Duke Energy Knew

Documenting the Utility's Early Knowledge and Ongoing Deception About Climate Change

ENERGY AND POLICY INSTITUTE

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The Energy and Policy Institute *is a watchdog organization working to expose attacks on renewable energy and counter misinformation by fossil fuel and utility interests. It does not receive funding from for-profit corporations or trade associations.*

Cover photo: Duke Energy's coal-burning Roxboro plant in Person County, North Carolina, by Shelley Robbins of the Southern Alliance for Clean Energy.

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Introduction

When Hurricane Helene slammed into the Gulf Coast of Florida on Sept. 26, 2024, it was classified as Category 4 with sustained winds of 140 miles per hour – the strongest storm on record to strike the state's Big Bend region. Helene then moved inland, dumping over two feet of rain in some areas and flooding large swaths of Georgia, the Carolinas, and Tennessee. The storm killed more than 200 people in the United States, caused an estimated $30.5 billion to $47.5 billion in property damage, and left millions of homes and businesses powerless, with estimated restoration times in some remote sections of the Appalachian Mountains measured in weeks or even months. Areas served by Duke Energy in Florida and the Carolinas were hit hard, with the company reporting that parts of its power delivery system would have to be completely rebuilt. Two weeks later, Hurricane Milton – the second-most intense Atlantic hurricane ever recorded over the Gulf of Mexico – struck Florida, killing 25 people, causing between $30 billion and $50 billion in damages, and leaving 1 million Duke Energy customers without power.

Western North Carolina's Burke County was among those inundated in September 2024 by the remnants of Hurricane Helene, a storm that was supercharged by climate change. (N.C. Department of Transportation photo.)

While scientists acknowledged that climate change made Helene and Milton worse, Duke Energy did not, even though the electric utility industry has long understood that global warming driven by its pollution would lead to more devastating storms. For example, the company did not mention Helene's connection to the climate crisis in its statement about post-storm power restoration efforts, nor in its charitable foundation's pledge to donate $1 million to affected communities, nor in its social media posts about recovery efforts. Yet Duke Energy has known for decades that its burning of fossil fuels like coal, oil, and methane gas to generate electricity is adding heat-trapping pollution to the atmosphere – even as the company took part in campaigns to cast doubt on the science of climate change.

As early as the 1960s and 1970s, the utilities that today form Duke Energy were members of industry associations like the Edison Electric Institute and Electric Power Research Institute (EPRI) that communicated scientists' early warnings about the serious long-term threat that emissions from burning fossil fuels for power could pose to the Earth's climate stability. The utilities knew that the climate change problem described by scientists meant they would ultimately have to shift away from burning fossil fuels in order to prevent the kind of climate disruptions

we're now experiencing at an intensifying rate, from damaging extreme storms like Helene to deadly heat waves to rising sea levels.

During the 1980s, what are now Duke Energy-owned utilities – including Duke Power, Carolina Power & Light (CP&L), Cincinnati Gas & Electric (CG&E), and Public Service Indiana (PSI) – all proposed addressing the looming climate crisis by expanding the use of nuclear power. Despite having publicly recognized the climate risks of burning fossil fuels, these same utilities would soon play a leading role in disinformation campaigns like the Global Climate Coalition that denied the human causes of climate change as part of broader efforts to oppose national and international limits on greenhouse gas emissions from their coal and gas-burning power plants.

Statements made and activities undertaken by leaders of what's now Duke Energy showing their early understanding of the potential for a climate crisis related to burning fossil fuels include the following:

- In the early 1970s, Shearon Harris, the CEO of CP&L, played a leading role in utility industry research and development organizations like the Electric Research Council that established as the industry's goal studying the climatological effects of carbon dioxide emissions from power plants. He was also involved in the formation of EPRI, which engaged in climate change research later that decade.

- Thomas S. Elleman, CP&L's vice president for nuclear safety and research, wrote in a letter published in a North Carolina student newspaper in 1980, "There is considerable concern about the 'greenhouse effect' that may be produced by CO2 production as a result of combustion, and there are numerous papers that predict dire environmental consequences if we continue our present reliance upon fossil fuels."

- In 1981, William S. Lee, then Duke Power's president and chief operating officer, served on the U.S. Department of Energy's Energy Research Advisory Board (ERAB) when it recommended prioritizing in the federal budget "research on the phenomena governing accumulation of CO2 in the atmosphere from combustion of fossil fuels, climatic effects of this accumulation, tolerable levels of CO2 and ways to control CO2 accumulations." A 1981 ERAB report said, "Particularly important is the Climate and CO2 research program since CO2 accumulation may prove to be a 'show-stopper' in terms of expanded fossil (but not biomass) energy alternatives."

- In 1983, The Star Press of Muncie, Indiana, paraphrased PSI Chair Hugh Baker as saying, "New discoveries that coal-fired plants have caused an increase in temperatures worldwide – the so-called greenhouse effect – also might boost popularity of nuclear power."

- Also in 1983, when CG&E faced pressure to convert a troubled nuclear project to a fossil fuel plant, President William Dickhoner objected. "With coal," he said, "you have acid rain and the greenhouse effect."

- In 1988, Duke Power spokesperson Joe Maher discussed the greenhouse effect with a South Carolina paper. It paraphrased him as saying, “Cutting down trees and burning fuels like coal, petroleum and natural gas contribute to this layer of gases.”

Despite clearly understanding the risks posed by carbon emissions, Duke Energy – the world’s fourth-largest utility measured by market cap – continues to generate almost half of its electricity by burning large quantities of coal, methane gas, and oil. The company is currently investing billions of dollars into new plants that burn methane gas, which over the short term is a far more powerful heat trapper than carbon dioxide when it leaks from supply chains, and also emits CO2 when combusted.

As of 2023, according to Duke’s own data, coal accounted for 12.8% of the company’s total electric generation mix; methane gas and fuel oil, 33.3%; and nuclear, 28.4%. Hydroelectric and solar power together accounted for just 1.8% of Duke’s total generation.[1] The company doesn’t plan to achieve net-zero carbon emissions until 2050, by which time the climate crisis could cause an additional 14.5 million deaths and $12.5 trillion in economic losses worldwide.

According to its latest report to CDP, Duke Energy in 2022 emitted 78.8 million metric tons of carbon dioxide equivalent to the atmosphere. An analysis of companies’ self-reported 2021 emissions data by the Political Economy Research Institute at the University of Massachusetts Amherst found that Duke Energy was the third-largest greenhouse gas polluter in the United States overall, surpassed only by two other electricity generators: Southern Company based in Atlanta, and Vistra based in Irving, Texas.

As of 2022, Duke Energy owned 10 of the 100 most-polluting power plants in the United States in terms of carbon dioxide emissions. A 2016 peer-reviewed study by experts from Michigan Technological University found the company could face significant losses if held legally liable for climate change damages linked to just one of its largest emitters, the coal-fired Gibson power plant in Indiana, completed in 1982. In fact, Duke Energy expanded a coal-fired plant in North Carolina as recently as 2012, at a time that most other utilities were beginning to back off of new coal plant construction – and it did so despite large protests, and during a time the company was led by CEO Jim Rogers, who spoke often about the need to address climate change.

Even while their leaders acknowledged the reality and causes of global warming, Duke Energy and its constituent utilities funded disinformation campaigns that denied the causes and risks of climate change. They also promoted fossil fuels like coal and methane gas as “clean” sources of energy, and obstructed public policies that aimed to limit carbon pollution and accelerate the transition to truly clean energy sources like wind and solar power.

Duke Energy’s efforts have sown doubt and confusion among the public, making it harder to have the kind of fact-based civic conversation necessary to effectively tackle serious policy problems like climate change – and easier for the company to continue operating in a way that puts vulnerable people and communities at risk of harm. As a result of the political climate of science denial created by Duke and other major fossil fuel and utility companies like ExxonMobil and

[1] The remaining 23.7% is purchased power and net interchange.

Southern Company, the transition to clean energy has been delayed and the U.S. has failed to adopt policies that could have led to more rapid reductions in carbon pollution caused by burning fossil fuels. Duke Energy did not respond to a request to comment on the findings of this report.

Climate change is happening now, with tragic consequences for many of the communities that Duke serves. Environmentalists, public interest attorneys, and lawmakers are now calling for polluters to pay for the damage done.

Duke Energy Utilities Long Knew of the Avoidable Climate Crisis

CP&L's Shearon Harris and the industry's early foray into climate change research

During the early 1970s, Shearon Harris served as the CEO of Carolina Power & Light, which later became Progress Energy and was bought by Duke Energy in 2011. Hired by CP&L as a vice president in 1960, Harris rose through the ranks to become CEO in 1969, a position he held until 1976, according to a company history.

At the time, the utility industry faced sharp scrutiny from lawmakers who believed it was not doing enough to conduct research on and develop solutions to environmental problems like air pollution. In 1971, while serving as chair of an association of investor-owned electric companies called the Edison Electric Institute (EEI), Harris led the industry's response to such concerns: the launch of the Electric Power Research Institute (EPRI). He proposed that the new research and development organization would be funded by a surcharge on customers' electricity bills.

That same year, the Electric Research Council released a report titled "Electric Utility Industry Research and Development Goals," to which Duke Power, CP&L, Cincinnati Gas & Electric (CG&E), and many other top utilities contributed. The ERC was created in 1965 to enable various segments of the industry to cooperate on research, and it produced a report in 1971 that established studying the climatological effects of carbon dioxide as a long-term industry research and development goal. With the ERC report in hand, Harris secured the support of the National Association of Regulatory Utility Commissioners for using ratepayer money to fund the new EPRI.

The ERC report called for the utility industry to spend $30 billion on research and development by the year 2000. That budget included $1.5 million for research to support a goal of developing "ecosystem and climatological models to predict long-term effects caused by power generation" starting in 1976. A portion of the $1.5 million was earmarked for research to determine the "effects of CO2" emissions "into the atmosphere caused by electric power generation."

Research cited by the ERC report included a 1967 paper by Syukoro Manabe and Richard T. Wetherald that climate scientists today recognize as one of most influential climate change studies of all time. Manabe and Wetherald predicted that a doubling of carbon dioxide in the earth's atmosphere from 300 to 600 parts per million would result in 2.3 degrees Celsius of global warming – a prediction that's consistent with today's climate science.

Harris also played a key role in the selection of Manhattan Project veteran Chauncey Starr as EPRI's founding president in 1972. A year earlier, Starr had written about carbon dioxide and the greenhouse effect in an article for Scientific American:

> *The combustion of fossil fuels, no matter how efficiently done, must always produce carbon dioxide. Its concentration in the atmosphere has increased from some 290 parts to 320 within the past century and may increase to 375 or 400 parts per million by the year 2000. Thus the carbon dioxide ultimately but slowly returns to the biosphere in some nonpolluting form. Its effects while it resides in the atmosphere are not now predictable, although theoretically the increased carbon dioxide should cause a "greenhouse effect" by reducing the infrared heat loss from the earth and perhaps raising the mean global temperature one degree Celsius by the year 2000.*

Starr said he viewed nuclear power as the "saving development" that would enable the world to respond to the greenhouse effect. He also saw great potential in solar power, as well as hydrogen made without carbon emissions by using nuclear power.

EPRI began to carry out its climate change research during the late 1970s and the 1980s. It also communicated scientists' growing concerns about greenhouse gas emissions both to utilities and to policymakers, as previously documented in the Energy and Policy Institute's 2017 report "Utilities Knew."

Duke Power's role in the 1981 federal advisory report that described climate change as a possible "show-stopper" for fossil fuels

In 1981, Duke Power's then-President and Chief Operating Officer William S. Lee served on the Department of Energy's Energy Research Advisory Board. That same year, ERAB reviewed and approved a report produced by its own Research and Development Panel that identified priorities for federal energy research and development. The department and other agencies were under pressure to cut their budgets, so spending plans reflected pared-down, top-level priorities.

The ERAB report clearly recognized the importance of the impending climate crisis. It called for more federal funding for "Climate and CO2 Research" than was included in President Reagan's proposed budget of $16.7 million. The report also gave high priority to "research on the phenomena governing accumulation of CO2 in the atmosphere from combustion of fossil fuels, climatic effects of this accumulation, tolerable levels of CO2 and ways to control CO2 accumulations." The research on CO2 and climate was "particularly important," it said, since carbon accumulation could prove to be a "show-stopper" for expanding fossil fuels. In addition, ERAB endorsed spending less on studies of coal liquefaction and gasification, which earlier research had identified as resulting in higher CO2 emissions than burning traditional fossil fuels.

"ERAB members are in strong agreement on the importance of this program due to its long-term significance for public policy toward the use of fossil fuels," the report stated. "Although the predicted effects of increased CO2 in the atmosphere occur well in the future, an intensified research effort is needed now in order to ensure that better information will be available for future decision making."

The EPRI Journal published an article on the ERAB report that highlighted the roles of EPRI and others in the utility industry on the advisory board. A table accompanying the article showed that a number of ERAB's members came from the utility industry. The Washington Post called the report's recommendations "good advice" in a 1981 editorial and noted its authors' gravitas. "This panel, you should know, gives heavy representation to industry and to engineering," the paper noted. "This is not the sandals and granola crowd."

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Schmitt, Roland W.
Vice President, Corporate R&D
General Electric Co.

*Schriesheim, Alan
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Exxon Research and Engineering Co.

Simpson, John W.
Consultant
Hilton Head, South Carolina

*Smith, Clifford
Manager, Business Development
Bechtel Group, Inc.

