



Action Report

Environment (Climate Change)

FirstEnergy
April 24, 2017

Ticker	Exchange	Meeting Date	Record Date	Annual Meeting Location
FE	NYSE	5-16-17	3-20-17	Akron, Ohio

Agenda	
Item	Proposal
1	MGT: Elect directors
2	MGT: Ratify selection of auditors
3	MGT: Advisory vote on executive compensation
4	MGT: Advisory vote on frequency of executive compensation vote
5	MGT: Increase authorized common stock shares
6	MGT: Replace supermajority voting requirements under certain circumstances
7	MGT: Implement majority voting for uncontested director elections
8	MGT: Implement proxy access
9	SH: Report on lobbying
10	SH: Report on climate change strategy
11	SH: Adopt simple majority voting

Si2 Briefing [Environment \(Climate Change\)](#)

Report Author Sara E. Murphy

Links [2017 Proxy Statement](#); [2016 Form 10-K](#)

Vote History In 2012, two separate resolutions about coal-related risks received 11.3 percent and 29.6 percent support. In 2014, a proposal asking for greenhouse gas emissions reduction targets was withdrawn after FirstEnergy agreed to report on the issue. In 2015, FirstEnergy unsuccessfully challenged a carbon reduction resolution at the SEC and it earned 19.3 percent. In 2016, a resolution seeking a report on stranded assets business risks—closely related to this year’s proposal—received 19.3 percent support.

Resolved Clause RESOLVED: Shareholders request that FirstEnergy prepare a report, at reasonable cost and omitting proprietary information, disclosing its strategy for aligning business operations with the 2015 Paris Agreement’s goal of limiting global warming to a maximum of 2 degrees Celsius, while maintaining the provision of safe, affordable, reliable energy.

Lead Proponent As You Sow

Summary The resolution focuses on the inability of coal plants to compete with climate change exigencies that have promoted the expansion of renewables and other lower-carbon fuels, and the negative environmental impact of coal. The proponent asserts that coal generation presents financial risks, at both FirstEnergy and several of its peers, noting continued losses at FirstEnergy even after a “bailout” adopted by the Public Utility Commission of

Ohio. The proponent commends FirstEnergy for its carbon target, but expresses concern over the company's shelved environmental campaign and the absence of a strategy for achieving its carbon target, as well as what As You Sow characterizes as management's sustained commitment to coal. The proponent calls for a report detailing FirstEnergy's strategy for aligning its business model with a 2-degree scenario. Management asserts that it complies with all relevant laws and regulations, and believes further targets would put the company at a competitive disadvantage. The board shares "some of" the proponent's concerns regarding climate risk, but believes the proposal is predicated on a "flawed" premise that the 2-degree scenario demands proportional resource development curtailment by all companies. Management says FirstEnergy already manages climate change exigencies adequately, and reports sufficiently thereon. The board concludes that preparing the requested report would be "onerous" and imprudent.

I. Challenges to Electric Utility Business Models

Electric utilities are facing unprecedented external and internal challenges to traditional business models. Technological change and associated new market entrants, climate change regulation and shifting consumer demands are putting pressure on traditional electrical generation, transmission and distribution. Fossil fuels—particularly coal—are becoming increasingly expensive to exploit. Energy efficiency and other demand-side resources are now cheaper than conventional generation in many cases. Renewables—particularly solar and wind—outcompete fossil fuels in many instances, and generally are approaching grid parity.¹ Many utilities are also experimenting with electricity storage, thanks to very rapid advances in the technology. Electricity generation, transmission and delivery is growing increasingly decentralized, electricity is no longer necessarily consumed immediately and formerly high barriers to market entry are eroding.

Distributed generation² of electricity has proliferated in many states. Residential rooftop solar is expanding rapidly as costs for solar panels decrease and companies such as **Solar City** and **First Solar** expand. Many environmental activists and utility sector analysts see distributed generation as a critical element of the electric grid of the future. Key advantages they point to are *reduced emissions* from prevented generation, *cost advantages* to owners, *efficiency gains* in the form of decreased transmission loss, *resilience* that comes from independence from an interconnected grid that is otherwise subject to cascading outages and *modularity* that enables renewable energy source integration. A November 2014 [report](#) from Moody's credit rating agency indicated that "a proactive regulatory response to distributed generation is credit positive as it gives utilities improved rate designs and helps in the long-term planning for their infrastructure."

Others question the value of distributed generation proliferation in the current framework. Some scholars at the Massachusetts Institute of Technology (MIT) who have been skeptical about distributed solar assets' usefulness recently published a [report](#) suggesting large-scale, utility-controlled solar assets may make better long-term economic sense. MIT's report warns regulators that they must:

minimize distortions from charges that are designed to collect taxes, recover the costs of public policies [including subsidies for renewable energy [and] cross-subsidies between different categories of customers, etc.), and recover residual network costs (i.e., those network costs that are not recovered via cost-reflective charges).

¹ Grid parity occurs when new energy sources can generate power at a cost less than or equal to the price of purchasing power from the existing electricity grid.

² Distributed generation refers to power generation at the point of consumption. It usually involves renewable energy sources, particularly solar, and is thus intimately connected to the topic of renewable energy uptake.

This admonition is based on the difficulty utilities face under traditional regulatory structures, where their costs for grid maintenance are recovered from customers' charges, which are largely volumetric. In general, customers generating their own solar power, for instance, are entitled to electrical grid access to draw power during times of insufficient generation and to sell power back to the grid in times of excess, yet such customers will pay less for grid availability because of lower usage. On net, this can result in the utility receiving less in fees than it costs to keep that customer connected to the grid. In some cases, customer rates (i.e. cost per unit of electricity) would increase substantially if the same fixed costs for grid services were applied to lower volumes of usage. Importantly, these challenges are not necessarily an inherent problem with distributed generation, but rather largely with the cost recovery mechanisms that regulators have put in place for utilities. A number of experts, regulatory officials and utilities have described rate solutions to such problems. These rate structures could be changed.

The uptake of renewable energy has suddenly increased significantly. Although photovoltaic cells and wind turbines were invented nearly 150 years ago, they still only generate roughly 7 percent of the world's electricity. However, while essentially peripheral to our energy system a dozen years ago, these sources of energy are now growing more quickly than any other, and their costs continue to fall relative to fossil fuels. BP expects renewables to account for half of global energy supply growth in the next 20 years, and the U.S. Energy Information Agency (EIA)'s [2017 Annual Energy Outlook](#) projects that renewable energy will surpass coal and nuclear globally by 2040. In 2016, wind energy capacity grew by 19 percent in the United States, while its price plummeted. It has surpassed hydropower as the country's most plentiful renewable energy source. Momentum for that construction came not just from utilities aiming to meet renewable energy mandates, but because power companies saw economic reasons to invest in wind. According to a March 2017 [analysis](#) by Moody's Investor Services, some 56 gigawatts of U.S. coal-fired generation in the Midwest is at risk as wind energy comes online with lower costs. The average cost of wind power in the Great Plains states has fallen to around \$20 per megawatt hour (MWh), while coal-fired generation runs at about \$30 per MWh.

