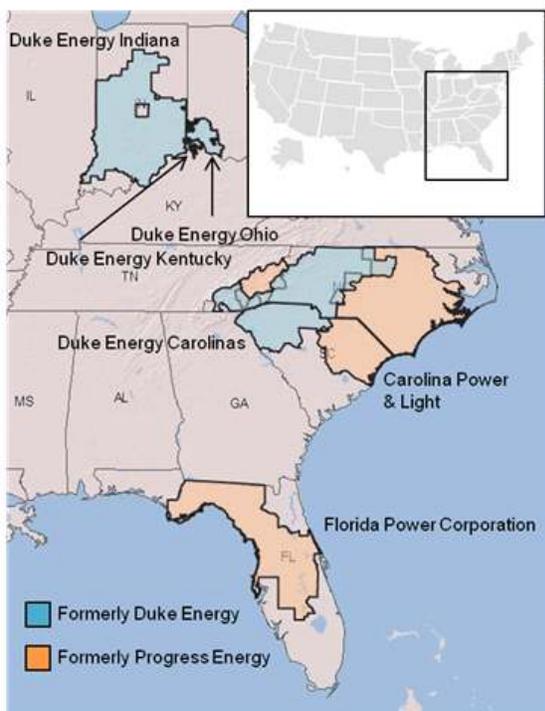


## Duke Energy

Duke Energy, based in North Carolina, is the largest electric utility in the United States and the company emits more carbon pollution than any other utility. [Duke also ranks first in fossil fuel generation](#) and second in coal-fired generation. The majority of Duke's business is in regulated, monopoly utilities in six states: North Carolina, South Carolina, Florida, Indiana, Ohio and Kentucky. While Duke also owns a commercial arm that has invested in wind and solar power that it sells electricity to other utilities, Duke's electricity customers in its regulated territory

Duke Energy Corporation's new service territory



receive an electricity mix that contains [next to zero renewable energy](#). The company has shown little appetite for change. In fact, regulatory documents show it intends to have only 4% renewable power in North Carolina by 2029.

Duke's fossil and nuclear-dominated strategy have led to a series of scandals in recent years both for its customers and the environment. Duke's coal ash waste has become a systemic disaster in the Carolinas, [culminating in the 2014 coal ash spill on the Dan River](#). Nuclear construction projects in the Carolinas and particularly Florida have been beset by problems, [costing ratepayers billions of dollars](#).

Duke has protected itself from stricter oversight in its regulated operations by contributing heavily to the state and federal politicians that control its destiny, pouring millions of dollars into campaign [contributions and lobbying](#). Despite massive pressures facing the electric power sector to adapt to technological change that is ushering in a new wave of energy efficiency, rooftop solar power, and distributed energy storage, Duke has yet to show much of an appetite for change. It has aggressively fought efforts to open up North Carolina's and Florida's market to [non-utility solar providers](#) in an effort to preserve its monopoly business model.

## Basics

In 2012, [Duke Energy completed its \\$32 billion merger with Progress Energy](#), despite “secret side deals” that were not made public. The [utility paid \\$146 million](#) in 2015 to settle lawsuits that arose from the merger.

A July 2015, *Benchmarking Air Emissions of the 100 Largest Electric Power Producers in the United States*, [found that Duke Energy is the worst climate offender of all U.S. utilities](#). It was number one for CO2 emissions (136 million tons), and is one of the top SO2 (‘acid rain’) emitters. It was also number one in fossil generation, and number two in coal generation