Thompson, Grant P.
Senior Associate
Conservation Foundation

Tschinkel, Victoria
Secretary, Department of Environmental Regulation
State of Florida

*New member as of 1/1/83
**Term ends 1/1/83

Duke Energy utilities promoted nuclear power as a climate change solution during the 1980s

The partial core meltdown at Pennsylvania's Three Mile Island nuclear power plant in March 1979 increased public opposition to new nuclear power projects. But Duke Energy's predecessor utilities continued to defend nuclear power and push to develop more reactors – and they cited the threat of climate change from burning fossil fuels as a rationale.

For example, Thomas S. Elleman, vice president of nuclear safety and research for CP&L, talked about the worrisome consequences of greenhouse gas pollution in a letter published in North

Carolina Wesleyan College's student newspaper in 1980. Responding to critical remarks made about nuclear power during a public forum, Elleman declared:

> *There is considerable concern about the "greenhouse effect" that may be produced by CO2 production as a result of combustion, and there are numerous papers that predict dire environmental consequences if we continue our present reliance upon fossil fuels. This problem is associated with all combustion processes and would presumably occur with intensive use of coal, wood, peat, or any other combustion based fuel. The fact that nuclear power plants do not release CO2 has to be recognized as one of the advantages of this energy source.*

Public Service Indiana Chair Hugh Baker defended nuclear power and acknowledged the risks of carbon emissions from burning coal in a 1983 Star Press story about the delays and cost overruns affecting the utility's Marble Hill nuclear project. PSI abandoned the half-finished project the following year after costs spiraled out of control.

"New discoveries that coal-fired plants have caused an increase in temperatures worldwide – the so-called greenhouse effect – also might boost popularity of nuclear power," the newspaper reported, paraphrasing comments by Baker.

Climate change also came up in the public debate over the William H. Zimmer Nuclear Plant project proposed for Moscow, Ohio. The project was planned by CG&E, which is now part of Duke Energy, along with partners Columbus & Southern Ohio Electric (now American Electric Power) and Dayton Power & Light (now owned by AES). In May 1979, around two months after the partial meltdown at Three Mile Island, the Nuclear Regulatory Commission (NRC) heard from opponents and supporters of the Zimmer plan at a hearing held at an elementary school in the rural community.

Among those who testified was Thomas J. Ruthemeyer, president of the local Clermont County Chamber of Commerce, where CG&E was a dues-paying member. Ruthemeyer chastised the NRC, saying it had "allowed nuclear energy and nuclear technology to be stifled by fear, misunderstanding and regulation." He contrasted nuclear power with coal's climate dangers:

> *And we have yet to take into consideration the well-publicized greenhouse effect.*
>
> *If you do not know about it, the scientists theorize that the carbon dioxide which would be poured into the atmosphere by burning coal would form a shield in the inner atmosphere which would keep the heat from escaping.*
>
> *We understand that they speculate that if this phenomenon did happen, it would increase the earth's temperature causing such interesting consequences as the melting of the polar icecaps and subsequent flooding of the coastal lands of the earth.*

Climate change came up again in the debate over Zimmer after the chair of Public Utilities Commission of Ohio pressured CG&E to convert it to a new fossil fuel plant. The Ohio News reported in 1983 that CG&E President William Dickhoner objected, saying he thought a nuclear plant would be in the best interest of the public. "With coal," Dickhoner said, "you have acid rain and the greenhouse effect." The Dayton Daily News reported that Dickhoner cited among the risk implications of fossil fuels "oil embargoes, acid rain and the greenhouse effect."

In the end, widespread public concerns about the quality of Zimmer's construction led to its conversion to coal as of 1991. Duke Energy, which completed its acquisition of CG&E in 2006, held onto its share in the plant until 2014, when it was sold to Vistra Corp. of Texas; Zimmer still supplied electricity to a market where Duke has two subsidiaries. Vistra retired the plant in 2022.

Duke Power's William Lee also promoted nuclear generation as a solution to climate change after rising through the ranks to become the company's CEO and chairman in 1982. For example, the American Nuclear Society reported on an address he delivered at the 1988 American Power Conference, in which "he noted that evidence of the greenhouse effect is piling up, and that the United States must therefore follow the lead of other countries and return to nuclear."

Also in 1988, Joe Maher, a Duke Power spokesperson, acknowledged the greenhouse gas effect when talking to the Herald-Journal of Spartanburg, South Carolina. "Cutting down trees and burning fuels like coal, petroleum and natural gas contribute to this layer of gases," the paper paraphrased Maher as saying.

He also pointed out that global warming could provide a business opportunity for Duke Power, saying that "if there is a greenhouse effect, then the increasing temperature may drive electricity use. If it is true, we will have to build additional power plants."

Duke Power and CP&L pressed global warming concerns through the U.S. Council for Energy Awareness

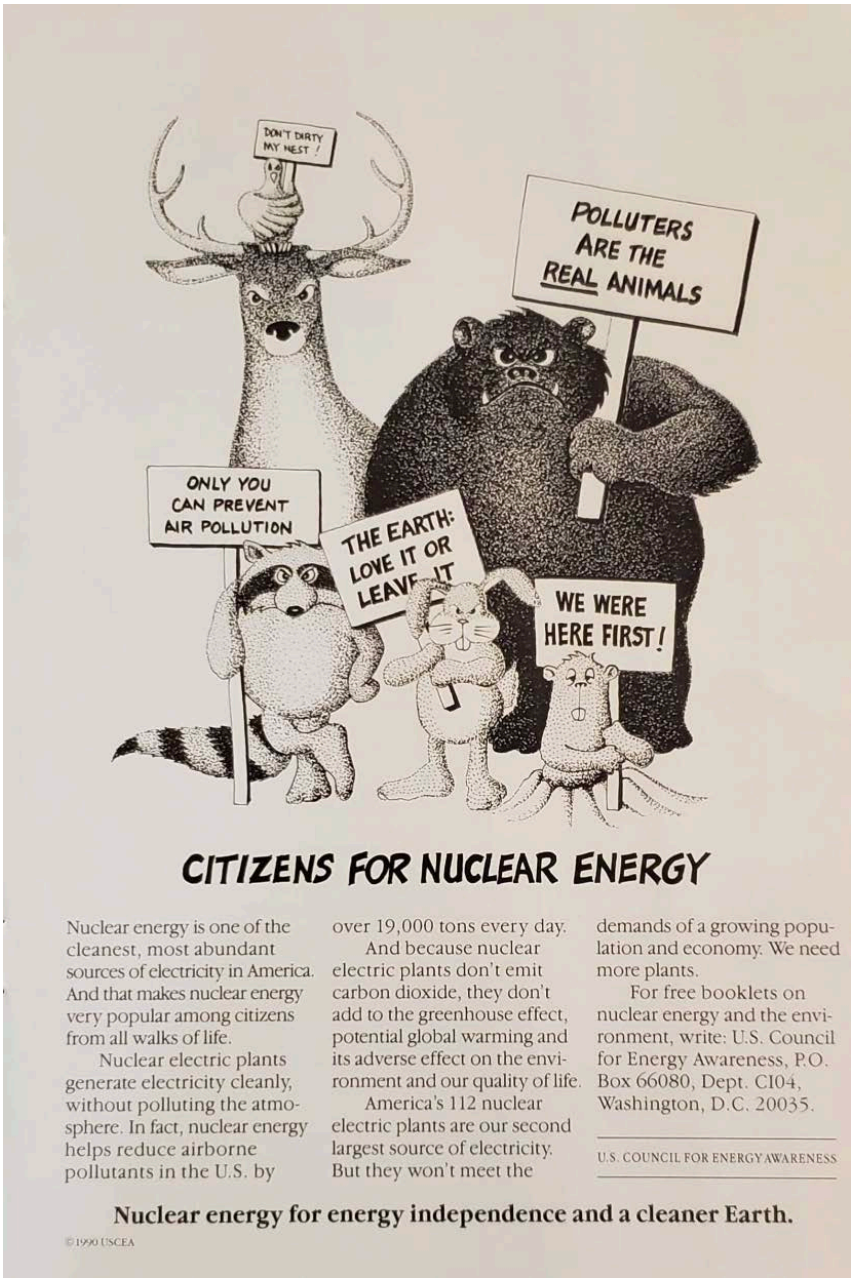
During the 1980s and 1990s, Duke Power and CP&L were leaders and major funders of the U.S. Council for Energy Awareness, an organization that would later merge with other groups to become the Nuclear Energy Institute, the nuclear industry's trade association. Sherwood H. Smith Jr., the CEO of CP&L, served on USCEA's board from 1992 to 1993; William H. Grigg, a former Duke Power executive and member of the utility's board in the 1990s, also served on the council's board.

Duke Power paid a large amount in annual dues to USCEA. Information made public in a 1991 South Carolina rate case placed Duke Power's annual USCEA dues at $1 million, which is equivalent to approximately $2.3 million in 2024 dollars. In turn, USCEA spent millions of dollars on advertising campaigns that promoted nuclear power as a solution to what the organization presented as the very real problem of global warming.

"[T]here is a growing concern about 'greenhouse' gases," said one USCEA ad published in a 1989 issue of Scientific American. It called for nuclear power to play a larger role in meeting

future needs. Another USCEA ad from 1990 said that "because nuclear electric plants don't emit carbon dioxide, they don't add to the greenhouse effect, potential global warming and its adverse effect on the environment and our quality of life."

In USCEA's annual report for 1992-1993, the group recognized "the possibility of increased restrictions on fossil fuels, based on concerns about global warming." However, the organization still supported the expanded use of fossil fuels, while its ads and other public communications promoted coal as well as nuclear. And USCEA's advertising reach was considerable: The Reno Gazette Journal reported in 1993 that the group spent an estimated $18 million per year on ads. That's over $39 million in 2024 dollars.



U.S. Council for Energy Awareness print ad from 1990.

Duke Energy Utilities and Climate Science Denial

The Duke of denial, doubt, and delay

By 1988, electric utilities were faced with a crucial decision: They could either be a part of the global solution to climate change, or they could be part of the problem by denying the science and opposing clean energy solutions. The Electric Power Research Institute had put the industry on notice.

"There is growing consensus in the scientific community that the greenhouse effect is real," George M. Hidy, vice president of EPRI's Environment Division, wrote in an editorial in the EPRI Journal in 1988. An article in the same issue reported, "As consensus builds that man is changing the earth's climate, policymakers are turning their attention to the issue and exploring potential responses."

In the face of this scientific consensus, however, a small but vocal minority of individuals and organizations, often operating with money from polluting industries, promoted what's come to be known as "climate change denial" – a form of propaganda or pseudoscience that sows doubt about the facts in order to undermine efforts to address the problem of global warming.

Duke Energy and its constituent utilities played a big role in promoting disinformation about climate science. For example, a peer-reviewed study published in 2022 by researchers at the University of California Santa Barbara ranked Duke among the top 10 utilities that "stand out as being extensively involved in climate denial, doubt, and delay."

The following are some of the leading denialist organizations and individuals that Duke Energy and its constituent utilities worked with and backed financially.

Edison Electric Institute

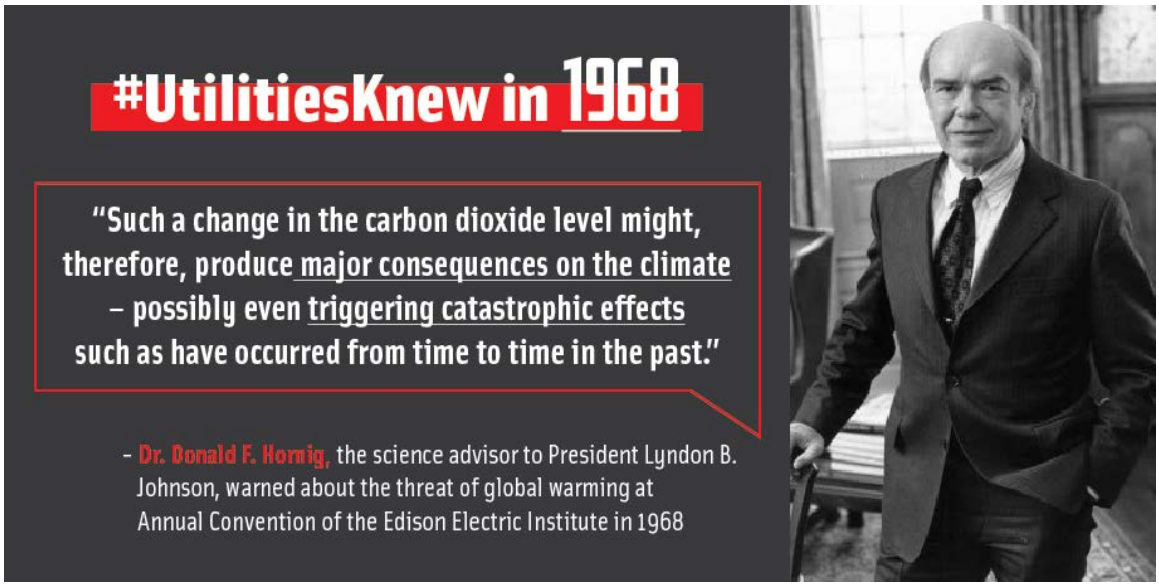
The utilities that today form Duke Energy are longtime members of the Edison Electric Institute, the powerful industry association that represents the nation's investor-owned electric utilities.

A peer-reviewed 2022 study by Associate Professor of Political Science Leah Stokes and other researchers at the University of California Santa Barbara represents the most thorough academic analysis of the utility industry's communications on climate change. The study found that, prior to the 1980s, EEI "recognized that if climate change was real and human-caused, the implications for the industry would be enormous."