A February 2017 [article](#) in *The Economist* notes, however, that we face a tough journey from here to there. Specifically, the transition will require:

huge amounts of investment over the next few decades, to replace old smog-belching power plants and to upgrade the pylons and wires that bring electricity to consumers. Normally investors like putting their money into electricity because it offers reliable returns. Yet green energy has a dirty secret. The more it is deployed, the more it lowers the price of power from any source. That makes it hard to manage the transition to a carbon-free future, during which many generating technologies, clean and dirty, need to remain profitable if the lights are to stay on. Unless the market is fixed, subsidies to the industry will only grow.

Policymakers are already seeing this inconvenient truth as a reason to put the brakes on renewable energy. In parts of Europe and China, investment in renewables is slowing as subsidies are cut back. However, the solution is not less wind and solar. It is to rethink how the world prices clean energy in order to make better use of it.

Meanwhile, renewable energy demand among U.S. companies that are large utility customers is significant and growing quickly, according to a report from Advanced Energy Economy (AEE), a clean energy trade group. The [report](#) found that 71 of *Fortune* 100 companies have set renewable energy or sustainability targets, up from 60 just two years ago. Among *Fortune* 500 companies, commitments have held steady at 43 percent, or 215 firms, the report found. Twenty-two *Fortune* 500 companies have committed to sourcing 100 percent of their electricity needs from renewables, including **Wal-Mart Stores, Apple, General Motors** and **Amazon.com**. **Google** announced in December 2016 that 100 percent of its data centers around the world would be powered exclusively by renewable energy sources by 2017.

However, companies with operations in states whose regulatory structures are not supportive of advanced energy must commit significant effort and creativity to meet these commitments.

Non-utility companies are entering the energy efficiency services market, particularly in deregulated markets. Google recently purchased Nest, which provides products and services to reduce residential electricity use. **Comcast** now provides an EcoSaver service to help customers save money on energy bills. **General Electric** has created a new company, Current, to focus on providing products and services in energy efficiency, renewable generation and storage to large buyers such as hospitals, universities, retail stores and cities. If this trend continues, utilities could be outpaced in providing a service in which they should be more expert than anyone.

According to PricewaterhouseCooper’s *2015 Global Power & Utilities (P&U) Survey*, 94 percent of electric power industry representatives predict that the power utility business model will be either completely transformed or significantly changed by 2030:

In defining future business models, utilities need to understand and challenge their company’s purpose and positioning in tomorrow’s markets. In the past, operating an integrated utility from generation through customer supply was well understood. Now, unbundling opportunities are extending deeper into the value chain and enabling greater participation by specialists. As a result, electric companies will need to rethink not just their roles and business models, but also their service and product offerings and approaches to customer engagement.

In May 2014, Barclays downgraded bonds for the entire U.S. electric utility sector due to risks posed by the rapidly declining costs of solar power and energy storage technologies. Deutsche Bank predicts total solar photovoltaic (PV) power costs would reach grid parity in 36 U.S. states as soon as this year, and Frost & Sullivan projects that both residential and utility-scale solar photovoltaic power will reach global grid parity by 2020. In many regions, wind and solar—especially at utility scale—are already reaching grid parity and often pricing out more traditional generation resources.

In 2016, Si2 published a report in collaboration with IRRIC Institute that examined in depth the climate orientation of the boards of the 25 largest investor-owned utilities, allowing investors to make informed judgements. *The Top 25 U.S. Electric Utilities: Climate Change, Corporate Governance and Politics* evaluated boards using a standardized set of metrics designed by Si2 with input from investors, governance experts and utility economists. The project provided data for use by investors concerned about climate and regulatory impacts on their portfolio companies. FirstEnergy was among the companies evaluated in that study.

This Action Report addresses carbon asset stranding, the 2-degree scenario and renewable energy and their relationship to climate change, which are discussed in greater detail in *Si2’s 2017 Briefing Paper on Climate Change*.

II. FirstEnergy and Climate Change

FirstEnergy generates, transmits and distributes electricity in the United States. The company operates through Regulated Distribution, Regulated Transmission and Competitive Energy Services segments. It owns and operates coal-fired, nuclear, hydroelectric, oil and natural gas, wind and solar power generating facilities. The company also provides energy-related products and services to retail and wholesale customers, including operating 24,551 circuit miles of overhead and underground transmission lines and electric

Financials			
(\$ millions)	2016	2015	% Change
Total Revenue	\$14,562	\$15,026	-3.1%
Net Income	(\$6,177)	\$578	-1168.7%

distribution systems, with 272,763 miles of overhead pole line and underground conduit carrying primary, secondary and street lighting circuits. It also owns substations with a total installed transformer capacity of approximately 160,259,826 kilovolt-amperes. The company serves approximately six million customers within 65,000 square miles in Ohio, Pennsylvania, West Virginia, Maryland, New Jersey and New York.

The company's generation mix in 2016 is shown in the chart at right.

Previous commitment to investors: According to a January 2014 [press release](#), the New York State Comptroller's Office withdrew a shareholder resolution after it was satisfied with FirstEnergy's commitment to produce a comprehensive report on the company's plan to reduce greenhouse gas emissions. As You Sow, this year's proponent, was a co-filer in 2014. According to the press release, FirstEnergy wrote in its January 9, 2014, agreement letter that it:

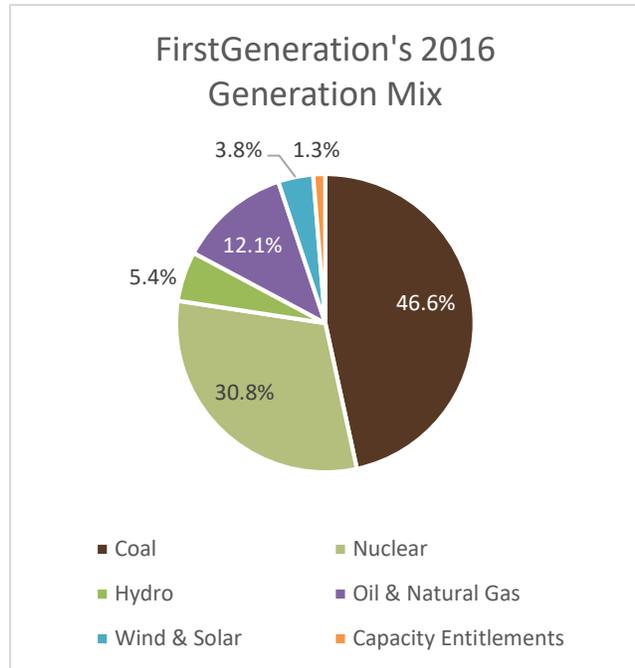
...intends to incorporate information, as applicable, on additional policies that the Company could adopt and additional actions the Company could take to reduce its greenhouse gas emissions in connection with President Obama's goal of an 80 percent reduction in greenhouse gas emissions into our Sustainability Report, which we expect will be made available on our website by October 1, 2014.

