

It's Time to Abandon the Atlantic Coast Pipeline

Friends of the Earth & NC WARN
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About the Author



Thomas Hadwin worked for electric and gas utilities in Michigan and New York. As an executive with New York State Electric & Gas, he led a department responsible for the

site selection and approval of multi-billion dollar projects working with state and federal agencies, and for assuring that all company facilities complied with existing environmental regulations.

He is currently working to help establish a 21st century energy system for Virginia, and lives in Waynesboro, Virginia.



Friends of the Earth fights to create a more healthy and just world. Our current campaigns focus on promoting clean energy and solutions to climate change, ensuring the food we eat and products we use are safe and sustainable, and protecting marine ecosystems and the people who live and work near them.



Now in its 32nd year, NC WARN is building people power in the climate and energy justice movement to persuade or require Charlotte-based Duke Energy – one of the world's largest carbon polluters – to make a quick transition to renewable, affordable power generation and energy efficiency in order to avert climate tipping points and ongoing rate hikes.

It is Time to Abandon the Atlantic Coast Pipeline

Executive Summary

Shareholders should encourage Duke Energy and Dominion Energy executives to re-evaluate the prudence of pouring billions of dollars more into the Atlantic Coast Pipeline (ACP). Current events demonstrate that it is time to change course.

Current (pre-pandemic) plans require less than half of the capacity in new power plants that was originally announced as the reason to build the pipeline. Further decreases appear likely. Dominion canceled the plants that would have used the ACP just months after the pipeline was approved. It has since announced that a significant build-out of gas-fired power plants “is no longer viable.” In North Carolina, new gas-fired baseload units have been postponed until the mid-2020s or later.

Risks are increasing. The ACP continues to face an onslaught of legal and regulatory obstacles. The project has been stalled since 2018. Numerous vacated permits must be resolved before construction could resume.

There is a growing surplus of generating capacity serving the region. The coronavirus-induced economic shock has lowered electricity use by 8-10%. It might take several years, or more, for usage to recover to previous levels. Energy efficiency and renewables increasingly offset the need for more gas-fired plants.

Gas production is in disarray for an uncertain period. Many producers are on the verge of bankruptcy.

Should there be a need for additional gas supply, Virginia and the Carolinas can be served by existing pipelines. Dominion notified the Federal Energy Regulatory Commission (FERC) that the gas requirements for Duke’s three utilities in North Carolina, and more, could be met using available capacity in the Transco system.

Recent expansions to currently operating pipelines have increased capacity by more than what the ACP would provide. Expanded existing pipelines can transport gas far less expensively than the ACP – saving families and businesses billions of dollars.

It is inappropriate for leading energy companies to be saddling customers with higher energy costs for an unnecessary pipeline during what could be a prolonged time of deep economic distress.

To obtain permission to pass through the cost of the ACP contract to its ratepayers, a new law requires Dominion to prove the ACP is needed to maintain system reliability. If needed, it must be cheaper than available options.

Lower-cost renewables, storage, and reduced demand due to more efficient energy use threaten the operation of higher-cost gas-fired units. New carbon emission fees will further increase operating costs for gas-fired plants.

New legislation, state policies, and the stated aims of Duke Energy and Dominion Energy to be carbon-free by 2050 limit the financial viability of the ACP. The ACP, projected to be repaid over 50 years, will lose the gas-fired units that 80% of its capacity was intended to serve within the first 28 years of its operating life.

Shareholders could be at risk from stranded costs or the portion of the capacity reservation contracts that are not passed through to ratepayers.

Competition for capital will intensify because of the economic downturn. Investing in energy projects that serve customer interests would reduce risks and give more reliable returns than investing in the ACP.

Without the ACP, state economies would be free of the drag that an unnecessary \$30 billion increase in energy costs would produce over 20 years. Investments in energy-efficiency, storage, grid improvements, and renewables would create thousands of long-term jobs and lower energy costs, while profiting the energy companies too.

The ACP should be abandoned, losses capped, and priority given to the development of new projects that help create a modern energy system. This would re-align the interests of the shareholders with those of the ratepayers.

Introduction

If completed, the Atlantic Coast Pipeline would be a 600-mile, 42-inch diameter pipeline designed to carry fracked gas in the western Appalachian Basin from a production zone in West Virginia for use in Virginia and North Carolina. Subsidiaries of Dominion Energy and Duke Energy formed Atlantic Coast Pipeline, LLC to build and operate the pipeline. An application was filed with FERC in September 2015 with commercial operation scheduled by November 1, 2018. Construction has been stalled since November 2018, and the project is now three and one-half years behind schedule, with commercial operation anticipated in the first half of 2022. Estimated costs are currently \$7.8 billion and climbing.¹ This is 53 percent higher than the original estimate.