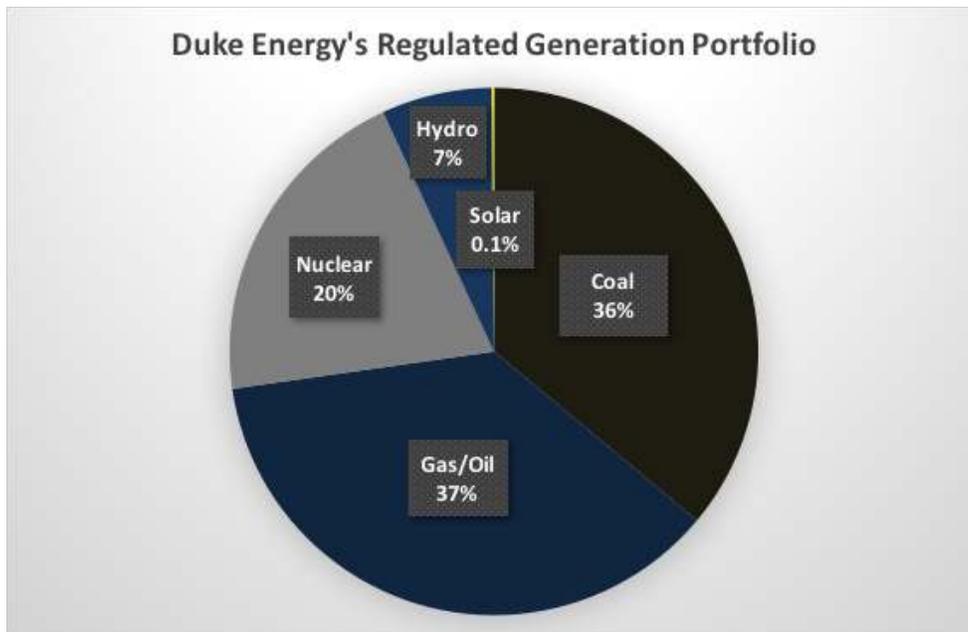
A later study in September 2015, *Measuring Corporate Influence on Climate Policy*, prepared by a group called Influence Map, [gave Duke Energy an “F,”](#) which it awarded to only four corporations. It ranked 100 major corporations worldwide by whether they are constructively engaged in addressing the issue using a methodology developed by researchers with the Union for Concerned Scientists. The report noted that while Duke Energy touts its clean energy portfolio, it actively opposes the Clean Power Plan, and gutted Florida energy efficiency goals by over 90%.

In Florida, a group of utilities, including Duke Energy, [have spent \\$4 million to stop a ballot initiative](#) that would expand distributed solar. Duke Energy’s share so far (as of 5/1/16) is \$1.2 million. The third-party sales ban is widely recognized as one reason that [Florida’s solar market is so underdeveloped](#).

In July 2015, the [Orlando Utilities Commission \(OUC\)](#), a municipally owned and operated utility, signed a 20-year contract to [purchase solar power at 7 cents/kWh](#), while gas or coal costs 8 cents/kWh. This is a steep drop from the 19 cents/kWh solar deal the OUC built four years earlier, showing an alternative pathway for Duke Energy if it chose to embrace solar power in Florida.

## Overblown Clean Energy Claims

Duke Energy frequently touts the 3,000 MW of clean energy it owns, but Duke Energy Regulated, which is the monopoly that operates in six states (North Carolina, South Carolina, Florida, Indiana, Ohio and Kentucky), [owns only 66 MW of clean energy](#), out of a total of over 50,000 MW of power as of March 31, 2016, while Duke Energy Commercial owns nearly 2,500 MW of solar and wind.



Duke Energy operates as a monopoly in its regulated states, so that homeowners and businesses can't purchase electricity from *any company or person other than Duke Energy*. While Duke Energy purports to own a lot of solar, it only owns 66 MW of solar, while Duke Energy's unregulated subsidiary, Duke Energy Renewables, owns 2,400 MW of solar and wind. Using the names interchangeably is misleading, since they are legally separate entities.

NC, SC, FL and KY all limit the use of "third party" solar financing, resulting in Duke Energy's virtual solar monopoly in these states. (At least 98% of North Carolina's 2,000 MW of solar is due to a federal law, PURPA, [which Duke Energy has fought to limit](#). Solar development in North Carolina in 2014 and 2015 would have been seriously curtailed if Duke Energy had been successful at the North Carolina Utilities Commission in changing the terms of the solar PURPA contracts by: (1) limiting the contract length to 5 years and (2) standardizing contracts only up to 100 kW rather than the current 5 MW.)

### **Coal Ash Controversy**

On February 2, 2014, a stormwater pipe beneath the huge coal ash pond at Duke Energy's Dan River power plant in Eden, North Carolina, burst, [pouring at least 39,000 tons of coal ash into the Dan River](#).

The coal ash contains arsenic, lead, chromium and mercury, which can poison drinking water. (There are an estimated 1,425 coal ash sites in 37 states, generating 140 million tons of coal ash each year.) Other dangerous chemicals include hexavalent chromium, known to cause cancer and birth defects. Studies show that high levels of [hexavalent chromium in drinking water occur in connection with coal ash](#).

The North Carolina Department of Environment and Natural Resources (DNER) quickly settled, [charging Duke Energy a mere \\$99,111](#). (There were no federal regulations on coal ash at the time.) Yet, by some estimates it will cost \$10 billion to clean up Duke Energy's coal ash ponds in North Carolina (NC); however, with current NC Governor Pat McCrory a 28-year employee of Duke Energy, and NC State Representative and Majority Leader Mike Hager (also a former Duke Energy employee), [the only fine imposed so far is \\$7 million](#) -- a pittance compared to the estimated damages.