The company pledged to:

- Examine its actions to reduce CO₂ emissions and compare them to President Obama's goals;
- Review the age and life of its existing fossil fleet and future replacement generation drivers; and
- Research how standards of performance for greenhouse gas emissions from new stationary sources and the regulation of carbon pollution from existing power plans under the Clean Air Act affect the company.

Last year, FirstEnergy [challenged its climate change proposal](#) at the Securities and Exchange Commission (SEC), on the grounds that it deals with "ordinary business" and seeks to micromanage the company. In its challenge, the company argued that preparation of the requested report would be "onerous," as it does again this year in its opposition statement. FirstEnergy also argued that the company had already substantially complied with the proposal. The SEC rejected First Energy's challenge and said the company's "public disclosures [do not] compare favorably with the guidelines of the proposal."

Stranded carbon assets: According to FirstEnergy's 2016 Form 10-K, the company "has been impacted by a prolonged decrease in demand and excess generation supply in the PJM Region, which has resulted in a period of protracted low power and capacity prices." FirstEnergy reported that it had sold or deactivated more than 6,770 megawatts of competitive generation between 2012 and 2015 in response to these conditions. The board notes that the same challenging conditions persist, however, with no imminent sign of alleviation. The company reported an impairment charge of \$9.2 billion in the 4th quarter of 2016 because of the company's determination that "the carrying value of long-lived assets of the competitive business were not recoverable."



This development plays into some investors' concerns about stranded carbon assets, wherein such assets become economically unviable before the end of their planned useful life. Certainly, there is room for debate as to the factors that contributed to FirstEnergy's situation. The issues presented in the first section of this report relating to climate change and efforts to combat it appear, at least in part, to contribute to the dynamics at hand. Notably, FirstEnergy highlights the severity of these developments in its 2016 Form 10-K, where it says there "is substantial uncertainty as to [unregulated competitive subsidiary] FES' ability to continue as a going concern and substantial risk that it may be necessary for FES and [FirstEnergy Nuclear Operating Company] FENOC" to file for bankruptcy. The company intends to exit the regulated business, as discussed in greater detail later in this report, but this will not necessarily unburden FirstEnergy of the debts and obligations of these subsidiaries.

In a January 2016 report, "[Stranded Assets and Thermal Coal: An analysis of environment-related risk exposure](#)," the University of Oxford's Smith School of Enterprise and the Environment found that "the environment-related risks facing the thermal coal value chain are substantial and span physical environmental impacts, the transition risks of policy and technology responding to environmental pressures, and new legal liabilities that may arise from either of the former." The report specifically evaluated the top 100 global utilities by coal-fired generation capacity for their risks related to asset stranding. The report ranked utilities' risk along a variety of scenarios associated with asset stranding:

- *Carbon Dioxide Intensity*: The more carbon-intensive a coal-fired power station, the more likely it is to be negatively affected by climate policy, whether through carbon pricing, emissions performance standards or similar measures.
- *Plant Age*: Older power stations create risk for utilities in two ways: they are more vulnerable to regulations that might force their closure, and they increase the likely cost of site remediation requirements.
- *Local Air Pollution*: Coal-fired power stations in locations with high population density and serious local air pollution are more at risk from regulation and emission abatement technology requirements, or even operation cessation.

Stranded Carbon Asset Risk Ranking								
Company	CO ₂ Intensity Risk Rank	Plant Age Risk Rank	Local Air Pollution Risk Rank	Water Stress Risk Rank	Coal Quality Risk Rank	CCS Retrofitability Risk Rank	Future Heat Stress Risk Rank	Average Risk Rank
AEP	65	87	20	1	62	100	83	59.7
NRG Energy	70	92	22	1	69	100	58	58.9
Ameren	74	96	26	1	1	100	100	56.9
DTE Energy	71	97	27	1	1	100	100	56.7
AES	64	71	31	62	1	100	32	51.6
Entergy	52	72	11	1	1	100	100	48.1
Xcel Energy	40	59	5	73	1	100	54	47.4
Dominion Resources	57	94	24	1	1	100	33	44.3
Duke Energy	49	83	29	1	59	33	50	43.4
FirstEnergy	66	86	19	1	1	32	80	40.7
Southern	51	79	13	1	60	31	47	40.3
PPL	32	56	4	1	1	20	65	25.6

- *Water Stress:* Power stations located in areas with higher physical baseline water stress, or in areas characterized by water conflict or regulatory uncertainty, are at higher risk of forced operational reduction or cessation, or of profit impairment by water pricing.
- *Coal Quality:* Coal-fired power stations that use lignite—which emits the most carbon dioxide of any coal type—are more at risk than those that use other forms of coal.
- *CCS Retrofitability:* Coal-fired power stations that are not suitable for carbon capture and storage (CCS) technology retrofit might be at greater risk of premature closure.
- *Future Heat Stress:* Climate change will exacerbate heat stress on power stations, as higher ambient local temperatures decrease power station efficiency and exacerbate water stress.

The table above (*bottom of previous page*) shows the 12 U.S. utilities covered in the Oxford study, along with their risk ranking for each scenario from 1 to 100. First Energy comes in with a lower risk ranking than nine others, as shown.

For a detailed discussion of stranded carbon assets, readers may consult Si2's 2017 [Briefing Paper on Climate Change](#).

Climate change risk disclosure and management: At various points in its 2016 Form 10-K, FirstEnergy provides discussions of the legislative and regulatory frameworks to which it is subject that aim to constrain greenhouse gas emissions. The company offers these details in the context of highlighting its risk associated with future tightened legislation, as is standard for companies in its sector. With respect to the physical risks from climate change, FirstEnergy accurately acknowledges some of these, saying:

Physical risks of climate change, such as more frequent or more extreme weather events, changes in temperature and precipitation patterns, changes to ground and surface water availability, and other related phenomena, could affect some, or all, of our operations. Severe weather or other natural disasters could be destructive, which could result in increased costs, including supply chain costs. An extreme weather event within the Utilities' service areas can also directly affect their capital assets, causing disruption in service to customers due to downed wires and poles or damage to other operating equipment. Climate change could also affect the availability of a secure and economical supply of water in some locations, which is essential for continued operation of generating plants. Further, as extreme weather conditions increase system stress, we may incur costs relating to additional system backup or service interruptions, and in some instances we may be unable to recover such costs. For all of these reasons, these physical risks could have an adverse financial impact on our operations and operating results. Climate change poses other financial risks as well. To the extent weather conditions are affected by climate change, customers' energy use could increase or decrease depending on the duration and magnitude of the changes. Increased energy use due to weather changes may require us to invest in additional system assets and purchase additional power. Additionally, decreased energy use due to weather changes may affect our financial condition through decreased rates, revenues, margins or earnings.

The company does not go on in its Form 10-K to describe how it may be addressing these risks.

