



About Preventable Surprises

Preventable Surprises is an independent research and advocacy group that urges the investment industry to prevent—not perpetuate—systemic risks.

About the Author

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November 2017



Introduction

An investor stampede into passive strategies post 2008 triggered an intense concentration in control of assets in the US. The top five fund complexes managed 47% of the country's mutual fund and ETF assets in 2016 compared with 36% in 2005, according to the Investment Company Institute.¹ Not only is the slice of the pie growing for the top five, the pie is getting bigger. US investment companies managed \$19.2 trillion in assets at year-end 2016, a 72% increase in a decade.

With increased control of the stocks and bonds of America's corporations comes increased scrutiny of investors' fiduciary responsibility to clients, particularly on climate risk. Mark Carney, chairman of the G20's Financial Stability Board, sees climate change as posing a greater threat to market stability than 2008's Global Financial Crisis. An FSB task force has recommended that listed companies disclose their exposure to climate-related risks and opportunities. Nine utilities faced 2017 shareholder resolutions calling for implementation of these recommendations. Only one received support from the majority of investors. (Results of the nine proxy votes are on page 3.)

When investment firms vote with management at the heaviest polluters in America—utilities that have spent hundreds of millions of dollars fighting advances such as the Clean Power Plan and statewide solar initiatives—asset owners have a duty to question their investment firms' approach to risk management. This report offers a detailed look at how the ten largest utility investors voted on these resolutions. It proceeds as follows:

- The summary scores each investor based on its voting record and average AUM.
- Individual profiles offer detailed voting and ownership records for each investment firm and responses to our questions, if any.
- We detail why investors should support 2°C scenario resolutions at utilities.
- In Best of the Best, we offer a case study in forceful stewardship.

Preventable Surprises works to reduce systemic risk in financial markets—we see the fate of the planet as being inextricably linked to building a sustainable financial system. We believe investors have a fiduciary responsibility to prevent or mitigate systemic risks, which are unpredictable, interconnected, and pervasive. Climate change is just such a risk, requiring forceful stewardship—both through private engagement with investee companies and through proxy votes that publicly signal dissatisfaction with business as usual.

This report shows that some investment firms' proxy voting lacks the sense of urgency required for transitioning to a 2°C economy. Public support of shareholder resolutions at laggard companies is critical because behind-closed-doors engagement lacks transparency, accountability, and meaningful metrics. Moreover, private engagement alone is no longer acceptable in an industry that has fought emissions controls for decades and that now has a champion in the White House. We hope asset owners will use this report as a springboard for discussion with their investment managers. Asset owners' investment horizon extends to a period when average global warming could surpass 4°C—a risk that can be avoided through forceful stewardship now.

Casey Aspin, Director of Communications

2017 Outcomes for 2°C Shareholder Resolutions

	Yes	No	Abstain
AES	40.1	59.9	6.5
Ameren	47.5	52.5	6.7
Dominion	47.8	52.2	2.2
DTE	45.0	55.0	2.1
Duke	46.4	53.6	2.4
FirstEnergy	43.4	56.6	6.5
PNM	49.9	50.1	8.9
PPL	56.8	43.2	5.8
Southern	45.7	54.3	2.6

Methodology

Using Proxylnsight and Bloomberg data, we examined the 25 largest investors at each of the nine utilities where AGMs included 2°C scenario resolutions. We selected the ten investment firms with the broadest cross-ownership (at least seven utilities). Ownership data is as of June 30, 2017, and is listed as a percentage of shares outstanding.

Using Fund Votes data, we looked at the voting record for each fund within each of the top ten fund complexes at the nine AGM votes. If more funds voted for than against any one resolution, a score of +1 was awarded for that resolution. If fewer funds voted for than against, a score of -1 was assigned. Abstains were awarded no score. The nine scores were summed for an overall score. An asset manager that, on balance, supported five 2°C resolutions and opposed four would have a score of 1.

The chart in the executive summary shows the rolled-up voting score for each investment firm and the ownership position when stakes at all nine utilities are averaged. The voting score and average ownership position are multiplied to arrive at an overall score.

Five of the utilities use a simple majority system, where only yes and no votes are counted. Four utilities use a Modified Delaware process, counting abstains as well to dilute shareholder votes (AES, Ameren, Duke, PNM). This report uses simple majority votes for all nine so does not differentiate among abstain scores.