In early 2016, professional staff at the North Carolina Department of Environmental Quality (NC DEQ) determined that [19 of Duke Energy's 32 coal ash ponds pose a high risk to North Carolina communities](#), meaning that under the law these coal ash ponds would need to be excavated, the wet ash dried, and the dry ash then moved to safer, lined landfills by August 2019. However, a later [report released to the public](#) listed only 8 coal ash ponds as high risk. In sworn testimony by North Carolina State Epidemiologist Dr. Megan Davies, Duke Energy officials pushed state officials to [rescind do-not-drink letters sent in mid-2015 to nearly 400 property owners near Duke Energy coal ash ponds](#), concerning high levels of hexavalent chromium in private water wells. After meeting with Duke Energy attorneys, the initial warning letters were supplanted with letters issued in March 2016 that referred to federal standard with a far lower standard for hexavalent chromium - from 0.07 parts per billion (ppb) to 100 ppb. The 100 ppb standard carries a lifetime cancer risk of 1 in 700, far lower than the 1 in 1 million risk for 0.07 ppb.

Following the coal ash spill, the U.S. Attorney's Office opened a grand jury investigation into Duke Energy and North Carolina regulators, [issuing subpoenas for over 20 officials in the McCrory administration](#) and seeking records of "investments, cash or other items of value" from Duke Energy to the regulators.

## Natural Gas Gamble

Duke Energy's frenzied investment in natural gas assets leaves it increasingly vulnerable to price increases. And while most of the conventional wisdom suggests that gas prices will remain low, gas prices are notoriously unpredictable. As former Duke CEO Jim Rogers famously [noted](#): “There are three things in life you can depend on: death, taxes and the volatility of natural gas markets.”

In 2004, North Carolina generated only 2% of its electricity from natural gas, which [jumped to 23% in 2014](#) and [reached over 30% in 2015](#). Although natural gas emits only 60% as much carbon as coal plants when the fuel is *burned*, [natural gas has a much larger greenhouse gas footprint when the life-cycle of natural gas](#) (methane) emissions are accounted for, including leakage.

### ***Proposed Merger With Piedmont Gas***

Pending approval by the North Carolina Utilities Commission (NCUC), Duke Energy aims to [merge with Piedmont Gas](#), which would increase its number of customers as well as the number of states in which it operates. The deal is costing Duke Energy \$4.9 billion in cash and Duke Energy would assume \$1.8 billion in Piedmont Gas debt, [for a total cost of \\$6.7 billion](#); the merger would add 1 million customers (from its current total 7.4 million customers) and the state of Tennessee to Duke Energy’s portfolio.

Duke Energy was able to get expedited review of the merger in late 2015 from the U.S. Federal Trade Commission (FTC), which [fast-tracked the application](#) by allowing early termination of a required 30-day waiting period (the Hart-Scott-Rodino Antitrust Improvements Act).

Duke Energy’s application was [quickly approved](#) from the Kentucky Public Service Commission via declaratory ruling, as well as by the Tennessee Regulatory Authority.

### ***Investments In Natural Gas Pipelines***

Duke Energy and Piedmont Gas are also investing in the Atlantic Coast Pipeline, a 550-mile, [\\$4.5 billion pipeline](#) that will follow the I-95 corridor in North Carolina (also owned by Virginia based Dominion). Duke Energy expects the merger to

close by the end of 2016, but has opposition from North Carolina-based NC WARN and The Climate Times.

Duke Energy is investing \$225 million to own 7.5% of the [Sabal pipeline](#) (total cost \$3 billion), which will transport natural gas from the existing Transco pipeline in Georgia, through Alabama, and into central Florida. The pipeline is proposed to be operational by 2017, and will fuel Duke Energy's new \$1.5 billion natural gas plant in Citrus County, FL, scheduled to open in 2018. [Opposition to the Sabal Pipeline is mounting](#), with a recent decision at the Georgia legislature that could pose problems for Sabal going forward.

### ***The \$1.4 Billion "Hedging" Loss***

Hedging gas means that utility agrees to pay a certain fixed price for future natural gas purchases, which would save customers money if the cost of gas *increases*. How did Duke Energy lose so much money? It bet that natural gas prices would increase, but natural gas prices actually *decreased*, likely due to an oversupply of gas. Duke Energy's losses on hedging the cost of natural gas in Florida alone totaled \$1.4 billion for 2002 through 2015; the Florida Office of Public Counsel [estimated the total loss cost \\$815 on average for every electric customer in the state](#).