In its 2016 response to CDP's climate change survey, FirstEnergy also acknowledges various non-regulatory risks from climate change—including change in mean temperature, change in temperature extremes and change in precipitation—but characterizes the time horizon, likelihood and impact magnitude as unknown, and says these considerations are already part of existing management practices and procedures without offering substantive elaboration. FirstEnergy further acknowledges that climate change poses a risk to its reputation, may drive shifts in consumer behavior and socioeconomic conditions and more, but says the costs of these risks are already integrated into existing budgets, with little elaboration.

FirstEnergy had a section dealing with climate change on its website in 2015 that has since been removed. A similar section had appeared in its previous, 2014 Sustainability Report, now also unavailable

on its website. That had been FirstEnergy’s only public discussion of the carbon projects it had in place for climate performance. The proponent highlights this fact in its proposal, but FirstEnergy’s board does not offer a response in its statement of opposition.

The company now provides limited reporting on such topics as greenhouse gas emissions and generation sources on its website. FirstEnergy’s 2016 Sustainability Report includes a section entitled “climate change,” but says almost nothing about the topic. The section includes assertions in several places that the company has significantly reduced its greenhouse gas emissions, and otherwise deals with FirstEnergy’s various initiatives around clean energy and generation fleet diversification. FirstEnergy does not say if reductions in emissions are attributable to intentional activities on its part, or to the reduced operations of its dirtiest coal plants due to less dispatch or lower customer demand. FirstEnergy does not offer any discussion related directly to climate science, the role electricity generation plays in a changing climate, the company’s own contribution to that process, the risks it faces to its physical infrastructure and operations or its strategy for dealing with these matters.

Greenhouse gas emissions: FirstEnergy’s 2016 response to CDP’s climate change survey—its first and only one so far—includes various statements about the company’s absolute emissions reduction over the years. FirstEnergy has announced a goal of reducing its absolute carbon dioxide emissions by at least 90 percent by 2045, compared to its 2005 baseline. This is an important commitment, as FirstEnergy is the [ninth heaviest polluter](#) in the United States, according to 2014 data. The company says it has already achieved a 25 percent reduction across its footprint.

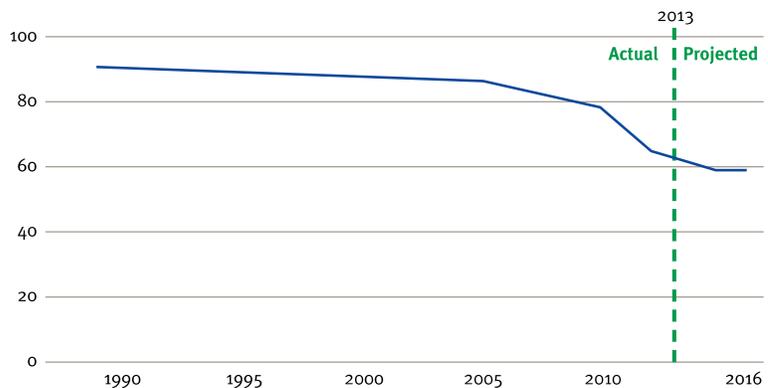
In its previous sustainability report, FirstEnergy provided the figure at right, showing a decline in its absolute emissions over time. For reasons the company does not explain in its public reporting, FirstEnergy removed this figure from its current sustainability report, and has not replaced it with comparable data.

FirstEnergy disclosed its emissions intensity figures for the first time in its CDP response this year but did not publish any historical figures, precluding any evaluation of whether its rate is improving. As shown in the table below, its emissions intensity is substantially higher than competitors **Duke Energy** and **Southern**, and unlike Duke Energy, FirstEnergy has no intensity targets. FirstEnergy’s 2015 emissions in 2015 were higher than Duke Energy’s were in 2005.

By way of comparison, the International Energy Agency projects that in order to constrain average global temperature increase to no more than two degrees Celsius—the 2-degree scenario requested in the pending resolution—global greenhouse gas emissions must fall to a rate of 6.49 ounces/kWh by 2035, and 1.41 ounces/kWh by 2050. If FirstEnergy were to adopt 2-degree scenario targets and assume these were uniform across global entities, it would need to reduce its relative emissions by 78.5 percent by 2035 and nearly 95 percent by 2050.

CO₂ EMISSIONS (1990-2016)

Million metric tons (MMT)



Carbon Dioxide-Equivalent Emissions						
	2015 emissions ozs/kWh	Relative Emissions Reduction Base Year	Base year emissions ozs/kWh	Average annual reduction from base year	Relative emissions target year	Relative emissions goal ozs/kWh
FirstEnergy	30.23	N/A	N/A	N/A	N/A	N/A
Duke Energy	15.84	2005	19.2	1.75%	2020	15.04
Southern	19.12	1990	23.1	0.69%	N/A	N/A

Source: Companies' 2016 CDP Responses

In its 2016 10-K, the company says, “The CO₂ emissions per KWH of electricity generated by FirstEnergy is lower than many of its regional competitors due to its diversified generation sources, which include low or non-CO₂ emitting gas-fired and nuclear generators.” FirstEnergy does not offer substantiation for this claim.

Emissions reduction efforts—FirstEnergy highlights its research and development activities, specifically related to carbon capture and storage (CCS) and electric vehicles. While these are aimed at reducing carbon dioxide emissions, they remain in the development stage and have no significance for the company’s current operations, nor are they likely to do so in the near term. (*Si2’s 2017 Briefing Paper on Climate Change* has more on CCS, as well as some of the challenges and risks associated with the technology.)

The company also highlights its participation since 1998 in the EPA’s SF₆ (sulfur hexafluoride) Emissions Reduction Partnership for Electric Power Systems, noting that it has reduced SF₆ emissions equal to more than 200,000 metric tons of CO₂ since reporting began in 2011. In the absence of overall emissions figures, it is impossible to evaluate the significance of this reduction.

FirstEnergy details its energy efficiency initiatives on a state-by-state basis. With only a few exceptions, these efforts are designed to comply with state mandates. The company does not publish any metrics for the success of these efforts, except in those cases where the mandate itself integrates a reduction target. Ceres’ 2014 report, “*Benchmarking Utility Clean Energy Deployment*,” ranks FirstEnergy 24th out of 32 in cumulative annual energy efficiency savings, and 17th out of 32 in incremental annual energy efficiency savings.

The company has a number of smart grid pilot programs across its service area, some of which are showing promise for broader deployment. Smart grid technology has the potential to yield significant improvements in energy efficiency, although FirstEnergy discusses this topic largely in terms of service reliability. FirstEnergy finished testing a utility-scale fuel cell system to determine its feasibility for augmenting generating capacity during summer peak-use periods. The company declares the test’s success, but says nothing about what comes next for the technology. Ceres’ 2014 “*Benchmarking Utility Clean Energy Deployment*” report ranks FirstEnergy 24th out of 32 in smart meter deployment.