In 1968, the EEI Bulletin published the text of an address that Donald Hornig, a science and technology advisor to President Lyndon Johnson, delivered at EEI's annual meeting. At the time,

J.D. Flynn of Cincinnati Gas & Electric, now part of Duke Energy, was listed in the Bulletin as a leading member of EEI's research committee. Hornig warned that by the year 2000 "the carbon dioxide level in the entire earth's atmosphere will be increased 25 percent, and carbon dioxide is an absolutely unavoidable product of the combustion of fossil fuels."

"Such a change in the carbon dioxide level might, therefore, produce major consequences on the climate – possibly even triggering catastrophic effects such as have occurred from time to time in the past," Hornig said in his address.



During the 1970s, according to the UC Santa Barbara study, EEI emphasized "uncertainties in climate science" but "also stated that action should not be delayed given serious climate impacts." The study found EEI's messaging shifted in the 1980s, when the industry group argued action should be delayed due to doubts about the science. In the 1990s, by which time scientists had established that climate change was real and human-caused, EEI emerged as a driving force in early climate science denial campaigns like the Information Council for the Environment (ICE) and Global Climate Coalition.

Leaked documents revealed the ICE was a 1991 test marketing campaign backed by EEI and Southern Company that aimed to "[r]eposition global warming as theory (not fact)." Copies of EEI's annual report reviewed by the Energy and Policy Institute show that CG&E, Carolina Power & Light (CP&L), and Duke Power were all EEI members that year.

The ICE campaign targeted the media market around Bowling Green, Kentucky, with newspaper and radio ads. At the time, CG&E owned Kentucky's Union Light, Heat & Power Company, now part of Duke Energy. "The most serious problem with catastrophic global warming is – it may not be true," said one of a number of ICE ads that appeared in Bowling Green's Park City Daily News in May and June 1991.

The ads included a form readers could mail in to receive a free information packet that consisted of letters from climate change skeptics Patrick Michaels, Sherwood Idso, and Robert Balling. Michaels turned up in Bowling Green in May 1991 for an interview on Western Kentucky University's educational TV channel, as the Park City Daily News reported at the time. CG&E also invited Michaels to speak in Lexington, Kentucky, that year, according to Michael's curriculum vitae.

A copy of Michaels' 1995 resume published by Mother Jones in 2010 noted that he received $50,000 for "Research Support for Climate Change" in 1991 and 1992 from an "Anonymous" source. He also disclosed that he received $25,000 from EEI between 1992 and 1995 for "Literature Review of Climate Changes and Updates." Michaels' funding from this "Anonymous" source and EEI during the 1990s would be worth more than double those amounts in 2024 dollars.

The UC Santa Barbara study found that EEI shifted away from outright climate science denial during the 2000s. Instead, the group echoed electric utilities' promotion of "clean coal" technologies like coal gasification and carbon capture and storage as viable climate change solutions, even though neither technology had been demonstrated to be technically or economically viable, which remains true today. By the 2010s and early 2020s, EEI's public messaging recognized the reality of climate change and the need to transition to cleaner sources of electricity, including renewable energy sources like wind and solar. At the same time, EEI focused its political efforts on blocking competition its members faced from the growing rooftop solar industry.

In 2023, EEI announced the retirement of its longtime president and CEO Tom Kuhn, a chief architect of the climate denial campaigns of the 1990s. Kuhn was replaced by Dan Brouillette, who served as U.S. Secretary of Energy under President Donald Trump from 2019 to 2021. Brouillette called for the U.S. to hit the brakes on decarbonization and said methane gas will play an "increasingly important" role in the power grid over the next 10 to 20 years. He resigned in October 2024 amid reported tensions with utility executives.

In 2024, EEI sued to block the EPA's implementation of binding limits on greenhouse gas emission from power plants. Meanwhile, Duke Energy is opposing the EPA's limits through a legal challenge filed by the Electric Generators for a Sensible Transition, an ad hoc industry coalition represented by the same attorneys who previously represented the now-disbanded Utility Air Regulatory Group (see below, page 19).

Duke Energy utilities have long charged customers for the cost of their EEI dues through their electricity bills. The annual cost of these dues to ratepayers can be substantial. In a rate case in 1991, the year EEI backed the ICE campaign, South Carolina's Consumer Advocate recommended that $800,000 in annual EEI dues paid by Duke Power should be excluded from customer rates, but the state's Public Service Commission eventually allowed Duke to recover most of those dues from customers.

In filings for their 2022 rate cases, the most recent as of this report's publication, Duke Energy Carolinas reported paying over $1.3 million in annual EEI dues in 2021, while Duke Energy Progress reported paying the group over $863,000.

Global Climate Coalition

Duke Power and CP&L were leading members of the Global Climate Coalition, which was initially formed under the auspices of the National Association of Manufacturers (NAM) and later registered with the IRS as a tax-exempt 501(c)(6) industry association. The New York Times reported that the GCC, which operated from 1989 to 2001, "led an aggressive lobbying and public relations campaign against the idea that emissions of heat-trapping gasses could lead to global warming."

James "Jimmy" Jones, a technical systems manager for Duke Power, was involved in the GCC early on, according to a 1990 article in The Charlotte Observer. In 1991, CP&L and Duke Power were listed as general members of the organization. In addition, the GCC listed Roy Hamme of Duke Power and Thomas Haney of CG&E as board members when it applied for tax-exempt status with the IRS in 1994.

In January 1996, Hamme and Eric Kuhn of CG&E took part in a meeting of the GCC's Science and Technology Assessment Committee (STAC) held at Southern Company's offices in Washington, D.C. Records from that meeting became the subject of a 2009 New York Times article headlined, "Industry ignored its scientists on climate."

Prior to the meeting, Lenny Bernstein of Mobil Corp. had circulated for review what he said he hoped would be "the final draft of the primer on global climate change science we have been working on for the past few months." It stated, "The scientific basis for the Greenhouse Effect and the potential impact of human emissions of greenhouse gases such as CO2 on climate is well established and cannot be denied."

The committee reviewed the draft at the January 1996 meeting and then circulated an updated version marked "DRAFT – APPROVED BY STAC" that had removed the words "cannot be denied." Months later, the GCC published an overview of its public position on climate change; gone was any reference to the "well established" science on the potential climate impacts of greenhouse gas emissions. Instead, it stated, "The GCC believes there is no convincing evidence that future increases in greenhouse gas concentrations will produce significant climatic effects."

The meeting minutes also show the committee removed a section from the primer examining theories that questioned the climate science consensus. "The contrarian theories raise interesting questions about our total understanding of climate processes," the early draft circulated by Bernstein said, "but they do not offer convincing arguments against the conventional model of greenhouse gas emission-induced climate change." Instead, the GCC continued to promote these debunked "contrarian theories" as on par with established climate science.

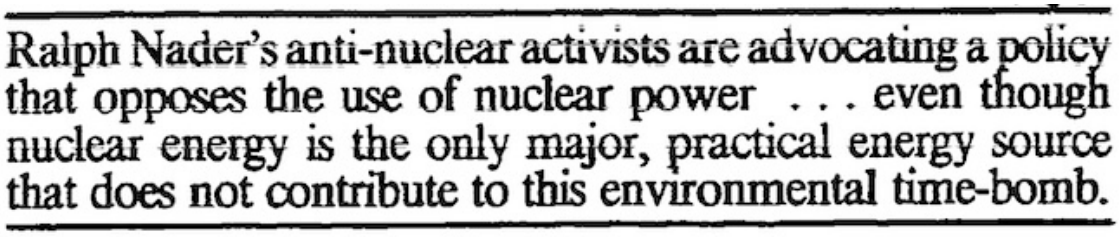
Duke Power was also a member of NAM during the early 1990s, when the GCC still operated out of NAM. In 1990, in a filing with the Federal Energy Regulatory Commission (FERC), Duke reported paying annual NAM dues of $12,500. And in 1995, CG&E told the U.S. Securities and Exchange Commission (SEC) that it paid $30,000 in dues to the GCC that year. Cinergy was formed in 1994 from the merger of CG&E and Kentucky subsidiary Union Light, Heat & Power with Public Service Indiana; Cinergy merged with Duke in 2006.

While CG&E, CP&L, and Duke Power were members of the GCC for multiple years before the coalition disbanded, a search of annual reports the utilities filed with the SEC and FERC found no other examples of publicly reported payments to the GCC.

Committee for a Constructive Tomorrow

The Committee for a Constructive Tomorrow, also known as CFACT, is a tax-exempt 501(c)(3) group founded in 1985 by David Rothbard and Craig Rucker to "promote a much-needed, positive alternative voice on issues of environment and development," according to the group's website. Over the last several decades, CFACT has engaged in relentless attacks on environmentalists and climate science.

Robert Allen, a Duke Power district manager who created the Duke Power Foundation, and S. M. Henry Brown, CP&L's manager of corporate affairs, served on CFACT's corporate advisory board, according to an undated CFACT document found in the University of California San Francisco's online Truth Tobacco Industry Documents archive. The document showed up in a "Cmte for a Constructive Tomorrow" file from the Tobacco Institute; other CFACT documents in the file are dated from 1988 through 1991, giving a rough timeline of the utilities' involvement. Furthermore, CP&L reported contributing $1,000 a year to CFACT in its annual reports to FERC for 1987, 1988, 1989, and 1990.


Ralph Nader's anti-nuclear activists are advocating a policy that opposes the use of nuclear power . . . even though nuclear energy is the only major, practical energy source that does not contribute to this environmental time-bomb.

Key people from Duke Power and CP&L were involved with the Committee for a Constructive Tomorrow, which promoted nuclear power as a solution to what it recognized as a looming climate crisis. (Text from a 1988 CFACT newsletter.)

A main focus of CFACT at that time was attacking Public Citizen and the state Public Interest Research Groups, both led by longtime consumer advocate Ralph Nader. For example, CFACT criticized Nader's network for being insufficiently enthusiastic about building more nuclear reactors to address what CFACT then recognized as the looming climate problem.

“One cannot imagine Nader’s Raiders joining the multitude of scientists, editorial writers and environmentalists who have called for nuclear power to be part of the solution to global warming, even though nuclear energy is the only major, practical energy source that does not contribute to this environmental time-bomb,” CFACT said in a 1988 edition of its Citizen Outlook newsletter.

A CFACT newsletter published the following year featured pro-nuclear commentary by U.S. Rep. Marilyn Lloyd, a Tennessee Democrat, noting that clean air legislation moving through Congress coupled with growing awareness of the greenhouse effect was causing many people to rethink their views on energy. “The burning of fossil fuels is no longer automatically the preferred method for generating electricity,” Lloyd wrote.

But by 1990, CFACT’s message on climate change had changed dramatically. That year Edward Krug, then director of environmental projects for the group, described global warming as beneficial in a speech to the annual meeting of the Illinois Mining Institute.

“CO2 is the ultimate plant fertilizer,” Krug said. “Science indicates that increases in temperature, moisture, and CO2 inherent to the global warming scenario will transform the Earth into a Garden of Eden and not a den of death as we are led to believe.”

By 1993, CFACT was likening the science of global warming to a conspiracy theory. “As it turns out, after taking a look at concrete scientific data and some real-world observations brought to light by CFACT's Director of Environmental Projects, Dr. Edward Krug, it would be easier to believe in the flat earth theory than in the threat of a greenhouse catastrophe,” said one communication it published that year titled “Hard Science, Real-World Data Melt Greenhouse Theory.”

Utility Air Regulatory Group

Passed in 1970, the Clean Air Act has dramatically reduced air pollution and is credited with adding 1.4 years to the life expectancy of the average American. Congress has amended the law repeatedly over the years to make it stronger. In 1977, for example, lawmakers added significant amendments, including one protecting air quality in still-pristine places, and another extending deadlines for meeting standards in areas experiencing compliance difficulties.

In response to those 1977 amendments, the electric utility industry banded together with the mining industry to create the Utility Air Regulatory Group, which operated out of the law firm Hunton & Williams, now Hunton Andrews Kurth. UARG long sought to shield the identity of its members, but a 2016 S&P investigation revealed names of members, including Duke Energy, and showed how the group sought to operate anonymously and out of the public eye. Further investigations revealed that Duke Energy was one of UARG’s top donors. The group also got significant financial support from the Edison Electric Institute, to which Duke Energy belongs; a 2017 invoice sent from EEI to another electric utility showed annual UARG dues of over $460,000.

UARG filed over 200 lawsuits and took other actions targeting both proposed and existing air quality and climate protections. In 2009, for example, UARG submitted public comments opposing the EPA's proposed endangerment finding for greenhouse gas emissions. The group challenged the agency's use of credible science from the Intergovernmental Panel on Climate Change and the U.S. Climate Change Science Program to determine that greenhouse emissions threaten public health and welfare. The EPA went on to adopt a final endangerment finding that provides the legal basis for it to regulate greenhouse gas emissions, and which remains in place today.

UARG is among the industry interests that have since tried to chip away at the endangerment finding. One UARG lawsuit, *Utility Air Regulatory Group v. EPA*, led to a 2014 U.S. Supreme Court ruling that limited EPA's ability to regulate some sources of greenhouse gas emissions, though the court upheld the endangerment finding in general, as well as EPA's authority to regulate greenhouse emissions from major sources, like power plants that burn fossil fuels.

In 2019, top Democrats on the House Energy and Commerce Committee sent letters to several utility CEOs asking for information about the relationships between UARG, member utilities, and EPA Assistant Administrator Bill Wehrum, citing concerns about possible ethics violations. Wehrum previously worked at what's now Hunton Andrews Kurth and represented power plant operators. Amid increasing congressional scrutiny of UARG, Duke Energy and a number of other utilities left the group, which disbanded that year.

