

CLIMATE IN THE BOARDROOM

HOW ASSET MANAGER VOTING
SHAPED CORPORATE CLIMATE
ACTION IN 2020

Photo: Oroville, California, September 2020

majorityaction



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This study uses data obtained from Proxy Insight on September 13, 2020.

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I. EXECUTIVE SUMMARY

In the face of a global pandemic, climate-driven hurricanes, wildfires, and other extreme weather events, and the subsequent economic crisis destroying lives, livelihoods, and property, it is clear that systemic risks are the greatest threat to global economic and financial stability. To investors' portfolios, the systemic risk of climate change is large, material, and undiversifiable—as well as undeniable. Investors and companies have been on notice since 2018 that the global economy must nearly halve carbon emissions in the next decade and reach net-zero emissions by 2050 to have just a 50% chance of limiting global warming to 1.5°C and avoiding the worst effects of a climate catastrophe.¹

In order to manage these systemic portfolio risks, investors must move beyond disclosure and company-specific climate risk management frameworks, and focus on holding accountable the relatively small number of large companies whose actions are a significant driver of climate change. Unfortunately, despite some recent progress, the largest systemically important carbon emitters and enablers in the U.S.—the energy, utility, automotive, and financial services sectors—remain far behind in the urgent business transformation needed to achieve a net-zero carbon future.²

To change company behavior to have a chance to avoid further climate catastrophe, shareholders who own these companies have the power and duty to hold their boards of directors accountable for the failure to align their strategies with the goals of the Paris Agreement. Given both the urgency of the transformation required and the influence provided by their holdings in these companies, leading investors worldwide are mobilizing to hold the largest emitters accountable to implement concrete and immediate decarbonization plans. Despite this, **BlackRock and Vanguard, the world's largest asset managers and largest shareholders of the vast majority of S&P 500 companies, continue to undermine global investor efforts to promote responsible climate action at these critical companies—even as they publicly tout their commitment to addressing the climate crisis.**³

This report reviews the contributions, or lack thereof, of the world's 12 largest asset managers to hold large U.S. energy, utility, financial services and automotive manufacturing companies accountable to combat climate change and the risks it poses to long-term shareholders and other stakeholders. Collectively they have \$27.65 trillion in assets under management.⁴ As managers of investments and retirement



Photo: Stevens Creek Reservoir, California

savings for millions of people in the U.S. and abroad, they are responsible for serving as stewards for the interests of long-term investors of all sizes. This report measures how these asset managers voted on director elections and advisory votes on top executive compensation (also known as “say-on-pay” votes) at large-capitalization U.S. companies in these critical industries, as well as their performance on critical climate-related shareholder proposals at these and other S&P 500 companies.

The key findings of this review include:

- BlackRock and Vanguard voted for 99% of U.S. company-proposed directors across the energy, utility, banking and automotive sectors reviewed in this report. BlackRock voted for 100% of company-proposed directors at the banking and auto companies included in this analysis, 99.7% at utilities, and 98% at oil & gas companies. Vanguard voted for 100% of company-proposed directors across the oil and gas, banking, and automotive companies, and in favor of 99% at utilities. BlackRock’s 2020 votes come just months after CEO Larry Fink declared that BlackRock would put climate change at the center of its investment strategy.⁵
- BlackRock and Vanguard not only voted with management more often than most of their asset manager peers; they were just as likely to support management at utilities that had made a net-zero commitment prior to their annual meeting as at those that had not made such a commitment.
- BlackRock and Vanguard voted overwhelmingly against the climate-critical resolutions reviewed in this report, with BlackRock supporting just 3 of the 36, and Vanguard only 4. At least 15 of these critical climate votes would have received majority support of voting shareholders if these two largest asset managers had voted in favor of them. These included proposals that would have held JPMorgan Chase’s board accountable for its role as the world’s largest fossil fuel financier, and as was also the case in 2019, a proposal to bring much-needed transparency to the lobbying efforts of Duke Energy, one of the largest and highest-emitting electric utilities in the U.S.⁶
- BlackRock voted against 10 of the 12 of the shareholder proposals flagged by the \$47 trillion Climate Action 100+

investor coalition, despite joining that coalition earlier in 2020, undermining the largest global investor efforts for accountability and transparency in the energy, utility, industrial and automotive sectors.

- In contrast, other large asset managers are choosing to set and enforce policies to hold corporate boards accountable if climate-related concerns are not adequately addressed. Legal & General Investment Management and PIMCO had the highest rate of voting against management-proposed director candidates in the energy, utility, banking and automotive sectors. Legal & General and PIMCO also supported all of the shareholder proposals analyzed in this study, voting in favor of improved emissions disclosures and reduction plans, transparency regarding corporate political influence activity, and governance reforms to improve accountability to long-term shareholders.

In response to growing criticism of their voting behavior, BlackRock and Vanguard have begun to make limited disclosures of their voting decisions on climate issues, and BlackRock has said it will consider voting against directors of companies that fail to adequately manage climate risk.⁷ But aside from a small number of votes, **market leaders BlackRock and Vanguard overall chose to continue to shield management across these climate-critical sectors in the U.S. from accountability, serving as a roadblock for global investor action on climate.**

This report recommends that asset owners review their voting policies to enable them to vote against directors of companies with systemic importance to the climate if those companies are failing to make the necessary transition to a net-zero future. Given the urgency of the need to set companies on the path to net-zero, it calls on asset owners to vote against chairs and lead independent directors at systemically important carbon emitters that have failed to set targets of achieving net-zero carbon emissions by 2050 at the latest in the 2021 shareholder season. Finally, this report recommends that asset owners closely examine the proxy voting activities of the asset managers they engage, demand greater transparency on those managers’ voting decisions, call the asset managers to account for inadequate voting policies and practices, and consider those activities when evaluating and selecting asset managers.

II. INTRODUCTION

An aerial photograph of a glacier, showing a large, irregularly shaped cavity or meltwater pool. The ice is a pale, textured white, and the water is a deep, dark blue. The surrounding terrain is rugged and rocky.

Climate Risks are Accelerating

The October 2018 report of the Intergovernmental Panel on Climate Change (IPCC) makes clear we are on track to climate disaster, and we have just a decade to avert the worst of it.⁸ Since the release of the 2018 IPCC report, the impact of a changing climate and increasing global temperatures has been felt around the world. Wildfires have burned out of control in Australia, Brazil, the Arctic, and the U.S., leading to loss of life, the destruction of property and infrastructure, and irreparable damage to ecosystems.⁹ The 2019 Atlantic hurricane season was the fourth in a row with above average activity, including Hurricane Dorian which devastated the Bahamas in September of that year.¹⁰ Ice sheets in Greenland and Antarctica are melting at a rapidly increasing rate, matching the worst-case scenarios of the IPCC's modelling.¹¹ In June 2020, temperatures in the Arctic Circle rose for the first time above 100° Fahrenheit.¹²

Allowing average global temperatures to rise above 1.5°C over preindustrial levels dramatically increases the risks of triggering warming feedback loops including permafrost thaw, weakening land and ocean carbon sinks, Amazon rainforest dieback, reduction of northern hemisphere snow cover, loss

of Arctic summer sea ice, and reduction of Antarctic sea ice and polar ice sheets. These tipping points may be abrupt and irreversible.¹³

In the midst of the global pandemic, European Central Bank Executive Board member Isabel Schnabel warned, "Climate change is probably the biggest challenge we are facing, much bigger than the pandemic."¹⁴ She emphasized that climate risk must be integrated into economic policy and expressed concern that markets may not be pricing climate risks properly.

In addition, the U.S. Commodity Futures Trading Commission (CFTC) issued a new report that warned, "A world racked by frequent and devastating shocks from climate change cannot sustain the fundamental conditions supporting our financial system." It added, "the process of combating climate change itself—which demands a large-scale transition to a net-zero emissions economy—will pose risks to the financial system if markets and market participants prove unable to adapt to rapid changes in policy, technology, and consumer preferences."¹⁵

“A WORLD RACKED BY FREQUENT AND DEVASTATING SHOCKS FROM CLIMATE CHANGE CANNOT SUSTAIN THE FUNDAMENTAL CONDITIONS SUPPORTING OUR FINANCIAL SYSTEM.”

-U.S. COMMODITY FUTURES TRADING COMMISSION

Climate change exposes entire portfolios to substantial risk

Climate change will impose immense costs on all parts of society and poses specific risks to long-term investors worldwide. These include extreme weather events, rising pollution-related risks to human health, biodiversity collapse, with increased death rates, severe political instability, famine, disease, and mass migration posing material risks to investors and ultimately, the habitability of the planet. These risks are large, quantifiable, and undiversifiable. Globally, the Central Banks and Supervisors Network for Greening the Financial System (NGFS) estimated in its 2020 Climate Scenarios Report that the losses from physical risks alone could be as high as 25% of GDP by 2100 if no further action is taken on climate change beyond existing policy measures.¹⁶

According to researchers at Stanford University, if emissions are left unchecked through 2100, GDP per capita losses in the United States could range between 6.7% and 14.3% annually.¹⁷ For context, a 5% loss to U.S. GDP in 2019 would have amounted to about \$1 trillion in lost economic output; the global coronavirus pandemic caused a one-time loss to U.S. GDP of 9.5% in the second quarter of this year, much or all of which may be recovered in subsequent quarters.¹⁸ Moreover, these estimates do not account for the variety of human costs of climate change. The World Health Organization estimated in 2017 that failure to adapt to climate change will result in 250,000 excess deaths per year by 2050.¹⁹

Beyond the risks to particular companies and sectors, climate change will impose undiversifiable, portfolio-wide risks to long-term and institutional investors with broad market exposure. It will impact all sectors and all asset classes, including equities, fixed income, real estate, private equity, and commodities. A report by the Cambridge Centre for Risk Studies found that portfolio-wide risks imposed by climate change would be “unhedgeable,” since any actions that investors can take—changing asset allocations among asset classes and regions, for example—would only negate about half of the negative impacts.²⁰ More specifically, the study found that, under a “no mitigation” and worst-case climate scenario, investors could hedge about 47-51% of negative impacts through industry, sector, and asset class diversification. Further, the “no mitigation” scenario implied that a conservative portfolio with 40% equity holdings could suffer “permanent losses of more than 25% within five years

after a financial tipping point has been reached,” and an aggressive portfolio of 60% equity holdings with exposure to emerging markets could suffer more than 45% of permanent losses within five years.²¹

Climate change can seem to be a slow-moving crisis, with atmospheric carbon and global temperatures rising inexorably over many years. However, as noted above, there are dangerous tipping points that, once reached, can cause abrupt and irreversible damage. The same is true of the economic impacts of climate change, where the effects of rising temperatures on factors such as labor productivity or crop yields can become nonlinear above certain thresholds.²² In the financial system, large and sudden asset revaluation could cause contagion and feedback effects in the financial system leading to widespread financial instability.²³

Many estimates of the impacts of climate change do not take into account the possibility of these massive tail risks and black swan-type events.²⁴ These include large-scale food and water shortages, stronger weather disruptions, destruction of ecosystems, major population centers becoming uninhabitable, and the geopolitical risks of major social upheaval.²⁵ These risks cannot be managed in a traditional risk management framework, which extrapolates from historical data and relies on assumptions of normal distribution of outcomes. Instead, integrating climate-related risks requires, according to the Bank of International Settlements, an “epistemological break” to refocus risk management on forward-looking scenario analyses to adequately price and manage these risks.²⁶

These risks are already impacting portfolios

Certain companies and sectors are particularly exposed to climate risks, including physical risks to tangible assets and infrastructure and transition risks, for example the lost value from stranded assets. The physical risks to investments in the U.S. are already being made manifest. Extreme weather events have been associated with losses of more than \$460 billion in the last three years alone from hurricanes, flooding, and wildfires. Nearly half of the losses associated with extreme weather events over the past 40 years have occurred in the last decade.²⁷

A study by the International Monetary Fund found that while the average market impact of climatic disasters from the last 50 years was modest, the impact on the aggregate market of

extreme events over the same period was substantial, greater than 14%, "indicating that some climatic disasters can have a meaningful effect on financial stability."²⁸ It is these extreme climatic events that will increase in number and severity in the future.²⁹