Duke's gas investments now represent a bet in the opposite direction: that gas prices will remain low for years to come, despite their historic volatility and the more reliable decreasing cost curves of renewable energy resources.

### **Nuclear Energy Issues**

Duke Energy customers in Florida are paying for nuclear power plants that will likely never generate electricity.

Duke Energy has charged its customers [more than \\$1.5 billion for the now-canceled Levy County nuclear power plant](#) and, even though it will never be built, the law allows Duke to keep the money, including \$150 million in profit. To keep ratepayers on the hook for its Levy debacle, Duke spent an estimated \$300,000 to hire 15 lobbyists in 2006 to push for the nuclear cost recovery fee, and [more than \\$3.6 million in campaign contributions for lawmakers](#).

The Southern Alliance for Clean Energy (SACE) Executive Director Stephen Smith [stated](#), Florida has seen a "breakdown in proper oversight of the utilities

and any real consumer protection," and that the Public Service Commission has been "shredded by the utilities." He highlighted, for example, that the PSC has approved every rate increase sought by Florida's current four investor-owned utilities.

Utilities, including Duke Energy, were [able to defeat a bill](#) in the Florida state legislature in 2013 that would have required utilities to add a line item to customer electric utility bills for a 'nuclear cost recovery' fee.

A [class action lawsuit has recently been filed](#) in Florida claiming that Duke Energy Florida unlawfully charged customer higher rates to cover more than \$1.2 billion in expenses at the Crystal River nuclear plant in Citrus County, Florida, when the nuclear plant will likely never generate electricity.

## **Environmental Justice**

A report issued by the National Association for the Advancement of Colored People (NAACP) in November 2012 [titled](#) "*Coal Blooded: Putting Profits Before People*," details the health, economic and environmental impacts of coal pollution on communities of color. The report ranked 378 coal-fired power plants, finding that the 6 million Americans living near coal plants have an average income of \$18,400 (compared with a national average of \$21,857), with 39% people of color.

"Coal pollution is literally killing low-income communities and communities of color," stated NAACP President and CEO Benjamin Todd Jealous.

"Environmental justice is a civil and human rights issue when our children are getting sick, our grandparents are dying early and mothers and fathers are missing work."

Of the 378 plants studied, Duke Energy's R. Gallagher Generating Station in New Albany, Indiana rated an 8th worst in the nation, with Duke Energy getting a Corporate Environmental Justice Ranking of F. While Duke Energy dumps coal ash on toxins on communities of color, its CEO earned nearly \$9 million for a single year's work.

A 2014 study by the Clean Air Task Force estimated that the economic value of death and disease attributable to Duke Energy's coal plants in 2014 at \$8.4 billion, an amount that stuns most people -- except those in public health. [Low-](#)

[income and minority populations](#) are disproportionately impacted as power plants are nearly always built in low-income areas. Comparing the location of power plants with average income shows this clearly, as the study *Coal Blooded* makes clear.

## **Money In Politics**

- Political contributions over 22 years: [\\$13.1 million](#)
- [U.S. utilities spent \\$400 million in political spending from 2011 to 2015](#). Duke Energy was ranked number two with \$36 million spent over the time period.
- Since 2005, Duke Energy is the [third largest fossil fuel contributor](#) to Congress at \$4.1 million, just behind Koch Industries (\$5.9 million) and ExxonMobil (\$5.4 million).
- In the 2014 federal election cycle, [Duke Energy spent \\$1.2 million on contributions](#), ranking 219 out of 16,872 entities reviewed; over \$11.5 million on lobbying expenditures, ranking just 72 out of 4,070 entities reviewed.
- Duke Energy Corporation PAC [has spent \\$475,000 on federal candidates](#) so far this year (2016).

## ***Top Donor To Republican Governors Association***

- The [second largest contributor to the Republican Governors Association](#) was Duke Energy at \$2.8 million from November 2013 to November 2014.
- Progress gave an additional \$275,000, bringing the total to over \$3 million, including to John Kasich in Ohio, Nikki Haley in South Carolina, and Pat McCrory in North Carolina.
- Altogether, [Duke Energy and its executives gave \\$124,750 to six sitting governors](#), with Pat McCrory receiving \$98,000. In 2008 and 2012, Duke Energy gave \$748,000 directly, while Duke Energy employees gave another \$410,000.