American Legislative Exchange Council

Duke Energy was for many years a member of ALEC, a 501(c)(3) nonprofit founded in 1973 that brings together state lawmakers and corporate interests to promote business-friendly model legislation. The company was represented on ALEC's Energy, Environment, and Agriculture Task Force, which has approved model bills to repeal renewable energy portfolio standards, weaken renewable energy portfolio standard laws by including non-renewable sources of electricity, and eliminate solar net metering policies.

ALEC lays out its "Energy Principles" – including "Global Climate Change is Inevitable" – on its website. "Climate change is a historical phenomenon and the debate will continue on the significance of natural and anthropogenic contributions," the group says. It has threatened to sue advocacy groups that say it denies global warming, but it has worked time and again to stymie clean energy policies aimed at reducing greenhouse gas emissions.

In 2012, Duke Energy came under pressure from a coalition of environmental, civil rights, and pro-democracy organizations to quit ALEC over its role in blocking clean energy solutions, as well as its attacks on democracy and civil rights. That same year, two campaign finance watchdog groups – the Center for Media and Democracy and Common Cause – filed complaints with the Internal Revenue Service charging ALEC with violating its tax-exempt status and calling for civil and criminal charges.

Rather than publicly relinquish its ALEC membership, Duke Energy simply refused to talk about it. Questioned in 2018 about whether it belonged to ALEC, the company told a reporter with The Charlotte Business Journal that it doesn't "provide the names of the groups we are members of outside of complying with election laws." Nonprofits classified as 501(c)(3)s are not required to disclose their donors under the law.

But there's ample evidence that Duke Energy continued its involvement with ALEC after the protests over it:

- ALEC's 2013 notes about the utility's lapsed membership, obtained by The Guardian as part of an investigation into the group, said, "Merged with Progress Energy, new contacts."

- The Center for Media and Democracy reported that Duke Energy paid $10,000 to sponsor ALEC's annual meeting in 2015, the same year ALEC's energy task force approved a model bill to support state attorneys general who challenged President Obama's climate plan. North Carolina was among the states that signed on to that legal challenge under Republican Gov. Pat McCrory, a former Charlotte mayor who had worked for Duke Energy for 29 years and maintained a close relationship with the company and the state's powerful energy lobby.

- North Carolina Utilities Commission filings show Duke Energy paid $10,000 to ALEC in 2016, while leaked documents indicate the utility had a presence at ALEC's 2017 and 2019 annual meetings. Documents also show that Duke Energy contributed over $2,500 to ALEC to help North Carolina lawmakers travel to and eat at the group's meetings in 2017.

Frontiers of Freedom

In 2000, CP&L merged with Florida Progress, the holding company that owned Florida Power, and formed Progress Energy. Four years later, Progress Energy paid $25,000 to the Frontiers of Freedom Institute, a 501(c)(4) nonprofit founded in 1995 to promote limited government and unfettered markets.

At the time of that contribution, Frontiers of Freedom was engaged in unabashed climate science denial. "Climate has always varied, often with large swings," the group said in a 2004 website post. "These dramatic climatic ebbs and flows are naturally occurring events."

That same year, the Frontiers of Freedom paid $60,000 for the consulting services of Wei-Hock "Willie" Soon, according to the group's annual Form 990 report to the IRS. Soon is an astrophysicist, aerospace engineer, and a prominent climate science skeptic who's been supported financially by polluting interests, including electric utilities.

Frontiers of Freedom also reported paying $87,500 that year to "New Hope," shorthand for Patrick Michaels' consulting firm New Hope Environmental Services, and $16,711 to "SEPP," or

the Science and Environmental Policy Project, a privately financed research and advocacy group that casts doubt on climate science.

American Coalition for Clean Coal Electricity

The ACCCE was launched in 2008 by a group of more than 40 U.S. companies from the electricity generation, coal production, energy technology, transportation, and equipment manufacturing industries. Its goal was to promote both the continued use of coal power and the development of unproven "clean coal" technologies to address greenhouse gas emissions as an alternative to binding legal limits on those emissions.

The ACCCE was formed by the merger of two other pro-coal groups, Americans for Balanced Energy Choices and the Center for Energy and Economic Development, as the U.S. Senate was considering legislation to address climate change. Numerous executives at utilities that later became Duke Energy were involved with CEED. For example, Cinergy was on CEED's board in 1996. CP&L was also listed as a board member on CEED's website in 2000; Progress Fuels Corp., a subsidiary of the holding company that owned most of Florida Progress' non-utility holdings, was on CEED's board in 2004; and Progress Energy was on the board in 2004, 2005, 2006, and 2007.

Former Duke Energy CEO Jim Rogers served on ACCCE's board of directors. (World Economic Forum photo.)

The companies' involvement came after CEED made clear its position on climate change. In a 1998 presentation preserved by Desmog, CEED attacked "Global Warming Theory" as based on a computer model and said the "model's predictions have been proven unreliable."

In the mid-1990s, CEED was involved in policymaking in North Carolina, where it fought the Southern Environmental Law Center's push to get the state Utilities Commission to require utilities' integrated resource plans to account for environmental externalities. Around the same time, CEED supported an American Legislative Exchange Council model bill, presented at an ALEC task force meeting by climate science denialist Patrick Michaels, to prohibit electric utilities, public utility

commissions, and other state agencies from including environmental externality costs in establishing rates.

In 1995, CEED announced Randy Eminger as its new vice president for the Southern region, where Eminger would "oversee CEED activities in Texas, Oklahoma, Louisiana, Mississippi, Alabama, Arkansas, Tennessee, North Carolina, South Carolina, Georgia and Florida." Eminger participated in a 1997 debate in North Carolina against Marvin Soroos, the author of "The Endangered Atmosphere: Preserving a Global Commons." In 2001, Eminger wrote a column for CEED published in a North Carolina newspaper in which he said the Kyoto Protocol, an international agreement aimed at addressing global warming, was "based on unproven scientific theories."

Duke Energy CEO Jim Rogers served on ACCCE's board of directors in 2008, the same year the organization was widely criticized for launching a marketing campaign that featured cartoon lumps of coal singing Christmas carols with lyrics changed to celebrate coal, tunes like "Clean Coal Night" and "Frosty the Coal Man." Duke remained involved with the group until 2009, quitting only after ACCCE became embroiled in a scandal over forged letters sent by Hawthorne Group, a public affairs firm staffed by former employees of Duke and other utilities, to members of Congress as part of a campaign against the climate bill.

John Locke Foundation and the State Policy Network

The State Policy Network is a 501(c)(3) nonprofit that grew out of The Madison Group, an alliance of state-level think tanks founded in 1986 to support ALEC's legislative agenda. SPN credits President Reagan with the idea of creating an organization in each state resembling the Heritage Foundation, a right-wing think tank that became notorious in the run-up to the 2024 elections for its "Project 2025" transition plan for a potential second Trump administration. Among other things, that plan proposed cutting federal investment in renewable energy solutions and relaxing environmental permitting rules for new fossil fuel power plants.

Over the years SPN has received significant funding from the climate science-denying Koch network as well as polluting energy interests like the Peabody Energy coal company.

Duke Energy has contributed to the SPN affiliate in North Carolina, the John Locke Foundation (JLF), directly from its corporate coffers. Utilities are not required by law to disclose such spending on nonprofits, but in this case an effort by state regulators to get more details about the company's accounts during a rate hike proceeding produced publicly accessible records.

Based in Raleigh, JLF is a 501(c)(3) that was founded and largely funded for many years by Art Pope, a North Carolina businessman, former state lawmaker, and budget director under Gov. Pat McCrory. A leading funder of conservative and Republican causes, Pope is also a board member and former chair of the Lynde and Harry Bradley Foundation of Milwaukee, among the biggest nonprofit funders of climate science denial nationwide and a longtime JLF backer.

JLF has been the most prominent voice of climate science denial and climate solutions skepticism in North Carolina policymaking circles. It has made blocking renewable energy solutions one of its top legislative priorities. It has even tried to block basic adaptive measures, opposing the use of sea level rise projections in local planning by coastal communities on the front lines of climate change.

A document made public in a rate hike proceeding at the North Carolina Utilities Commission shows that Duke Energy contributed $25,000 to the JLF on June 2, 2021, "for civic and political activity." Regulators had sought more details about the company's spending in several specific accounts, and it submitted detailed records in response that revealed the payment to JLF.

That payment came at a decisive moment for Duke Energy's future. Exactly one week later, on June 9, 2021, North Carolina Gov. Roy Cooper issued an executive order calling for the development of 2.8 gigawatts of offshore wind energy resources by 2030 and 8 GW by 2040. Less than a week after that, on June 15, 2021, North Carolina House Republicans introduced a comprehensive energy bill favorable to Duke Energy and its investors. The closed-door negotiations that produced the legislation involved Duke, the renewable energy industry, industrial consumers, and legislative Republicans, but shut out other stakeholders, including residential customers and environmental advocates.

On June 24, 2021, less than three weeks after receiving Duke Energy's contribution, JLF published a report it shared with state lawmakers titled "Energy Crossroads: Exploring North Carolina's Two Energy Futures." It argued against Cooper's plans to increase renewable generation and instead made the case for more nuclear and methane gas plants — as does Duke Energy's own preferred plan for cutting carbon emissions to comply with state law. The report's author was Jordan McGillis, then the deputy director of policy at the Institute for Energy Research, a think tank founded by Koch Industries CEO Charles Koch and funded by fossil-fuel interests. JLF has said the report "led to significant policy shifts, including Duke Energy's decision to revise its energy strategy away from an overreliance on renewables like wind and solar."

One year after receiving Duke Energy's donation, JLF produced yet another report targeting renewables. "Big Blow: Offshore Wind Power's Devastating Costs and Impacts on North Carolina" took aim at Cooper's executive order on offshore wind. The authors were JLF editor Jon Sanders and two outside writers, Mitch Rolling and Isaac Orr; at the time, both Orr and Rolling served as policy fellows at the Koch-backed Center of the American Experiment, Minnesota's SPN affiliate.

Rolling and Orr have since moved on to found a new organization called Always On Energy Research with former JLF CEO Amy Cooke, who was part of President Trump's 2016 EPA transition team and a visiting energy policy fellow at SPN, where she led the organization's Energy Policy Working Group. Cooke used to work for an SPN-affiliated think tank in Colorado that was funded by coal producers.

Duke Energy Continued to Pursue Fossil Fuels While Blocking Renewables

Expanding the Cliffside coal plant in North Carolina

In 2006, Duke Energy merged with Ohio's Cinergy, whose former president and chief executive officer James E. Rogers Jr. became the combined company's president and CEO. He also oversaw the merger of Duke Energy and Progress Energy in 2012, the year before his retirement, creating the largest U.S. electric utility by market value at that time.

Rogers became a sensation for doing something few other utility company leaders were willing to do during the 2000s: take human-caused climate change and its threats seriously enough to call for federal legislation to curb greenhouse gas emissions. He regularly met with climate experts like James Hansen, the NASA scientist who sounded early alarms about global warming; surprised his own board by announcing plans to decarbonize the company by 2050; and got the Edison Electric Institute to change its position to back federal climate change legislation when he chaired it in 2007.

Rogers even fantasized to a New York Times reporter about having Duke Energy buy solar panels in bulk, put them on the roofs of 500,000 homes, and maintain and dispatch them like a power plant, generating enough electricity to close an old coal burner. The proposal is similar to a solar-and storage solution recently promoted by energy justice advocacy groups in North Carolina that's been met with silence from the company's current leadership.

During his tenure, however, Rogers also controversially oversaw the expansion of a coal-burning power plant in North Carolina.

The Cliffside Steam Station, located in Western North Carolina near the South Carolina border, began operating in 1940. For most of its life, it had four coal-burning units. Then in 2005, Duke Energy proposed adding two new 800-megawatt coal units to the plant, which is located along the Broad River. In response, health, social justice, faith, and environmental groups came together to form the Stop Cliffside Coalition to fight the expansion plans.

The coalition pursued various regulatory and legal strategies to block the new units, and in 2007 the North Carolina Utilities Commission gave the company permission to build only one new unit, making that contingent on Duke Energy eventually shuttering the others. But opponents continued to fight the revised plans. Students dressed as polar bears chained themselves to the front doors of Duke Energy's Charlotte headquarters, while activists locked themselves to bulldozers at the construction site.

In early 2009, girded by statements from climate movement leaders like Hansen, Bill McKibben, and Al Gore urging an escalation in the fight against new coal plants, the anti-Cliffside coalition announced that it would engage in a campaign of nonviolent civil disobedience to block the

expansion. In April 2009, coalition members gathered in the streets of Charlotte, where Duke Energy is headquartered, to protest and present Rogers with a letter calling on him to cancel the project. When he refused to meet with them, 44 protesters crossed onto Duke Energy property and were arrested for trespassing.

The following month there was a protest at Duke's shareholder meeting, with activist shareholders grilling Rogers about the company's coal plans. And that November, four protesters in South Carolina chained themselves to a generator that was being delivered to the plant. But in the end, construction of the new Cliffside unit moved ahead, and it began commercial operations in December 2012. The following year, the facility was renamed the James E. Rogers Energy Complex.

Duke Energy expanded its coal-burning Cliffside Steam Station, since renamed the James E. Rogers Energy Complex, in the early 2000s. (Rainforest Action Network photo.)

Forcing Ohio ratepayers to bail out dirty power plants through bribery-tainted House Bill 6

Customers of Ohio's regulated electric utilities have paid more than $350 million since 2020 to bail out two coal-fired power plants operated by the Ohio Valley Electric Corp. (OVEC), which is jointly owned by a group of companies including FirstEnergy, American Electric Power, and Duke Energy. Those two 1950-era plants – Kyger Creek in Cheshire, Ohio, and Clifty Creek in Madison, Indiana – are among the nation's top carbon emitters.