Transition risks, in particular the risk of revaluations of stranded assets, could also be significant in fossil fuel-intensive industries. Estimates of the current value of stranded assets vary widely, but multiple studies agree that the loss in global wealth from stranded fossil fuel assets will amount to trillions of dollars. "Climate change poses unprecedented challenges to human societies, and our community of central banks and supervisors cannot consider itself immune to the risks ahead of us," warned Banque de France Governor François Villeroy de Galhau. "The increase in the frequency and intensity of extreme weather events could trigger non-linear and irreversible financial losses."³⁰

Changes in the energy market have only intensified since the global pandemic. In June of this year, the oil giant Shell announced that it would reduce the value of its assets by an after-tax \$15-\$22 billion after lowering its long-term outlook for oil and gas prices.³¹ That same month, BP also announced

that it would take up to a \$17.5 billion write-down of its assets, citing the global pandemic's "enduring impact on the global economy" and an accelerated "pace of transition to a lower carbon economy and energy system."³²

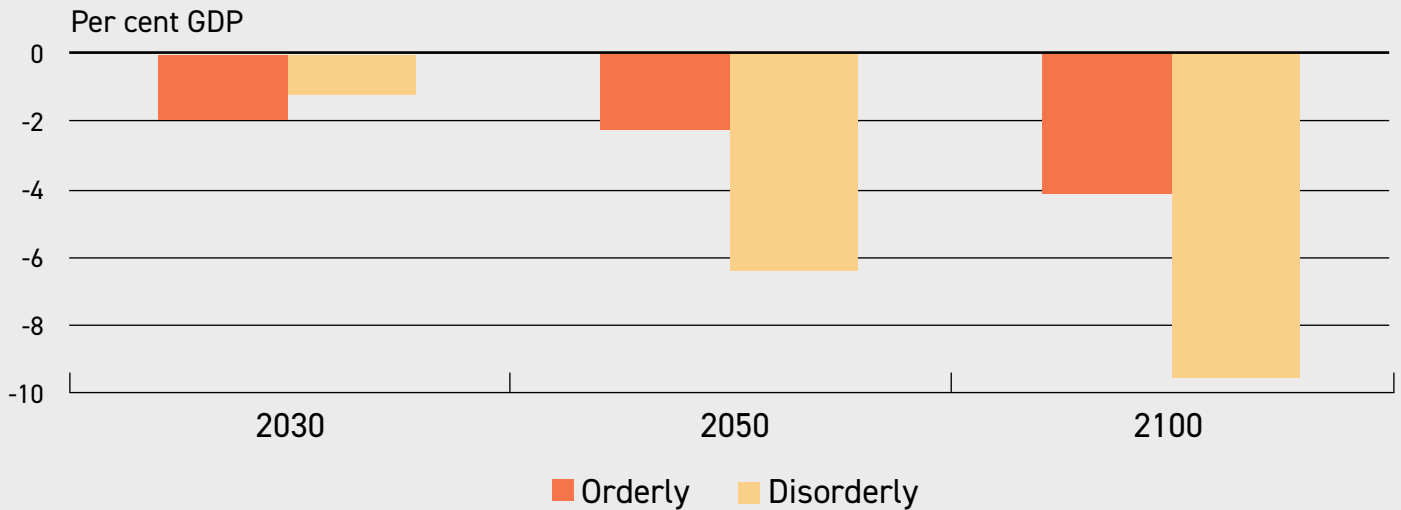
According to Carbon Tracker, the impairment prices used at these firms still do not meet the goals of the Paris Agreement, but the shift is a promising one. Carbon Tracker found that "European companies are far ahead of US Peers—none of ExxonMobil, Chevron or ConocoPhillips disclose impairment price assumptions at all, never mind attempting to align with international climate commitments."³³

Under an "orderly" climate scenario— which assumes climate policies are introduced early and become more stringent to achieve net-zero emissions before 2070— impacts from transition risks can be limited to 2% cumulative GDP loss by 2050 and 4% by 2100. A "disorderly" scenario— which assumes climate policies are not introduced until 2030— imposes far higher costs. By 2100, these could add up to a 9% loss in GDP from transition costs alone. Even this dire forecast does "not adequately account for all sources of risk, including low probability high impact events, sea level rise, extreme events and societal changes like migration and conflict."³⁴



Photo: Juniper Hills, California, September 2020

CUMULATIVE GDP IMPACT FROM TRANSITION RISK



CUMULATIVE GDP IMPACT FROM PHYSICAL RISK

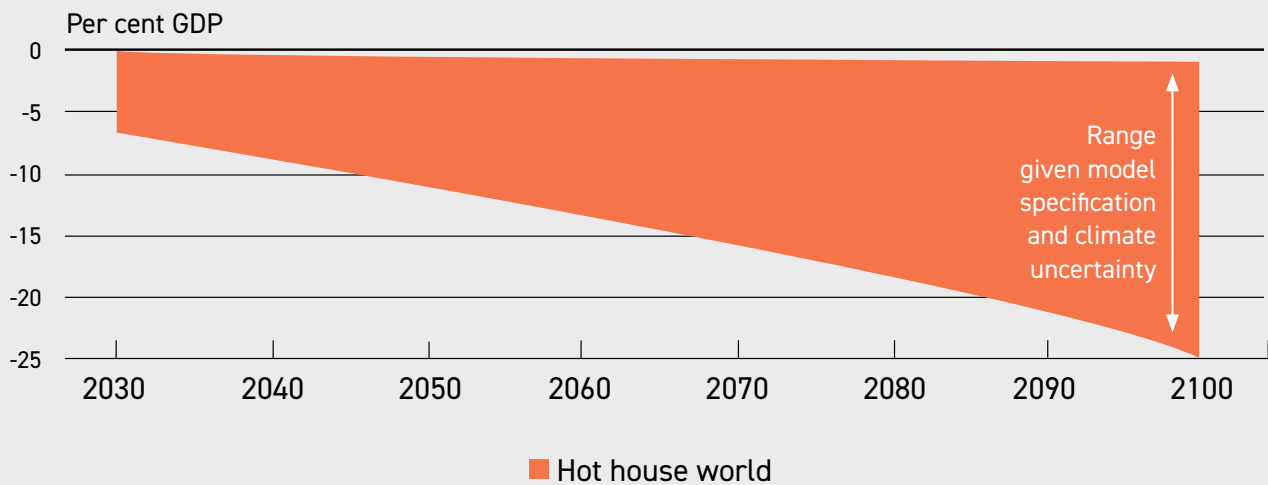


Figure 1: Cumulative GDP Impact From Transition and Physical Risks

Source: Network of Central Banks and Supervisors for Greening the Financial System³⁵

The World Economic Forum's Global Risks Report for 2020 warns that extreme weather events could make insurance unaffordable or unavailable for individuals and businesses and that pension funds may face "catastrophic shortfalls." It further warns that *en masse* mortgage defaults as property in vulnerable regions becomes uninsurable could disrupt real estate and mortgage markets.³⁶

An analysis by the Principles for Responsible Investment's Inevitable Policy Response program found that an abrupt and disruptive policy response to climate change could "permanently wipe" \$1.6-\$2.3 trillion off the valuation of companies in the MSCI ACWI index, an amount equal to the value of the largest 12 to 33 companies in the FTSE100.³⁷ Some sectors, including oil and gas companies and electric power producers without a robust strategy to transition to

renewable energy could suffer substantially greater losses. **It finds that the ten largest companies in the integrated oil and gas exploration and production sector could lose nearly a third of current value, and electric utilities without a strong strategy to transition to renewable energy could see valuations fall by two-thirds.**

Moody's has estimated that up to \$3.7 trillion in rated debt is in sectors most exposed to negative credit developments as a result of climate change transition risks.³⁸ A study by Carbon Tracker found that fossil fuel-related industries now account for \$8 trillion in publicly traded debt—53% of non-financial corporate bonds. The study warned that continued spending on expansion by fossil fuel businesses mean that this large segment of the financial system is "ripe for disruption."³⁹



III. MITIGATING SYSTEMIC CLIMATE RISK THROUGH MANAGING CLIMATE IMPACT

Given the enormity of the risks facing the global financial system as a result of climate change, there is unprecedented global investor attention to these issues, for example through investor coalitions like the Climate Action 100+. Many investors engaging with companies on climate issues have focused on how companies are measuring, disclosing, and managing the climate related risks they face through mechanisms such as the Task Force on Climate-related Financial Disclosures (TCFD). As Ben Caldecott, Director of the Oxford Sustainable Finance Programme, argues, despite certain successes in advancing climate risk disclosure and management frameworks, there remains a substantial gap between an individual company's disclosure and management of climate risks to its own business and ensuring that the company's actions contribute to acceptable climate outcomes. For example, a company may reduce its individual exposure to climate risks by moving polluting activities to a country with weaker environmental standards than its home market while making no contribution to reducing carbon emissions or even increasing net carbon pollution overall.⁴⁰ Similarly, though oil major Chevron provides climate risk reporting that BlackRock

says is "aligned with [TCFD] and the Sustainability Accounting Standards Board (SASB)," making Chevron, "a leader among US peers," the company has made no commitment to actually re-aligning its exploration and production capital expenditures so as not to produce fossil fuels beyond a carbon budget that limits warming to well below 2°C.⁴¹

The relatively small number of large companies whose actions are a significant driver of climate change, both from their direct and indirect emissions and their role in setting standards and influencing public policy, creates outsized consequences for long-term, diversified investors. For long-term shareholders with broad exposure across sectors and asset classes, the risks to the portfolio as a whole from these companies' actions are significantly larger than the risks of adverse financial outcomes to any one particular company.⁴²

Therefore, for investors to manage the portfolio-wide risks of climate change, they must focus on ensuring the largest companies in systemically important sectors are on a path to reducing their emissions to net-zero by 2050 or sooner.

Electric power, oil & gas, automotive manufacturing & financial services are systemically important sectors

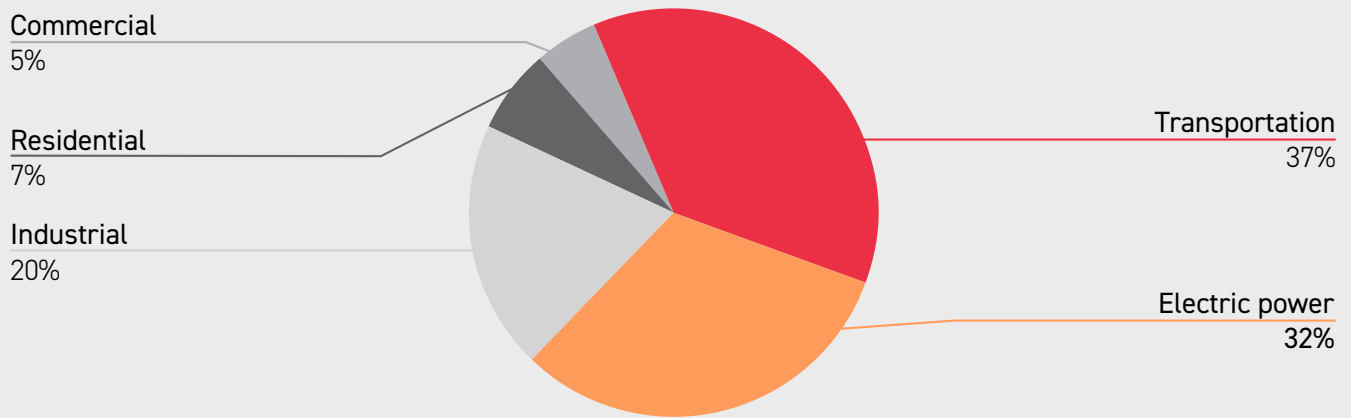
While climate change is a global problem, U.S.-based companies have an important role to play in reducing emissions and contributing to meeting the goals of the Paris Agreement. The U.S. has been responsible for more cumulative greenhouse gas emissions since the Industrial Revolution than any other country, and remains among the highest emitters per capita.⁴³ In the absence of comprehensive government action to reduce emissions in the U.S., it is in investors' interest to protect their portfolios through influencing corporate behavior in key, systemically important sectors.

In the U.S., carbon dioxide emissions from the burning of fossil fuels in the energy system accounts for more than 80% of total

greenhouse gas emissions.⁴⁴ The remaining emissions result from other greenhouse gases generated by agriculture and land use activities, fugitive methane emissions, and certain industrial processes. Reducing economy-wide greenhouse gas emissions to net-zero will require tackling both the demand and supply of fossil fuels.