Renewable and low-carbon energy deployment: FirstEnergy says that it is “making the switch to a cleaner energy future by transitioning to renewable energy sources, deploying smart technologies and meeting our customers’ energy needs in a more environmentally sustainable way.” In its previous sustainability report, the company declared its belief in coal’s ongoing importance:

Coal continues to play a vital role in our own fleet as well as the nation’s generation mix. Among other benefits, coal offers a mature technology and on-site fuel storage, which make it a reliable source of electricity. FirstEnergy also has made significant investments in technologies that have reduced emissions

from our coal fleet, and we continue to explore opportunities to improve the environmental performance and efficiency of all our generating units.

In its current sustainability report, FirstEnergy no longer includes the above language. The company does mention its promotion of its new “green offer” through its “new advertising campaign—The Switch Is On—which includes a dedicated website (theswitchison.com) that highlights our commitment to clean energy and the environment.” As the proponent notes in the resolution, FirstEnergy ended that campaign in July 2016 and took down the website.

The company has a number of smart grid pilot programs across its service area, some of which are showing promise for broader deployment. Smart grid technology has the potential to yield improvements in demand-side energy efficiency, although FirstEnergy discusses this topic largely in terms of service reliability. FirstEnergy is also currently testing a utility-scale fuel cell system to determine its feasibility for augmenting generating capacity during summer peak-use periods. This also remains in the pilot stage.

FirstEnergy says that it is one of the largest providers of renewable energy in its region, with approximately 1,906 Megawatts (MW) of pumped-storage hydro and contracted wind and solar resources. This constitutes just 10.7 percent of the company’s 17,858 MW of overall capacity, and hydro generation is itself at risk as a warming climate dries up water sources. Ceres’ 2014 report, “[Benchmarking Utility Clean Energy Deployment](#),” ranked FirstEnergy 25th out of 32 in clean energy sales.

FirstEnergy says, “Nearly 100 percent of the power we generate is from non- or low-emitting sources, including nuclear, natural gas, scrubbed coal and renewable energy.” The company provides little detail regarding its scrubbed coal, with no elaboration in its Form 10-K or its sustainability report. Scrubbed coal falls within the controversial topic of “clean coal,” which many environmental activists view as a contradiction in terms. Others say that until renewables and other clean sources of energy are scaled up and storable enough to meet full demand—a development they see as decades away—coal will remain a vital energy source, and technologies to remove some of its dirtiest elements will help to reduce its environmental impact. Scrubbing technology, which removes some mercury, sulfur and harmful particulate matter, does nothing to reduce or contain coal’s heavy carbon dioxide emissions.

While FirstEnergy says it supports research in the area of distributed energy, it is not clear to what extent it has integrated distributed generation into its service offerings. The company has a page on its website dealing with the process by which retail customers may interconnect small generation with the FirstEnergy distribution system, but this reveals nothing about the level of uptake.

In an April 2014 [speech](#) to the U.S. Chamber of Commerce, then-CEO Anthony J. Alexander expressed reservations about distributed generation, renewables deployment and energy efficiency initiatives, objecting to government support of these systems, particularly subsidies. Alexander’s remarks are particularly noteworthy in light of FirstEnergy’s heavy lobbying efforts to protect subsidies for coal-fired power plants, discussed below, and the 2016 emergence of unsubsidized solar in some 30 countries as the cheapest source of power. Highlights from the full transcript include the following:

In the electric utility industry, energy efficiency, renewable power, distributed generation, micro grids, roof-top solar and demand reduction are examples of what “sounds good” – and while they may all play some role in meeting the energy needs of customers, they are not substitutes for what has worked to sustain a reliable, affordable and environmentally responsible electric system. And, the mandates and subsidies needed to force their use have far-reaching consequences for our customers and our economy.

Consider the fact that... electric customers are being forced to pay additional costs for subsidized, unneeded generation.

Or that these policies and others – designed to achieve a social agenda that has little, if anything, to do with maintaining electric service – are shifting the fixed costs of the system to customers who can least afford it... and are undermining our nation’s competitive position.

Let me be clear – FirstEnergy supports and encourages energy efficiency and the wise use of electricity by our customers... we always have. And, in some cases, it makes sense to charge all customers to fund energy efficiency programs for customers who cannot make those investments on their own.

But when efficiency targets are mandated by government – and based on arbitrary, overly aggressive goals – all customers pay the price... and it is a substantial tax on those who do not, or cannot, participate in the program...

So why are we engaged in this effort to experiment with the electric system by taking away customer choice... increasing prices... and jeopardizing reliability?...

Quite frankly, I believe state and federal policymakers are manipulating the supply and demand, and distorting markets for electricity, to further advance the “war on coal.” And, the convergence of government policies, laws and regulations aimed at coal use – both directly, through EPA rules, and indirectly, through subsidies, preferences and mandates – will lead to higher prices and less reliable service over the long term.

The United States holds the world’s largest estimated recoverable reserves of coal. We’re a net exporter of coal – and over the past three years it has been used to generate about 40 percent of this nation’s electricity.

The continued use of these important and cost-effective domestic resources, however, is being challenged by new environmental rules. For example, as a result of the U.S. EPA’s mercury and air toxics standards, an estimated 376 coal-based units will close in 38 states over the next three to five years. That’s nearly 17 percent of our nation’s coal fleet’s capacity. And, there are additional EPA rules being considered that could have similar impacts on the fleet.

But, it’s not just EPA rules that are challenging our use of coal. In competitive states, if market rules don’t change to reflect the true value of baseload generation, additional units may be shut down...

We need to maintain a diverse fleet – including real generating assets such as coal, nuclear and natural gas – to ensure reliable, affordable service over the long term.

But, perhaps more important, we need to develop a national energy plan that will allow us to take advantage of our vast supply of domestically produced resources – both coal and natural gas – and our superior electric system to stimulate and support our economy...

[W]e need an approach to electric energy that makes reliability, affordability and economic expansion our key priorities:

- We need to reaffirm this nation’s long-term energy policy in favor of diversity of supply and reliance on the market, not the government picking winners and losers among energy technologies and customer choices.
- We need better coordination among federal agencies and the regulatory certainty needed to support the long-term investments that have been made, and will continue to be made, to maintain essential electric service.
- We need an energy policy that recognizes regional differences and provides the flexibility and time needed for each region to adapt to its resources and conditions.
- And, we need an energy policy that establishes a balance between necessary and effective environmental standards and the reliability and affordability of electricity.

Patterns of Political Spending and Lobbying

Ohio’s clean energy standards: In the United States, despite many attempts from fossil fuel companies, big utilities and conservative groups, no Renewable Portfolio Standard (RPS)³ put in place has ever been repealed. The closest any state has come was in 2014, when Governor John Kasich (R-Ohio) signed a law suspending the state’s clean energy mandates for two years. Now that two-year suspension is up, but the Ohio legislature passed a bill in December 2016 that would make the RPS voluntary, effectively extending the suspension, for two more years. Kasich vetoed the measure, ending its suspension.

