

# Blast Zone

## A Guide to Natural Gas, Environmental Justice and Civic Action against the Atlantic Coast Pipeline

**T**he Atlantic Coast Pipeline (ACP) is a proposed \$5.5 billion, 600-mile structure that will transport fracked natural gas from the Marcellus and Utica Shale Basins in Ohio, West Virginia, and Pennsylvania to markets in Virginia and North Carolina. The Rachel Carson Council's new report, *Blast Zone*, analyzes the economic and political forces driving this **unnecessary, unsafe, and unjust pipeline**, as well as the organizations leading the just transition to a clean energy future.



**IS NATURAL GAS CLEAN ENERGY?** Though touted as a bridge fuel, natural gas is not a source of clean energy. Methane leakage rates from gas wells range from 3.8%-12%, and rates above 3.2% render natural gas worse for the climate than coal over a 20-year lifecycle. Methane is 86-100x more powerful than CO<sub>2</sub> over a 20-year period at trapping heat in the atmosphere and contributes to global warming. In order for the U.S. and world to meet Paris Accord goals and keep global warming beneath 2°C, natural gas consumption must be reduced.

**WHAT ENABLES FRACKING?** The natural gas boom relies on hydraulic fracturing, or “fracking” technology. While the majority of traditional oil and gas reserves can be cheaply extracted with conventional drilling techniques, shale rock formations require this new approach. Wall Street, large players in the drilling industry such as Exxon-Mobil, Cabot Oil and Gas, Chesapeake Energy and EQT Corp work closely with legislators at all levels to push their agenda. The drilling industry enjoys large subsidies and lax regulation with little public input or knowledge. Despite its impressive technical precision, the use and pollution of water in the fracking process creates serious environmental and health risks. Fracking requires extraordinary quantities of water mixed with sand and toxic chemicals to be pumped into wells. Recovered wastewater from fracking wells pollutes drinking water sources.



**Sunrise Movement is a national network mobilizing young people to make climate change a priority and end the pernicious influence of fossil fuel executives on politics:**  
[www.sunrisemovement.org](http://www.sunrisemovement.org)

**Emergency Methane Action Campaign is driven by a North Carolina coalition asking Governor Roy Cooper to ban fracked natural gas use and transport by 2018:**  
<http://www.ncwarn.org/ema/>

**THE POWER BEHIND PIPELINES:** In accordance with the foundations of an extractive economy, pipeline build-outs are not initiated or controlled by local communities. Workers' safety and wellbeing are put at risk, and homeowners' property rights are violated. Pipelines reveal the power of the fossil fuel and energy industries to overpower local governance and manipulate governmental control to place profit over people.

Dominion Energy, Duke Energy, and Southern Company (which form “Atlantic”) are private and investor-owned holding companies. They own subsidiary companies responsible for various utility services such as electricity transmission and generation, and natural gas storage and distribution. While subsidiaries may be state-regulated monopoly utilities in the states where they operate, the holding companies themselves operate free of any specialized regulation and only face FERC regulation because of their plans to construct an interstate pipeline.



Limited Liability Corporation (LLC)

48%



**Dominion Energy**<sup>SM</sup>

**(Investor-Owned, For-Profit Utility Holding Company)**

- 2016 earnings: \$2.1 billion
- Market cap: \$50.88 billion\*
- 6 million energy customers

## Regulated Utilities

### Dominion Power

- Electric transmission & distribution
- 2.5 million electric customers in VA, NC\*\*

## Other Segments

### Power Generation

- Owns & operates 24,300 MW generation\*\*

### Gas Infrastructure

- 12,200 miles of gas transmission (OH, WV, WY, ID, Rocky Mountains)
- Cove Point, MD liquefied natural gas export terminal
- Atlantic Coast Pipeline Partnership

47%



**DUKE ENERGY**<sup>®</sup>

**(Investor-Owned, For-Profit Utility Holding Company)**

- 2016 earnings: \$2.1 billion
- Market cap: \$61.56 billion\*
- 7.5 million electric customers

## Regulated Utilities

### Duke Energy Carolinas

### Duke Energy Progress (NC, VA)

### Duke Energy Florida

### Duke Energy Indiana

### Duke Energy Ohio & Kentucky

### Piedmont Natural Gas

- Partner in Atlantic Coast Pipeline before acquisition
- Utilities collectively generate 50,200 MW*

## Other Segments

### Commercial Transmission

### Energy Services

### Duke Energy Renewables

### International Energy

- Refining in Saudi Arabia



**Southern Company**

5%

**(Investor-Owned, For-Profit Utility Holding Company)**

- 2016 earnings: \$2.7 billion
- Market cap: \$51.83 billion\*
- 9 million customers