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Carbon Calendar

1990	Global Change Research Act becomes law. It requires a report to Congress every four years on the environmental, economic, and health consequences of climate change.
1995	IPCC's Second Assessment offers the first definitive statement that humans are responsible for climate change.
1997	The Kyoto Protocol is adopted, creating emissions reductions commitments among 192 signatories.
2005	Kyoto Protocol enters into force; the U.S. does not ratify.
2008	CO2 concentrations at Mauna Loa have risen from 315ppm to 380ppm in 50 years.
2014	Institutional investors announce they have joined forces with UNEP to reduce the carbon footprint of \$100 billion in assets.
2015	Clean Power Plan is published—the first governing US utilities. States with coal-dependent utilities had succeeded in blocking legislation for 20 years, necessitating executive action.
2015	Paris Agreement adopted by consensus of 197 countries. Seeks to keep average global warming below 2°C.
Feb 2016	BlackRock CEO pens annual letter to CEOs: "BlackRock has been undertaking a multi-year effort to integrate ESG considerations into our investment processes, and we expect companies to have strategies to manage these issues."
Feb 2016	US Supreme Court stays Clean Power Plan until a lower court rules in the lawsuit filed by 27 states. The 5-4 vote was the first time the court had stayed a regulation before a judgment by the lower Court of Appeals.
May 2016	2°C scenario resolutions fail at Exxon and Chevron, despite unanimous support for similar measures at BP and Shell.
Nov 2016	Paris Agreement enters into effect.
Dec 2016	Task Force on Climate-related Financial Disclosure (TCFD) issues draft recommendations.
Mar 2017	Surrounded by coal industry representatives, President Trump signs executive order directing EPA to rewrite Clean Power Plan.
May 2017	Nine US utilities face 2°C scenrio resolutions. Only one resolution gains more than 50% support.
Jun 2017	Final TCFD recommendations published.
Oct 2017	EPA chief signs measure repealing Clean Power Plan.



Executive Summary

U.S. utilities accounted for 63% of emissions reported to the EPA in 2016, compared with 15% for the oil and gas sector. Given that a 60% drop in greenhouse gas emissions must occur by 2050 to give the planet a hope of limiting global warming to $2^{\circ}C^{2}$, utilities are central to emission reduction efforts. Nine utilities faced shareholder resolutions in 2017 asking them to report on their exposure to the forces (regulatory, technological, legal, meteorological) driving a $2^{\circ}C$ transition. Only one received majority support; the vote averaged 45% in favor at the others.

This report looks at how the largest investors voted their proxies at these utilities, particularly the missing 55%. The top ten firms control one of every three shares voted, an amazing concentration of power. Northern Trust was the only investor to consistently support increased disclosure on climate risk; State Street received a higher score due to its larger size. Each investor is ranked once its voting score is multiplied by its stake in the nine utilities examined.

The Power Players in the Power Industry

	Voting score	Ownership average	Score
Vanguard	-9	8.94	-80.46
BlackRock	-9	7.97	-71.73
BNY Mellon	-9	1.29	-11.61
Invesco	-3	1.45	-4.35
Geode	0	1.01	0
FranklinTempleton	2	1.88	3.76
GoldmanSachs	5	1.28	6.40
Fidelity	6	1.33	7.98
Northern Trust	9	1.36	12.24
StateStreet	3	5.04	15.12

It may not be reasonable to expect the world's largest asset managers to take the lead on enforcing the Paris Agreement (unless they actually commit to their PR about investing for the long term). It is, however, very reasonable to expect them to manage risk in a heavily polluting and poorly regulated sector. In its excellent report, No Country for Coal Gen, the analysts at Carbon Tracker Initiative estimated stranded assets of \$185 billion if coal generation in regulated states (which enjoy a subsidized rate of return) were marked down to reflect market values in deregulated states.³ It further estimated that consumers could save \$10 billion per year by 2021 if rate structures incentivizing continued investment in coal plants were removed.

Regulated utilities in the South—a sun-baked region where industrial-scale solar offers a cheaper, carbon-free alternative—have wasted tens of billions of dollars on poorly conceived nuclear and "clean coal" plants, prompting Westinghouse Electric Co. to file for bankruptcy with \$9 billion in losses. Such projects would never have proceeded were a captive ratepayer not on the hook for the bill.

If regulators and utility boards of directors are willing to ignore (or, worse, impede) the advance of smart grids, battery technology, wind farm generation, and electric vehicles—what of investors? Have they gone along with the status quo simply to maintain a steady dividend in a low interest rate environment? Risk management is about looking forward; it is about understanding how utilities are adapting to the needs of the 21st century, not prolonging the mistakes of the 20th century.