Demand for fossil fuels is driven by the transportation and electric power production industries, which are the largest consumers of fossil fuels and the heaviest emitters of greenhouse gases in the energy system, accounting for 37% and nearly 32% of emissions from the energy system, respectively (see Figure 2).⁴⁵ Within transportation, 59% of emissions come from light-duty vehicles (see Figure 2).⁴⁶

CO₂-EQUIVALENT EMISSIONS FROM THE ENERGY SYSTEM BY END USE, 2019



GREENHOUSE GAS EMISSIONS IN THE TRANSPORTATION SECTOR BY SOURCE

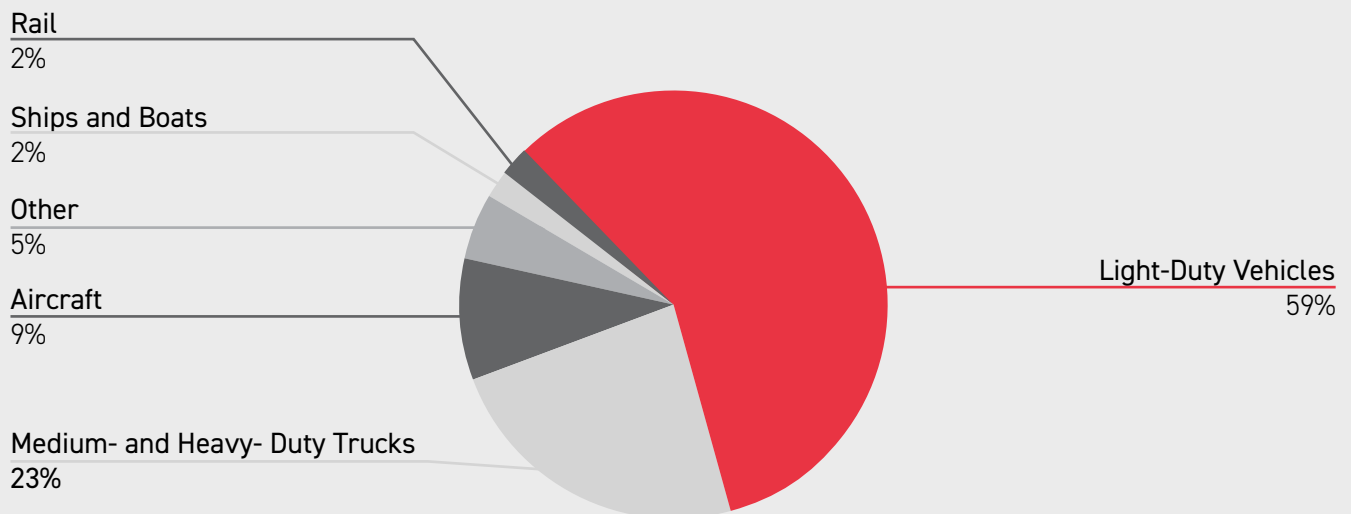


Figure 2: Contribution to U.S. greenhouse gas emissions⁴⁷

Source: U.S. Energy Information Administration, U.S. Environmental Protection Agency

The decarbonization of electric power production and light-duty vehicles is critical, given their contribution to U.S. greenhouse gas emissions. Because the main strategy for reducing emissions from road transportation will be vehicle electrification, the decarbonization of electric power production will support further emissions reductions in the transportation sector as well.

The primary fossil fuels used in transportation are petroleum products, while in electric power production coal and natural

gas are the largest contributors to emissions.⁴⁸ Coal as a share of electricity production has declined dramatically in the past decade, with natural gas largely taking its place.⁴⁹ While accelerating the closure of remaining coal-fired electricity plants will be necessary to continue to drive down the emissions intensity of electricity, its use as a fuel for electricity generation in the U.S. has peaked. Meanwhile, natural gas continues to grow as a generation fuel.

U.S. ANNUAL ELECTRICITY GENERATION BY ENERGY SOURCE (1970-2019) billion megawatt hours

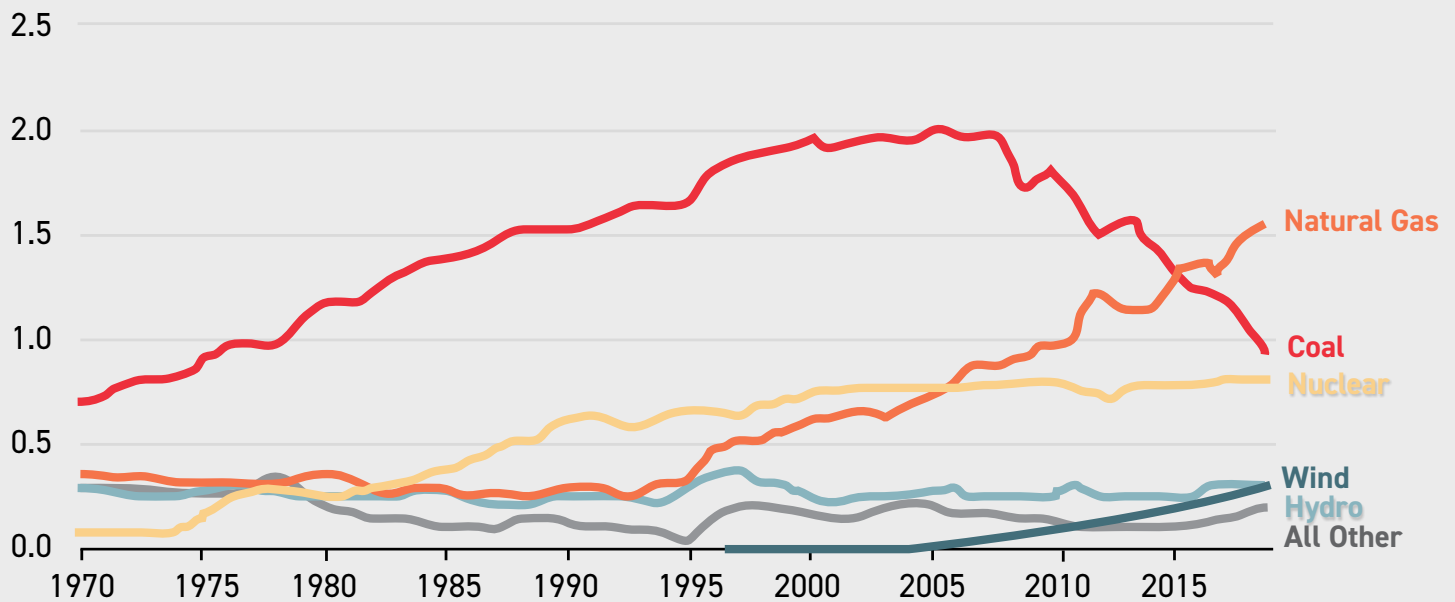


Figure 3: U.S. annual electricity generation by energy source (1970-2019)⁵⁰
Source: U.S. Energy Information Administration, *Monthly Energy Review*

Therefore, in addition to companies in the electric power production and automotive manufacturing industries, companies in the oil and gas industry provide the greatest opportunity for large-scale emissions reductions in the U.S. energy system. These industries feature a number of large companies that are directly and indirectly responsible for a large share of carbon emissions in the U.S. Their capital expenditure and financing decisions, particularly on long-lived assets, have the potential to lock in carbon emissions for decades to come. They also wield significant influence over public policy through political and lobbying activities, and as such are important actors in shaping climate-related policies.⁵¹

In addition to these core industries, financial services companies enable continuing carbon emissions by providing financing, advisory and underwriting services to fossil fuel projects and fossil fuel-intensive companies. Given the capital intensity of the oil and gas, utility, and automotive

manufacturing industries, financial services companies have a crucial role to play in decarbonizing those and other sectors.

Systemically important carbon emitters must transition to net-zero by 2050 at the latest

Companies may argue that their investment decisions enhance short- or medium-term profitability. However, in addition to creating company-specific risks, their actions also have material impact on the financial system as a whole. Protecting long-term shareholder value and the stability of the financial system requires systemically important carbon emitters to transition to net-zero emissions by 2050 at the latest. While industries and companies will have different pathways to net-zero and face different challenges in doing so, all must reach the same endpoint. Investors must have confidence in the ability and willingness of boards to oversee the changes to business strategy, capital expenditures, and governance arrangements necessary to reach net-zero emissions.

Utilities and electric power

Utilities remain one of the largest sources of carbon emissions in the U.S. economy, and their capital investments in electric power infrastructure have the potential to lock in emissions for decades to come. While there have been a number of new commitments at major utilities to reduce their emissions to net-zero by 2050, the industry as a whole is not on track to do so. Carbon Tracker recently found that no major global utility with coal generation capacity has a retirement schedule consistent with the goals of the Paris Agreement.⁵²

While coal generation has increasingly become uneconomic in the United States, gas generation infrastructure has massively expanded. U.S. utilities added more than 120 GW in gas-fired capacity between 2008 and 2019, and this expansion continues unabated—at least 200 new plants providing an additional 70

GW of capacity were planned or in development as of last December.⁵³ According to the Rocky Mountain Institute, U.S. utilities have announced plans to invest in an additional \$70 billion in new gas-fired power plant construction between now and 2025.⁵⁴

At the time of Majority Action's September 2019 asset manager report, only one of the largest electric power companies by generation in the U.S.—Xcel Energy—had made a commitment to reduce its carbon emissions to net-zero by 2050. Since then, under pressure from investors and others, an additional seven have done so (See chart below). While the number of net-zero pledges in the utility sector is encouraging, it is not yet clear whether the largest utilities have begun to reshape their business strategies to meet those goals.

NET-ZERO GOALS SET BY 8 OF 20 LARGEST PUBLICLY TRADED U.S. ELECTRIC UTILITIES⁵⁵

COMPANY	DATE	COMMITMENT
Xcel Energy ⁵⁶	12/3/18	"[W]e aspire to serve our customers with carbon-free electricity by 2050. The technology to achieve this aspiration isn't commercially available yet, but I believe it can be available if we make it a priority today."
DukeEnergy Corporation ⁵⁷	9/17/19	"[R]educe carbon dioxide emissions at least 50 percent by 2030 from 2005 levels, and strive to be net-zero by 2050."
NRG Energy ⁵⁸	9/24/19	"NRG Commits to Reducing Greenhouse Gas (GHG) Emissions 50% by 2025 and Achieving Net-Zero Emissions by 2050, from a 2014 Baseline."
DTE Energy ⁵⁹	9/26/19	"[DTE announced] goal to achieve net zero carbon emissions in its electric company by 2050...Achieving carbon neutrality will require further advancements in technology, such as carbon capture, large-scale storage, and modular nuclear facilities." [Updated in June 2020 to include gas distribution in addition to electric.]
Pinnacle West Capital Corp ⁶⁰	1/22/20	"We've set . . . [a]n aspirational goal to provide 100 percent clean, carbon-free electricity by 2050."
Dominion Energy ⁶¹	2/11/20	"The [net-zero] goal covers carbon dioxide and methane emissions, the dominant greenhouse gases, from our electricity generation and gas infrastructure operations ... [by] moving to extend licenses for its zero-carbon nuclear generation fleet, promoting customer energy efficiency programs, and investing in wind and solar power, lower-carbon natural gas, and carbon-beneficial ["renewable" natural gas]."
The Southern Company ⁶²	5/27/20	"To achieve the net-zero goal, the company will continue to reduce GHG emissions and continue our long-term commitment to energy efficiency, but also incorporate negative carbon solutions, including technology-based approaches such as direct air capture of carbon as well as natural methods like afforestation."
WEC Energy Group ⁶³	7/30/20	"Plans to retire coal fueled units, build advanced technology natural gas units and invest in cost-effective, zero-carbon renewable generation in order to be carbon neutral by 2050."