## Regulated Utilities

### Alabama Power

### Georgia Power

### Gulf Power (FL)

### Mississippi Power

## Other Segments

### Southern Power

- 12,600 MW generation

### Southern Company Gas

- 4.5 million retail customers

### Power Secure

- Technology services

### Southern Nuclear

### Southern Linc

### Southern Telecom

### Sequent Energy Management

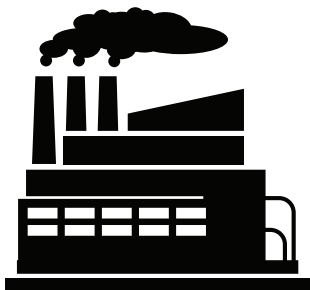
### Pivotal Home Solutions

\*Market capitalization data from 6/16/17

\*\*Dominion 2015 Summary Annual Report

**WHY IS THE ACP BEING BUILT?** Dominion claims that the gas is needed for newpower plants, large-scale manufacturing operations, and “underserved” areas of eastern North Carolina. However, investigations have found that a sufficient supply of gas could be maintained into the future with minor adjustments to existing infrastructure. Additionally, U.S. energy demand has been holding steady is projected to grow only 0.7% annually until 2040. If the pipeline is not needed, why is the ACP being built? The short answer: because Atlantic is virtually guaranteed to earn a 15% rate of return on its \$5.5 billion investment. Outdated regulatory schemes at the federal and state levels incentivize the construction of new fossil fuel infrastructure and guarantee its success in the long run.

**WHAT DOES THIS MEAN FOR RATE PAYERS?** Atlantic claims the pipeline will decrease energy costs, but several studies found that their methodology underestimated natural gas prices and overestimated the economic benefits. This return will be paid by electricity consumers, ratepayers, through rate hikes. Ratepayers in Virginia alone are expected to provide around \$200 million annually in funding.



**NATURAL GAS AND ENVIRONMENTAL JUSTICE:** In the U.S., communities of color and low-income communities are more likely to live next to sources of pollution and face increased environmental health risks. The ACP reinforces this unjust trend, especially in North Carolina, where 27 out of 42 of the census tracts within one mile of the pipeline route have higher poverty levels than the state average, and 30 out of 42 have higher minority levels. In eastern North Carolina, the pipeline will be located above the Northern Coastal Plain Aquifer, which supplies well water to disproportionately rural low-income and communities of color along the path and is vulnerable to contamination.

**JOIN THE JUST TRANSITION:** Alternatives to natural gas abound. Energy efficiency improvements can reduce energy consumption, save money, and produce jobs. Renewable energy can compensate for declining fossil fuel energy generation. Though the future of energy is clearly not dependent on fossil fuels, utilities and the natural gas industry are resisting this logical transition in order to secure profits that are tied to their extractive business model. We believe in the power of coordinated environmental justice, campus organizing, and national advocacy to bring about regulatory and systemic change.

**Climate Justice Alliance is a coalition of 41 organizations on the frontline of the climate crisis. Their *Our Power Plan* report puts forward solutions by frontline leaders with the goal of cutting GHG emissions by 80% by 2050: <http://www.ourpowercampaign.org/cja/>**



**FrackFree NC is a coalition of 30+ grassroots organizations opposed to fracking and pipelines and pressuring Governor Cooper and staff to reject the ACP. <http://frackfreenc.org/>**

**Virginia Student Environmental Coalition is creating a network for advocacy, education, and action around environmental justice issues in Virginia. VSEC is currently pressuring the Virginia Governor to reject the ACP and conduct strict environmental and water quality reviews. <http://www.vsecoalition.org/>**

Moving forward, there are many ways to link up with local, state, and national organizations leading the fight for a just transition to a clean energy future. Contact the RCC at [office@rachelcarsoncouncil.org](mailto:office@rachelcarsoncouncil.org), on Twitter @RachelCarsonDC or on Facebook at [www.facebook.com/RachelCarsonCouncil](https://www.facebook.com/RachelCarsonCouncil) to discuss how you can act today.

- Do you live in Virginia or North Carolina? Talk to your neighbors about the economic, health, and social justice implications of the ACP and encourage them to call the Governor.
- Do you have family and friends in Virginia or North Carolina? Call them and warn them about higher electricity bills.
- Do you live somewhere else? Learn whether a pipeline is being built in your state, or if fracking is taking place. Get involved with a regional or national organization.
- Everyone can push for local energy efficiency or renewable energy commitments from businesses, schools, neighborhoods, city councils, county commissions, and state legislatures.