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In a February 2016 letter to the country's largest CEOs, BlackRock CEO Larry Fink challenged his readers to explain "how the company is navigating the competitive landscape, how it is innovating, how it is adapting to technological disruption or geopolitical events." In the spring of 2017, BlackRock and Vanguard voted against all nine resolutions asking utility leaders to disclose the risks they face in a 2°C-compliant world. Due to their enormous size, either company could have changed the outcome at each of the nine utilities.

It is our hope that investors who justified votes of "no" or "abstain" in 2017 start looking at risk differently in the utility sector. The risk isn't that dividend payments decrease or that the cost of natural gas production and transportation rises. The risk is that shareholders will suffer if, due to captive regulators and pliant boards, laggard utilities cannot navigate the transition to a low-carbon economy, already well underway in Europe, China, and deregulated US markets. Investors must be forceful stewards of the assets entrusted to them: they must engage with laggard companies to demand transparent low-carbon transition plans and they must support shareholder resolutions seeking 2°C alignment. Investment firms must use their immense leverage as fiduciaries to protect their portfolios and our planet.

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^{1.} https://www.epa.gov/sites/production/files/2017-09/documents/ry16_ghgrp_overview_report.pdf

^{2.} Baseline year: 2013. Using the International Energy Agency's 2°C Scenario. https://www.iea.org/publications/scenariosandprojections/

^{3.} http://www.carbontracker.org/wp-content/uploads/2017/09/No-Country-for-Coal-Gen_130917.pdf

Proxy Voting Profiles

The following tables detail voting records and ownership positions of the ten largest utility investors. If a company responded to our questions about how it views climate risk in the utility sector, the response is provided. Each company was contacted multiple times over the course of a month seeking response; most did not respond.

V		# of funds vot	ing		Ownership %
Vanguard	Yes	No	Abstain	Score	of outstanding
AES		26		-1	11.29
Ameren		26		-1	10.63
Dominion		29		-1	6.97
DTE		26		-1	10.59
Duke		24		-1	7.15
FirstEnergy		26		-1	9.99
PNM		15		-1	9.6
PPL		25		-1	7.11
Southern		24		-1	7.11
				Sum: -9	Avg: 8.94

Score: -80.46

Glenn Booraem, Vanguard Investment Stewardship Officer replied by e-mail as follows:

"Given most of our funds' mandates to track an index, we're neither selecting individual companies nor weighing in on those companies' business decisions to, among other things, invest in nuclear, coal, or solar power. What we do evaluate is how companies identify, manage, and mitigate the risks – including those relating to climate – inherent in these decisions, and how these risks are reported to the market through clear and consistent disclosure.

"Shareholder proposals are each evaluated on their own merits, and we may support those where we believe there is a logically demonstrable link between the specific proposal and long-term shareholder value of the company. When evaluating a shareholder proposal calling for greater climate-related disclosure, we consider a company's existing disclosure, the materiality of the issue, our assessment of the board's oversight of climate-related risks, best practices within the industry, and progress the company has made over time.

"We also seek to engage directly with company leaders and board members to better understand how they oversee, control, and disclose risks. Our engagements on the topic of climate risk oversight and disclosure have increased each of the past several years, both in frequency and depth. We are committed to continuing those conversations and to understanding the board's role in overseeing these and other material risks on behalf of their shareholders, including Vanguard investors. When we are not satisfied with a company's level of disclosure, board oversight, or progress against stated intentions, we will speak with our vote, as we have done in the past."

Distribution		# of funds vot		Ownership %	
BlackRock	Yes	No	Abstain	Score	of outstanding
AES		11		-1	10.36
Ameren		6		-1	6.65
Dominion		9		-1	6.87
DTE		8		-1	8.12
Duke		12		-1	6.17
FirstEnergy		18		-1	9.92
PNM		5		-1	10.46
PPL		10		-1	7.08
Southern		8		-1	6.11
				Sum: -9	Avg: 7.97

Score: -71.73

Michelle Edkins, BlackRock's Global Head of Investment Stewardship

replied by e-mail as follows:

"BlackRock believes that engagement is the best way to drive change on important environmental, social and governance issues because we are often engaging with companies on these issues in the absence of shareholder proposals. As a long-term investor, we are willing to be patient with companies when our engagement affirms they are working to address our concerns. However, our patience is not infinite—when we do not see progress despite ongoing engagement, or companies are insufficiently responsive, we will vote against management. We view a vote against management as a sign of a failed engagement not as the start of the process."