Ohio originally established its clean energy mandates in 2008 under a Republican legislature and a Democratic governor. The Alternative Energy Portfolio Standard requires Ohio’s utilities to get 25 percent of their energy from “advanced” sources by 2025. Advanced sources include nuclear, so-called “clean coal” and combined heat and power.⁴ Half of that requirement—the 12.5 percent RPS—must come from renewable energy, and 0.5 percent specifically from solar. Half of the renewables must come from inside Ohio. Finally, the Energy Efficiency Resource Standard requires utilities to reduce demand by 22 percent by 2025 relative to 2009 levels.

Five years later, Ohio state senator Bill Seitz (R-Cincinnati) put forward a bill, SB 58, to do away with the state’s RPS altogether. As of December 2016, Seitz sat on the board of directors of the American Legislative Exchange Council (ALEC), which has consistently and aggressively sought to roll back state clean energy policy. However, the RPS has enjoyed broad support among Ohioans, so the Republican leadership softened the bill to suspend the clean energy mandates, rather than abandoning them outright. The new bill, SB 310, established an Energy Mandates Study Committee (EMSC) in the Senate.

The EMSC launched an [investigation](#) that, by most accounts, was dramatically biased, focusing on the perceived drawbacks and costs of wind and solar with virtually no attention to their benefits. The EMSC’s [final report](#) recommended indefinitely suspending the clean energy mandates. Kasich [described](#) the recommendation as “unacceptable” in September 2015.

In the second half of 2016, recognizing the risk of a veto, Ohio Republicans softened their stance, passing a bill that made the mandates voluntary for two years. For all intents and purposes, though, this would have had the same impact as a suspension. In addition to freezing the 2016 targets until 2018, the bill also sought to eliminate the “advanced energy” part of the mandates, push all deadlines back two years, and remove the in-state requirements on the RPS. In late December 2016, Kasich [vetoed](#) the bill, effectively reinstating the renewable energy and efficiency standards.

FirstEnergy—along with **Duke Energy** and **American Electric Power**—has actively lobbied to weaken Ohio’s clean energy standards. The Energy and Policy Institute, a watchdog group, filed public information requests for emails from state legislators during the development of the bill, and [uncovered](#) significant influence of the utilities over legislators, particularly Seitz.

³ A renewable portfolio standard (RPS) is a regulatory mandate to increase production of energy from renewable sources such as wind, solar, biomass and other alternatives to fossil and nuclear electric generation.

⁴ Combined heat and power (CHP) systems, also known as cogeneration, generate electricity and useful thermal energy in a single, integrated system. CHP is not a technology, but an approach to applying technologies. Heat that is normally wasted in conventional power generation is recovered as useful energy, which prevents the losses that would otherwise be incurred from separate generation of heat and power. While the conventional method of producing usable heat and power separately has a typical combined efficiency of 45 percent, CHP systems can operate at levels as high as 80 percent. CHP typically still relies on fossil fuels.

One month before the EMSC report was published, Seitz emailed some fellow Republican legislators and 10 utility and fossil fuel lobbyists (including those representing FirstEnergy), saying, “we should be meeting as a small group to figure out what that report is going to say.” He also emailed lobbyists earlier, asking, “which portions of [a Michigan bill to repeal that state’s RPS] we should emulate.”

FirstEnergy had also been [circulating](#) a form letter to commercial and industrial customers urging them to lobby lawmakers to amend the efficiency rules. In its 2015 Form 10-K, the company described its regulatory initiatives in Ohio differently:

On December 1, 2015, FirstEnergy’s Ohio Companies filed an additional settlement at the [Public Utilities Commission of Ohio (PUCO)], which included the PUCO Staff as a signatory party, that sets forth ambitious steps to help safeguard customers against retail generation price increases in future years, deploy new energy efficiency programs, and provide a clear path to a cleaner energy future by establishing a goal to substantially reduce carbon emissions. The settlement includes an eight-year rate provision (Rider RRS) designed to help protect customers against rising retail price increases and market volatility, while helping preserve vital baseload power plants that serve Ohio customers and provide thousands of family-sustaining jobs in the state. A decision is anticipated in March 2016. On January 27, 2016, certain parties filed a complaint at FERC against [FirstEnergy utilities] that requests FERC review of the ESP IV PPA⁵... In addition to such proceeding, parties have expressed an intention to challenge, in the courts and/or before FERC, the PPA or PUCO approval of the ESP IV, if approved. Management intends to vigorously defend against such challenges.

For the last two years, proceedings at the PUCO have been dominated by a single issue: subsidies for aging power plants. Financial difficulties at both FirstEnergy and American Electric Power, stemming from their electricity market where many aging baseload plants cannot compete with low-cost natural gas and renewables, set off the regulatory struggle. The problem is that FirstEnergy Solutions and Allegheny Energy Supply, FirstEnergy’s unregulated subsidiaries that own the power plants, cannot afford to operate them at today’s power prices. Gas-fired power plants and wind farms have pushed prices down on regional wholesale markets in which the company’s power plants must compete.

In May 2014, FirstEnergy filed a complaint against PJM, the Mid-Atlantic regional transmission organization, at FERC. If FirstEnergy had prevailed, the decision would effectively have kept all utilities in the PJM territory from being compensated for energy efficiency savings. System operators such as PJM manage which generation is dispatched to serve demand, and can compensate customers for reducing usage at peak times—called demand response—instead of dispatching additional power. FirstEnergy’s complaint aimed to have demand response barred from all markets under PJM’s tariffs. Demand response is a typical—though not essential—component of the sort of smart grid systems that FirstEnergy says it is piloting. Critics [believed](#) that FirstEnergy’s motivation behind the complaint was to prevent the kind of significant efficiency improvements that would markedly reduce demand for the energy it produces. But in January 2016, FirstEnergy withdrew the complaint in light of the U.S. Supreme Court decision in *Federal Energy Regulatory Commission v. Electric Power Supply Association* that allows FERC to set rates for demand response payments.⁶

In August 2014, FirstEnergy had applied for permission from Ohio to pass costs from coal plants on to customers. The company also requested that it be allowed to reopen its Sammis plant, which when operational was the 41st most polluting power plant in the United States. The company met with considerable community opposition in response to this effort, and regulators ultimately [rejected](#) the request. But

⁵ “ESP IV PPA” refers to FirstEnergy’s fourth Electric Security Plan, called “Powering Ohio’s Progress.” PPA stands for power purchase agreement, a contract between an electricity generator and purchaser of electricity.

⁶ See <http://www.scotusblog.com/case-files/cases/federal-energy-regulatory-commission-v-electric-power-supply-association/> for a description of the case and discussion.

in November 2014, regulators approved FirstEnergy’s request to eliminate the vast majority of its own energy efficiency programs.

In March 2016, FirstEnergy won approval for the previously rejected plan from the PUCO. The FERC went on to block these plans to provide direct income support to aging coal and nuclear plants owned by FirstEnergy and **American Electric Power**. Activists argue that those baseload plants should simply retire. In the wake of the FERC rejection, American Electric Power opted to sell some of its plants and push for re-regulation of the Ohio utility market. FirstEnergy, however, pushed for a distribution modernization rider, which sought to allow the company to recover additional costs annually from ratepayers for the next three years in order to make grid investments. The PUCO approved the rider on October 12, 2016, but at a level that disappointed FirstEnergy. The PUCO allowed a cost recovery of approximately \$204 million per year over the three-year period, which FirstEnergy [described](#) in a press release as “insufficient to cover the necessary and costly investments.”

