally, the Forest Service had concluded that the ACP project ***was likely*** to result in a "loss of viability" for three Sensitive Species. Now the Forest Service said the project was ***"not" likely*** to result in a loss of viability to those three species. The 4th Circuit decision notes that this "conclusion is significant, because the Forest Service cannot authorize uses of national forests that are likely to result in a loss of viability for species."

The court revoked the Forest Service permit for the ACP concluding "that the Forest Service abdicated its responsibility to preserve national forest resources. This conclusion is particularly informed by the Forest Service's serious environmental concerns that were suddenly, and mysteriously, assuaged in time to meet a private pipeline company's deadlines."[35]

The Forest Service must now conduct a new permit evaluation and renew its consultation with FERC in a way that is consistent with the 4th Circuit decision. Even if the Supreme Court decides in favor of the ACP's crossing of the Appalachian Trail, the court's requirements for fulfilling other aspects of the Forest Service permit must still be met. That might not be an easy task.

Fish and Wildlife Service Biological Opinion - 4th Circuit

In May 2018, the Fourth Circuit vacated the Fish and Wildlife Service (FWS) permit saying that in "fast-tracking its decisions, the agency appears to have lost sight of sight of its mandate" under the Endangered Species Act "to protect and conserve endangered and threatened species and their habitats." The agency reissued the permit in September 2018. The new permit was challenged again and on July 26, 2019 the 4th Circuit Court vacated the permit.[36]

[37] Ibid. p60

[36] United States Court of the Appeals for the Fourth Circuit, Defenders of Wildlife, No. 18-2090, Filed July 26, 2019

The 4th Circuit stated that this mandate has "priority over the 'primary missions' of federal agencies." The court has remanded the permit to the FWS, asking the agency to "consider any further action it takes with this mandate in mind."[37]

The latest version of the Biological Opinion is under development and is expected sometime in the first half of 2020.

FERC Certificate Challenge – DC Circuit

FERC's decision and the process used to authorize the Atlantic Coast Pipeline are being challenged in the U.S. Court of Appeals for the District of Columbia Circuit. The Court has postponed that proceeding until after the Supreme Court rules on the Appalachian Trail crossing.

Buckingham Air Quality Permit

On January 7, 2020 the permit granted by the Virginia Air Pollution Control Board for the ACP's Buckingham compressor station was vacated as being "arbitrary and capricious and unsupported by substantial evidence."[38] The Fourth Circuit ruled that the board failed to properly consider the degree of injury to the health of Union Hill residents adjacent to the compressor station or the suitability of the site for such a facility. The Air Board also failed to properly consider the Environmental Justice issues and did not consider electric turbines to reduce the health effects on nearby residents.

The board is not expected to reconvene until sometime in the spring. Until the board fully addresses the issues associated with the Fourth Circuit's opinion, there is no valid air quality permit for the proposed Buckingham compressor station.

Nationwide Permit 12 Suspension

Recently a federal court ruled that the ACP's reliance on the U.S. Army Corps of Engineers Nationwide Permit (NWP) 12 was improper.[39] The NWP 12 permit allows contractors to trench through the bottom of streams and rivers. This decision has suspended all water crossings along the entire ACP project until a new permit is issued.

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[37] Ibid. p50

[38] U.S. Court of Appeals for the Fourth Circuit, No 19-1152, Friends of Buckingham v. State Air Pollution Control Board, January 7, 2020

[39] "Army Corps Suspends ACP Permit," Appalachian Mountain Advocates, November 20, 2018, http://www.appalmad.org/2018/11/20/army-corps-suspends-acp-permit/

Typically, the Corps reviews and revises the NWP 12 every five years. Currently, the NWP 12 is under review (after just three years) and could be revised some time in 2020.

Pipeline and Hazardous Materials Safety Administration Issues

PHMSA regulations require that all of the pipes be inspected for coating anomalies immediately before they are placed in the ground, and again before backfilling. Nevertheless, the ACP has recently had to pull pipes out of the ground after backfilling in West Virginia because an electrical test revealed problems with the coating. With a shortage of PHMSA inspectors, it is not certain if all of the requirements are being met.

The ACP tells us that there is nothing to worry about. All is well.

The 4th Circuit judges had a different outlook. "Perhaps nothing demonstrates the dangers of the Forest Service's insufficient analysis of landslide risks clearer than the FEIS's use of the Columbia Gas Transmission pipeline as an example of an existing pipeline in the Appalachian Mountains that safely crosses karst terrain," according to the court.[40] The 4th Circuit notes that there "are differences" between the ACP corridor and the recently built Columbia Gas project – "there can be more potential for project-induced slope failures in the ACP corridor."