Photo: **Plumas County, California, September 2019**
Credit: INCIWEB/US Forest Service Handout/EPA-EFE/REX

For example, Duke Energy, the nation's largest generator of electricity,⁶⁴ announced its net-zero target in September 2019. In May 2020, Duke released a more detailed plan, "Achieving a Net Zero Carbon Future." Instead of rapidly winding down its reliance on fossil fuels, Duke plans to continue burning coal until 2045, increase its reliance on natural gas through 2030, and maintain some natural gas capacity until at least 2050.⁶⁵ In its most recent filings with the North and South Carolina regulators, Duke offered six capital investment scenarios for the next fifteen years, without stating a preference among them. Five of the six would involve adding additional natural gas capacity, with the company proposing to add from 6.1 to 9.6 GW in new gas capacity through 2035.⁶⁶

Similarly, a review of the investment plans of Southern Company, the fifth-largest electricity generator in the U.S. and third-largest emitter,⁶⁷ shows that the company is not on track to meet its net-zero commitment. An analysis by the Energy and Policy Institute revealed that Southern was seeking authorization to expand natural gas generation capacity in Alabama and continued to oppose demands that it accelerate the closure of uneconomic coal-fired plants in Georgia and Mississippi.⁶⁸

Oil & gas producers

Despite the fact that oil supplies currently in production already exceed the carbon budget for limiting warming to 1.5°C, oil and gas majors are still planning billions in capital expenditures to support new exploration and production.⁶⁹ Carbon Tracker found that all of the major oil companies have sanctioned projects in recent years that fall outside the carbon budget for meeting Paris Agreement goals, including ExxonMobil's oil sands Aspen project in Canada and Chevron's deep water Gorgon/Jansz Phase 2 project in Australia.⁷⁰ Despite delays and a collapse in oil prices, ExxonMobil remains committed to its plan, announced in 2018, to spend \$230 billion to expand production by an additional one million barrels of oil and gas a day by 2025.⁷¹

None of the 21 S&P 500 energy sector companies covered by this report has yet made a net-zero commitment.⁷² The three U.S. oil majors, ExxonMobil, Chevron, and ConocoPhillips limit their climate commitments to slightly reducing emissions intensity from some aspects of their operations.⁷³ All three fail to make any commitment to phase out the extraction and production of fossil fuel or to reduce Scope 3 emissions

caused by the consumption of their fossil fuels, despite the fact that the vast majority of the emissions come from oil and gas burned in transportation and electric power production.

All three lag far behind their Western European counterparts. Indeed, a July 2020 review of the sustainability plans of 30 U.S. and European oil and gas companies found that every U.S. firm lags behind the European oil majors on setting meaningful energy transition goals.⁷⁴

European oil companies, including BP, Royal Dutch Shell and Total as well as smaller firms, have announced substantial greenhouse gas emissions targets, which include some Scope 3 emissions. In the past year, each of the western European oil giants has recognized long-term impairment of their assets due to energy transition and declining demand for fossil fuels.⁷⁵ Each of the three has taken the additional step of withdrawing from some U.S.-based oil lobbying groups because of their positions on climate-critical issues, although they remain members of the American Petroleum Institute, an influential opponent of environmental and climate regulation.⁷⁶

Banks and financial services companies

Four U.S.-based global systemically important banks (G-SIBs)⁷⁷ were the world's largest fossil fuel financiers in 2016-2019: JPMorgan Chase, Wells Fargo, Citigroup and Bank of America. Together with two other U.S. G-SIB-designated banks, Morgan Stanley and Goldman Sachs, these largest U.S. banks provided slightly under \$1 trillion in fossil fuel project financing in 2016-19, according to a 2020 study by the Rainforest Action Network. The study found that eight of the "dirty dozen" largest banking sector funders of fossil fuel projects were U.S. or Canadian banks, while 11 of the 12 banks which have the best record on limiting their investment in fossil fuel projects are based in Europe.⁷⁸

Under pressure from shareholder activists and environmentalists, some of these institutions have taken small steps toward climate accountability. In July, Bank of America, Citi and Morgan Stanley committed to disclosing the GHG emissions associated with their loans and investments by joining the Partnership for Carbon Accounting Financials (PCAF). However, as of September 9, none of the three were among the 16 PCAF members which have already issued disclosures.⁷⁹

The world's largest fossil fuel financier, JPMorgan Chase, has responded to pressure for change by implementing narrow restrictions on coal infrastructure and Arctic drilling that only cover a tiny portion of JPMorgan's overall fossil fuel financing activities.⁸⁰ Since then, management of the company opposed and narrowly defeated a resolution at its 2020 shareholder meeting which called for increased disclosure of lending that impacts climate change.⁸¹

Of the six leading U.S. fossil fuel financiers, only Morgan Stanley has committed to aligning its financing activities with achieving net-zero financed emissions by 2050.

Though none of the leading non-U.S. banks have abandoned fossil fuel finance entirely, many have announced stronger commitments to change than any of their U.S. counterparts. In the United Kingdom, three banks this year announced phased reductions in fossil fuel finance.

- Barclays declared its ambition to achieve net-zero by 2050 and to align its financing activities with the goals of the Paris Agreement.⁸²
- The Royal Bank of Scotland said that in 2021 it will stop financing major oil and gas producers which lack a "Paris-aligned transition plan" and will

completely phase out lending for the coal sector by 2030.⁸³

- Lloyds Banking Group pledged to reduce the carbon emissions it finances by more than 50% over the next decade.⁸⁴

Unless U.S. banks commit to aligning their financing activities with a net-zero goal, they will continue to exacerbate risk for the entire global financial system. To make such commitments meaningful and verifiable they must also comprehensively measure and disclose financed emissions, set clear interim targets, and cease financing expansion of fossil fuel infrastructure.

Automotive manufacturers

In the automotive sector, U.S. companies have lagged behind their European counterparts on key decarbonization metrics including target setting and sales of low-emissions vehicles, according to research reports from the World Benchmarking Alliance and the Union of Concerned Scientists (UCS).⁸⁵ A 2018 UCS study of eight of the world's largest automakers ranked the U.S. firms worst on average emissions (see Figure 4).⁸⁶

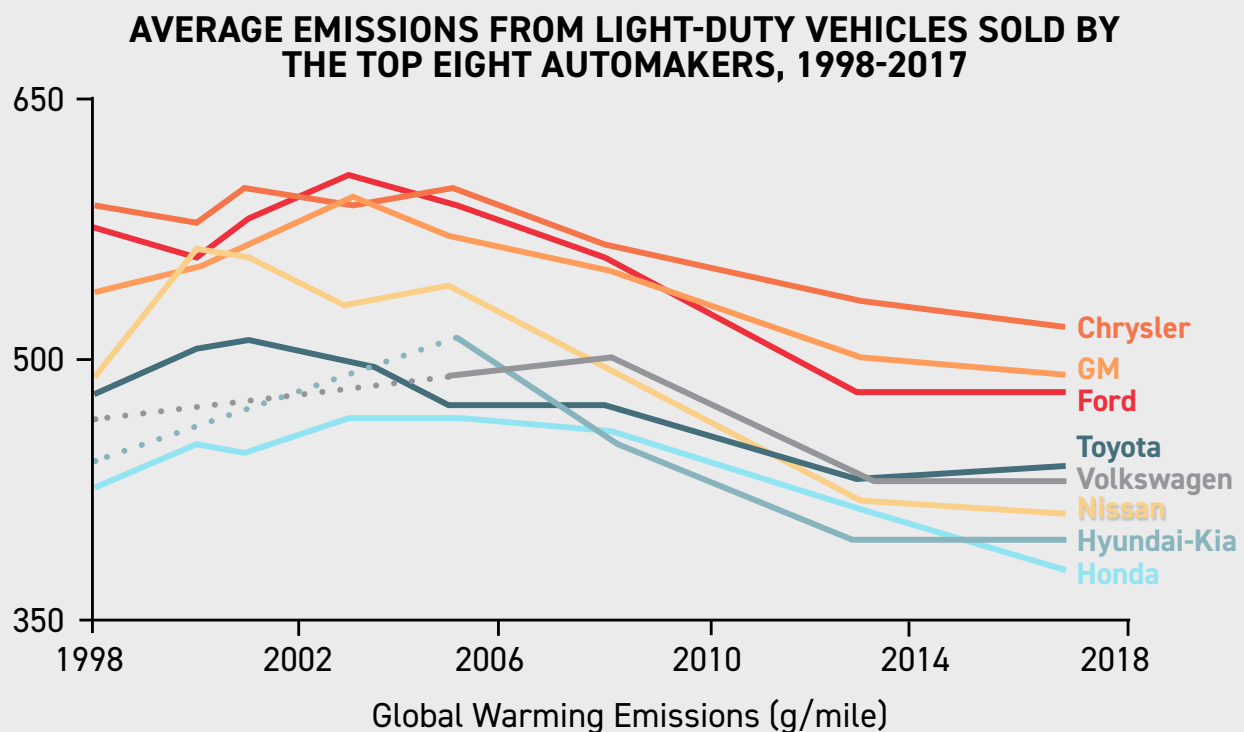



Figure 4: Average Emissions From Light-Duty Vehicles
Source: Union of Concerned Scientists⁸⁷

Ford recently promised to do better. In June 2020, Ford announced its ambition to achieve global carbon neutrality by 2050. Importantly, Ford plans to work with the Science-Based Targets Initiative to set targets to reduce emissions not only from its operations, but also emissions produced

by its suppliers and use of the vehicles it sells (Scope 3 emissions).⁸⁸ By contrast, General Motors has yet to set any Scope 3 emissions targets and plans to continue using fossil fuels to power its manufacturing facilities until 2040.⁸⁹



IV. LARGE ASSET MANAGERS HAVE THE POWER AND RESPONSIBILITY TO MANAGE SYSTEMIC CLIMATE RISK THROUGH PROXY VOTING

Individual companies may not yet face the right short-term incentives to unilaterally act to transition to net-zero emissions, but long-term shareholders with broad-based market exposure will suffer the consequences if systemically important firms fail to decarbonize. Asset managers, pension funds and other fiduciaries have a duty to maximize risk-adjusted returns for their beneficiaries at the portfolio level by influencing corporate behavior to reduce carbon emissions, even in the absence of sufficient or timely actions by governments.

Fundamentally, boards of directors must be held responsible for setting net-zero targets, overseeing the business transformation process, and developing necessary

governance structures to ensure success. Given the scale and complexity of both climate risks and the strategic changes required to reach net-zero emissions, robust, climate-competent, independent, board-level oversight is necessary. Large investors are beginning to publicly state the need for boardroom accountability in the face of climate risks: in his annual letter to CEOs, BlackRock CEO Larry Fink wrote that boards of directors should be held accountable for managing the material risks posed by climate change.⁹⁰ However, as the analysis in this report shows, while BlackRock and others' public declarations about climate risk have changed, their voting record on director elections at the largest oil and gas, utility, financial services and automotive manufacturing companies has not.



“WHERE WE FEEL COMPANIES AND BOARDS ARE NOT PRODUCING EFFECTIVE SUSTAINABILITY DISCLOSURES OR IMPLEMENTING FRAMEWORKS FOR MANAGING THESE ISSUES, WE WILL HOLD BOARD MEMBERS ACCOUNTABLE. **GIVEN THE GROUNDWORK WE HAVE ALREADY LAID ENGAGING ON DISCLOSURE, AND THE GROWING INVESTMENT RISKS SURROUNDING SUSTAINABILITY, WE WILL BE INCREASINGLY DISPOSED TO VOTE AGAINST MANAGEMENT AND BOARD DIRECTORS WHEN COMPANIES ARE NOT MAKING SUFFICIENT PROGRESS ON SUSTAINABILITY-RELATED DISCLOSURES AND THE BUSINESS PRACTICES AND PLANS UNDERLYING THEM.**”

– LARRY FINK
CHAIRMAN AND CHIEF EXECUTIVE OFFICER
BLACKROCK, INC.

Voting on director elections at systemically important carbon emitters is the single most direct and effective action long-term investors with broad market exposure can take to influence corporate decision making and protect the value of their portfolio as a whole. While dialogue and resolutions have been used to encourage change in corporate behavior for many years, progress on reducing companies' impact on climate change has been limited. The imperative of driving near-term change requires a more direct approach, particularly at companies that have proven recalcitrant.

Proxy voting policies that hold directors accountable for large companies' failure to decarbonize would protect investments not only in the securities issued by those companies but also investments in other companies and assets—including those in other asset classes—whose value is negatively affected by climate change.

