



Duke Energy: Pollute to Profit

- Duke makes money by exaggerating future energy demand, gaming the regulatory system, building unnecessary gas pipelines and power plants, then charging customers for costly, unneeded infrastructure.
- Duke claims to provide affordable, safe, and clean energy. Its accidents and environmental disasters suggests otherwise.

Executive Summary

Duke Energy provides electricity in six states, including the Carolinas, Florida, and states in the Midwest, and the company operates a commercial energy business across the United States. This memo will primarily focus on Duke Energy's business practices in North Carolina, where it operates as two regulated utilities: Duke Energy Progress and Duke Energy Carolinas. Duke Energy is the second largest fossil fuel electricity generator, second largest carbon dioxide emitter, and largest nitrogen oxide emitter among all electric power producers in the United States.¹ Duke also paid nothing in net taxes from 2008-2017.² What unites these two facts? Duke's pollute-to-profit business model.

Currently, less than 6% of Duke's electric production capacity is renewable wind and solar energy.³ Duke spends its money on public relations and political campaigns designed to block pro-solar energy legislation from ever seeing the light of day. Duke was also in the top five of all corporate donors in all but one election cycle in North Carolina from 2000-2016.⁴

The flipside of Duke's opposition to solar is that it invests heavily in dangerous, unnecessary fossil fuel infrastructure. From 1998-2017, gas and hazardous liquid (including oil) pipeline incidents across the country caused 1,292 injuries and killed 331 people in total.⁵ In recent years, from 2010 to 2016, there was an average of 1.5 to 2 pipeline

incidents per day, including 208 explosions; these pipeline incidents cost over \$550 million per year on average.⁶ Duke's gas infrastructure is no exception to these alarming statistics. Injuries and thousands of gallons of spilled oil in Ohio serve as a tragic reminder of the price of Duke's fossil fuel addiction.^{7,8}

Duke builds harmful gas plants and pipelines to make money, not to meet legitimate energy needs.⁹ Duke takes advantage of outdated regulatory systems that guarantee a 14% return on investment to build gas pipelines, even though Duke-owned renewables and efficiency programs also guarantee a return on investment. When Duke builds this unnecessary infrastructure, ratepayers are then on the hook for the costs.¹⁰

Leading in Pollution, Blocking Clean Energy

Duke Energy, a fortune 125 company, operates throughout North Carolina, South Carolina, Florida, Indiana, Ohio, and Kentucky. In these markets, it operates as a regulated monopoly, meaning that consumers in these areas have no choice for their electricity provider. Duke is the second-largest fossil fuel electricity generator, second-largest carbon dioxide emitter, and largest nitrogen oxide emitter among all electric power producers in the U.S.¹⁵ Based on 2015 data, a recent study from the University of Massachusetts Amherst shows that Duke is also the eighth-worst water polluter in America, largely due to coal ash.¹⁶ Further, it is the second largest greenhouse gas emitter in the country.¹⁷

Despite a steady stream of advertisements depicting Duke as a leader in renewable energy, less than 6% of Duke's electric production capacity is renewable wind and solar.¹⁸ Meanwhile, Duke spends money on public relations and political campaigns designed to block clean energy. Duke has been in the top five of all corporate donors in almost every election cycle in North Carolina since 2000.¹⁹ In the 2016 and 2018 election cycles (through July), Duke has given more than twice as much to Republican candidates as it has to Democratic candidates.²⁰

Duke Is Doubling Down on the Gas Gamble

Currently, Duke is investing big on fracked gas pipelines, like the \$6.5 billion Atlantic Coast Pipeline (ACP). The extraction, transportation, and use of the fracked gas that will travel through the ACP, if completed, has serious negative effects on air quality, land, wildlife, and water and is linked to an increase in the frequency of earthquakes.²⁹

The impact of Duke's dirty development is staggering. Since 2000, Duke has racked up the fifth-highest amount of environmental penalties out of all companies in the United States (by total paid).¹¹ Duke also has the unique dishonor of paying the largest federal criminal fine in North Carolina history — \$102 million — for releasing coal ash into the Dan River in 2014.¹² These fines offer little solace for residents near the Duke coal ash sites who have not had access to drinkable water in their homes for nearly three years and who Duke attempted to charge for the replacement water these homes required for basic living.^{13,14} It seems that for Duke Energy, the fines are just the cost of running a business that endangers communities across its business territory.