Enabling the OVEC bailout was House Bill 6. That 2019 Ohio law was at the center of multiple state and federal criminal cases involving millions of dollars in bribes paid by FirstEnergy to secure a $1 billion bailout for coal and nuclear plants owned by a bankrupt subsidiary – the biggest corruption scandal in the state's history. H.B. 6 also repealed the state's renewable energy and efficiency standards for electric utilities.

Duke Energy had been lobbying Ohio state lawmakers for a ratepayer bailout of the OVEC coal plants since 2017. A lobbyist for Duke Energy provided "OVEC talking points" to one of the sponsors of House Bill 239, a pre-H.B. 6 OVEC bailout bill that failed to pass.

Duke Energy has not been charged with any crime related to the H.B. 6 scandal. However, some of the utility's lobbying and political activities were mentioned in evidence prosecutors used in the racketeering trial of former Ohio House Speaker Larry Householder, which ended in 2023 with his conviction and 20-year prison sentence, the maximum under law.

At the trial, FBI agent Blane Wetzel described how Householder hosted a "utilities day" in early 2018 to introduce Ohio's major utilities to "Team Householder" candidates whose election that year was key to Householder's plan to become speaker. "Dayton [Power & Light] and Duke are both coming," Jeff Longstreth, Householder's top political aide, texted to a Team Householder fundraiser on the day of the meeting with utilities.

An internal Team Householder briefing document listed lobbyist John Keaton as representing Duke at the gathering. Also listed were lobbyists from American Electric Power, FirstEnergy and coal producers Murray Energy and Boich Companies.

Amy Spiller, president of Duke's Ohio utility, appeared on Householder's calendar as an attendee for an April 2, 2019, meeting to "discuss relevant legislation" with Householder and executives and lobbyists from FirstEnergy, AEP, and Dayton Power & Light. Ten days later, Householder held a press conference to introduce H.B. 6. The following month, Duke Energy CEO Lynn Good appeared on Householder's calendar for a meeting to "discuss Duke's issues of priority & hear the Speaker's thoughts on the role of regulated utilities in Ohio."

Duke's PAC contributed $15,500 to Householder's campaign fund between 2018 and 2020. It also made nearly $370,000 in state-level campaign contributions in Ohio between 2017 and 2020.

The Edwardsport plant and questionable "clean coal" claims

The use of technology to capture carbon dioxide from various industrial processes goes back as far as 1930, though it wasn't until the 1970s that scientists got the idea to use it to capture emissions from coal plants and refineries. However, the industry itself questioned the effectiveness of what's come to be known as carbon capture and storage.

Early utility industry research into CCS from as far back as the 1980s concluded that it was not a viable way to control greenhouse gas emissions from power plants. For example, a 1985 paper for the Edison Electric Institute (EEI) by futurists Jennifer Jarrett and Joseph F. Coates noted that studies of CSS commissioned by the Department of Energy (DOE), Electric Power Research Institute, and others did not show great promise.

"Control of emissions by the collection of gas from the stack is not a solution to the global build-up of carbon dioxide in the atmosphere," Jarrett and Coates concluded.

Of the hundreds of CCS projects announced since the 1990s, few have come to fruition, with a particularly poor track record in the power sector. As of 2023, there were only 41 CCS projects in operation worldwide, according to the Global CCS Institute, which promotes the technology. That organization doesn't collect data on how much carbon those facilities actually capture but instead reports the total capture capacity of all of the CCS facilities in operation or development: 361 million metric tons per year. That represents less than 1% of the world's total annual energy-related carbon dioxide emissions of 36.8 billion metric tons.

Even after research raised serious questions about the efficacy of CCS to capture the carbon emissions of coal plants, Duke Energy continued to promote the use of what the company calls "clean coal."

In Indiana, for example, Duke Energy is currently seeking future recovery of $10 million from customers to help fund an $18 million study to determine the feasibility of deploying CCS at the utility's Edwardsport integrated gasification combined cycle power plant (IGCC), which began operating in 2013 and is fueled by gasified coal. The other $8 million will come in the form of taxpayer-funded support from the DOE. In 2023, Duke Energy told the EPA that it "contemplates retiring Edwardsport gasifiers by 2035 or adding carbon capture technology to reduce emissions."

Duke began planning the Edwardsport IGCC plant in the early 2000s, based on what it claimed was the project's potential for future capture of CO2. The company promised that the project would position Indiana as a CCS leader. Two decades later, however, the plant still hasn't captured any carbon, and the project has become mired in ethics scandals and cost overruns. In July 2024, the Indiana Office of Utility Consumer Counselor filed testimony with the state's utility commission, arguing that it should reject Duke's proposal to defer expenses for the project while raising rates. The OUCC cited the "speculative nature of the feasibility and affordability of a CCS system."

The quest to throttle rooftop solar

At the same time Duke Energy was promoting new coal generation in the 2010s, it was working to curb deployment of rooftop solar on homes and businesses. Monopoly utilities feared that the falling prices and increasing accessibility of solar panels threatened their business model, which derives profits from big capital investments like new power plants. By slowing or blocking the deployment of distributed power like rooftop solar, these utilities could create conditions to require the kind of investments that maximize their earning potential.

A national network of utility interest groups and fossil fuel-funded think tanks has helped utilities nationwide, including Duke Energy, in their efforts to undermine rooftop solar. Among the organizations that have been involved in the anti-solar campaign are EEI, the utility trade association that counts Duke Energy among its members, and ALEC, where Duke has long been involved.

In Florida, the fight over rooftop solar broke out in 2015. That January, a broad coalition calling itself "Floridians for Solar Choice" launched a pro-solar ballot initiative drive to end the state's ban

In 2015, a North Carolina pastor appealed to current Duke Energy CEO Lynn Good, pictured here with former Trump Energy Secretary Rick Perry, to stop sending representatives to his predominantly African American church to try to convince him that solar power is bad for low-income communities. (Photo by Ken Shipp, U. S. Department of Energy.)

on third parties selling electricity to consumers. Initially, Duke Energy and the state's other utilities remained silent. But as the proposal gained popular support, the utilities began conspiring to block it.

They hired public-relations experts to develop the Consumers for Smart Solar campaign, which paid a former state lawmaker and others tens of thousands of dollars to endorse a competing ballot initiative designed to confuse voters. Though backers promoted it as pro-solar, the measure would have protected the utilities' monopolies and limited the growth of consumer-owned solar power. Duke Energy was the second-biggest donor to Consumers for Smart Solar in 2016, giving over $6.7 million, with only Florida Power & Light contributing more at $8 million.

In the end, Floridians for Solar Choice failed to collect enough signatures to get the pro-solar measure on the ballot in 2016 and again in 2018. Duke-backed Consumers for Smart Solar did get their anti-solar measure on the 2016 ballot, but it failed to get the 60% supermajority approval needed to pass.

In North Carolina, Duke Energy has worked to block rooftop solar by targeting net metering policies, which guarantee solar panel owners receive prescribed rates of compensation for the excess power they send back to the grid. In 2023, the state Utilities Commission adopted a net metering policy embraced by Duke Energy that cut what solar panel owners were paid for excess power while also imposing a monthly rooftop solar fee. The changes were called for in state legislation, though in the end the commission used Duke Energy's cost-benefit study to justify them and did not conduct its own, as the bill's sponsor said he intended.

The policy change had an immediate effect on solar installations, which dropped by over 15% in 2023, ending a six-year growth streak. The decline was so dramatic that Duke Energy launched a pilot program called PowerPair that offers residential customers incentives of up to $9,000 to install solar panels and battery storage at their homes. That program is limited to 30,000 kilowatts of solar capacity in each of the company's two service areas in North Carolina; once that limit is reached, interested customers will be placed on a waiting list.

Duke Energy has cast its fight against rooftop solar in North Carolina as motivated by a concern for poorer customers who could not afford to adopt the technology. Rev. Nelson Johnson is the pastor of the predominantly African American Faith Community Church in Greensboro. In 2015, he co-wrote a letter with the climate justice group NC WARN to Duke Energy CEO Lynn Good reporting that he was visited over the course of several months by three company representatives who tried to convince him solar power is a bad idea for low-income communities. The visits came after NC WARN, in violation of the state's ban on third-party electricity sales, installed solar panels on the church's roof and began collecting payments of 5 cents per kilowatt hour, less than half of what Duke Energy was charging. The letter stated:

> *It appears evident that this "solar hurts the poor" strategy has been coordinated by Duke and its cohorts in the corporate electric power industry and used in many states recently. Fortunately, the scheme has been rejected by the NAACP's national board, by various state NAACP chapters, and by the Congressional Black Caucus, among others.*

Nevertheless, Duke Energy is vigorously pursuing this same deception in North Carolina. This cynical corporate activity is an affront to the people of this state, and it is your personal responsibility to stop it.

Duke Energy eventually asked state utility regulators to issue a cease-and-desist order against the church's rooftop system. The case went to the state Supreme Court, which ruled against the church and for Duke Energy.

Going all in on climate-polluting methane gas while lobbying to curb emissions rules

Global methane emissions have been on the rise and imperiling climate stability, and the International Energy Agency warns that a 75% cut is needed by 2030 to prevent dangerous levels of global warming. In 2023, the production and use of fossil fuels resulted in almost 120 million tons of methane emissions, an increase over the previous year. An especially potent greenhouse gas over the short term when emitted directly, and which produces carbon dioxide when burned, methane is responsible for almost a third of the rise in global temperatures since the Industrial Revolution. The energy sector – including gas, coal, oil, and bioenergy – is the second-biggest source of methane emissions from human activity.

Duke Energy claims a corporate climate goal of becoming carbon-neutral by 2050. In North Carolina, it has retired 31 coal units but has 15 still in operation, which it says it plans to shutter by 2035. In Indiana, the company had said it would shutter the coal-burning units at its Gibson plant by 2035 but then announced that it would continue burning coal there until at least 2038.

Duke Energy has replaced some of its retired coal units with new gas units despite methane's well-known climate risks. And it hopes to construct even more. The company's 2024 carbon plan for the Carolinas proposed adding almost 9,000 megawatts of new methane gas generation capacity, which it says is necessary to meet growing demand. In its final order on the plan issued on Nov. 1, 2024, the North Carolina Utilities Commission approved the proposed 9,000 megawatts of new gas generation. In addition, the commission allowed the company to miss the 2030 state statutory deadline to cut greenhouse gas emissions by 70% over 2005 levels, telling it instead to "pursue 'all reasonable steps'" to achieve the target "by the earliest possible date." Duke's plans represent one of the biggest build-outs of gas infrastructure in the country. Gas also requires pipelines, which have their own damaging climate effects.

In 2022, 45 scientists from academia, industry, government, and environmental advocacy groups wrote a letter to North Carolina Gov. Roy Cooper and Duke Energy President and CEO Lynn Good asking them to work together to halt the gas expansion. The letter stated:

> *Our current global energy infrastructure already locks in more CO2 emissions than is consistent with the target of limiting warming to 1.5 degrees Celsius above pre-industrial levels. Therefore, we simply cannot build any more fossil fuel power plants and other supporting infrastructure, and must instead move toward retiring those already in place. This conclusion is supported by both the Intergovernmental Panel on Climate Change and the International Energy Agency.*

As Duke Energy was becoming more reliant on gas, it was working to weaken rules designed to curb related climate pollution. In 2023, for example, the Environmental Protection Agency issued a proposed rule to reduce allowable levels of greenhouse gas emissions from both existing and new coal and gas plants. But amid heavy lobbying by the utility industry, the EPA decided to punt on applying the rules to existing gas plants, instead limiting them to new facilities.

Duke Energy was among the companies that pressed the EPA to exclude existing gas plants from the rule. Memos between company lobbyists and Kentucky state government officials show Duke celebrating and taking credit for the EPA's action. "Great advocacy work, to federal team thus far!!" Jennifer Loraine, vice president of government affairs at Duke Energy Ohio/Kentucky, wrote to other company lobbyists on Feb. 29, 2024, the day the EPA announced the decision.

While Duke Energy has discussed the possibility of capturing and storing carbon emissions from gas plants, it admitted in public comments filed with the EPA in 2023 that the technology isn't viable yet and won't be for the foreseeable future. It also notes that sequestering the captured carbon dioxide is not an option at many power plant sites, including those in the Carolinas and Florida, so the approach would require building an extensive network of pipelines to move carbon dioxide to storage sites. Meanwhile, the company is contemplating converting its gas plants to burn hydrogen, still an unproven technology beyond modest levels of hydrogen blending with potentially high costs, limited carbon emissions benefits, and other adverse air pollution effects.

As Duke Energy delays the rapid decarbonization necessary to stave off the worst effects of climate change, scientists warn that the situation is growing dire. In October of 2024, a year that broke numerous temperature records around the world, an international team of scientists published a peer-reviewed paper that says Earth is on the brink of an irreversible climate disaster due to unrelenting carbon emissions. "This is a global emergency beyond any doubt," they wrote. "We are witnessing the grim reality of the forecasts as climate impacts escalate, bringing forth scenes of unprecedented disasters around the world and human and nonhuman suffering."