The Columbia Gas Transmission pipeline, considered (like the ACP) to be a "Best in Class" pipeline, ruptured and exploded about six months after it went into commercial operation. The break occurred at the bottom of a steep hill in Marshall County, WV. Columbia Gas personnel told PHMSA investigators that a landslide was the apparent cause of the rupture.[41]

No pipeline has been built in terrain as steep as what will be encountered by the ACP. Based on available information, it is estimated that the proposed route of the Atlantic Coast Pipeline would traverse more than 150 miles of terrain that is landslide prone, which is more than one-fourth of the pipeline's entire length. Steep side slopes that are prone to fail while the pipeline is being constructed on a narrow ridge exist in many locations along the pipeline corridor. Some slopes exceed 60%, and side slopes can be even steeper. Construction equipment has to be winched up the side of the mountain.

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[40] United States Court of the Appeals for the Fourth Circuit, Cowpasture River Preservation Association, No. 18-1144, Filed December 13, 2018, p44

[41] "*Landslide Caused West Virginia Pipeline Explosion, TransCanada Reports*," Anya Litvak, Pittsburgh Post-Gazette (July 11, 2018), http://www.post-gazette.com/business/powersource/2018/07/11/Landslide-caused-pipeline-explosion-Columbia-Gas-reported/stories/201807100176

Four catastrophic pipeline explosions have occurred in nearby states in the past 18 months. One pipeline exploded within weeks of going into service. As noted, the Columbia Gas pipeline failed after just six months of operation. There have already been a number of slope failures just in the few miles of pipeline that the ACP has installed in West Virginia.

Conclusion

The issues summarized above are not minor administrative issues that can be quickly remedied. It might not be possible for the agencies to issue permits for the ACP that meet their regulations and the requirements of their governing laws. That is likely why the shortcuts were taken in the first place. It was a gamble made by the ACP that didn't pay off. The courts have specified what must be done to receive the proper authorizations.

S&P Global Market Intelligence has recently published a series of articles that reveal we have a glut of natural gas-fired power plants. Policymakers and regulators will be forced to confront what others have been saying for some time – we have greatly overbuilt our gas infrastructure.

Assuming the ACP can overcome its permitting hurdles, after the pipeline is expected to begin commercial operation in 2022, state regulators must decide whether to pass-through all, some, or none of the cost of the pipeline contracts to ratepayers. By then, it should be obvious that no new gas-fired plants are needed. Or if they were, that they could be supplied by existing pipelines at a much lower price.

There is no reason to burden families and businesses in Virginia and North Carolina with more than $30 billion in added energy costs for an unnecessary pipeline.

Duke Energy subsidiaries are responsible for nearly 60% of the ACP capacity reservation (885,000 Dth/d). At the current estimated project cost, Duke Energy Progress, Duke Energy Carolinas, and Piedmont Natural Gas would be responsible to pay the ACP nearly $18 billion over the first 20 years. And who knows how much thereafter?

We need financially healthy utilities to develop our modern grid. Taking a $30 billion loss could hamper them considerably. State regulators might be frightened by that prospect and pass through the cost to ratepayers, even if they derived no benefit. This would extract $30 billion from families and businesses in Virginia and North Carolina that could be used for more useful purposes. This would depress the economy and job creation, not enhance it. It would also give those customers a reason to do less business

with the utilities. Customer choices are increasing. Utilities that obstruct those choices for near-term gains will pay a price in the long run.

There is no good outcome that results from continuing to develop the Atlantic Coast Pipeline. If it is constructed, customers could suffer from the outset. If some or all of the cost must be borne by the utility companies and their investors, it could cripple important energy companies that we need to help move us into a modern energy economy.

We have an overabundance of gas-fired generating capacity and gas transmission pipeline capacity. The Atlantic Coast Pipeline is not a solution. It is part of the problem.

We should stop the bleeding. As painful as it might be, the project should be cancelled immediately. No more money should be wasted trying to revive an unnecessary project. It will be difficult for holding company executives to do something that they feel would cause investors to lose confidence. But the best leaders recognize when conditions have changed and a new course must be charted.

A 21st century utility must cut its dependence on building projects its customers don't need, or are more expensive than if accomplished by other organizations. Our utilities must learn to collaborate with third-party providers and energy service companies. They can enhance profits with performance-based revenues resulting from doing things that serve their customers better. We must find ways for them to thrive when their customers require less energy from them not more.

To embrace the future, our energy companies must cut the chain that ties them to the outdated business model that keeps their thinking confined to the options that worked well in the 20th century. They can embark on that new path by cutting loose the Atlantic Coast Pipeline. New opportunities arise when tough decisions are made.