The largest asset managers also have the greatest ability to impact corporate behavior through their substantial holdings in major companies and their outsized voting impact. BlackRock and Vanguard, the world's largest asset managers, both hold positions of more than 5% in nearly all S&P 500 companies.⁹² They are frequently the single largest shareholders in companies without a major inside shareholder.

Given that large asset managers are more likely to vote at company annual meetings than individual shareholders, their

impact on director elections as well as on management and shareholder proposals is even greater than their ownership stakes would imply. For example, in 2017, the three largest asset managers—BlackRock, Vanguard, and State Street—held on average 20.5% of the outstanding shares of S&P 500 companies, while casting 25.4% of votes at those companies.⁹³ This often gives these large asset managers the deciding vote when results are close.

Note on data and methods

This report analyzes the votes of the top 12 global asset managers, each of which had assets under management (AUM) greater than \$1 trillion as of December 31, 2019, according to Investments and Pensions Europe.⁹⁴ The list of top 12 asset managers can be found in Appendix A.

This report analyzes two dimensions of asset manager voting behavior: first, the extent to which each supported management recommendations at energy, utility, financial services, and automotive manufacturing companies on director elections and say-on-pay management proposals; second, how each voted on critical climate-related shareholder resolutions at S&P 500 companies in 2020. The first analysis included 56 major oil and gas, electric utility, financial services, and automotive manufacturing companies domiciled in the United States, defined as the S&P 500 companies that are in one of the following sectors and industries, as categorized by Proxy Insight:⁹⁵

- The "Energy" sector, excluding "Oil & Gas Equipment & Services";
- The "Utilities" sector, excluding "Water Utilities";
- The "Auto Manufacturers" industry; or
- The "Banks", "Banks - Global" or "Capital Markets" industries and are also designated as global systemically important banks.⁹⁶

The full list of companies in this universe appears in Appendix B.

For critical climate-related shareholder resolutions, only those that received at least 20% shareholder support were included, to ensure that asset managers' voting records were judged against resolutions with a baseline of significant shareholder support. A full list of these resolutions can be found in Appendix C.

These critical climate-related votes included:

1. All resolutions across the S&P 500 voted on in 2020 that directly related to a company's climate risks, greenhouse gas targets, scenario planning for climate change, and climate change transition planning, as reported in Proxy Insight. These resolutions were submitted to companies in multiple industries, including UPS, Dollar Tree, Yum! Brands, among others. Resolutions that addressed sustainability issues more generally were excluded.
2. Two additional sets of shareholder proposals for the 56 oil and gas, utility, financial services, and automotive manufacturing companies. Because the operations of companies in these industries are climate-critical, resolutions in the following areas can have a direct impact on company-level and global climate outcomes:
 - Election spending and lobbying disclosures, including resolutions calling on companies to disclose spending in elections or lobbying, including through trade associations and in the states, to ensure these activities are consistent with the goals of the Paris Agreement;
 - Proposals to improve governance and oversight by requiring independent board chairs, to ensure that the long-term interests of shareholders in protecting value against the material risks posed by climate change are taken into account in corporate governance and decision making.

3. Key governance and public policy influence resolutions at financial services and transportation companies, including those resolutions identified by Majority Action⁹⁷ and/or Climate Action 100+⁹⁸ as key climate votes for the 2020 shareholder season.

Voting data was provided by Proxy Insight as of September 13, 2020, based on 2020 N-PX filings for those asset managers that file N-PX reports with the SEC, other public data sources, and direct investor reporting to Proxy Insight.

Proposal votes are counted as "for" if 75% or more of funds within a fund family voted for a proposal and "against" if at least 75% of funds within a fund family opposed it. Director votes may be "against" or "withhold," depending on a company's voting standard for director elections. Both are treated as "against" votes. Votes where there was less agreement among funds in the same fund family are recorded as "mixed." Only actual votes for a shareholder resolution are considered votes in support of it, with abstentions being counted as non-votes. The support percentage is calculated by: votes in support / (votes in support + votes against).

Finally, this report identifies resolutions that did not obtain majority support, but would have done so with the support of one or more of the largest asset managers. To determine this, the percent of common stock outstanding (%CSO) held by the asset manager, as disclosed in the issuer's definitive proxy statement, was added to the percent support obtained by the resolution. This approach does not precisely match the voting impact an asset manager may have had, as asset managers do not disclose precisely how many shares were voted on any given resolution. In addition, an asset manager may have beneficial ownership over shares for which it does not have voting rights. Conversely, large asset managers tend to vote their shares at a higher rate than other shareholders, which amplifies their voting power beyond what is represented by %CSO. That amplification is greatest at companies with lower shareholder turnout, where the number of shares voted at the meeting can be significantly lower than the number of shares outstanding. Therefore, the %CSO method represents a conservative approach, often significantly undercounting the potential of top managers to swing close votes. More detailed discussion of this can be found in Majority Action's 2019 *Climate in the Boardroom* report.⁹⁹



Photo: Holly Beach, Louisiana, August 2020

V. ASSET MANAGERS VOTING WITH CORPORATE MANAGEMENT ON DIRECTOR AND SAY-ON-PAY VOTES

SUPPORT FOR MANAGEMENT-SPONSORED DIRECTORS BY SECTOR

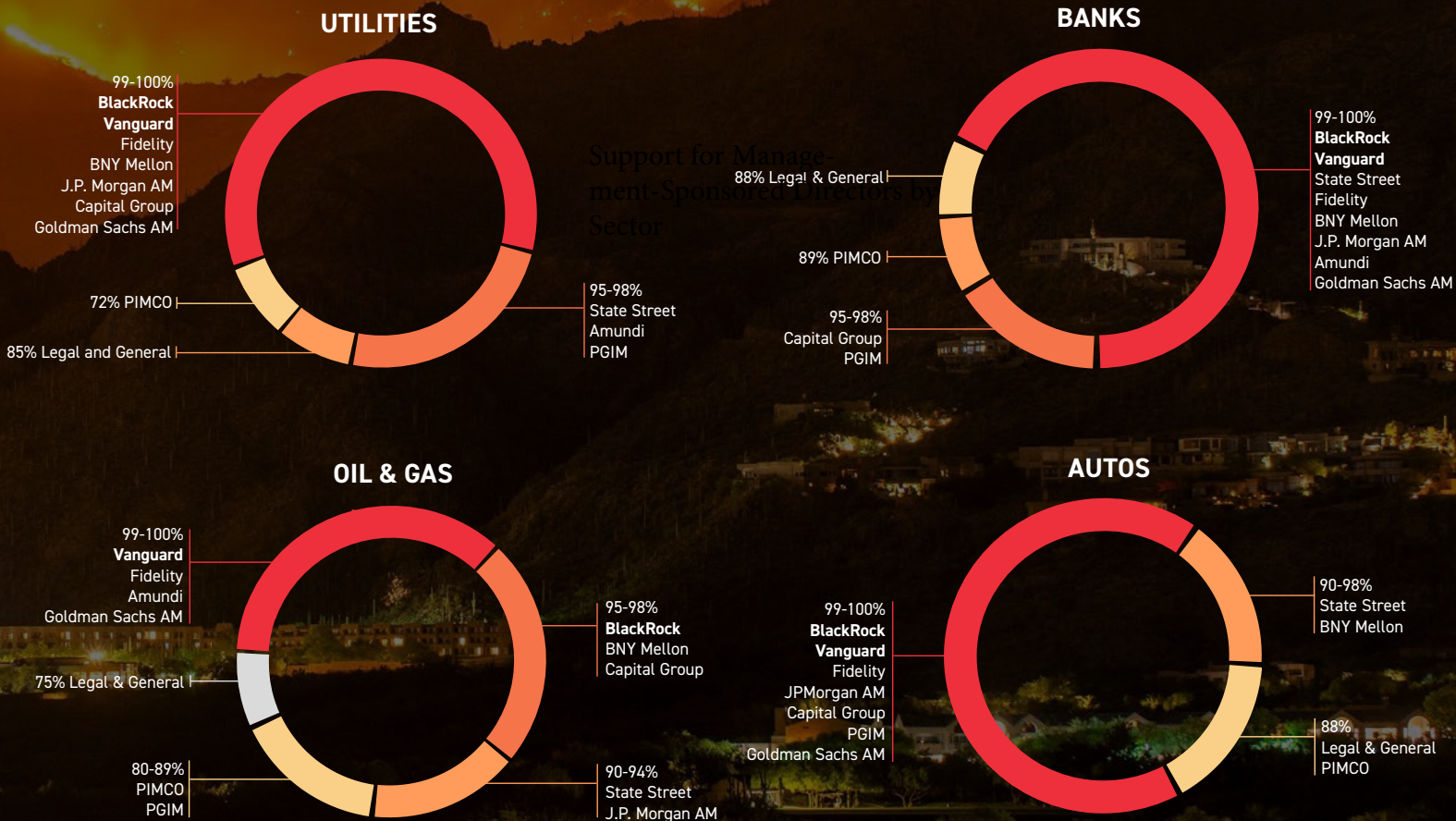


Figure 5: Support for Management-Sponsored Directors by Sector
Source: Proxy Insight

The world's largest asset managers BlackRock and Vanguard remained highly aligned with the managements of the largest energy, utility, banking, and automotive manufacturing companies in the U.S., having voted for 99% of company-proposed directors across the 56 companies included in this analysis in 2020. BlackRock voted for 100% of company-proposed directors at the banking and auto companies included in this analysis, 99.7% at utilities, and 98% at oil & gas companies. Vanguard voted for 100% of company-proposed directors across the oil and gas, banking, and automotive companies, and in favor of 99% at utilities.

This replicates findings from previous years, where BlackRock and Vanguard voted for company-sponsored directors across the energy and utilities sector 99% of the time.¹⁰⁰

BlackRock reported that it voted against directors at 50 companies for climate reasons across its holdings, however, only three were energy or utility companies in the S&P 500.¹⁰¹ BlackRock cast almost all these dissenting votes at either non-U.S. or smaller U.S.-based companies. Until BlackRock holds the largest emitters in fossil-fuel intensive sectors accountable, it will fail to mitigate the portfolio-wide systemic risk that climate change poses. While it is a welcome development that BlackRock has begun voting against directors for failures to disclose or manage climate risk, these votes are clearly insufficient compared to the voting behavior changes BlackRock would need to uphold its commitment to put climate change at the "center of its investment strategy."

Other major asset managers, Fidelity Investments and Goldman Sachs Asset Management, also voted with management in favor of directors the vast majority of the time: Fidelity did not vote against a single director at any of the 56 companies, and Goldman Sachs voted against only one. By contrast, Legal & General Investment Management and PIMCO showed the lowest support for directors at these 56 companies: Legal & General voted in favor of 85% of company-backed directors at utilities, only 75% of directors at oil and gas companies, and 88% at banks and automotive manufacturers, while PIMCO voted for 72% of company-backed directors at utilities, 81% at oil and gas companies, 89% at banks, and 88% at the automotive manufacturers.

As noted above, since 2019, the number of major utilities making commitments to transition their operations to net-zero carbon emissions by 2050 has increased. But there was no appreciable difference in the voting pattern of BlackRock and Vanguard between those utilities that had made some kind of net-zero commitments prior to their 2020 annual meetings and those that had not.¹⁰²

BlackRock's support for management on say-on-pay resolutions was also high, with the asset manager supporting management at every company within this group. These votes suggest that BlackRock believes that management is being incentivized appropriately to execute corporate strategy and are a measure of overall alignment with management.