The significance of the above proceedings to FirstEnergy’s business model was revealed by the company itself in its 2015 Form 10-K:

FirstEnergy's longer term strategic outlook for its regulated and competitive businesses will be determined following resolution of the Ohio Companies' ESP IV, including the proposed PPA between FES and the Ohio Companies. Once the ESP IV is finalized, FirstEnergy expects to be in a position to more fully understand the longer-term outlook of its competitive businesses and the longer term growth rate of its regulated businesses, including planned capital investments and any additional equity to fund growth in its regulated businesses.

In November 2016, FirstEnergy [announced](#) that it would exit competitive generation and return to being fully regulated. By extension, if the company is unable to re-regulate its expensive coal-fired plants, thereby receiving higher prices for the power they produce, FirstEnergy will shut them down or sell them and become a delivery-only company. This would constitute a [major turnaround in strategy](#): FirstEnergy fought hard back in 2008 for deregulation and succeeded at the time in securing \$6 billion from ratepayers to cover its assets that were stranded in the process. The company’s prospective reversal could once again cost customers billions.

According to a [Form 8-K](#) FirstEnergy filed with the SEC on December 6, 2016, the company is now negotiating the sale of several struggling generating assets, including natural gas and hydroelectric facilities.

While FirstEnergy and AEP are pushing for re-regulation, one of Ohio’s other primary investor-owned utilities, **Dynegy**, is working to preserve free-market competition and resist subsidies. Dynegy’s position is that customers should not have to pay to prop up unprofitable plants. The company argues that unlike traditional utilities, when power prices are low, it has to lower its costs. Dynegy CEO Bob Flexon [said](#) at a February 2017 conference that traditional utilities should be labeled as monopolies with a no-fault capitalism model, noting that Dynegy is “a competitive power player” that “has to compete,” and that his company does not “have a regulatory reach into the pockets of consumers.”

A trend toward re-regulation: FirstEnergy and AEP’s efforts to guarantee income for affiliated coal and nuclear operations are part of a broader trend, according to a September 2016 [report](#) by legal analysts. The utilities’ actions are among the more aggressive “around market” efforts in a nationwide trend the report authors noted. Those efforts coincide with multiple coal and nuclear plants’ exit from the market. If stakeholders and policy makers do not develop workable market solutions, the report warns, the continued exit of baseload power plants could raise questions about reliability and lead to more re-regulation efforts.

In addition to the Ohio case, **Exelon** sought support in Illinois for two of its nuclear generation plants. Meanwhile, the New York Public Service Commission has backed a system to provide short-term supplementary credits to keep certain nuclear power plants online. Texas has had a debate over what kind of capacity market, if any, is appropriate to support fossil fuel power plants, according to the report.

The report concludes that stakeholders and grid operators should consider how best to value baseload power plants in competitive capacity markets.

Shareholder Support for This Proposal

On April 10, 2017, the California Public Employees' Retirement System (CalPERS) announced that it would vote in favor of this proposal and encouraged other shareholders to follow suit. CalPERS is the largest state public pension fund in the United States with \$311 billion in total assets under management, and owns approximately 1,678,000 shares in FirstEnergy. CalPERS explained its reasoning in an [SEC filing](#):

After completing a review of the CalPERS global equity portfolio, we identified 100 companies as significant carbon emitters responsible for over 50% of the portfolio's total carbon emissions. CalPERS defines these companies as systemically important carbon emitters (SICEs) – with FirstEnergy Corp. being one of them. Further, we believe proposal #10 is of particular significance in light of the global consensus regarding climate change and emission reduction targets reflected in the Paris Agreement. The importance of the proposal's request is also underscored by the efforts of Financial Stability Board (FSB), an international body mandated by G-20 leaders to develop efficient climate-related financial risk disclosures.

Consistent with the CalPERS Investment Beliefs, we believe effective management of environmental factors, including those related to climate change risk increase the likelihood that companies will perform well over the long-term.

III. Proponent Position

The lead proponent, *As You Sow*, points to the inability of coal plants to compete with low cost renewables in an increasingly stringent and costly regulatory environment. *As You Sow* highlights the increasing number of large electricity customers that are committing to 100 percent renewable energy use. The proponent also cites market forces that increase the risk of asset stranding. *As You Sow* points to FirstEnergy's own losses, described above, as well as similar losses at **AEP** and **NRG Energy**.

As You Sow cites FirstEnergy's effort to win concessions from the Public Utility Commission of Ohio to pass on related costs on to customers and allow FirstEnergy to reopen a coal-powered plant, noting that the company nevertheless posted substantial losses and acknowledged that its coal plants were uncompetitive. The proponent argues that without the distortionary concessions, the Ohio plants would become stranded assets.

FirstEnergy's commitment to coal has destroyed shareholder value for years. By December 2016, FirstEnergy's stock value had dropped over 35% from its 2008 peak, and Moody's downgraded two of its subsidiaries' credit ratings in July 2016. Despite such stark financial red flags, FirstEnergy subsidiaries, MonPower and Potomac Edison, disclosed plans to buy a new coal plant.

The proponent also expresses concern about the negative environmental health consequences of coal ash—a byproduct of coal combustion—noting that its harmful effects add to coal's cost, presumably in reference to the numerous legal battles and heavy fines across the country associated with coal ash disposal.

As You Sow commends FirstEnergy for its carbon target, but is concerned that the company has not established a pathway for meeting that target. Additionally, the proponent sees regression in FirstEnergy's

elimination of its climate change page on its website, as well as the various other details it removed from its sustainability report as described above.

For these reasons, As You Sow requests a report disclosing FirstEnergy’s “strategy for aligning business operations with the 2015 Paris Agreement’s goal of limiting global warming to a maximum of 2 degrees Celsius, while maintaining the provision of safe, affordable, reliable energy.”

IV. Management Position

FirstEnergy’s board recommends a vote against the proposal. Management asserts FirstEnergy’s legal compliance, arguing that unilateral emissions targets could put the company at a competitive disadvantage. While the board says that it “shares some of the proponent’s concerns about potential climate change risks,” it believes:

this proposal is based upon the flawed premise that a global agreement to limit warming to 2 degrees Celsius requires each individual Company to curtail development of resources proportionately. Your Board believes that taking prudent, practical and cost-effective actions to address climate change risks on the societal level is the right thing to do. Mitigation of greenhouse gas emissions, adaptation to climate change, and continuation of scientific and technological research should all be considered.

Management further asserts that its existing practices “accomplish the essential objectives of the proposal, and that the requested report is thus unnecessary and would be a poor use of resources. Management also states that its sustainability report, communication of existing environmental policies and SEC disclosures already accomplish the goals of the proposed report, saying it has expanded its disclosure. Presumably, the board is referring to its decision to respond to CDP’s climate change survey, as the company has reduced disclosure in its sustainability report that is relevant to this proposal.