In Florida, voters rejected a Duke-supported, utility-funded anti-solar amendment after leaked audio revealed the amendment “would completely negate anything they [pro-solar interests] would try to do either legislatively or constitutionally down the road.”^{21,22} In 2015, Duke launched a campaign to convince African-American leaders that rooftop solar would hurt the poor by increasing rates, a notion rejected by the National Association for the Advancement of Colored People (NAACP).²³ The company also opposed the 2015 Energy Freedom Act (NC House Bill 245), which would have threatened its monopoly on energy distribution in North Carolina by legalizing third-party solar sales.²⁴

Even though multiple analyses have shown that renewable energy will deliver better jobs, fewer accidents, and less pollution, Duke's plans for a renewable energy future are far from ambitious.^{25,26} In Duke's most climate-friendly scenario, it still only speculates producing 23% renewable energy, including hydro, by 2050.²⁷ In contrast, other utilities, such as California's Pacific Gas and Electric, already produce over 50% of their electricity from these sources.²⁸

Though publicly released information shows the ACP terminating in Robeson County, NC, leaked audio revealed developers plan to run it into South Carolina.³⁰

As for the industry line that gas is clean, once methane leaks are counted, fracked gas has climate impacts similar to those of coal. Duke's proposed ACP would generate the

equivalent of an estimated 68 million metric tons (MMT) of carbon dioxide equivalent per year. This is roughly equivalent to the annual emissions from 17 coal plants.³¹

One of the biggest problems with Duke's gas gamble is simple: Unlike renewable wind and solar energy, gas pipelines leak and explode. From 1998-2017, gas and hazardous liquid, including oil, pipeline incidents across the country caused 1,292 injuries and killed 331 people in total.³² In recent years, from 2010 to 2016, there was an average of 1.5 to 2 pipeline incidents per day, including 208 explosions; these pipeline incidents cost over \$550 million per year on average.³³ In Virginia alone, from 1998 to 2017, pipeline spills and explosions caused over \$62 million in damages.³⁴

The people of Ohio have paid a particularly dramatic price for Duke's insistence that gas is safe. In November 2010, a Duke-operated gas line leaked, causing the explosion of an apartment in Lebanon, OH. The explosion injured seven people and cost an estimated \$1 million in

property damage. An investigation by the Public Utilities Commission of Ohio (PUCO) revealed that a resident reported the smell of gas several hours before the explosion, but a Duke contractor failed to investigate the claim. The PUCO fined Duke \$500,000, only half the amount of estimated damages.³⁵ Four years later, in August 2014, Duke pled guilty to an environmental misdemeanor and paid a \$1 million fine for spilling 9,000 gallons of diesel fuel into the Ohio River.³⁶

The explosion of a 30-inch gas pipeline operated by Pacific Gas and Electric in San Bruno, CA, registered as a small earthquake, was mistaken for a plane crash, and left eight people dead. With a diameter of up to 42 inches, the diameter of Duke's ACP is 12 inches larger than the San Bruno pipe.³⁷

Duke Invents Electricity Needs and Fleeces Ratepayers

The ACP, a prime example of unnecessary development, is guaranteed to earn a 14% rate of return on its investment — costing Virginia ratepayers alone an estimated \$200 million annually.^{38,39}