While Vanguard has only recently begun discussing its high level views on climate change, BlackRock has long been vocal on the risks associated with climate change, including this excerpt from its 2015 paper, *The Price of Climate Change; Global Warming's Impact on Portfolios:* "Asset owners may seek to limit their exposure to industries that have the heaviest (direct) carbon footprints, such as utilities, materials and energy companies. If climate change regulation picks up steam, these sectors may have to write down assets that have declining or no economic worth (think coal-powered utilities). Successful investment is often as much about avoiding losers as picking winners, in our view."

BlackRock was a member of the Task Force on Climate-Related Financial Disclosure, which called for increased disclosure of climate risk and provided detailed guidance on risk metrics. The TCFD's draft recommendations were published in December 2016, four months before the utility AGM season began. In March 2017, BlackRock stated: "Over the course of 2017 we intend to engage companies most exposed to climate risk to understand their views on the recommendations from the TCFD and to encourage such companies to consider reporting against those recommendations in due course."

 $^{1\} https://www.blackrock.com/corporate/en-gb/literature/market-commentary/how-blackrock-investment-stewardship-engages-on-climate-risk-march2017.pdf$

DNIV MARILES	# of funds voting				Ownership %
BNY Mellon	Yes	No	Abstain	Score	of outstanding
AES		2		-1	1.74
Ameren		1		-1	0.73
Dominion		1		-1	0.86
DTE		2		-1	0.71
Duke		1		-1	0.78
FirstEnergy		4		-1	2.6
PNM		2		-1	2.18
PPL		3		-1	0.93
Southern		1		-1	1.08
				Sum: -9	Avg: 1.29

Score: -11.61

BNY Mellon will vote for resolutions that mitigate risk, provide a competitive advantage, allow reasonable time, and incur reasonable costs. If the resolution is overly prescriptive, it will vote against the measure.

"While we encourage companies to develop policies on issues such as human rights, supplier conduct and climate change, we prefer to allow boards and management to develop policies which fit their specific contexts.

"Because we are evaluating not only the request but also the impact of compliance on the company, we may vote against some resolutions even if we agree with the sentiment they represent. In these cases, we will often follow up with an engagement meeting with these companies to express our support for the idea of the resolution and explain why we did not vote in favor of it."

Source: Proxy Voting and Engagement, Spring 2017

https://www.mcm.com/documents/10560/30081/MCM+Proxy+Voting++Engagement.pdf/1db825f2-1c0b-40fc-8482-18d01b51740f

		# of funds vot		Ownership %	
Invesco	Yes	No	Abstain	Score	of outstanding
AES		4		-1	1.23
Ameren	5			1	0.68
Dominion		7		-1	1.49
DTE		6		-1	0.52
Duke	2	6		-1	1.21
FirstEnergy		13		-1	3.35
PNM	4			1	0.54
PPL		6		-1	3.57
Southern	4			1	0.45
				Sum: -3	Avg: 1.45

Score: -4.35

"We vote on shareholder and management proposals on a case by case basis, carefully evaluating the merit of the proposal, materiality, and significance of the proposal to the issuer, sector, etc. In 2016, we supported 53 percent of all shareholder related proposals, and also supported proxy access rights, human rights, etc... Proxy voting is the hallmark of active ownership and serves as a mechanism to drive responsible investment, engagement and investment stewardship."

Source: Investment Stewardship and Proxy Voting Annual Report, 2016 https://www.powersharesetf.com/sites/default/files/documents/inv-investment-stewardship-and-proxy-voting-annual-report.pdf

Carala	# of funds voting				Ownership %
Geode	Yes	No	Abstain	Score	of outstanding
AES			2	0	1.03
Ameren			2	0	1
Dominion			2	0	0.92
DTE			2	0	1.02
Duke			2	0	1.02
FirstEnergy			2	0	1.2
PNM			2	0	0.8
PPL			2	0	1.15
Southern			2	0	0.97
				Sum: 0	Avg: 1.01

Score: 0

"Generally, Geode expects to vote with management's recommendation on shareholder proposals concerning environmental or social issues, as Geode believes management and the board are ordinarily in the best position to address these matters. Geode may support certain shareholder environmental and social proposals that request additional disclosures from companies which may provide material information to the investment management process, or where Geode otherwise believes support will help maximize shareholder value."