References

ABC News. 2024. Hurricane Helene knocks out power to millions of residents across the Southeast. September 28. Online at: https://www.youtube.com/watch?v=sbmjnyJdKcQ

Anderson, D. 2017. Decades before Harvey and Irma, electric utilities knew climate change could fuel more powerful storms and still funded denial. *Energy and Policy Institute*, September 14. Online at: https://energyandpolicy.org/harvey-irma-power-outages-climate-change/

Anderson, D. 2018. Top candidates for Ohio House speaker back bailouts of utilities that back their campaigns. *Energy and Policy Institute*, May 10. Online at: https://energyandpolicy.org/ohio-house-speaker-ryan-smith-larry-householder/

Anderson, D. 2024. Fueling the opposition: How fossil fuel interests are fighting to kill wind and solar farms before they are built. *Energy and Policy Institute*, July. Online at: https://energyandpolicy.org/fossil-fuel-funding-opposition-renewable-energy/#institute-for-energy-research

Anderson, D., K. Conroy and J. Kim. 2024. Blocking renewable energy is a top state legislative priority for network on pro-fossil fuels think tanks. *Energy and Policy Institute*, March 6. Online at: https://energyandpolicy.org/state-policy-network-anti-wind-solar-power/

Anderson, D., M. Kasper and D. Pomerantz. 2017. Utilities Knew: Documenting electric utilities early knowledge and ongoing deception on climate change from 1968-2017. *Energy and Policy Institute*. Online at: https://energyandpolicy.org/utilities-knew-about-climate-change/

Anderson, D., M. Kasper and D. Tait. 2022. Southern Company Knew: How a “clean coal” utility was warned about climate change risks years before it funded climate disinformation 1964-2022. *Energy and Policy Institute*. Online at: https://www.energyandpolicy.org/reports/southern-company-knew-climate-change/#cleancoalads

American Coalition for Clean Coal Electricity. 2008. IRS Form 990. Online at: https://www.documentcloud.org/documents/3911581-ACCCE-2008#document/p8

American Legislative Exchange Council. 2017. ALEC energy principles. Online at: https://alec.org/model-policy/alec-energy-principles/

Armstrong, A. 2016. Power companies wield influence through anonymous group. *S&P Capital IQ*, July 19. Online at: https://www.capitaliq.spglobal.com/web/client?auth=inherit#news/article?id=37072675&cdid=A-37072675-13095

Augstums, I. 2007. Coal generator would cost Duke $1.53 billion. *Florence Morning News*, March 22. Online at: https://www.newspapers.com/image/986674776/

Babcock, J. 1983. Gas Zimmer seen as better for utility bills. *Dayton Daily News*, November 1. Online at: https://www.newspapers.com/clip/111512286/cinergy-cited-greenhouse-effect-as-risk/

Bade, G. 2019. Utilities flee UARG as Congressional Dems tee up probe into lobbying group. *Utility Dive*, April 17. Online at: https://www.utilitydive.com/news/utilities-flee-uarg-as-congressional-dems-tee-up-probe-into-lobbying-group/552939/

Ballotpedia. 2016. Florida solar energy subsidies and personal solar use, Amendment 1 (2016). Online at: https://ballotpedia.org/Florida_Solar_Energy_Subsidies_and_Personal_Solar_Use,_Amendment_1_(2016)

Blake, E.M. 1988. American Power Conference. *American Nuclear Society*, June. Online at: https://www.documentcloud.org/documents/25060908-american-power-conference-1988

Blumenthal, E. 2024. PowerPair program approved by NC Utilities Commission. *NC Sustainable Energy Association*, April 24. Online at: https://energync.org/powerpair-program-approved-by-nc-utilities-commission/

Boraks, D. 2023. Pro-solar groups appeal NC's new rules that cut rooftop solar credits. *WFAE*, October 16. Online at: https://www.wfae.org/energy-environment/2023-10-16/pro-solar-groups-appeal-ncs-new-rules-that-cut-rooftop-solar-credits

Carolina Power & Light. 1988. FERC Form 1. Online at: https://www.documentcloud.org/documents/25077654-carolina-power-light-ferc-form-1-for-1987#document/p144

CDP. 2023. Duke Energy Corporation - Climate change 2023. Online at: https://www.cdp.net/en/formatted_responses/responses?campaign_id=83630982&discloser_id=1029184&locale=en&organization_name=Duke+Energy+Corporation&organization_number=5052&program=Investor&project_year=2023&redirect=https%3A%2F%2Fcdp.credit360.com%2Fsurveys%2F2023%2Fjwbhd7d6%2F258295&survey_id=82591262

Center for Energy and Economic Development. 1995. ALEC addresses externalities. *CEEDNews*, January. Online at: https://www.documentcloud.org/documents/25268032-ceednews_january_1995#document/p2/a2599553

Center for Energy and Economic Development. 1995. Introducing Randy Eminger, CEED's new vice president. *CEEDNews*, February. Online at: https://www.documentcloud.org/documents/25268037-ceednews_february_1995

Center for Energy and Economic Development. 1996. New members. *CEED News*, September. Online at: https://www.documentcloud.org/documents/25268027-ceednews_september_1996

Center for Energy and Economic Development. 1997. Global climate debate. *CEEDNews*, October. Online at: https://www.documentcloud.org/documents/25268039-ceednews_october_1997

Center for Energy and Economic Development. 1998. Broken promises — shattered dreams. Online at: https://www.desmog.com/wp-content/uploads/files/Broken%20Promises.pdf

Center for Energy and Economic Development. 2000. Board of directors. Online at: https://web.archive.org/web/20000817093751/http:/www.ceednet.org/about_ceed/board.htm

Center for Energy and Economic Development. 2004. IRS Form 990. Online at: https://embed.documentcloud.org/documents/3911577-ACCCE-2004

Center for Energy and Economic Development. 2005. IRS Form 990. Online at: https://embed.documentcloud.org/documents/3911578-ACCCE-2005#document/p15

Center for Energy and Economic Development. 2006. IRS Form 990. Online at: https://www.documentcloud.org/documents/3911579-ACCCE-2006#document/p18

Center for Energy and Economic Development. 2007. IRS Form 990. Online at: https://projects.propublica.org/nonprofits/display_990/521799853/2008_12_EO/52-1799853_990O_200712

Christian, M. and T. Tiernan. 2024. New EEI leader calls for caution on energy transition, enduring role for gas. *S&P Global*, January 24. Online at: https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/new-eei-leader-calls-for-caution-on-energy-transition-enduring-role-for-gas-80143804

Cinergy. 1995. Annual report. Online at: https://www.documentcloud.org/documents/25252072-cinergy_annual_report_1995#document/p1/a2598600

Cincinnati Gas & Electric Company. 1979. Annual report. Online at: https://www.documentcloud.org/documents/25268026-cge_annual_report_1979

Climate & Clean Air Coalition. Methane. Online at: https://www.ccacoalition.org/short-lived-climate-pollutants/methane

Climate Investigations Center. 2017. The voice of industry: GCC doesn't concede full truth on science. Online at: https://climateinvestigations.org/global-climate-coalition-climate-denial/

Colman, Z. and C. Morehouse. 2024. Tension with utility chiefs marked Dan Brouillette's short stint atop EEI. *E&E News*, October 31. Online at: https://www.eenews.net/articles/tension-with-utility-chiefs-marked-dan-brouillettes-short-stint-atop-eei/

Committee for a Constructive Tomorrow. 1988. Nader's Raiders attacking nuclear power …. again. *Citizen Outlook*, fall edition. Online at: https://www.industrydocuments.ucsf.edu/docs/myyf0048

Committee for a Constructive Tomorrow. 2022. Our mission. Online at: https://www.cfact.org/about/

Committee for a Constructive Tomorrow. Board of directors listing. Online at: https://www.industrydocuments.ucsf.edu/tobacco/docs/#id=tnyf0048

Companiesmarketcap.com. 2024. Largest utility companies by market cap. Online at: https://companiesmarketcap.com/utility-companies/largest-companies-by-market-cap/

Congressional Research Service. 2022. Clean Air Act: A summary of the Act and its major requirements. September 13. Online at: https://crsreports.congress.gov/product/pdf/rl/rl30853

Dahl, K. and E. Spanger. 2024. Sea level rise is already threatening communities. *Union of Concerned Scientists*, June 20. Online at: https://blog.ucsusa.org/kristy-dahl/sea-level-rise-is-already-threatening-communities/

Daycock, S. 1995. Restructuring of the electric power industry, part 1. *CEEDNews*, December. Online at: https://www.documentcloud.org/documents/25268030-ceednews_december_1995

DeMelle, B. 2012. Coalition calls on Duke Energy to dump American Legislative Exchange Council. *DeSmog*, August 29. Online at: https://www.desmog.com/2012/08/29/coalition-calls-duke-energy-dump-american-legislative-exchange-council/

DeSmog. American Coalition for Clean Coal Electricity. Online at: https://www.desmog.com/american-coalition-clean-coal-electricity/

DeSmog. Center for Energy and Economic Development. Online at: https://www.desmog.com/center-energy-and-economic-development/

DeSmog. Committee for a Constructive Tomorrow. Online at: https://www.desmog.com/committee-constructive-tomorrow/

DeSmog. Frontiers of Freedom. Online at: https://www.desmog.com/frontiers-freedom/

DeSmog. Science and Environmental Policy Project. Online at: https://www.desmog.com/science-and-environmental-policy-project/

DeSmog. State Policy Network. Online at: https://www.desmog.com/state-policy-network/

DeSmog. Willie Soon. Online at: https://www.desmog.com/willie-soon/

Downey, J. 2009. Protestors seek to slow Cliffside generator. *Charlotte Business Journal*, November 30. Online at: https://www.bizjournals.com/charlotte/blog/power_city/2009/11/protestors_seek_to_slow_cliffside_generator.html

Downey, J. 2018. Business, civic leaders reflect on Jim Rogers' legacy in Charlotte, energy industry. *Charlotte Business Journal*, December 19. Online at: https://www.bizjournals.com/charlotte/news/2018/12/19/business-civic-leaders-reflect-on-jim-rogers.html

Downey, J. 2018. Duke Energy won't comment on top state lobbyists' membership in controversial group. *Charlotte Business Journal*, March 28. Online at: https://www.bizjournals.com/charlotte/news/2018/03/28/duke-energy-won-t-comment-on-top-state-lobbyists.html

Doyle, N. 1989. Facing down radon's household threat. *Citizen Outlook*, fall edition. Online at: https://www.industrydocuments.ucsf.edu/tobacco/docs/#id=tqnl0043

Duke Energy. 2013. Cliffside Steam Station renamed the James E. Rogers Energy Complex. December 3. Online at: https://news.duke-energy.com/releases/cliffside-steam-station-renamed-the-james-e-rogers-energy-complex

Duke Energy. 2023. Comments on the new source performance standards for greenhouse gas emissions from new, modified, and reconstructed fossil fuel-fired electric generating units. Online at: https://www.documentcloud.org/documents/25035947-comments-of-duke-energy-on-the-new-source-performance-standards-for-greenhouse-gas-emissions-from-new-modified-and-reconstructed-fossil-fuel-fired-electric-generating-units-2023

Duke Energy. 2023. Form 10-K. Online at: https://d18rn0p25nwr6d.cloudfront.net/CIK-0001326160/4a7e8ff3-a9aa-438b-8124-3166dc1bd9c6.pdf

Duke Energy. 2024. Duke Energy Florida restores power for over 99% of customers impacted by Hurricane Milton; crews continue working to restore remaining outages. October 17. Online at: https://news.duke-energy.com/releases/duke-energy-florida-restores-power-for-over-99-of-customers-impacted-by-hurricane-milton-crews-continue-working-to-restore-remaining-outages

Duke Energy. 2024. Duke Energy Foundation commits $1 million to support communities impacted by Hurricane Helene. September 30. Online at: https://news.duke-energy.com/releases/duke-energy-foundation-commits-1-million-to-support-communities-impacted-by-hurricane-helene

Duke Energy. 2024. Duke Energy's Hurricane Helene recovery restores power to nearly 1.1 million in the Carolinas. September 29. Online at: https://news.duke-energy.com/releases/duke-energys-hurricane-helene-recovery-restores-power-to-nearly-1-1-million-in-the-carolinas-downed-trees-blocked-roadways-damaged-power-equipment-impeding-efforts-in-the-n-c-mountains-and-s-c-upstate-region

Duke Energy. 2024. X.com. Online at: https://x.com/DukeEnergy

Duke Energy Carolinas. 2016. Industry association dues. Online at: https://www.documentcloud.org/documents/4178319-Dues-6.html#document/p9

Duke Energy Carolinas. 2021. North Carolina Utilities Commission Form E-1 Data Request. Online at: https://www.documentcloud.org/documents/25079483-duke-energy-carolinas-ncuc-form-e-1-data-request-for-2021

Duke Energy Corporation PAC. Disbursements to Larry Householder campaign. *Federal Elections Commission*. Online at: https://www.fec.gov/data/disbursements/?data_type=processed&committee_id=C00083535&recipient_name=householder

Duke Energy Kentucky. 2024. Lobbyist memos on EPA's 111 Rules. Online at: https://www.documentcloud.org/documents/25082420-duke_111_lobbying_memos

Duke Power. 1990. FERC Form 1. Online at: https://www.documentcloud.org/documents/25076518-duke-power-ferc-form-1-1990#document/p135

Edison Electric Institute. 1967-68. Listing of chairs of EEI committees. *EEI Bulletin*. Online at: https://www.documentcloud.org/documents/25239653-edison-electric-institute-bulletin-excerpts-from-1967-68#document/p3

Elleman, T.S. 1980. Letters. *The Decree*, May 16. Online at: https://www.documentcloud.org/documents/25060672-thomas-elleman-vice-president-of-nuclear-safety-for-carolina-power-light-greenhouse-effect-letter-to-the-editor-from-1980

Eminger, R. 2001. Take more realistic approach to balance clean air, energy needs. *Hickory Daily Record*, August 26. Online at: https://www.newspapers.com/article/hickory-daily-record-randy-eminger-cente/134388264/