## ***Campaign Spending in Florida***

- Between the 2004 and 2012 election cycles, Duke Energy (formerly Progress Energy) [gave Florida's state-level candidates, political parties and committees \\$3,992,211](#).
- Duke Energy/Progress gave the Florida Republican Party \$3,209,482 from 2004-2012

- Duke Energy/Progress gave the Florida Democratic Party \$716,229 from 2004-2012
- The [total to both Republican and Democratic Parties in Florida](#): \$3,925,711 from 2004-2012
- The *Tampa Bay Times* [reported](#) that Duke Energy/Progress spent about \$2 million on lobbying since 2007, and employed 16 to 20 lobbyists a year in Florida.
- In March 2015, *Tampa Bay Times* columnist Daniel Ruth [called Duke Energy and other utility campaign contributions “\[b\]arely legal bribes.”](#)

### ***Duke Energy's Political and Regulatory Wins Over The Years***

- In November 2014, the Florida PSC allowed Duke Energy and other Florida utilities to [gut already-low energy efficiency goals by 90%](#).
- Defeated a bill to [increase customer electric bill transparency](#).
- Defeated a bill to repeal a law that [allows utilities to charge customers up-front for nuclear reactors](#), even when those reactors never deliver electricity (known as CWIP or Construction Work in Progress).
- [Removed state regulators who opposed rate hikes](#).

### ***Political Influence in North Carolina***

In a 2015 report on North Carolina political influence, "[Tar Heel Power Brokers](#)," Duke Energy is the number one special interest with political clout. Duke Energy gave state level candidates, party PACs and an independent political spending group \$944,250 in 2012 and 2014.

- Duke Energy also donated \$100,000 to the North Carolina Chamber Independent Expenditure group.
- Duke Energy is the second most influential lobbying interest with four top-ranking lobbyists, including former Republican State House Speaker Harold Brubaker.

Furthermore, former Duke Energy employee and current Majority Leader at the North Carolina House of Representatives, Mike Hager, is also Vice Chairman of the Public Utilities Committee, with authority over energy policy. In 2015, Rep. Hager told a group sponsored by Americans for Prosperity (a front group funded Charles and David Koch), that he will continue to work to freeze North Carolina's Renewable Portfolio Standard (REPS). Hager is the [top recipient of campaign contributions from Duke Energy](#).

The [latest data shows](#) that the REPS has had a total economic impact of over \$12 billion of North Carolina since 2007. The monthly charge to residential customers for the REPS is [less than 50 cents per month](#). Now that the state tax credit for clean energy expired at the end of 2015, the state's solar industry is in trouble, despite the huge payback for the state, [including an estimated](#) \$1.50 in tax revenues for every \$1.00 spent in tax breaks, and a ten-to-one return on investment.

## **Integrated Resource Plan Details**

Every year, Duke Energy in North Carolina must file a 15-year plan for meeting electricity demand in the Carolinas (North and South) called an Integrated Resource Plan or IRP. In reviewing these plans, the North Carolina Utilities Commission (NCUC) must ensure the “least cost” mix of generation and energy savings. The NC Supreme Court has specified that IRPs are [intended to prevent the costly](#) overbuilding of new power plants.

Duke Energy's IRP [reveals](#) that the utility's portfolio in North Carolina would include only 4% clean energy, plus 6% energy efficiency by 2029. NC WARN, an environmental group based in Durham, NC, has proposed a very achievable goal of 0% coal by 2029, and vastly increased energy efficiency and clean energy. Duke Energy often overestimates the growth of electricity sales to justify building new power plants. [According to the EIA](#), electricity sales have not increased in four of the past five years (2009-2013), and will not revert to the high growth rates seen in the 1980s and 1990s.

## **Disastrous Clean Coal Project**

Duke Energy's “clean” coal plant in Indiana, Edwardsport, has been a disaster. Since 2006, the price tag for the “clean” coal plant has ballooned from the initial estimate of [\\$1.9 to \\$3.55 billion](#), making it one of the most expensive coal plants in U.S. history, and the [least efficient of all of Duke Energy's coal plants](#). A widely [publicized ethics scandal exposed in 2010](#) led to the termination of the President of Duke Indiana, the resignation of a top Duke executive, and the termination of David Lott Hardy, then-Chairman of the Indiana Utility Regulatory Commission (IURC). The scandal also led to former IURC General Counsel Scott Storms being found guilty of ethics violations and the indictment of David Lott Hardy on multiple felony counts of official misconduct. Most of the felony counts had a connection to the regulatory approval of the Edwardsport IGCC.

To date, Duke ratepayers have paid in excess of \$600M in financing charges alone for the Edwardsport plant, or over \$13.00 per month per ratepayer, with additional financing charges of at least \$320 million not included.