Source: Proxy Voting Policies and Procedures, May 2017 https://www.fidelity.com/bin-public/060_www_fidelity_com/documents/Proxy-Voting-Policies-and-Procedures-Geode-Capital-Management-LLC.pdf

Franklin		# of funds vot	ing		Ownership %
Templeton	Yes	No	Abstain	Score	of outstanding
AES					
Ameren		1		-1	0.37
Dominion	1	7		-1	2.87
DTE	4			1	1.05
Duke	5			1	1.46
FirstEnergy	1	2		-1	1.19
PNM	3			1	4.06
PPL	4			1	1.82
Southern	4			1	2.24
				Sum: 2	Avg: 1.88

Score: 3.76

"In the Investment Manager's experience, those companies that are managed well are often effective in dealing with the relevant environmental and social issues that pertain to their business. As such, the Investment Manager will generally give management discretion with regard to environmental and social issues. However, in cases where management and the board have not demonstrated adequate efforts to mitigate material environmental or social risks, have engaged in inappropriate or illegal conduct, or have failed to adequately address current or emergent risks that threaten shareholder value, the Investment Manager may choose to support well-crafted shareholder proposals that serve to promote or protect shareholder value. This may include seeking appropriate disclosure regarding material environmental and social issues."

Source: Proxy Voting Policies & Procedures, January 2017 https://www.franklintempleton.com/content-common/miscellaneous/regulatory-legal/en_US/FTIC_ ProxyVotingPolicies.pdf

Goldman		# of funds vot	ing	Ownership %	
Sachs	Yes	No	Abstain	Score	of outstanding
AES		4		-1	1.69
Ameren	1	1		0	1.32
Dominion	3			1	0.57
DTE	1			1	1.18
Duke	4			1	0.58
FirstEnergy	6			1	1.38
PNM	1			1	3.32
PPL	4			1	0.77
Southern	1	1		0	0.73
				Sum: 5	Avg: 1.28

Score: 6.40

"Generally vote FOR proposals requesting the company to report on its policies, initiatives and oversight mechanisms related to environmental sustainability, or how the company may be impacted by climate change. The following factors will be considered:

- The company's current level of publicly available disclosure including if the company already discloses similar information through existing reports or policies;
- If the company has formally committed to the implementation of a reporting program based on Global Reporting Initiative (GRI) guidelines or a similar standard within a specified time frame;
- If the company's current level of disclosure is comparable to that of its industry peers; and
- If there are significant controversies, fines, penalties, or litigation associated with the company's environmental performance."

Source: Global Proxy Voting Policy, Procedures and Guidelines, March 2017 https://www.gsam.com/content/dam/gsam/pdfs/us/en/miscellaneous/voting_proxy_policy.pdf?sa=n&rd=n

er tulbe.		# of funds vot	ing		Ownership %
Fidelity	Yes	No	Abstain	Score	of outstanding
AES	1	1*	10	0	3.85
Ameren	0	1	6	-1	0.09
Dominion	8	1	9	1	0.69
DTE	9	1	9	1	1.35
Duke	12	1	12	1	0.68
FirstEnergy	10	1	12	1	1.19
PNM	4	1	4	1	1.15
PPL	15	1	8	1	2.38
Southern	8	1	10	1	0.57
				Sum: 6	Avg: 1.33

*Fidelity MSCI Energy Index ETF

"FMR generally will vote in a manner consistent with management's recommendation on shareholder proposals concerning environmental or social issues, as it generally believes that management and the board are in the best position to determine how to address these matters. In certain cases, however, Fidelity may support shareholder proposals that request additional disclosures from companies regarding environmental or social issues, where it believes that the proposed disclosures could provide meaningful information to the investment management process without unduly burdening the company. For example, Fidelity may support shareholder proposals calling for reports on sustainability, renewable energy, and environmental impact issues."

Score: 7.98

Source: Proxy Voting Guidelines, January 2017

 $https://www.fidelity.com/bin-public/060_www_fidelity_com/documents/Full-Proxy-Voting-Guidelines-for-Fidelity-Funds-Advised-by-FMRCo.pdf$

Northern		# of funds vot		Ownership %	
Trust	Yes	No	Abstain	Score	of outstanding
AES	4			1	1.18
Ameren	4			1	1.14
Dominion	3			1	1.2
DTE	2			1	1.12
Duke	4			1	1.3
FirstEnergy	2			1	1.17
PNM	4			1	2.84
PPL	1			1	1.1
Southern	1			1	1.19
				Sum· 9	Ava: 1 36

Score: 12.24

"Northern Trust generally votes for proposals requesting increased disclosure regarding the environmental impact of a company's operations and products and initiatives to curtail these risks, unless sufficient information has been disclosed to shareholders or is otherwise publicly available. Northern Trust generally votes for proposals requesting the issuance of corporate sustainability reports, as well as disclosure, where relevant, concerning the emission of greenhouse gases and the use of fracturing in connection with the extraction of natural gases."