SUPPORT FOR SAY-ON-PAY RESOLUTIONS AT S&P500 ENERGY, UTILITY, BANKING, AND AUTOMOTIVE COMPANIES

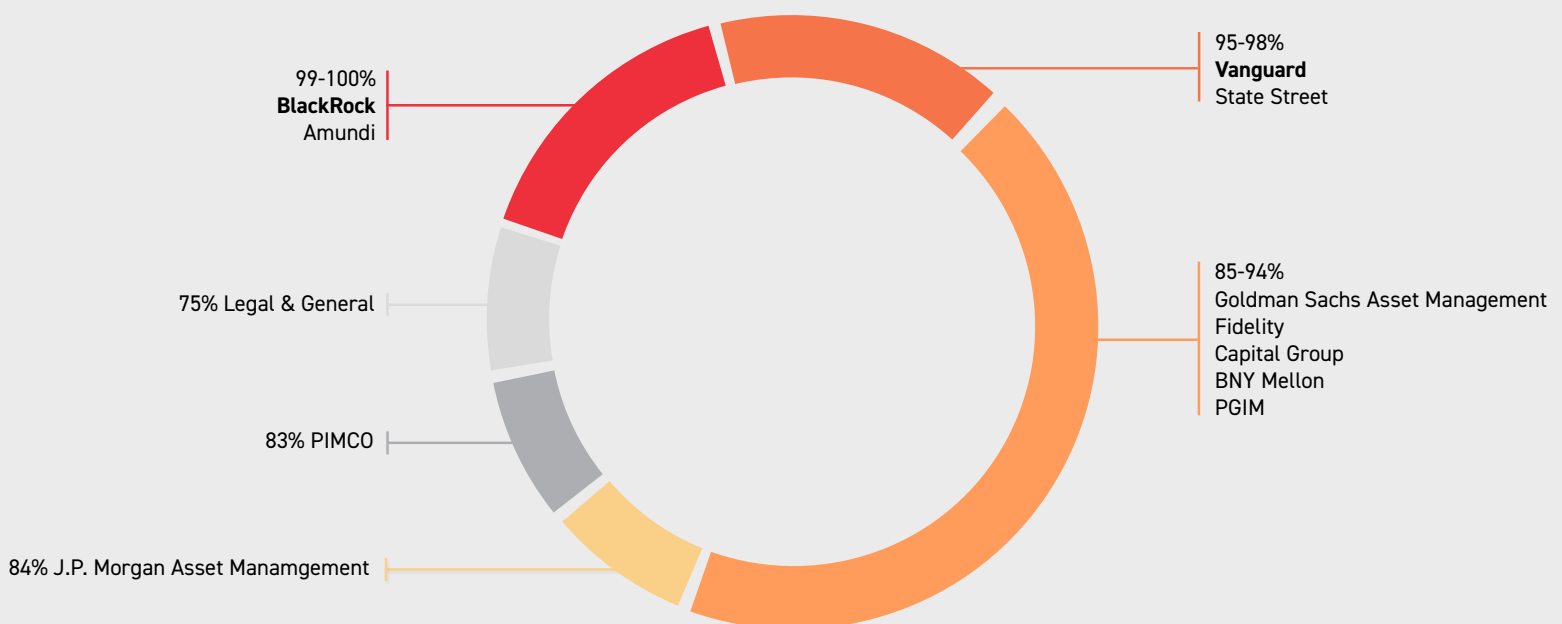


Figure 6: Support for Say-on-Pay Resolutions at S&P500 Energy, Utility, Banking, and Automotive Companies
Source: Proxy Insight



LEE RAYMOND
BOARD DIRECTOR, JPMORGAN CHASE, 1987-PRESENT
FORMER CEO AND CHAIR, EXXONMOBIL (& EXXON), 1993-2005

“GIVEN HIS EXCESSIVE TENURE, PAST OPPOSITION TO CLIMATE CHANGE SCIENCE AND POLICY, AND PERSONAL FINANCIAL INTERESTS, LEE RAYMOND IS DISTINCTLY ILL-EQUIPPED TO SERVE IN THIS ROLE.”

-NEW YORK CITY COMPTROLLER SCOTT STRINGER

Case Study: Oust Lee Raymond as Lead Independent Director at J.P. Morgan Chase

In 2020, a coalition of public pension funds, state treasurers and shareholder advocates called for the removal of Lee Raymond, the Lead Independent Director of JPMorgan Chase, due to Raymond's influence in the boardroom as a staunch climate-change denier, his overlong tenure, and concerns about lack of independent leadership on the board.¹⁰³ The former CEO of ExxonMobil, and architect of the oil giant's infamous strategy of promoting climate change denialism, has been a director of JPMorgan Chase and its predecessor for more than 33 years.¹⁰⁴

Raymond had served as presiding or lead independent director since 2007 and held key board leadership roles for nearly 20 years. Investors further raised concerns about JPMorgan Chase's role as the biggest fossil-fuel financier in the world and its failure to commit to a credible plan to begin transitioning away from fossil fuels. New York City Comptroller Scott Stringer urged JPMorgan Chase shareholders to vote against Raymond, asserting, "Given his excessive tenure, past opposition to climate change science and policy, and personal financial interests, Lee Raymond is distinctly ill-equipped to serve in this role."¹⁰⁵

The proxy advisor Glass Lewis also cited these concerns when it recommended a vote against Raymond, explaining that, while it had supported the director in previous years in reliance on "the board's overall average non-executive director tenure and recent refreshment," it would no longer do so.¹⁰⁶

In the face of this backlash, just months after JPMorgan Chase had reaffirmed its commitment to keep Raymond in the lead independent director role, the company announced that he would step down from that position by the end of September.¹⁰⁷

While investors welcomed Raymond's demotion, they continued to call for his removal from the board. Ultimately 15.3% of shareholders voted against Raymond continuing to serve as a director of the company.¹⁰⁸ According to Proxy Insight data, only 3% of directors nominated for election among the S&P 500 so far this year received less than 85% support.¹⁰⁹

Despite this substantial demonstration of shareholder opposition to Raymond's reelection as director, Vanguard and BlackRock, which hold almost 8% and 7% of JPMorgan Chase shares,¹¹⁰ respectively, each supported Raymond's reelection to the board. Neither explained why Raymond deserved to remain on the board or how it reached the final decision.¹¹¹

The silence is particularly notable for BlackRock, which voluntarily pledged earlier this year that it would increase transparency on its corporate engagement and proxy voting processes, especially on "key high-profile votes."¹¹² At other high-profile votes at financial services companies Mizuho and Barclays, BlackRock did release voting bulletins providing more detailed explanations for its votes.¹¹³ BlackRock has since indicated that engaging with financial institutions will be a priority in the second half of 2020;¹¹⁴ however, it remains to be seen whether it will hold boards accountable in this climate-critical sector.

Vanguard's 2020 Investment Stewardship Report lists JPMorgan Chase as one of several hundred companies where its Investment Stewardship team engaged on "Board Composition" (among other subjects) during the year ended June 30, 2020, but provides no information on the nature of that engagement.¹¹⁵

Legal & General Investment Management voted against Raymond, as did a number of funds managed by Capital Group and BNY Mellon.

Case Study: Vote against Board Members of ExxonMobil

For the second year in a row, the Church of England and New York State employees' pension funds called on shareholders to vote against all ExxonMobil board members due to their collective failure to engage responsibly on climate change. In a letter to shareholders, New York State Comptroller Thomas DiNapoli called ExxonMobil "uniquely resistant to accepting responsibility for the emissions associated with its business," adding, "We believe that ExxonMobil can do so much better, and that a change in strategy and governance can bring about a long overdue improvement in shareholder returns."¹¹⁶

In a welcome development, BlackRock, the holder of 6.7% of ExxonMobil shares, voted against two directors, Angela Braly and Kenneth Frazier, citing concerns about the company's "insufficient progress with respect to TCFD aligned reporting

and related action."¹¹⁷ Vanguard, which held 8.4% of ExxonMobil shares, voted to reelect all ExxonMobil directors in 2019 and 2020.

Vanguard's description of its 2020 engagement with ExxonMobil indicates that Vanguard discussed both director elections and shareholder proposals with the company, but does not specifically provide an explanation for its decision to support the re-election of ExxonMobil's directors. Instead, Vanguard praised the company for taking "positive steps to strengthen independent leadership on the board," including renaming the position of "presiding director" to "lead director" and adding new responsibilities to that role. The Vanguard report mentions that shareholders have expressed concern about "Exxon's oversight, disclosure and approach to climate change," but it did not indicate that Vanguard has engaged with the company on any climate issue, or that climate change risks factored into its voting decision.¹¹⁸



VI. PERFORMANCE OF ASSET MANAGERS ON KEY CLIMATE SHAREHOLDER RESOLUTIONS IN 2020



In 2020, Majority Action reviewed 36 climate critical shareholder resolutions. Of these, nine were directly related to the business and physical risks of climate change; nine proposed independent chairs at fossil fuel intensive and climate critical companies; and 18 were related to the

political and lobbying activities of key companies. Across all 36 resolutions, Legal & General and PIMCO voted most consistently in favor. By contrast, BlackRock, Vanguard, and Fidelity demonstrated the lowest level of support for these resolutions, voting for them less than 20% of the time.

PERCENTAGE OF VOTES IN FAVOR OF CLIMATE-CRITICAL RESOLUTIONS

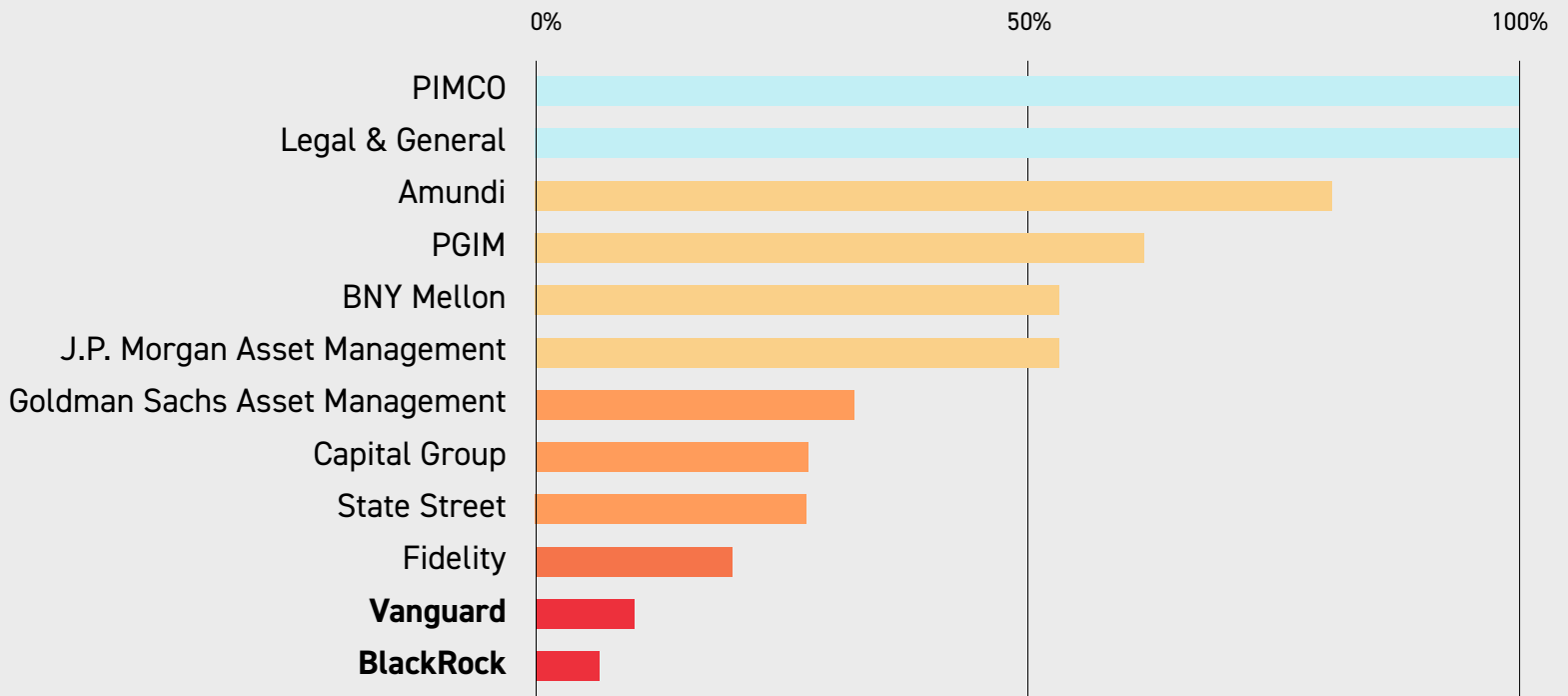


Figure 7: Percentage of Votes in Favor of Climate-Critical Resolutions
Source: Proxy Insight