# Impacts of Natural Gas & Ongoing Actions

## Water



Before water enters a fracking well, it is mixed with sand and toxic chemicals including **benzene, mercury, lead and uranium**. Over 600 chemicals are used, but fracking operations are not required to disclose exact chemical formulas. Growing evidence suggests that this toxic water can leak from fracked natural gas wells **into underwater drinking sources**.

**Clean Water for North Carolina** encourages everyone, not just those close to the proposed route, to submit comments North Carolina Department of Environmental Quality.

**Allegheny-Blue Ridge Alliance (ABRA)** is a coalition of 50+ organizations in Virginia and West Virginia. ABRA recognizes the ACP's "potential hazard to regional water supplies but without benefits to the communities and citizens it would affect." They encourage concerned citizens to write to FERC and contact Congress.

## Climate Justice



The ACP is an environmental justice (EJ) issue in eastern North Carolina as well because it would bring disproportionate harm to indigenous communities and to some of the most "economically depressed counties of the state, most with higher populations of color than the state as a whole."

**Support research and action** conducted by **NC Warn**. They fight the climate crisis and promote the transition to clean, renewable, affordable energy for all, "including those often excluded...because of racism, sexism, classism, and other forms of oppression," – and oppose the ACP and work to prevent fracking and pipeline buildouts.

**Join the movement** with the **Community Environmental Legal Defense Fund**, that assists communities in developing laws to protect workers, environmental and democratic rights, and the rights of nature. CELDF partners with civil society, indigenous peoples, communities, and governments to advance Rights of Nature laws and policies.

## Energy



Refusing to use natural gas is not only technically feasible, but it would be **cheaper** for energy customers in the long run and create far more jobs than natural gas expansion.

**Energy Justice Network** has a grassroots energy agenda and supports communities threatened by polluting energy and waste technologies.

**Beyond Extreme Energy** has been running a campaign for more than five months to call attention to FERC's abuses of power. The campaign has included call-ins, letter-writing drives, Twitter storms, lobby days, and civil resistance focused on educating senators and pressuring them to oppose the nominations.

## Defend Academic Integrity



To successfully bring about social, environmental, economic, and political change, it is essential to equip coalitions in higher education with research and advocacy skills, and for them to act **without fear of repercussions**.

## Air



Fracking sites emit a variety of pollutants, including **diesel exhaust** from truck traffic, **toxic hydrocarbons** from the wells themselves, and silica from frac sand.

According to the **Environmental Working Group**, none of the states at the center of the 'frac sand' mining boom have adopted air quality standards for silica that are adequate to protect people living or working near the sites. **Support their research** and proactive legislative efforts [here](#).

## Labor



Well drilling operation is almost 12 times as fatal as the average job. A **Food & Water Watch** report found that at construction sites, "workers can be exposed to volatile organic compounds, including benzene and toluene, as well as fugitive methane."

**Show your support** to the **Labor Network for Sustainability**, which is based on the understanding that long-term sustainability must be achieved by combining environmental protection, economic fairness, and social justice.

## Climate Crisis



**Global Warming:** While natural gas does release less CO<sub>2</sub> than coal when burned, the total greenhouse gas emissions associated with natural gas use can be even greater than those of coal. Natural gas is composed of methane (CH<sub>4</sub>), a greenhouse gas that is 84x more powerful at trapping heat than CO<sub>2</sub> over a 20-year period, and 36 times more powerful over 100 years, according to the **Intergovernmental Panel on Climate Change**.

**Extreme Weather:** Approximately 38 miles of mountains in West Virginia and Virginia would require 10 feet or more of their ridges to be removed using an excavating and blasting process for the pipeline.

Building a pipeline through this precarious terrain also heightens the risk of deadly landslides when extreme weather events occur. On August 19th, 1969, Hurricane Camille, the most deadly hurricane in the Mid-Atlantic caused a flash flood, mudslides, and debris flows in Nelson County, Virginia. Roads and bridges disappeared, homes were destroyed, and more than 150 people died.



Want to learn more about the economic and political injustices surrounding the Atlantic Coast Pipeline? Find the full report at <https://rachelcarsoncouncil.org/blast-zone/>  
Any questions or comments? Email us at [office@rachelcarsoncouncil.org](mailto:office@rachelcarsoncouncil.org)  
Connect with us on Facebook @RachelCarsonCouncil and Twitter @RachelCarsonDC.