1. “In face of litigation, Dominion reiterates Atlantic Coast Pipeline timeline, cost estimate,” Jim Magill, S&P Global/Platts, November 1, 2019.

The lack of need for the ACP is clear

- The FERC application shows that 80% of the capacity of the ACP was reserved for new power plants.²
- Things have changed. Fewer plants are now proposed. Current plans require less than half of the capacity originally announced as the reason to build the pipeline, with further decreases likely.³
- Dominion Energy Virginia canceled the plants that would have used the ACP just months after the pipeline was approved.⁴ It has since announced that building more gas-fired power plants “is no longer viable.”⁵ Two proposed peaking facilities, if built, will use other pipelines.
- In North Carolina, new gas-fired baseload units have been postponed until the mid-2020s or later. Since the ACP was proposed, no new gas-fired combined cycle plant that would require the ACP has been approved by regulators; and it is possible that none will ever be approved.
- Plans are based on exaggerated growth in demand and are contrary to policies to reduce carbon emissions.
- Proposed gas-fired plants will likely continue to decline. The economic setback caused by the coronavirus has reduced electricity demand. A Wood Mackenzie study predicts it could be several years before usage returns to previous levels.⁶
- S&P Global Market Intelligence projects that, in 2023, shortly after the ACP is scheduled to begin operation, there will be 35 percent excess generation in the region from which Virginia draws its power, growing to 60 percent excess by 2027.⁷ Duke Energy’s electric utilities in the Carolinas forecast excess capacity beyond what is needed for reliability for at least the next 15 years.
- Energy sales are being set back at a time when energy efficiency and renewables are gaining a

stronger foothold. Building new gas infrastructure that will take 40-50 years to pay off is ill-advised.

- If additional gas supply is needed, there are better ways to provide it.

Abundant cheaper capacity is available

- Based on rates filed with FERC and the current estimated cost of the pipeline, the utilities’ 20-year contracts with the ACP will add \$30 billion to energy costs in Virginia and North Carolina.⁸
- Gas is purchased separately and priced about the same at the various production zones that serve the region. Differences in delivered gas prices are mainly due to differences in pipeline transportation costs.
- If the ACP becomes operational, Dominion’s Virginia utility must pay \$6 billion over the 20-year contract with the ACP; its North Carolina gas subsidiary owes \$2 billion. Duke’s gas company and two electric utilities are obligated to pay the ACP over \$18 billion for the first 20-year contract. Virginia Natural Gas must pay more than \$3 billion.⁹
- If the ACP becomes operational, contracts with the ACP must be paid in full even if only some or none of the reserved capacity is used.
- Since the ACP was proposed, existing pipelines serving Virginia and the Carolinas have increased in capacity by more than what the ACP would provide.
- FERC approved three different pipelines to serve the same potential need for new power plants in Virginia and the Carolinas: Atlantic Coast Pipeline, Atlantic Sunrise, and Mountain Valley Pipeline. Of the three, Atlantic Sunrise, which expands the Transco system, is the only pipeline that is operating.

2. 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.

3. Integrated Resource Plans, submitted by Dominion Energy Virginia (2018), Duke Energy Progress (2019), and Duke Energy Carolinas (2019).

4. “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/>

5. “Dominion: Significant new natural gas generation not viable,” Sarah Rankin, April 8, 2020, AP News, <https://apnews.com/3c711d503a304e67310a62e63a123b74>

6. “WoodMac: Coronavirus Will Undercut North American Power Demand through 2021,” Rob Whaley and Paul Taube, April 7, 2020, Greentech Media, <https://www.greentechmedia.com/articles/read/coronavirus-will-undercut-power-demand-from-east-to-wecc>

7. “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>

8. 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.