Source: Proxy Voting Policies, Procedures and Guidelines, October 2016 https://www.northerntrust.com/documents/fact-sheets/mutual-funds/institutional/nt_proxypolicy.pdf?bc=25167898

Chala Chara		# of funds vot		Ownership %	
State Street	Yes	No	Abstain	Score	of outstanding
AES	1		2	1	4.92
Ameren			3	0	5.12
Dominion	2			1	4.67
DTE	1	4		-1	5.1
Duke		2		-1	4.76
FirstEnergy			3	0	7.55
PNM	2			1	3.54
PPL	1		4	1	4.93
Southern	3			1	4.76
				Sum: 3	Avg: 5.04

Score: 15.12

Rakhi Kumar, Head of ESG Investments and Asset Stewardship

State Street Global Advisors was one of the few large US investors to vote in support of a 2°C resolution at Exxon in 2016. After the Paris Agreement it issued guidelines to spell out its expectations of boards regarding the assessment of climate risk. More recently, it detailed what robust scenario reporting comprises:

- Governance and board oversight of climate risk.
- Establishing and disclosing long-term greenhouse gas (GHG) emissions goals.
- Disclosing the average and range of carbon price assumptions.
- Discussing impacts of scenario planning on long-term capital allocation decisions.¹

Head of ESG Investments and Asset Stewardship Rakhi Kumar said SSGA developed the guidelines after reviewing public filings on climate risk by 50 major corporations. It found best practices at several European companies, such as Statoil ASA, while "a vast majority of US companies have yet to fully embrace climate-related scenario-planning, which is reflected in the quality of their climate-related disclosure." Kumar said that SSGA released the guidelines to help companies develop meaningful 2°C scenario plans. "We want to know if you have done robust scenario planning and if it is incorporated in your strategy at the highest level," she said.

The disclosure guidelines include no judgment on whether GHG emissions should decline by a given percentage by a given year—only that a goal be set, something most companies have failed to do. "We are not in the business of being prescriptive," Kumar said. "Show us your workings and we will ask questions about your assumptions." SSGA's research showed that most high emissions companies in Europe set five- to ten-year emissions goals, while most US companies set no goals.

Kumar said the weakened regulatory environment in the US does not affect its approach to climate risk engagement. "There are three aspects to climate risk: physical, regulatory, and economic, which includes reputational risk, transition risk, and changing consumer behavior," she said. "Physical risk is high and growing. Transition risk takes many forms, just look at how many car manufacturers are announcing electric cars. It's an investment issue, not a political issue."

^{1.} https://www.ssga.com/investment-topics/environmental-social-governance/2017/perspectives-on-effective-climate-change-disclosure.pdf

Ownership Concentration

Ownership is shown as percentage of outstanding shares as of June 30, 2017.

	AES	Ameren	Dominion	DTE	Duke	First Energy	PNM Resrces	PPL	Southern
Vanguard	11.3	10.6	7.0	10.6	7.1	10.0	9.6	7.11	7.11
BlackRock	10.4	6.6	6.9	8.1	6.2	9.9	10.5	7.08	6.11
SSGA	4.9	5.1	4.7	5.1	4.8	7.5	3.5	4.93	4.76
Franklin Templeton		0.4	2.9	1.0	1.5	1.2	4.1	1.82	2.24
Invesco	1.2	0.7	1.5	0.5	1.2	3.3	0.5	3.57	0.45
Northern Trust	1.2	1.1	1.2	1.1	1.3	1.2	2.8	1.1	1.19
Fidelity	3.8	0.1	0.7	1.3	0.7	1.2	1.1	2.38	0.57
BNY Mellon	1.7	0.7	0.9	0.7	0.8	2.6	2.2	0.93	1.08
Goldman	1.7	1.3	0.6	1.2	0.6	1.4	3.3	0.77	0.73
Geode	1.0	1.0	0.9	1.0	1.0	1.2	0.8	1.15	0.97
Top 10 %	37.3	27.7	27.1	30.8	25.1	39.5	38.5	30.8	25.2

Sources: Proxylnsight and Bloomberg

Each asset manager's control over the outcome of proxy votes is even larger than the leverage shown here because not all shares are voted. For example, Vanguard and BlackRock owned 21.65% of AES's 660 million outstanding shares on June 30, 2017. If they held the same number of shares prior to the utility's April AGM, their shares would have accounted for 26.68% of the 535.7 million shares that were voted "yes" or "no" at the meeting. Each company's stake is so significant that either could have changed the outcome at the nine utilities by voting yes rather than no.