Endale, B. 2022. Coal-fueled Zimmer Power Plant in Clermont County to close, resulting in 87 layoffs. *Cincinnati Enquirer*, April 27. Online at: https://www.cincinnati.com/story/news/2022/04/27/87-layoffs-zimmer-power-plant-set-close/9559817002/

Energy and Policy Institute. American Legislative Exchange Council. Online at: https://energyandpolicy.org/american-legislative-exchange-council/

Energy and Policy Institute. Hawthorn Group. Online at: https://energyandpolicy.org/hawthorn-group/

Energy and Policy Institute. John Locke Foundation. Online at: https://energyandpolicy.org/renewable-energy-state-policy-attacks-report-2015/john-locke-foundation/

Energy and Policy Institute. Utility Air Regulatory Group. Online at: https://energyandpolicy.org/utility-air-regulatory-group/

Environmental Defense Fund. 2024. Duke Energy pinning North Carolina's energy future to nonexistent hydrogen fuel market. May 28. Online at: https://www.edf.org/media/edf-filing-duke-energy-pinning-north-carolinas-energy-future-nonexistent-hydrogen-fuel-market

Environmental Protection Agency. 2024. Greenhouse gas standards and guidelines for fossil fuel-fired power plants. Online at: https://www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-fuel-fired-power

Environmental Protection Agency. 2024. Importance of methane. Online at: https://www.epa.gov/gmi/importance-methane

Environmental Protection Agency. 2024. Statement from EPA Administrator Michael S. Regan on EPA's approach to the power sector. February 29. Online at: https://www.epa.gov/newsreleases/statement-epa-administrator-michael-s-regan-epas-approach-power-sector

Fain, T. and L. Tillett. 2021. Environmental groups shut out of closed-door talks on possible energy bill. *WRAL.com*, March 10. Online at: https://www.wral.com/video/environmental-groups-shut-out-of-closed-door-talks-on-possible-energy-bill/19568982/

Find Energy. 2022. The 100 dirtiest power plants in the United States. Online at: https://findenergy.com/top-100-dirtiest-power-plants-in-the-united-states/

Forster, P. 2017. Half a century of robust climate models. *Nature*, May 18. Online at: https://aos.princeton.edu/sites/g/files/toruqf1176/files/manabewetherald_retro-1.pdf

Frontiers of Freedom Institute. 2004. IRS Schedule A. Online at: https://www.documentcloud.org/documents/23945236-frontiers-of-freedom-institute-2004#document/p7

Gardner, T. 2008. Eight climate protesters arrested at US coal plant. *Reuters*, April 1. Online at: https://www.reuters.com/article/marketsNews/idUSN0128806320080401/

Gearino, D. 2018. How solar panels on a church rooftop broke the law in N.C. *Inside Climate News*, May 14. Online at: https://insideclimatenews.org/news/14052018/north-carolina-rooftop-solar-panel-laws-duke-utility-monopoly-court-ruling-church-clean-energy/

Gilbert, M. 2024. Hurricane Helene makes a historic landfall. *CNN*, September 26. Online at: https://www.cnn.com/weather/live-news/hurricane-helene-florida-09-26-24#cm1k2u6gj00053b6mdlabodaw

Global CCS Institute. 2023. Global status of CCS. Online at: https://res.cloudinary.com/dbtfcnfij/images/v1700717007/Global-Status-of-CCS-Report-Update-23-Nov/Global-Status-of-CCS-Report-Update-23-Nov.pdf?_i=AA

Global Climate Coalition. 1991. Memo to interested parties with information about GCC. Online at: https://embed.documentcloud.org/documents/5628875-GCC-1991-11-27-Interested-Parties-Information

Global Climate Coalition. 1995. Board of directors listing. Online at: https://www.documentcloud.org/documents/5798254-GCC-IRS-1023.html#document/p17

Global Climate Coalition. 1995. Draft primer on climate change science. December 21. Online at: https://www.documentcloud.org/documents/3882946-1996-Global-Climate-Coalition-January-Draft.html#document/p2

Global Climate Coalition. 1995. GCC IRS 1024 and Attachments. *Climate Files*. Online at: https://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1995-irs-1024-and-attachments/

Global Climate Coalition. 1996. An overview. Online at: https://www.documentcloud.org/documents/5453339-1996-GCC-Overview-and-Reports.html

Global Climate Coalition. 1996. Science and Technology Assessment Committee attendees list. Online at: https://www.documentcloud.org/documents/5631461-AIAM-050835.html#document/p9

Global Climate Coalition. 1996. Science and Technology Assessment Committee meeting documents. February 27. Online at: https://www.documentcloud.org/documents/3540278-AIAM-050835.html#document/p28

Global Climate Coalition. 1996. Science and Technology Assessment Committee meeting minutes. January 18. Online at: https://www.documentcloud.org/documents/5631461-AIAM-050835.html#document/p7

Hausfather, Z. 2024. State of the climate: 2024 now very likely to be warmest year on record. *Carbon Brief*, July 24. Online at: https://www.carbonbrief.org/state-of-the-climate-2024-now-very-likely-to-be-warmest-year-on-record/

Heidari, N. and J. Pearce. 2016. A review of greenhouse gas emission liabilities as the value of renewable energy for mitigating lawsuits for climate change related damages. *Renewable and Sustainable Energy Reviews*, April 29. Online at: https://hal.archives-ouvertes.fr/hal-02113574/file/A_Review_of_Greenhouse_Gas_Emission_Liab.pdf

Hidy, G.M. 1988. Coping with climate change. *EPRI Journal*, June. Online at: https://www.documentcloud.org/documents/3540319-EPRI-1988-Journal-No-4.html#document/p3

Hollander, E. 1982. Guiding R&D policy. *EPRI Journal*, November. Online at: https://www.documentcloud.org/documents/25060898-epri-journal-november-1982#document/p28

Hornig, D.F. 1968. Future energy needs vs. the environment. *Edison Electric Institute Bulletin*, June-July. Online at: https://www.documentcloud.org/documents/25239653-edison-electric-institute-bulletin-excerpts-from-1967-68#document/p6

Howland, E. 2024. EEI joins AEP, Duke, other utilities in siding EPA over power plant greenhouse gas rule. *Utility Dive*, May 24. Online at: https://www.utilitydive.com/news/eei-aep-duke-utilities-epa-power-plant-greenhouse-gas-carbon/716961/

Independence Institute. Amy Oliver Cooke biography. Online at: https://i2i.org/about/our-people/amy-oliver-cooke/

Information Council for the Environment. 1991. Climate Denial Ad Campaign. *Climate Files*. Online at: https://www.climatefiles.com/denial-groups/ice-ad-campaign/

Information Council on the Environment. 1991. Advertisement. *The Park City Daily News*, May 15. Online at: https://newspapers.com/clip/114926633/information-council-on-the-environment/

Information Council on the Environment. 1991. Advertisement. *The Park City Daily News*, May 24. Online at: https://www.newspapers.com/clip/114924857/information-council-on-the-environment/

Information Council on the Environment. 1991. Advertisement. *The Park City Daily News*, June 9. Online at: https://www.newspapers.com/clip/114926773/information-council-on-the-environment/

Information Council on the Environment. 1991. Advertisement. *The Park City Daily News*, June 14. Online at: https://www.newspapers.com/clip/114926490/information-council-on-the-environment/

Inskeep, B. 2024. Direct testimony on behalf of Citizens Action Coalition of Indiana Inc. in Duke Energy Indiana rate case. Online at: https://www.documentcloud.org/documents/25035959-direct-testimony-of-benjamin-inskeep-on-behalf-of-citizens-action-coalition-of-indiana-inc-in-duke-energy-indiana-rate-case-2024#document/p77

International Energy Agency. 2024. After slight rise in 2023, methane emissions from fossil fuels are set to go into decline soon. Online at: https://www.iea.org/news/after-slight-rise-in-2023-methane-emissions-from-fossil-fuels-are-set-to-go-into-decline-soon

International Energy Agency. 2024. Greenhouse gas emissions from energy data explorer. Online at: https://www.iea.org/data-and-statistics/data-tools/greenhouse-gas-emissions-from-energy-data-explorer

International Energy Agency. Methane abatement. Online at: https://www.iea.org/energy-system/fossil-fuels/methane-abatement#

Jadrnak, J. 1983. Zimmer plant owners differ on what to do now. *Palladium-Item*, November 1. Online at: https://www.newspapers.com/article/palladium-item-and-electric-president-w/111484996/

Jarrett, J. and J. F. Coates. 1985. The greenhouse effect: Its implications for industrial and government policy. Paper presented at the 78th Annual Meeting of the Air Pollution Control Association. Online at: https://www.documentcloud.org/documents/3884157-1985-Air-Pollution-Control-Association-session.html#document/p20

John Locke Foundation. 2012. High tide for hype on the OBX. *Spotlight*, September 26. Online at: https://www.johnlocke.org/wp-content/uploads/2016/06/Spotlight427HighTideforHypeontheOBX.pdf

John Locke Foundation. 2024. John Locke Foundation nominated for State Policy Network's prestigious "Most Influential Research" award. July 1. Online at: https://www.johnlocke.org/press/john-locke-foundation-nominated-for-state-policy-networks-prestigious-most-influential-research-award/

Jones, J. 1990. Biography for South Point Township election. *The Charlotte Observer*, October 23. Online at: https://www.newspapers.com/clip/114875031/jimmy-jones-of-duke-power-described-as/

Kasper, M. 2015. Floridians for Solar Choice launches ballot initiative: Americans for Prosperity stays silent on the issue. *Energy and Policy Institute*, January 28. Online at: https://energyandpolicy.org/floridians-for-solar-choice-launches-ballot-initiative/

Kasper, M. 2019. As utilities flee newly scandalous UARG, remaining members make dishonest claims about its purpose. *Energy and Policy Institute*, April 23. Online at: https://energyandpolicy.org/utilities-flee-utility-air-regulatory-group-amid-scandal-and-investigations/

Kasper, M. 2024. Utilities, once represented by UARG, now part of the 'Electric Generators for a Sensible Transition' in their suit against the EPA. *Energy and Policy Institute*, June 11. Online at: https://energyandpolicy.org/electric-generators-for-a-sensible-transition-sue-epa/

Klas, M.E. 2016. Insider reveals deceptive strategy behind Florida's solar amendment. *Miami Herald*, October 19. Online at: https://www.miamiherald.com/news/politics-government/election/article109017387.html

Kotch, A. 2022. The dirty dozen: The biggest nonprofit funders of climate denial. *Exposed by the Center for Media and Democracy*, March 21. Online at: https://www.exposedbycmd.org/2022/03/21/the-dirty-dozen-the-biggest-nonprofit-funders-of-climate-denial/

Krug, E.C. 1990. Acid rain: And just maybe the sky isn't falling. *Proceedings of the Illinois Mining Institute*. Online at: https://www.documentcloud.org/documents/25077658-proceedings-of-the-illinois-mining-institute-1990#document/p92

Kromm, C. 2010. Blessed to have a Pope. *Facing South*, October 14. Online at: https://www.facingsouth.org/2010/10/blessed-to-have-a-pope.html

Kromm, C. 2016. Pat McCrory: Big energy's governor? *Facing South*, October 21. Online at: https://www.facingsouth.org/2016/10/pat-mccrory-big-energys-governor

Lindgren, N. 1978. The First Five Years: Chauncey Starr and the building of EPRI. *EPRI Journal*, January/February. Online at: https://www.documentcloud.org/documents/3540309-EPRI-1978-Journal-No-1#document/p6

Longstreth, J. 2018. Texts to Megan Fitzmartin. Online at: https://www.documentcloud.org/documents/25268040-longstreth_texts

Lukens, F. 1991. Memo to U.S. Representative Jim Cooper on media plan of the Information Council for the Environment. July. Online at: https://babel.hathitrust.org/cgi/pt?id=pst.000019268538&view=1up&seq=727&skin=2021

MacMillan, M. 2024. Fresh start: Duke Energy's coal-to-natural gas conversion plans. *Business North Carolina*, March 30. Online at: https://businessnc.com/duke-energys-coal-to-natural-gas/

Marchetti, C. 1977. On geoengineering and the CO2 problem. *Climatic Change*, March. Online at: https://link.springer.com/article/10.1007/BF00162777

McGillis, J. 2021. Energy crossroads: Exploring North Carolina's two energy futures. *John Locke Foundation,* June. Online at: https://www.johnlocke.org/wp-content/uploads/2021/06/Energy-Crossroads-Duke-IRP-03-opt.pdf

Michaels, P. 1991. Letter on behalf of the Information Council on the Environment questioning the scientific consensus on greenhouse gases and the climate. Online at: https://www.documentcloud.org/documents/3549281-ICE-Campaign-Docs#document/p4

Michaels, P. Resumes. Online at: https://archive.is/N4bni and https://www.documentcloud.org/documents/25075808-patrick-j-michaels-1995-testimony-before-minnesota-public-utilities-commission-with-resume#document/p56

Minor, R.L. 1991. Climatologist claims global warming problem is overestimated. *Park City Daily News*, May 15. Online at: https://www.newspapers.com/clip/113114698/climate-skeptic-patrick-michaels/

Mitchell, J. 2015. How a 1967 study greatly influenced climate change science. *Carbon Brief*, July 7. Online at: https://www.carbonbrief.org/prof-john-mitchell-how-a-1967-study-greatly-influenced-climate-change-science/

Morris, A.L. 1992. A history of Carolina Power and Light Company, 1958-1992. Online at: https://www.documentcloud.org/documents/25042532-a-history-of-carolina-power-and-light-company-1958-1992-by-by-albert-l-morris

NC WARN and Friends of the Earth. 2018. Petition for rulemaking. Online at: https://www.documentcloud.org/documents/25089267-nc-warns-and-friends-of-the-earths-petition-for-rulemaking#document/p65/a2585905