9. See Appendix A, attached.

- In August 2018, Dominion informed FERC that Transco has sufficient available capacity to provide all of what Duke’s utilities were expecting to get from the ACP, and more.¹⁰
- Other Transco expansion projects added even more capacity. Local gas distribution companies in North Carolina owned by Duke and Dominion have reserved new capacity from Transco, which has been their primary supplier for decades.
- As shown by rates on file with FERC, recent expansions to currently operating pipelines can transport gas far less expensively than can the ACP.¹¹
- Rather than saving money, as promoted by the ACP, customers will pay billions more to use the ACP.
- Gas production is in disarray. Demand is down, and a surplus of supply continues, driving prices down further. Many producers are on the verge of bankruptcy.
- It is quite possible the industry will consolidate in the hands of fewer, better-capitalized companies. They could decrease supply to match demand, causing gas prices to eventually rise, reducing its use.
- Shutting in some existing wells and allowing new wells to go through their normal 50% decline in output during the first year will reduce supply fairly rapidly.
- There is a surplus of generation in PJM that is expected to exist through 2050. Additions of gas-fired generation are unnecessary, except to improve utility profits.

Business case for future gas usage is gloomy

- There is an excess of generating capacity serving Virginia and North Carolina, and electricity demand has been essentially flat, even with a growing population and an economy that was strong until the pandemic.
- The economic downturn caused by the coronavirus has reduced electricity usage. After the last recession, energy use in developed nations fell by 5%.¹² Ten years later, the most developed nations consumed less energy than they had before the recession, although their economies had grown by 18%.
- The U.S. Energy Information Administration reports that residential gas use was less in 2019 than it was nearly 25 years ago, with a continued gradual decline projected through 2050. Commercial gas usage was less in 2019 than in 2014 but could rise slightly by 2050. Industrial use is price sensitive.
- Gas was considered attractive because it was cheap. It was cheap because of an oversupply.
- The coronavirus-induced economic downturn and oil price competition have stressed oil and gas producers.
- Eventually, higher-priced gas, a surplus of generating capacity, curtailed electricity demand, retirements of carbon-emitting generators, and competition from renewables will result in a declining demand for gas in the region, not an increasing one.
- Even if gas demand does end up matching previous projections, there is adequate gas supply and plenty of available pipeline capacity without the ACP.

Risk to owners and shippers has increased

Legal and regulatory challenges

- The ACP continues to face an onslaught of legal and regulatory obstacles.
- The Virginia Attorney General filed an amicus brief in the Supreme Court case related to the ACP crossing of the Appalachian Trail, saying the Atlantic Coast Pipeline was unnecessary and should be stopped.
- Regardless of the outcome of the Supreme Court case, numerous other revoked permits remain unresolved.¹³ A flurry of new permits that meet court requirements would be needed for construction to resume soon.

10. Letter from Matthew R. Bley, Dominion Energy Transmission, Inc., to Kimberly D. Bose, FERC, at 3 (Aug. 13, 2018), eLibrary No. 20180813-5065.

11. Application for a Certificate of Public Convenience and Necessity, Atlantic Sunrise Project, March 31, 2015, Federal Energy Regulatory Commission, Docket No. CP15-, Exhibit P.

12. “Recession and Recovery: Lessons From the 2010 BP Statistical Review of World Energy,” Christof Rühl and Joseph Giljum, 4th quarter 2010, International Association for Energy Economics Energy Forum, pp 9-14, <https://www.iaee.org/documents/2010FallEnergyForum.pdf>

13. https://www.southernenvironment.org/uploads/words_docs/11.25.19_Case_Against_the_ACP_Factsheet_.pdf

- For example, no air quality permit exists for the Buckingham Compressor Station and no meetings of the Virginia Air Quality Board are scheduled to deal with the issue.
- In North Carolina, the Section 401 water quality permit is being challenged.
- A recent court ruling involving the Keystone XL pipeline overturned Nationwide Permit 12 (NWP 12) administered by the U.S. Army Corps of Engineers to authorize interstate pipelines to cross streams and other water bodies.¹⁴ The ACP crosses waterways over one thousand times in Virginia, with perhaps 600 or more crossings in North Carolina.¹⁵ NWP 12 had been temporarily suspended awaiting updates that might have allowed the ACP to construct water crossings later this year. Now the nationwide permit has been vacated awaiting what could be multiple appeals. No timeline has been identified as to when the NWP 12 process might be functional again.
- The overall FERC certificate for the ACP is under court review. Action is delayed until after the Supreme Court ruling is issued.