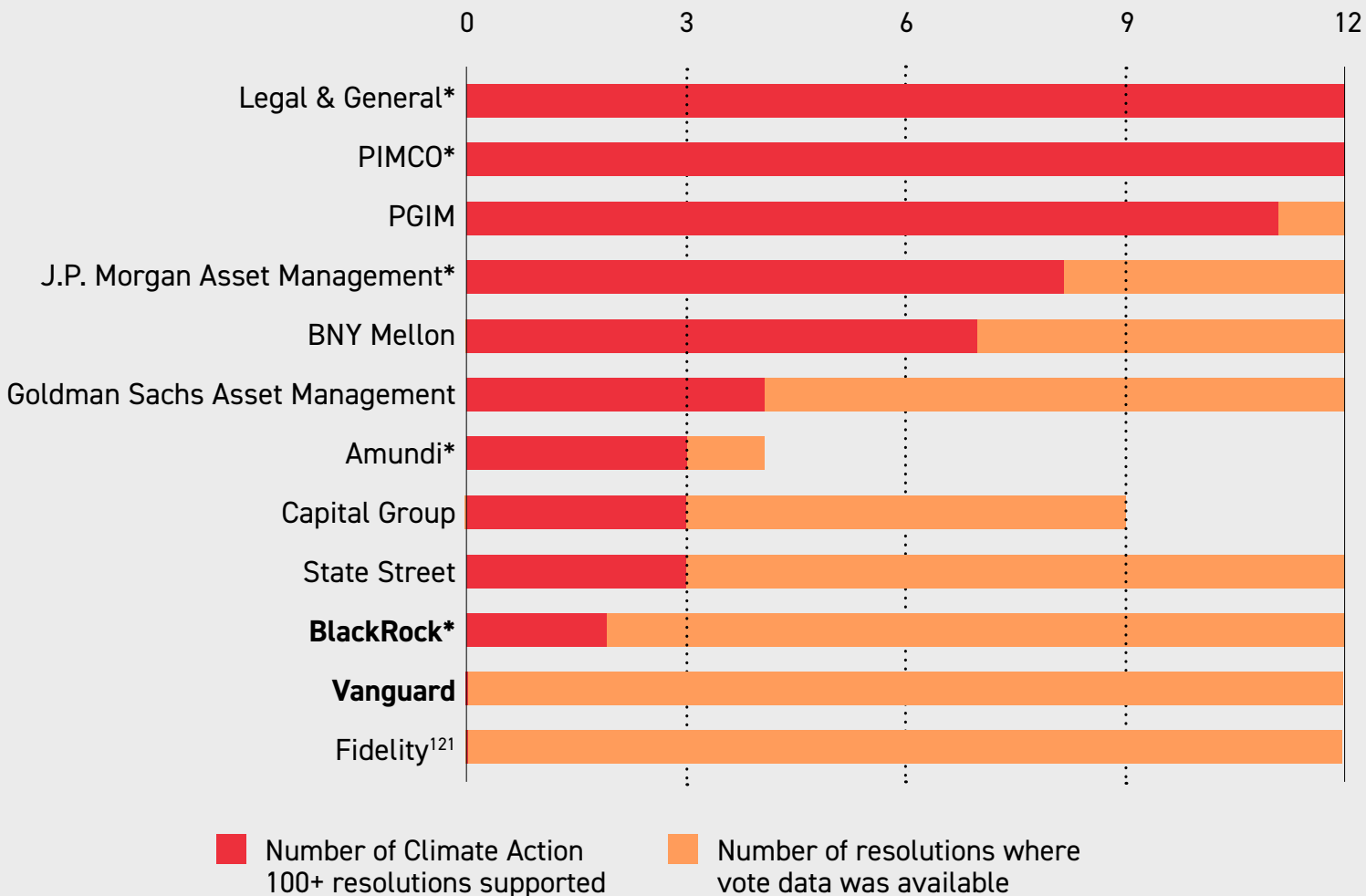
Photo: Gates, Oregon, September 2020

Climate Action 100+

In 2020, Climate Action 100+, the largest global investor coalition on climate change representing \$47 trillion in assets under management, highlighted 12 key resolutions at its focus companies. These included resolutions supporting independent chairs at Dominion Energy, Duke Energy, ExxonMobil and Southern Company, as well as

lobbying disclosure resolutions at Caterpillar, Duke Energy, ExxonMobil, Ford Motor Company, General Motors, Chevron, Delta Air Lines, and United Airlines. Despite joining the Climate Action 100+ network in early 2020, BlackRock supported only two of the 12 resolutions. In contrast, J.P. Morgan Asset Management, which also joined Climate Action 100+ in 2020, supported eight of the 12 resolutions.

CLIMATE ACTION 100+ KEY RESOLUTIONS, 2020



*Climate Action 100+ signatory¹²⁰

Figure 8: Climate Action 100+ Key Resolutions, 2020
Source: Proxy Insight

Key climate resolutions would have received majority votes with BlackRock and Vanguard support

As in prior years, a number of these key resolutions would likely have received majority support had BlackRock and Vanguard supported them.¹²² These two asset managers held more than 5% of common stock outstanding in each of the

23 companies with critical climate resolutions. BlackRock and Vanguard were among the least likely to support the shareholder resolutions identified in this report. BlackRock and Vanguard's holdings are so significant that at least 15 of these resolutions would have received majority support if both of these asset managers had voted in favor of them.

KEY CLIMATE RESOLUTIONS WOULD HAVE RECEIVED MAJORITY VOTES WITH BLACKROCK AND VANGUARD SUPPORT

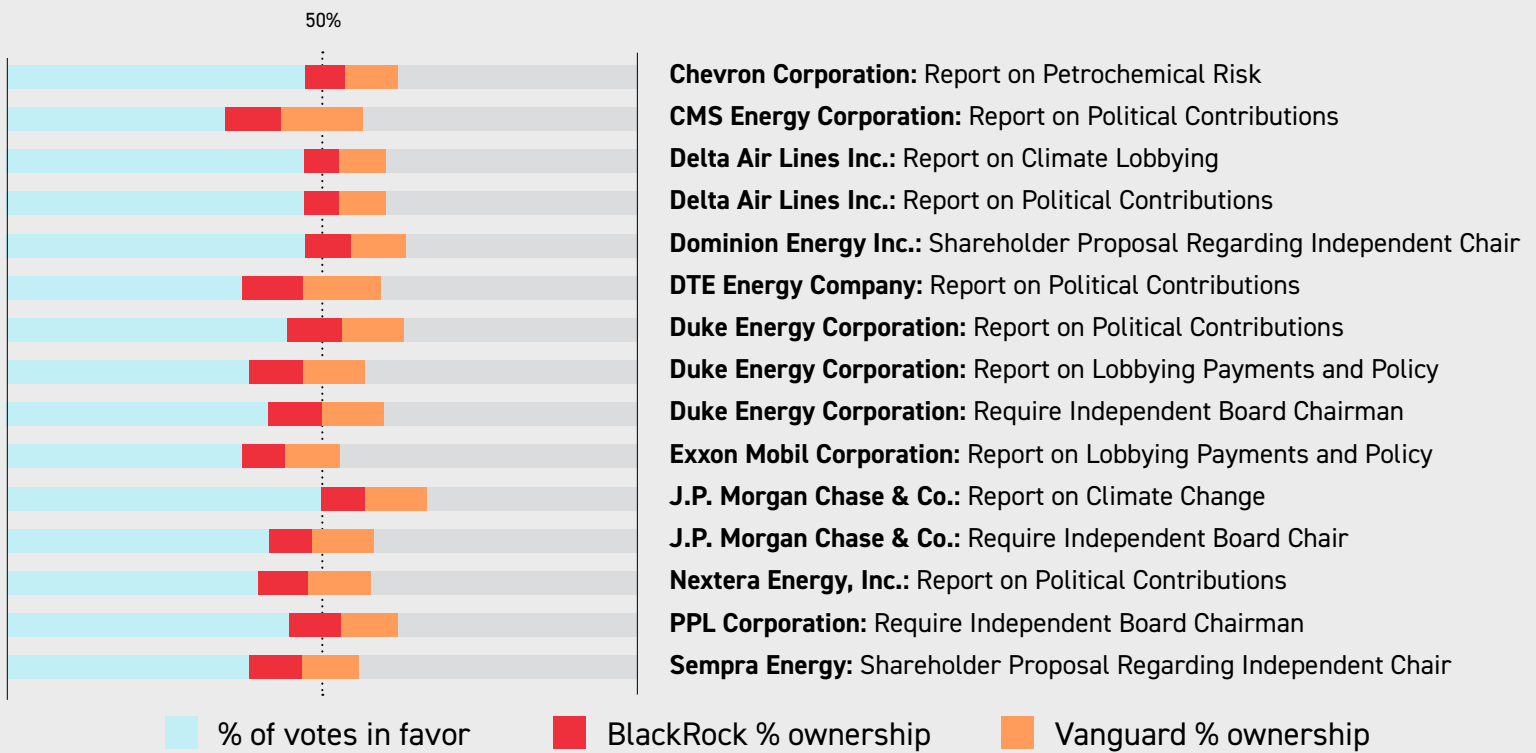


Figure 9: Key Climate Resolutions Would Have Received Majority Votes with BlackRock and Vanguard Support
Source: Proxy Insight, company proxy statements

For the second year in a row, a proposal at **Dominion Energy** asking for an independent chair of the board received wide shareholder support just shy of the majority threshold, at 46.6%.¹²³ The resolution was supported by the proxy advisor ISS.¹²⁴ Shareholder support for an independent chair increased from 39.7% in 2019.¹²⁵ Vanguard (8.2%) and BlackRock (7.0%) together held more than 15% of Dominion shares, but neither voted for the resolution. Support from either would have not only allowed the resolution to pass, but also sent an unmistakable message to management about the need for change. Supporters of this resolution pointed to Dominion's investments in the controversial Atlantic Coast Pipeline (ACP), an \$8 billion project that was "notable for delays, cost overruns, and environmental and social risks."¹²⁶ They also criticized Dominion's current lead independent director for his excessive tenure as well as lack of experience outside the fossil fuel industry, adding that the board structure was not well-suited for independent leadership of the company.¹²⁷

Dominion announced shortly after the annual general meeting that it would cancel the ACP project, saying that additional delays and litigation costs made the project "too uncertain to justify investing more shareholder capital."¹²⁸ The company said that it would take a \$2.8 billion charge in the second quarter of 2020 related to the ACP, explaining that prolonged

delays due to activist opposition, permit problems, a short-term hit on gas demand from the global pandemic as well as longer-term changes due to growing consumer interest in clean energy contributed to the demise of the controversial project.¹²⁹

While Dominion Chair and CEO Tom Farrell relinquished his role as CEO effective October 1, 2020, in the wake of this expression of shareholder concern, the board is still not chaired by an independent director, and the company promoted the executive who led the ill-fated ACP project, Diane Leopold, to be sole Chief Operating Officer responsible for all operating segments.¹³⁰

At **J.P. Morgan Chase**, two resolutions would have received majority support this year if Vanguard or BlackRock—which held 7.9% and 6.7% of JPMorgan Chase shares, respectively—had supported them. One resolution asked JPMorgan Chase to issue a report explaining if and how it intends to align its lending practices to goals of the Paris Climate Accord, citing concerns about the company's record of financing fossil fuel companies and the lack of targets to reduce its lending-related GHG emissions.¹³¹ Climate activists have called JPMorgan Chase, which provided almost \$269 billion in lending and underwriting support to the industry between 2016 and 2019,



Photo: Atlantic Coast Pipeline Construction, Lillington, North Carolina, February 2020

the “#1 banker of fossil fuels.”¹³² The resolution received the support of ISS as well as substantial shareholder support, with 49.6% of votes cast in favor.¹³³

Neither Vanguard nor BlackRock supported this widely-backed measure.¹³⁴ Vanguard, in a rare explanation of its vote on a climate-critical resolution, said that while “financial services firms should not delay their climate reporting,” it found JPMorgan’s practices in line with those of its peers and did not support the resolution.¹³⁵ BlackRock sided with management, asserting, “Company already has policies in place to address these issues.”¹³⁶