To convince federal and state regulators that projects like the ACP are in the public interest, a branch of Duke Energy (called an affiliate or subsidiary) agrees in advance to reserve gas capacity on the ACP. These self-dealing supply contracts, known as affiliate contracts, are currently accepted by federal regulators as proof that new pipelines are needed to meet energy demands. Affiliate contracts account for 89% of the ACP's total contracted capacity. In the case of the nearby Mountain Valley Pipeline (MVP), 100% of the pipeline's total capacity is reserved by affiliated companies.⁴⁰ In other words, nearly the entire justification for building the ACP is based on an agreement struck between separate branches of the same company, rather than on real energy needs. In fact, a report found that existing infrastructure could meet the needs of the Virginia and Carolinas region without the ACP or MVP.⁴¹

With these affiliate contracts in hand, utilities like Duke then ask state regulators to add a fuel surcharge to customers' bills to pay for the pipeline transportation cost.

Once approved, utility customers are on the hook for gas transportation costs, often for 10 to 20 years, whether or not the pipeline is used.⁴²

Because pipelines are dangerous and expensive, many landowners refuse to allow Duke to build on their land. However, when Duke and its partner Dominion Energy get their way in ongoing legal cases and courts rule in their favor against landowners, the utility companies will be able to continue trespassing to survey land and then force landowners to sell using eminent domain.⁴³ Eminent domain typically allows the government to take private land if it is in the public's interest, but Duke is using these laws to force sales and make money, while jeopardizing public health and safety. C'ta DeLaurier, one of more than 200 people fighting to keep their homes sums up Duke's actions: "... [T]his is not in service of any citizen or homeowner along its path. This is just a land grab for a privately owned utility."⁴⁴

This business plan is not new. In Indiana, when the reconstruction of the Edwardsport Station overshot initial cost estimates by approximately \$1.6 billion, Duke tried to make customers accept a rate hike of 14.5% over two years.^{45,46}

A report issued in 2012 by the Union of Concerned Scientists warning that Progress Energy Florida's Levy Nuclear Plant was a bad bet for consumers sums up the model: "Customers are already forced to pay for the Levy plant long before the reactors generate a single kilowatt of electricity — and even if they never get built at all." Duke bought Progress later in 2012.⁴⁷ Indeed, the recently

abandoned Levy Plant never generated a single kilowatt of electricity, yet its costs are being passed on to ratepayers. The cost of the cancelled Levy Plant and decommissioning of the Crystal River nuclear plant cost Duke Florida customers over \$3 billion.⁴⁸ Duke Energy Carolinas also cancelled the Lee Nuclear Plant in North Carolina and was allowed to recover from ratepayers \$347 million in costs.⁴⁹



COAL ASH SPILL AT THE L.V. SUTTON POWER STATION OUTSIDE WILMINGTON, NC. PHOTO: CAPE FEAR RIVERKEEPER

The People and Places Paying for Duke's Pollution

Since 2000, Duke has racked up the fifth-highest amount of environmental penalties of all companies in the United States (by total paid). Dominion, Duke's partner in the ACP, came in seventh.⁵⁰ Some investors have started to take note of Duke's profit-off-pollution business model; in 2016, the \$1 trillion Norwegian Government Pension Fund Global, the world's largest sovereign wealth fund, divested from Duke due to ethical and environmental violations.⁵¹

Still, the price Duke pays for polluting communities across the country is small compared to the price people and communities pay for breathing and drinking Duke's toxic coal ash. Although coal ash can contain toxic elements, it is regulated like the trash that comes out of a typical American household.⁵² It is stored in open, leaking pits all across the United States and contains a mix of toxic pollutants.

Some of these pollutants are neurotoxins and carcinogens that can leak into local groundwater.⁵³ In 2010, the cancer risk from coal ash was 2,000 times greater than EPA regulatory goals.⁵⁴ From 2014-2015, tests of drinking water wells at homes around Duke Energy coal ash sites in North Carolina revealed that 93% of tested wells had elevated levels of contaminants.⁵⁵ Unfortunately, North Carolina is hardly unique.