Each company's stake is so significant that either could have changed the outcome at the nine utilities by voting yes rather than no.

The Worst of the Worst

Various studies point up which energy utility companies have the worst record on emissions, political influence, disclosure, and so on. A small sampling is below.

	Rank	Emission intensity (%)	% US GHG	Readiness	2C stranded assets %
AES	-3	74.8	0.46		40
Ameren	-2	69.8	0.46		19
Dominion	-1	37.5	0.53	Least	61
DTE	-5	80.9	0.53	Least	50
Duke	-3	50.3	1.84	Least	32
FirstEnergy	-3	58.1	0.84		18
PPL	-2	58.9	0.78	Least	39
Southern	-8	60.3	1.63	Least	47

The first four columns of data are drawn from reports by the Sustainable Investments Institute (Sii) which aggregates other research.¹ The final column comes from Carbon Tracker's *No Country for Coal Gen.* ² PNM Resources was not ranked.

Rank: Sii's report *US Utilities: Climate Change, Corporate Governance and Politics* (April 2016) aggregates 12 factors (energy mix, emissions intensity, political spending, etc.) to assign a ranking. By comparison, California's PG&E scored 10.

Emissions intensity: This percentage is calculated by dividing generation in MWh into emissions in metric tons CO². This measures which are the 'dirtiest' emitters. (See table on opposite page for comparisons to cleaner companies.)

% US GHG: This figure shows each company's percentage of US emissions.

Readiness: Sii's *Utility Readiness Report* (May 2017), picks out the five companies whose business plans are least prepared for a low-carbon transition.

2C stranded assets: If coal plants were retired rapidly enough to allow a 2°C scenario, the value of generation assets at risk varies. Based on Carbon Tracker's analysis, Dominion faces the greatest risk, with a potential writedown of 61% of operating coal capacity versus business as usual.

https://irrcinstitute.org/wp-content/uploads/2016/04/FINAL-Climate-Change-Corporate-Governance-and-Politics.pdf and https://5050climate.org/news/utility-readiness-report/

 $^{2. \} http://www.carbontracker.org/wp-content/uploads/2017/09/No-Country-for-Coal-Gen_130917.pdf$

Dirty vs Clean Energy

In the investment world, there is absolute and then there is relative. The chart below offers relative performance data for four utilities. The second column shows that DTE and AES generate the same amount of power as PSEG and PG&E. The third column shows the difference decarbonization efforts have made to emissions intensity. The final column shows that DTE and AES produce four times the GHG emitted by PSEG and PG&E, despite generating similar amounts of power.

	Generation (million MWh)	Emissions Intensity (%)	% US GHG emissions
DTE	43.9	80.9	0.53
AES	41.1	74.8	0.46
	85.0		0.99
PSEG	54.4	18.8	0.15
PG&E	31.7	9.5	0.09
	86.1		0.24

Source: US Utilities: Climate Change, Corporate Governance and Politics.

Questionable Priorities in the Sunny South

Southern Company is the second-largest owner of regulated coal capacity in the US and has no plans to retire any of its coal plants, according to Carbon Tracker's September 2017 report on utilities' coal dependence. In 2017 Southern was forced to give up on a seven-year, \$7 billion effort to build a "clean coal" plant, which was supported by \$382 million in Department of Energy grants. It is also struggling to keep alive the Vogtle nuclear plant, whose projected cost could reach \$25 billion compared with the \$14 billion originally forecast. The plant is more than five years behind schedule. Southern receives an "F" rating from InfluenceMap due to its aggressive lobbying against the Clean Power Plan and statewide solar initiatives.

For the past four years, Southern Company has faced shareholder resolutions addressing emissions. In 2017, 45.7% investors supported a resolution seeking a low-carbon transition plan, up from 34% in 2016. A respectable result, however the majority of investors continue to support management at a company that is out of step with changes in a rapidly evolving sector. The company's leader, Thomas Fanning, has been with the company for 35 years. He holds the posts of chairman, president, and CEO. This tenure and concentration of power is common in the sector and perhaps contributes to its inability to quickly transition to a low carbon business model.