Vastly changed political and legislative landscapes

- In Virginia, recently passed legislation requires Dominion's utility to answer several questions before the state regulator can pass through the costs of the pipeline contract to electricity ratepayers.¹⁶ The utility must show it needs added pipeline capacity to maintain system reliability and, if more capacity is necessary, that the ACP is cheaper than other available options.
- Testimony in previous Fuel Factor proceedings indicate that the utility will be unable to answer affirmatively to these and other required questions. The current projected rate for transporting gas using the ACP is over five times the rate for using the Transco Southside pipeline that was recently built to serve Dominion's two newest gas-fired power plants in Southside Virginia.¹⁷
- Dominion Energy is greatly exposed. It is now a 53% owner of the pipeline. The company abandoned plans to build new gas-fired power plants in

Virginia that would use the ACP. Despite information showing the pipeline is unnecessary to serve its customers, the utility intends to pass through the full \$6 billion cost of its ACP contract to ratepayers, a move that could be blocked by Virginia law.

- In North Carolina, even without a new state law, it will be challenging to pass unwarranted costs for an unnecessary pipeline on to ratepayers.
- If its North Carolina utilities need more gas supply, Duke can access Transco and reserve abundant pipeline capacity at a much lower cost than from the ACP.

Connection to South Carolina is unlikely to replace the huge loss of gas demand for electricity generation

- The ACP might plan to replace some of the significant reduction in demand due to canceled power plants with the unofficially announced connection with Dominion's pipeline network in South Carolina. Dominion might attempt to add a new gas-fired plant for its South Carolina utility, or connect the ACP with the Elba Island liquefied natural gas (LNG) export facility in Georgia.
- Phase II of U.S. LNG export facility expansion has slowed down. RBN Energy reports that "[m]any of these projects were conceived when prospects for U.S. LNG exports were considerably brighter." Now the "market is saturated and both LNG demand and financing have dried up."¹⁸
- An extension of the ACP into South Carolina would require a new FERC proceeding.
- Transco serves South Carolina and already connects to Elba Island. Any need for greater gas supply in the area could be provided far less expensively using Transco.

Cost and capacity challenges

- Reserving the expanded capacity in existing pipelines is much cheaper than using the ACP. New capacity from existing pipelines can be reserved in small increments, as needed, rather than paying for huge amounts of capacity from the ACP far in advance of when it might be used, if ever.

14. "Keystone XL Ruling Has 'Sweeping' Impacts for other Projects," Ellen M. Gilmer, April 16, 2020, Bloomberg Law, <https://news.bloomberglaw.com/environment-and-energy/keystone-xl-ruling-carries-sweeping-impacts-for-other-projects>

15. Atlantic Coast Natural Gas Pipeline, Chesapeake Bay Foundation, <https://www.cbf.org/about-cbf/locations/virginia/issues/atlantic-coast-natural-gas-pipeline.html>

16. HB 167 Recovery of Fuel and Purchased Power Costs, 2020 Virginia General Assembly.

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

18. "Holding On for Life - Second-Wave U.S. LNG Projects Stagnate Amid Market Uncertainty," Sheetal Nasta, April 16, 2020, RBN Energy, <https://rbnenergy.com/holding-on-for-life-second-wave-us-lng-projects-stagnate-amid-market-uncertainty>

- The very expensive contracts for capacity on the ACP would have to be renewed to serve the entire service life of a new gas-fired generating facility. Lifetime costs of using the ACP could be much greater than described above.

Huge increase in competition for capital challenges energy companies

- The economic downturn caused by the coronavirus pandemic will create an enormous demand for capital from ailing companies and a stricken populace.
- It is unwise and unconscionable for Duke and Dominion to burden families and businesses with higher utility bills for their own private gain while citizens and their companies attempt to recover from a massive economic shock.
- Access to capital could be reduced from what energy companies have experienced in the past decade.
- Investors will require the prudent use of what capital is available.
- Dominion and Duke might have to choose between projects that are risky, like the ACP, and those that have a more definite chance of success.

Climate change and stranded assets

- The recently passed Virginia Clean Economy Act requires Dominion to halt operation of all its fossil-fired generation in the state by the end of 2045. As a result, Dominion announced that building more gas-fired power plants “is no longer viable.”
- Synapse Energy Economics released a paper on March 9, 2020 that reviewed the decarbonization efforts of the three original owners of the ACP.¹⁹ Southern Company, Dominion Energy, and Duke Energy contribute 12.4 percent of U.S. CO₂ emissions in the electric power sector. The study showed:
 - Two-thirds of the coal capacity the companies had online in 2012 is still operating today.
 - Seventy-five percent of this remaining coal capacity is expected to operate beyond 2030.
 - Nearly three-quarters of the retired coal capacity was replaced by carbon-emitting gas-fired plants, which have similar greenhouse

gas emissions to coal plants when factoring in related methane releases.