Many of Duke's coal plants lay in flood plains, like R. Gallagher in Indiana and G.G. Allen in North Carolina, with ash dumps that are in FEMA 100-year flood zones, posing a serious threat to waterways.⁵⁶ Groundwater testing required by the Environmental Protection Agency's 2015 rule regulating the storage and disposal of coal ash also revealed high levels of radioactivity at 11 of 18 Duke coal plants; Duke buried these results in a 20,000-page report, rather than summarizing them in a

table as is industry practice.⁵⁷ Six Duke ash dumps would flood homes, wash out highways, or contaminate drinking water in the event of a spill.⁵⁸

Hurricane Florence recently showed this is hardly a hypothetical concern when it caused the collapse of a coal ash dump slope in North Carolina.⁵⁹ Duke Energy activated a high-level emergency at the retired L.V. Sutton coal-fired power plant, as flood waters from the nearby Cape Fear River overtook an earthen dike and Sutton Lake in Wilmington. Meanwhile, multiple releases of pollution from the H.F. Lee coal plant have surged into the Neuse River in Goldsboro.⁶⁰ In the wake of Hurricane Florence, Duke Energy once again downplayed the dangers of its ash ponds, hiding behind the fact that coal ash — which contains toxins including arsenic, lead, mercury, selenium, aluminum, and chloride — is not designated as a hazardous waste. Knowing the problems that coal ash causes, Duke needs to stop making the problem worse, and retire every coal plant in North Carolina. After this storm, there will be others, perhaps even stronger and more powerful. Hurricane Florence should be the wake-up call for Duke to remove its ash from all of its unlined, leaking coal ash pits next to waterways, and take the necessary steps to ensure that all of its landfills are secure and will not contaminate communities, not only when there are massive storms, but from everyday leaching into groundwater.

Pollution forced approximately 250 people near coal ash dumps to drink bottled water obtained from Duke for nearly three years.⁶¹ Unfortunately, there is uncertainty about water quality even with the filters that the North Carolina legislature forced Duke to provide because some filters only clean water to standards that are approximately 140 times less clean than health goals set forth by the state of North Carolina.⁶²

Duke forces the same communities that are hurt by its pollution to foot the bill for cleanups. For example, in February 2018, the North Carolina Utilities Commission ruled that Duke Energy Progress could pass on \$232 million in coal clean up costs to ratepayers, while the

company received a slap on the wrist “mismanagement penalty” of only \$30 million.⁶³ Similarly, in June 2018, the North Carolina Utilities Commission ruled in Duke’s favor that Duke Carolina’s customers, not shareholders, should shoulder the burden of coal ash cleanup costs putting customers on the hook for a total of \$545 million, while Duke Carolinas received only a “mismanagement penalty” of \$70 million.⁶⁴ Both rulings also authorized Duke Carolinas to receive about a 7% rate of return on its customers’ coal ash money.^{65,66} Duke managed to turn coal ash mismanagement into a profitable business for its shareholders, at the expense of its customers. These rulings are currently being challenged by the Sierra Club and other parties. In polling from March 2014, 90% of respondents said that Duke Energy should clean up all coal ash sites in North Carolina.⁶⁷



TOXIC COAL ASH IS PILED UP ABOVE THE CAPE FEAR RIVER IN UNLINED IMPOUNDMENTS AT DUKE'S L.V. SUTTON PLANT OUTSIDE WILMINGTON, NC, AND MOST OTHER COAL AS DUMPSITES. PHOTO: CAPE FEAR RIVERKEEPER

One Duke official recently argued that its customers should not worry about fixed rates rising because the increase in fixed rates are just the price of “[o]ne extra Big Mac, fries and a drink.”⁶⁸ Another Duke official shared similar sentiments suggesting customers struggling to make ends meet could take “colder showers.”⁶⁹ It is hard to believe customers should have to choose between eating and paying their electricity bills to clean up Duke’s mess.