The Best of the Best

Perhaps because it started out as a life insurance company, Legal & General Investment Management is a more forceful steward of client assets than many of its peers. As part of its Climate Impact Pledge, LGIM has identified 84 portfolio companies in six sectors that it considers pivotal to climate change.

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The companies were selected using a proprietary model considering factors such as board oversight, emissions targets, transparency, and lobbying activities. The 84 companies include 17 electric utilities, 11 in the US. Over the past year, LGIM has presented specific asks during engagements with these firms.

"We've spoken to each one and set out what we want to see improvement on," said Clare Payn, Head of Corporate Governance North America. "If we aren't happy with their progress, we will divest in our Future World Fund and vote against the board chair across all of our funds."

According to *Active Ownership*, LGIM's 2016 corporate governance report, LGIM seeks to "help companies become more resilient to policy changes, more successful in providing low carbon solutions and, ultimately, more prosperous."

LGIM voted in favor of 2° C resolutions at US utilities in 2017 and announced its voting stance prior to AGMs to encourage other investors to add their support. It isn't included in this report's rankings because its position in the utilities was smaller than the top ten firms. In the following Q&A, Payn addresses concerns shared by shareholders who see climate change as a systemic risk.

Preventable Surprises: What is your response to investors who vote against shareholder resolutions while patiently engaging on climate issues?

Clare Payn: We believe in a two-pronged approach. In the US, a vote against management is taken very seriously. We are honest with companies that we will be supporting resolutions until we can see real progress. There has been some movement at some companies but it doesn't go far enough. It is difficult to evaluate our engagement so it is important to vote against, to show this is a serious issue for us.

PS: Does the Trump administration's promotion of coal and repeal of the Clean Power Plan undermine your efforts?

Payn: To make sure their business is sustainable for the long term, utilities have to make capital allocation decisions and evaluate risks and opportunities over the long term, not just in the current environment. If they aren't doing that, it represents a risk to the business. As part of the Climate Impact Pledge, we will be naming and faming those doing well. We are looking for champions, which the US market responds to well.

PS: Does the availability of cheap natural gas in the US make it harder to promote decarbonisation?

Payn: We expect companies to invest in opportunities. Battery technology is shifting all the time. Are these companies helping cities build infrastructure around EVs? Or are they depending on expensive coal plants? We want more information on the risks and opportunities they see and the intelligent investments that will provide a return for investors. Are they harnessing opportunities around controlling home energy from a mobile phone? Some are, others are not. We want to understand where our capital is going.

"We want more information on the risks and opportunities they see and the intelligent investments that will provide a return for investors."

> Clare Payne, Legal & General Investment Management

Conclusion

In 2017, hurricanes devastated Texas and the Caribbean; monsoon floods killed more than 1,000 people in South Asia and displaced millions; wildfires consumed more than 8 million acres in the US; and droughts laid waste to crops in southern Europe and east Africa. Meanwhile, the levelized cost of renewable energy increasingly bested fossil fuels in 2017, leading to rapid uptake of clean power in China, India, and deregulated US markets like Texas. The utility sector is undergoing seismic changes due to technological advances, business model changes, and policy developments.

Investors must make clear to laggard US utilities that business as usual in a rapidly changing sector is a threat to shareholder value, to ratepayers, and to the planet.

Investors must make clear to laggard US utilities that business as usual in a rapidly changing sector is a threat to shareholder value, to ratepayers, and to the planet. The voting outcomes of the past year have failed to clearly deliver that message, excepting PPL.

Nine of the ten investors profiled in this report are members of the Principles for Responsible Investment. We believe that if responsible investment is to mean anything, investors must view climate change as a systemic risk and act accordingly to protect their asset owners. Given the receding chances of containing global warming, the Missing55 must join 2°C resolution supporters to become forceful stewards. This will mean:

- Working with energy utilities to understand the implications of the transition to a clean power system, which must occur by 2050.
- Demanding a transparent transition plan that aligns with the Paris Agreement on:
 - Emissions targets
 - Executive compensation
 - State and federal public policy engagement, including through trade bodies.
- Voting in support of 2°C shareholder resolutions until the utility delivers a clean-energy transition plan that aligns with the Paris Agreement.

Preventable Surprises' report, *Flip the Switch*, goes into greater detail on how to design an effective transition plan for energy utilities. The guidance note provides investors with eight questions they can ask to ensure that utilities are taking the steps necessary to decarbonise and reduce transition risk.







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