NC WARN. Stand up for local solar. Online at: https://www.sharingsolarnc.org/

Neal, A. 1983. A utility's crisis: The story of Marble Hill. *The Star Press*, November 2. Online at: https://www.newspapers.com/article/the-star-press-public-service-indiana-pr/111485769/

Norder, S. 1988. Nuclear power should be part of national policy, says energy awareness spokesman. *The Shreveport Journal*, May 31. Online at: https://www.newspapers.com/clip/113179936/uscea-promoting-abundant-coal-and/

Nuclear Regulatory Commission hearing transcript. 1979. In the matter of: Cincinnati Gas and Electric Company et al. May 22. Online at: https://www.documentcloud.org/documents/25060907-nuclear-regulatory-commission-transcript-from-1979-pre-hearing-conference-on-william-h-zimmer-nuclear-power-plant

Ohio Governor's Office. 2016-2020. Calendar. Online at: https://www.documentcloud.org/documents/25268055-householder_calendar

Ohio Governor's Office. 2018. Briefing document for Governor Householder. January 12. Online at: https://www.documentcloud.org/documents/25268044-householder_briefing_2018

Ohio Valley Electric Corporation. List of current shareholders. Online at: http://www.ovec.com/CurrentShareholders.html

Oil Change International. 2017. New analysis: Mountain Valley and Atlantic Coast Pipelines are climate disasters. February 15. Online at: https://priceofoil.org/2017/02/15/new-analysis-mountain-valley-and-atlantic-coast-pipelines-are-climate-disasters/

Office of the North Carolina Governor. 2021. Governor Cooper commits to offshore wind power as North Carolina creates jobs by transitioning to a clean energy economy. June 9. Online at: https://governor.nc.gov/news/press-releases/2021/06/09/governor-cooper-commits-offshore-wind-power-north-carolina-creates-jobs-transitioning-clean-energy

OpenSecrets.org. 2024. Consumers for Smart Solar: Top donors. Online at: https://www.opensecrets.org/ballot-measures/committees/consumers-for-smart-solar/38151348/2016

Ouzts, E. 2024. Months ahead of schedule, North Carolina regulators accept Duke Energy's controversial plan to reduce carbon. *Energy News Network*, November 4. Online at: https://energynews.us/2024/11/04/months-ahead-of-schedule-north-carolina-regulators-accept-duke-energys-controversial-plan-to-reduce-carbon/

Pantsios, A. 2015. ALEC in denial of its climate denial, threatens to sue. *BillMoyers.com*, April 10. Online at: https://billmoyers.com/2015/04/10/alec-denial-climate-denial-threatens-sue/

Pilkington, E. and S. Goldenberg. 2013. ALEC facing funding crisis from donor exodus in wake of Trayvon Martin row. *The Guardian*, December 3. Online at: https://www.theguardian.com/world/2013/dec/03/alec-funding-crisis-big-donors-trayvon-martin

Political Economic Research Institute. 2023. Greenhouse 100 polluters index. Online at: https://peri.umass.edu/greenhouse-100-polluters-index-current

Progress Energy Service Company. 2004. Annual report. Online at: https://www.documentcloud.org/documents/25252058-progress_energy_service_annual_report_2004#document/p4/a2598593

Public Service Commission of South Carolina. 1991. Order approving Duke Power rate increase. Online at: https://www.documentcloud.org/documents/25060910-public-service-commission-of-south-carolina-order-approving-duke-power-rate-increase-1991#document/p18

Radcliffe, D. 2009. Duke Energy's Edwardsport IGCC Plant: Concept to commercial. *Presentation to the AABE annual meeting*, April 16. Online at: https://aabe.org/docs/fck/file/Darlene%20Radcliffe%20AABE%20Annual%20Meeting%20April%202009.pdf

R&D Goals Task Force. 1971. Electric utilities industry research and development goals through the year 2000. *Electric Research Council*, June. Online at: https://www.documentcloud.org/documents/3672959-GreenBookERC-PUB-1-71.html

R&D Goals Task Force. 1971. Report of the R&D goals task force to the Electric Research Council. June. Online at: https://www.documentcloud.org/documents/3672959-GreenBookERC-PUB-1-71

Research and Development Panel, Energy Research and Advisory Board. 1981. Federal energy R&D priorities. November. Online at: https://www.documentcloud.org/documents/25060690-federal-energy-rd-priorities-report-of-the-research-and-development-panel-energy-research-advisory-board-of-the-us-department-of-energy-1981

Revkin, A. 2009. Industry ignored its scientists on climate. *The New York Times*, April 23. Online at: https://www.nytimes.com/2009/04/24/science/earth/24deny.html

Rhodium Group. 2024. EPA's new standards for power plants. Online at: https://rhg.com/research/epa-power-plant-standards-111/

Ripple, W.J. et al. 2024. The 2024 state of the climate report: Perilous times on planet Earth. *BioSicence*, October 8. Online at: https://academic.oup.com/bioscience/advance-article/doi/10.1093/biosci/biae087/7808595

Rising Tide North America. 2009. North Carolina ups the ante against coal. 44 arrested protesting Duke Energy's Cliffside coal plant. April 6. Online at: https://risingtidenorthamerica.org/2009/04/mass-rally-and-civil-disobedience-to-stop-the-cliffside-coal-plant-join-the-cliffside-climate-action-april-20-charlotte-nc/

Robert Allen obituary. *Charlotte Observer*, February 20, 2005. Online at: https://www.legacy.com/us/obituaries/charlotte/name/robert-allen-obituary?id=8626488

Rochelle, G.T. 2009. Amine scrubbing for CO2 capture. *Science*, September 25. Online at: https://www.science.org/doi/10.1126/science.1176731

Sanders, J., M. Rolling and I. Orr. 2022. Big blow: Offshore wind power's devastating costs and impacts on North Carolina. *John Locke Foundation*, June. Online at: https://www.johnlocke.org/research/big-blow-offshore-wind-powers-devastating-costs-and-impacts-on-north-carolina/

Saadat, S., and S. Gersen. 2021. Reclaiming hydrogen for a renewable future. *Earthjustice and Right to Zero*, August 31. Online at: https://earthjustice.org/feature/green-hydrogen-renewable-zero-emission

Shepard, M. 1988. The politics of climate. *EPRI Journal*, June. Online at: https://www.documentcloud.org/documents/3540319-EPRI-1988-Journal-No-4.html#document/p7/a353614

Sheppard, K. 2010. Most credible climate skeptic not so credible after all. *Mother Jones*, February 26. Online at: https://www.motherjones.com/politics/2010/02/pat-michaels-climate-skeptic/

Shindell, D. et al. 2022. Letter to Governor Cooper and President Good. Online at: https://www.ncwarn.org/wp-content/uploads/ltr-11-14-22-Shindell-et-al-to-Cooper-Good.pdf

Smith, R.J. 1991. Memo to U.S. Representative Jim Cooper on media plan of the Information Council for the Environment. July. Online at: https://babel.hathitrust.org/cgi/pt?id=pst.000019268538&view=1up&seq=727&skin=2021

Smyth, J. 2020. Coal mining companies and state of Wyoming secretly funded 'Independence Institute' campaign to keep Colorado coal plant running. *Energy and Policy Institute*, March 24. Online at: https://energyandpolicy.org/coal-mining-companies-and-state-of-wyoming-secretly-funded-independence-institute-campaign-to-keep-colorado-coal-plant-running/

Sourcewatch. State Policy Network. *Center for Media and Democracy*. Online at: https://www.sourcewatch.org/index.php?title=State_Policy_Network

Soroos, M. 1997. *The Endangered Atmosphere: Preserving a global commons*. University of South Carolina Press. Online at: https://books.google.com/books/about/The_Endangered_Atmosphere.html?id=I7EQAQAAIAAJ&source=kp_book_description

South Carolina Consumer Advocate. 1991. Proposed order in Duke Power Company rate case. Online at: https://www.documentcloud.org/documents/25092568-south-carolina-consumer-advocates-proposed-order-in-duke-power-company-rate-case-1991#document/p21

Starr, C. 1971. Energy and Pernor. *Scientific American*, September. Online at: https://www.scientificamerican.com/article/energy-and-pernor/

State Policy Network. SPN history: A timeline. Online at: https://spn.org/timeline/

Stop Cliffside Coalition. 2009. Rally to stop Duke's Cliffside plant. February 19. Online at: https://www.ncwarn.org/2009/02/rally-to-stop-dukes-cliffside-plant-news-release/

Sturgis, S. 2015. Duke Energy called out for targeting black community with 'cynical' anti-solar campaign. *Facing South*, April 7. Online at: https://www.facingsouth.org/2015/04/duke-energy-called-out-for-targeting-black-communi.html

Sturgis, S. 2019. Art Pope's think tank keeps misleading on climate science. *Facing South*, August 30. Online at: https://www.facingsouth.org/2019/08/art-popes-think-tank-keeps-misleading-climate-science

Sturgis, S. 2024. Duke Energy funded climate science-denying John Locke Foundation. *Energy and Policy Institute*, October 15. Online at: https://energyandpolicy.org/duke-energy-funded-john-locke-foundation/

Surgey, N. 2015. ALEC conference funding dominated by big polluters. *PR Watch*, July 23. Online at: https://www.prwatch.org/news/2015/07/12891/alec-conference-funding-dominated-big-polluters

Surgey, N. 2019. Revealed: ALEC annual meeting attendees. *Documented*, August 19. Online at: https://documented.net/reporting/revealed-alec-annual-meeting-attendees-list-includes-trump-administration-and-2020-campaign-officials

Teirstein, Z. 2024. What Project 2025 would do to climate policy in the US. *Grist*, July 19. Online at: https://grist.org/politics/what-project-2025-would-to-do-climate-policy-in-the-us/

Thiele, R. 2021. Duke Energy to go coal-free by 2035, 60 percent renewables by 2040. *WBAA*, November 19. Online at: https://www.wbaa.org/science-and-environment/2021-11-19/duke-energy-to-go-coal-free-by-2035-60-percent-renewables-by-2040

Thiele, R. 2024. Duke Energy plans to delay Gibson coal plant retirement. Activists say it's a 'step backward.' *WFYI*, October 7. Online at: https://www.wfyi.org/news/articles/duke-energy-plans-to-delay-gibson-coal-plant-retirement-activists-say-its-a-step-backward

Thompson, C. 2008. A green coal baron? *The New York Times*, June 22. Online at: https://www.nytimes.com/2008/06/22/magazine/22Rogers-t.html

Tomich, J. 2017. Can Duke's Edwardsport turn tide for clean coal post-Kemper? *E&E News*, July 20. Online at: https://www.eenews.net/articles/can-dukes-edwardsport-turn-tide-for-clean-coal-post-kemper/

Turner, Z. 2024. Duke Energy offers new rooftop solar incentive program, as installations decline. *WFAE*, May 10. Online at: https://www.wfae.org/energy-environment/2024-05-10/duke-energy-offers-new-rooftop-solar-incentive-program-as-installations-decline

U.S. Council for Energy Awareness. 1989. Advertisement: Coal and nuclear energy now provide three-fourths of America's electricity. *The News-Messenger*, October 4. Online at: https://www.newspapers.com/clip/113158931/uscea-ad-promoting-nuclear-and-coal/

U.S. Council for Energy Awareness. 1989. Advertisement: No more wishful thinking. *Scientific American*, September. Online at: https://www.documentcloud.org/documents/25060912-scientific-american-september-1989#document/p8

U.S. Council for Energy Awareness. 1992-1993. Report to members. Online at: https://www.documentcloud.org/documents/25075481-us-council-for-energy-awareness-1992-1993-report-to-members

University of Chicago. 2024. United States: Clean Air Act (1970). *Air Quality Life Index*. Online at: https://aqli.epic.uchicago.edu/policy-impacts/united-states-clean-air-act/

USA v. Larry Householder 2023 trial transcript. Online at: https://www.documentcloud.org/documents/23798050-transcript-of-day-3-of-the-usa-v-larry-householder-trial-january-31-2023#document/p163

Utility Air Regulatory Group. 2009. Comments on EPA's proposed endangerment finding for greenhouse gas emissions. Online at: https://www.politico.com/story/2019/04/11/house-democrats-epa-utilities-1345505

Wait, Wait … Don't Tell Me. 2013. Bluff the listener. *NPR and WBEZ Chicago*, December 28. Online at: https://www.npr.org/2013/12/28/257559235/bluff-the-listener

Washington Post Editorial Board. 1981. Good advice on energy. *The Washington Post*, December 28. Online at: https://www.washingtonpost.com/archive/politics/1981/12/28/good-advice-on-energy/2a10cc64-f764-42e4-a680-d7a6e8e4c39c/

Williams, E.L., S. A. Bartone, E.K. Swanson, L.C. Stokes. 2022. The American electric utility industry's role in promoting climate denial, doubt, and delay. *Environmental Research Letters*, September. Online at: https://iopscience.iop.org/article/10.1088/1748-9326/ac8ab3

Wolfe, S. 2024. Indiana's consumer advocate wants to thwart Duke Energy's carbon capture study. *Power Engineering*, July 16. Online at: https://www.power-eng.com/emissions/indianas-consumer-advocate-wants-to-thwart-duke-energys-carbon-capture-study/

World Economic Forum in collaboration with Oliver Wyman. 2024. Quantifying the impact of climate change on human health. January. Online at: https://www.weforum.org/publications/quantifying-the-impact-of-climate-change-on-human-health/

The Energy and Policy Institute is a watchdog organization working to expose attacks on renewable energy and counter misinformation by fossil fuel and utility interests.