Dying to Work for Duke

Duke’s wrongdoing has led to its own employee’s death.⁷⁰ In 2015, Duke’s failure to comply with the United States Occupational Health and Safety Administration (OSHA) led to the electrocution and death of Chris Dasher, a

36-year-old husband “who lived to make others happy.”⁷¹ For this tragic violation and five others, Duke was fined \$90,000 — or just 0.000002% of its \$52 billion value as a company.^{72,73}

Case Study: Dan River Coal Ash Spill

In February 2014, despite multiple prior warnings from Duke employees, a stormwater pipe at a closed Duke Energy coal-fired power plant in Eden, NC, collapsed, sending 39,000 tons of coal ash and 27 million gallons of contaminated wastewater into the Dan River near the North Carolina-Virginia border.⁷⁴ That amount of coal ash amounts to roughly 15 Olympic swimming pools.⁷⁵ The spill was the third-largest of its kind in United States history.⁷⁶

Toxic waste from the spill was found more than 70 miles downstream.⁷⁷ Contaminants including arsenic, chromium, iron, lead, and other toxic metals were found in the water.⁷⁸ Dead turtles washed up onshore and coal ash contaminants were detected in nearby wells.⁷⁹

In response to the crisis, then Gov. Pat McCrory (a former Duke employee) and the North Carolina Department of Energy and Natural Resources attempted to preemptively sue Duke and immediately settle, shielding Duke from full disclosure of wrongdoing.⁸⁰

Following on larger concerns that Dan River might not be an isolated incident, the US Attorney's Office launched a criminal investigation into Duke Energy's coal ash storage. Eventually, three Duke Energy subsidiaries pled guilty to nine coal ash crimes committed at sites across North Carolina. The court fined Duke \$102 million — the largest federal criminal fine in North Carolina history.^{81,82} Though the conviction is often celebrated as an environmental victory, it is important to keep in mind that the \$102 million fine is roughly one-third of the estimated cost of damages accumulated after only six months; long-term impacts will likely drive the damage costs much higher.⁸³

Despite fines, criminal convictions, probation, and even new regulations, Duke's business practices remain largely unchanged. A year after the Dan River spill, Duke's North Carolina ash dumps were still leaking more than 3 million gallons per day, near rivers and lakes.⁸⁴ In 2015, 330 of 360 wells near Duke Energy coal ash dumps in North Carolina exceeded standards for one or more contaminants.⁸⁵ Even with all of these issues and rate increases



COAL ASH FROM DAN RIVER SPILL. PHOTO: CATAWBA RIVERKEEPER SAM PERKIN

on customers, Duke Energy CEO Lynn Good was rewarded with a massive pay increase in 2017, bringing her annual compensation to \$21.4 million.⁸⁶ She is now the highest-paid utility CEO in the United States.⁸⁷

In March 2018, results of Duke groundwater monitoring — buried in 20,000 pages of documents — revealed startlingly high levels of cancer-causing chemicals at 11 out of 18 Duke plants.⁸⁸ At Duke's Asheville Power Plant, radium in groundwater is 38 times EPA standards for safe drinking water. Ash dumps at Duke's Marshall Plant (and others) are still leaking into surface water and groundwater near drinking water for more than 1 million people in the Charlotte, NC, region.⁸⁹ At the federal level, the Trump administration recently submitted an industry-backed plan to repeal, in part, the EPA regulations that forced Duke to disclose its pollution in the first place.⁹⁰ Duke's refusal to change, or even admit its wrongdoing, is best summed up by the denialism of its own Vice President of Public Relations: "And for decades, we have stored coal ash in accordance with federal and state regulations."⁹¹ Clearly, any company paying as much as Duke has in fines isn't storing coal ash in accordance with regulations.

Conclusion

Duke has shown time and again that it will continue to build dangerous, dirty fossil fuel infrastructure, disregarding the health and safety of the communities and

ecosystems in its way. As Duke plans more projects, it is crucial that state regulators, decision makers, and the public understand Duke's history.

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