- Assuming a 40-year lifetime, new gas-fired plants added since 2012 and those that might be built in the future will outlive the requirements of Virginia law and fall short of the companies’ climate commitments for 2050.
- Ratepayers or shareholders will pay for these stranded assets after they cease operation.
- Each ACP owner has a heavy reliance on gas. Even with a downward trajectory in emissions through 2040, their emissions will plateau near the 2040 levels unless plans are changed.
- The Synapse study finds that, contrary to what the companies “say on their websites, in television ads, and in shareholder reports and pamphlets, the three companies are thus far taking minimal actions to decarbonize their electricity systems.”
- Southern Company has withdrawn as an owner of the ACP. The investment no longer serves its corporate goals.
- Investors might feel the same way about the pipeline as Southern Company. They might feel that they would be better served if their money were used to invest in a forward-looking energy system rather than having billions invested in old technologies that go against the trend in state policies.
- Shareholders could be at risk from stranded assets and other costs of the ACP.

Investments in a modern energy system are a better investment than the ACP

- The economic downturn could make access to capital more difficult. If scarce capital must be allocated, investing in renewable energy and modernizing the grid would reduce risks and give more reliable returns than investing in the ACP.
- The Clean Economy Act awarded Dominion a windfall in profits for developing wind, solar, and energy efficiency projects throughout Virginia over the next 30 years. North Carolina’s policies might soon catch up. Energy companies must adjust to the times.
- Wind, solar, and energy efficiency projects have been the greatest source of new jobs in the U.S. Investing in modern energy projects²⁰ would help

19. “Investing in Failure - How Large Power Companies are Undermining their Decarbonization Targets,” Bruce Biewald, et al., March 9, 2020, Synapse Energy Economics.

20. Modern energy projects would include solar, wind, energy efficiency, storage, demand-response, smart-meter installations that make the information available to customers to optimize their energy use and lower their bills, microgrids, and advanced grid modifications that would allow the two-way flow of energy and information.

to get our economy back on its feet and put people back to work in long-term jobs.

- This would also serve customers better and re-align the interests of the shareholders with those of the ratepayers.
- Lower-cost renewables, storage, and demand reductions from greater energy efficiency threaten continued operation of higher-cost gas-fired units.
- Increasing carbon emission fees will contribute to higher operating costs of gas-fired units.
- Burdening customers with \$30 billion in higher energy costs for the ACP hampers job creation and economic development rather than boosting it.
- Shareholders should encourage Duke and Dominion executives to re-evaluate the prudence of pouring billions of dollars more into the ACP. Current events demonstrate that it is time to change course.

Appendix A

The costs shown in the table below are based on the initial rates established by FERC for the ACP.²¹ 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 billion²² instead of the \$5.1 billion estimate used to establish the initial rate. The initial published rate for the ACP is \$1.88 per Dekatherm per day (\$1.72 + \$0.16 for the supply header). This was increased by 53% to account for the current cost estimate for the pipeline. 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. This would offset the slightly lower rates that could be negotiated but not publicly released. A permanent rate will be established three years after commercial operation to account for actual construction and operating costs and adjustments in taxes and other expenses. FERC allows for increased rates during a pipeline’s operating life if the owners are not achieving the target rate of return.

Shipper	Capacity Dth/d	ACP Initial	ACP Current
		20-Yr Total	20-Yr Total
Dominion			
in Billions of \$			
Virginia Power	300,000	\$ 4.12	\$ 6.30
PSNC	100,000	\$ 1.37	\$ 2.10
Duke			
Piedmont	160,000	\$ 2.20	\$ 3.37
Duke Progress	452,750	\$ 6.21	\$ 9.50
Duke Carolinas	272,250	\$ 3.74	\$ 5.72
Virginia Natural Gas			
VNG	155,000	<u>\$ 2.13</u>	<u>\$ 3.25</u>
	Total	\$19.77	\$30.24

Gas distribution companies such as PSNC and Piedmont could add capacity 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 Duke’s electric utilities. If the first power plant is years away, if ever, why make customers pay far in advance for capacity that is not required? 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. Any new power plants could be connected to Transco as easily as to the ACP.

21. 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.

22. “In face of litigation, Dominion reiterates Atlantic Coast Pipeline timeline, cost estimate,” Jim Magill, S&P Global/Platts, November 1, 2019.