Management points to its newly declared goal to reduce carbon dioxide emissions by 90 percent by 2045 compared to a 2005 baseline, and points to its research efforts relating to renewables technologies. Management urges a vote against the report:

Due to the nature of your Company’s business, preparation of reports beyond what is already produced would be an onerous task. Such an undertaking would necessarily encompass your Company’s financial and capital expenditure plans, production plans and short-and long-term business strategies. In addition, preparing a report in such detail would necessarily divert important resources from alternate endeavors that your Board and management deem to be in the best interests of the Company and its shareholders.

V. Analysis

Key Points at Issue

- Is FirstEnergy adequately managing its risks associated with climate change risks?

Si2’s 2017 [Briefing Paper on Climate Change](#) contains a detailed analysis of climate change issues investors may want to consider. The following discussion is specific to FirstEnergy.

FirstEnergy continues to operate coal-fired power plants as part of its electricity generating business and does not believe it is at risk because of changes it has made to its business. The company provides limited voluntary disclosure of its greenhouse gas emissions, but in 2014 told investors it would assess its performance and review its emissions performance. Currently, it believes compliance with the pending proposal would be “onerous.” Nevertheless, FirstEnergy has said in its regulatory filings that it does not know if its unregulated generating subsidiaries can continue as “ongoing concerns,” and raises the prospect of bankruptcy for these subsidiaries. The company has been involved in efforts to limit regulatory controls on coal-fired plants in Ohio, to the consternation of some groups in the state, through lobbying

and litigation. Because it was unsuccessful in some of those efforts, FirstEnergy is now executing a major reversal in a strategy it has pursued since 2008, and is seeking to exit the unregulated market. The developments in its home market are not unique: state and regional regulators across the country are denying regulatory interventions that would extend the viability of existing coal plants or allow the construction of new ones.

The proponent raises concerns about growing evidence that anthropogenic climate change is already having serious impacts on the environment and society, that these impacts are highly likely to increase in severity and that global regulatory bodies will take increasingly stringent steps to constrain the greenhouse gas emissions that are responsible for the majority of atmospheric warming. As You Sow specifically raises the 2-degree scenario, which reflects what had been a general scientific consensus that average global temperatures must not increase more than 2 degrees Celsius in order for catastrophic impacts to be averted. Recent research, however, strongly suggests that even 2 degrees of warming would be devastating, and the most recent discourse is turning toward a 1.5-degree scenario. Within this context, the proponent wants to know more about how FirstEnergy is planning for a transition to this new, low-carbon future.

The Paris climate treaty reached in December 2015 initially prompted optimism from many about new prospects for a real shift in global government action to address climate change. The outcome of the 2016 presidential election and the new Trump administration's stated intention to abandon many of the U.S. existing climate initiatives may delay some movement at the federal level. Nonetheless, many large institutional investors are convinced that companies and governments must take urgent action to address climate risks; they are paying ever closer attention to how their portfolio companies are strategically situated to handle climate-related risks and opportunities, despite the continuing U.S. political dysfunction that puts meaningful national energy legislation out of reach in the short term. Many analysts believe that regulation is inevitable, given the scope and impact of the problem, and that if such regulation is delayed, it will constitute a greater shock when it is ultimately passed. They argue that companies would create a strategic advantage by adjusting their business models now. Indeed, many leading global asset managers are now advocating for greater climate change risk management and disclosure, and do not believe that a temporary shift in U.S. policy will derail decarbonization efforts. Furthermore, states may step up climate change mitigation efforts in the face of federal inaction.

FirstEnergy discloses some information about its greenhouse gas emissions reduction efforts, but far less than what the proponent requests. Indeed, the company has removed some information that it previously disclosed. While the company has established a strong absolute emissions reduction target, it does not have an emissions intensity target, making it impossible to gauge the efficacy of its plans against what would be necessary under a proportionally allocated 2-degree scenario. The company's lobbying activities appear to have been aimed at directly undermining many broader climate change mitigation initiatives, which may amplify some shareholders' concern.

While the company believes that compliance with the proposal would be onerous and a poor use of corporate resources, some utility peers and other energy companies are already providing the type of information suggested by the proponent; **NRG Energy**, **Xcel** and **Enel**, for instance, have set greenhouse gas emission targets aligned with achieving a 2-degree scenario, while **ConocoPhillips**, **Statoil** and **BHP Billiton** have conducted 2-degree scenario analyses through 2040. Proponents withdrew a similar resolution at American Electric Power after reaching an agreement on more disclosure. Further, several of these peers have notably outperformed FirstEnergy financially in recent years.

FirstEnergy's board contests the notion that greenhouse gas reduction intensity imperatives would be born proportionally across all global actors in the context of the 2-degree scenario. This seems a legitimate line of argument, but the board provides no other model for how climate change risk might then

be managed at the individual company level. Shareholders may be interested to learn management's alternative vision, since it rejects the one the proponent advances but shares some of As You Sow's concerns about climate change risk.

Voting Considerations

Votes in favor: Investors who share the proponent's view that FirstEnergy does not have adequate strategies in place to address climate risks will vote in favor of the resolution. These shareholders are likely to share the proponent's concern that the company has not sufficiently grappled with the potential for its power generation facilities to become stranded assets, and would favor a management strategy that included a pathway for meeting its absolute emissions reduction targets. These shareholders are likely to find the company's defense of its environmental efforts to be insufficient or thinly substantiated. These shareholders will likely also perceive FirstEnergy's lobbying activities and litigation approach as causes for concern, particularly in light of the company's substantial losses and looming bankruptcy of two subsidiaries.

Votes against: Investors who are satisfied with the company's existing reporting on climate change risks will vote against the resolution. They are likely to agree with management that the company's current initiatives, coupled with compliance, are adequate. These investors may note the closure of a number of the company's coal-fired power plants as a risk mitigation action. Shareholders may also vote against the proposal if they share management's view that the emissions reduction burden under a 2-degree scenario need not be borne equally across all global entities. These investors may further agree that compliance with the proposal would put FirstEnergy at a competitive disadvantage.

Resources

- FirstEnergy's 2017 proxy statement:
<https://www.sec.gov/Archives/edgar/data/1031296/000119312517105275/d268871ddef14a.htm>
- FirstEnergy's 2016 10-K filing:
<https://www.sec.gov/Archives/edgar/data/1031296/000103129617000015/fe-12312016x10k.htm>
- FirstEnergy's 2016 sustainability report:
<https://www.firstenergycorp.com/content/dam/environmental/files/sustainabilityreport.pdf>
- FirstEnergy's 2016 response to CDP's climate change survey:
<https://www.cdp.net/sites/2016/83/6383/Climate%20Change%202016/Pages/Disclosure-View.aspx>
- As You Sow's supporting memo:
<http://tools.ceres.org/resources/tools/resolutions/2-degree-scenario/@@download/attachment>