Shareholders also asked JPMorgan to adopt an independent board chair for the eighth time since 2010.¹³⁷ The resolution received 41.9% shareholder support, the highest in the past decade.¹³⁸ The proposal’s supporting statement raised concerns regarding the independence of JPMorgan Chase’s current lead independent director Lee Raymond, the former ExxonMobil CEO, who has been on the board for 33 years and in key leadership roles for almost two decades, adding that “long tenure ... is the opposite of independence.”¹³⁹ Once again, neither Vanguard nor BlackRock supported this critical resolution.¹⁴⁰ Their combined votes, amounting to almost 15%, would have more than ensured majority support. While Vanguard has not provided any explanation for its vote, BlackRock has said, “Company has a designated lead director who fulfils the requirements appropriate to such role.”¹⁴¹

At **Duke Energy**, shareholders have voted on a resolution asking the company to fully disclose its lobbying activities and expenditures every year since 2016, except for 2018, when it was withdrawn. The resolution highlighted Duke’s lobbying at the state level and through third-party groups, including trade associations and tax-exempt organizations that write model legislations. It cited reputational risks associated with lobbying that “contradicts company public positions.”¹⁴² Of particular concern to shareholder proponents were Duke’s payments to groups, including the Business Roundtable, Edison Electric Institute, the U.S. Chamber of Commerce, and American Legislative Exchange Council, whose positions “do not align with its stated commitment to a low carbon future.”¹⁴³ Shareholder support for this resolution ranged in the low- to mid-30% range between 2016 and 2019 but increased to its highest this year at 42.4%¹⁴⁴ after proxy advisor ISS recommended a vote in favor. Vanguard,

the holder of 8.5% of Duke’s shares, did not support this resolution. If Vanguard had voted in favor,¹⁴⁵ the resolution would have passed the majority threshold after many years of consistent shareholder support. BlackRock also voted against this resolution, although it would not have been able to swing the result on its own.¹⁴⁶

Also voted on at Duke Energy was a shareholder resolution asking for an independent chair of the board. It noted that the Duke CEO has served as the chair of the board since 1999 except for two transition periods, and that the current independent lead director has served since 1990, compromising his independence. It also made the case that independent board leadership would be “particularly useful to oversee the strategic transformation necessary for Duke to capitalize on the opportunities available in the transition to a low carbon economy.”¹⁴⁷ This resolution received 40.1% shareholder support and the support of ISS.¹⁴⁷ Neither Vanguard (8.5% ownership) nor BlackRock (7.0%) voted for it; their combined support would have led to majority support for the resolution.¹⁴⁹ While Vanguard did not provide a reason for this vote, BlackRock cited the existing role of lead independent director as its reason for opposition.¹⁵⁰

Shareholders at **Delta Air Lines** asked the company this year to align its lobbying activities to the goals of the Paris Agreement, or “limiting average global warming to well below 2 degrees Celsius.”¹⁵¹ This first-year resolution received strong shareholder support of 45.9%, missing the threshold for majority by less than five percent.¹⁵² The proposal cited concerns about systemic risks that climate change pose to economies and investment portfolios, as well as the role of trade associations and other political organizations that “present forceful obstacles to progress in addressing the climate crisis.”¹⁵³ Vanguard held 6.9% of the company’s shares and BlackRock held 5.4%.¹⁵⁴ Both opposed this resolution; support from either one would have pushed it past the majority threshold.¹⁵⁵ BlackRock explained its decision stating that Delta was working on increasing its disclosures on political contributions and lobbying, and thus, “support for the shareholder proposal is not warranted at this time.”¹⁵⁶ This contrasts with BlackRock’s support of a similar resolution at Chevron, which it said was “in the best interests of shareholders to have access to greater disclosure on the issue.”¹⁵⁷

A first-year resolution asked **Chevron** to report on the “public health risks of expanding petrochemical operations and investments” in areas increasingly affected by climate change.¹⁵⁸ The resolution focused on the Chevron Phillips Chemical Company, a subsidiary, and the “financial, health, environmental, and reputational risks” of maintaining and building chemical facilities along the Gulf Coast of the United States, an area prone to hurricanes. Shareholder proponents challenged an “evasion of responsibility regarding the increasingly important topic of climate risk” and said that Chevron did not provide shareholders with “sufficient analysis and disclosure on managing growing risks to its petrochemical operations.”¹⁵⁹ About 46% shareholders supported the measure; had either Vanguard or BlackRock, which held 8.4% and 6.7% of Chevron shares, respectively, supported it, it would have passed the majority threshold.¹⁶⁰ BlackRock asserted that Chevron has “robust board oversight and operational systems” and “demonstrates adequate management of the physical risks associated with climate change.”¹⁶¹

BlackRock’s vote on this proposal diverged from its vote on another resolution at Chevron, asking the company to

report on how its lobbying activities aligned with the goals of the Paris Agreement and how it planned to mitigate the risks of misalignment. “Corporate lobbying activities that are inconsistent with meeting the goals of the Paris Agreement present regulatory, reputational and legal risks to investors,” the resolution urged, stressing concerns about trade associations and other political organizations that “too often present forceful obstacles to progress in addressing the climate crisis.”¹⁶² BlackRock voted in favor of the resolution because “[w]e believe it is in the best interests of shareholders to have access to greater disclosure on this issue.”¹⁶³ Without BlackRock’s support, the resolution would not have reached majority support. Vanguard voted against the resolution.

Despite Chevron’s failure to alter its capital expenditures to align its oil and gas production to a carbon budget consistent with the goals of the Paris Agreement and its documented history of using its influence to undermine climate mitigation policies, BlackRock stated that it “recognize[s] and applaud[s]” Chevron’s current reporting and “considers Chevron a leader among US peers with regard to board oversight of climate risk, strong corporate governance practices, and reporting in line with SASB and the TCFD.”¹⁶⁴



Photo: Paradise, California, November 2018

VII. RECOMMENDATIONS

Asset owners can do more to hold asset managers accountable for managing their proxy voting strategies to ensure companies are adequately prepared to face the unprecedented risks posed by climate change. Asset owners have an obligation to their beneficiaries to carry out oversight of corporate boards through monitoring, engagement, and

proxy voting. Asset owners therefore should urge their asset managers to wield their power and influence to press companies to plan adequately for a net-zero carbon future and mitigate the risks of catastrophic climate change to investors.



Specifically, asset owners should:

- a. **Review and update voting policies:** Asset owners should review and update their own proxy voting guidelines to allow them to hold boards accountable through votes on director elections for the climate performance of systemically important carbon emitting companies. These policies should enable asset owners to vote against board chairs, lead independent directors, committee chairs, and, if necessary, entire boards at companies that fail to set net-zero targets and put in place the necessary plans to meet those targets.
- b. **Hold boards accountable for climate performance:** Starting in 2021, asset owners should vote against or withhold support from the board chair and lead independent director (where the position exists) at companies that are systemically important carbon emitters and have failed to commit to net-zero emissions by 2050. Fossil-fuel intensive companies and those in sectors with systemic importance to the climate have been on notice for many years that they must transition their operations and products to achieve net-zero emissions by no later than 2050 if the world is to avoid the worst effects of catastrophic climate change. Investors should immediately begin to hold directors accountable for failing to recognize this reality.
- c. **Review relationships with existing asset managers in light of proxy voting performance, and seek alternative asset managers if necessary:** As major clients of asset managers, asset owners should engage with their current asset managers over their voting record and plans for holding boards accountable for systemic climate risk. They should expect full transparency and sufficient contemporaneous explanation regarding the reasoning and justification for votes cast by the asset manager. Asset owners should also consider incorporating criteria regarding proxy voting on systemic climate risk and at climate-critical companies into their asset manager search criteria, requests for proposals, and assessments.

APPENDICES

APPENDIX A: LIST OF TOP 12 ASSET MANAGERS FROM INVESTMENTS AND PENSIONS EUROPE¹⁶⁵

RANK	COMPANY	ASSETS UNDER MANAGEMENT (USD MILLIONS) DEC. 31, 2019	PERCENT VOTES IN FAVOR OF MANAGEMENT-PROPOSED DIRECTORS	PERCENT VOTES IN FAVOR OF SAY ON PAY VOTES	PERCENT VOTES IN FAVOR OF CLIMATE-CRITICAL RESOLUTIONS
1	BlackRock	\$5,895,547	99.2%	100%	8.3%
2	Vanguard	\$4,779,576	99.3%	98.2%	11.1%
3	State Street Global Advisors	\$2,466,375	96.5%	96.4%	27.8%
4	Fidelity Investments (FMR)	\$2,353,799	100.0%	89.3%	19.4%
5	BNY Mellon Investment Management	\$1,682,040	98.7%	85.7%	52.8%
6	J.P. Morgan Asset Management	\$1,668,332	97.3%	83.9%	52.8%
7	Capital Group	\$1,647,360	98.0%	88.9%	28.6%
8	PIMCO	\$1,629,807	77.6%	83.3%	100.0%
9	Amundi	\$1,599,921	98.3%	100.0%	77.8%
10	PGIM	\$1,352,633	93.9%	85.7%	69.4%
11	Goldman Sachs Asset Management Int.	\$1,308,428	99.8%	90.9%	33.3%
12	Legal & General Investment Management	\$1,270,159	82.0%	75.9%	100.0%

Note: Assets under management were translated from euros at the exchange rate of 1.122701, as of December 31, 2019¹⁶⁶

APPENDIX B: S&P 500 AUTO MANUFACTURERS, GLOBAL SYSTEMICALLY IMPORTANT BANKS (G-SIBS), UTILITIES AND OIL AND GAS COMPANIES

SYMBOL	COMPANY	GICS SECTOR ¹⁶⁷
F	Ford Motor Company	Consumer Discretionary
GM	General Motors	Consumer Discretionary
BAC	Bank of America Corp	Financial Services
C	Citigroup Inc.	Financial Services
GS	Goldman Sachs Group	Financial Services
JPM	JPMorgan Chase & Co	Financial Services
MS	Morgan Stanley	Financial Services
WFC	Wells Fargo	Financial Services
AEP	American Electric Power	Utilities
D	Dominion Energy	Utilities
DUK	Duke Energy	Utilities
ED	Consolidated Edison	Utilities
EIX	Edison Int'l	Utilities
ETR	Entergy Corp.	Utilities
EVRG	Evergy	Utilities
FE	FirstEnergy Corp	Utilities
LNT	Alliant Energy Corp	Utilities
PEG	Public Service Enterprise Group (PSEG)	Utilities
PPL	PPL Corp.	Utilities
SO	Southern Company	Utilities
WEC	WEC Energy Group	Utilities
ATO	Atmos Energy	Utilities
AES	AES Corp	Utilities
NRG	NRG Energy	Utilities
AEE	Ameren Corp	Utilities
CMS	CMS Energy	Utilities
CNP	CenterPoint Energy	Utilities
DTE	DTE Energy Co.	Utilities
ES	Eversource Energy	Utilities
EXC	Exelon Corp.	Utilities
NEE	NextEra Energy	Utilities
NI	NiSource Inc.	Utilities

APPENDIX B: S&P 500 AUTO MANUFACTURERS, GLOBAL SYSTEMICALLY IMPORTANT BANKS (G-SIBS), UTILITIES AND OIL AND GAS COMPANIES

SYMBOL	COMPANY	GICS SECTOR ¹⁶⁷
PNW	Pinnacle West Capital	Utilities
SRE	Sempra Energy	Utilities
XEL	Xcel Energy Inc	Utilities
CVX	Chevron Corp.	Energy
XOM	Exxon Mobil Corp.	Energy
HES	Hess Corporation	Energy
APA	Apache Corporation	Energy
COG	Cabot Oil & Gas	Energy
CXO	Concho Resources	Energy
COP	ConocoPhillips	Energy
DVN	Devon Energy	Energy
FANG	Diamondback Energy	Energy
EOG	EOG Resources	Energy
MRO	Marathon Oil Corp.	Energy
NBL	Noble Energy Inc	Energy
OXY	Occidental Petroleum	Energy
PXD	Pioneer Natural Resources	Energy
HFC	HollyFrontier Corp	Energy
MPC	Marathon Petroleum	Energy
PSX	Phillips 66	Energy
VLO	Valero Energy	Energy
KMI	Kinder Morgan	Energy

APPENDIX C: LIST OF CLIMATE-CRITICAL RESOLUTIONS, 2020

COMPANY	TYPE	RESOLUTION	VOTE OUTCOME
Chevron Corporation	Climate risks	Report on Petrochemical Risk	46.0%
Dollar Tree Inc.	Climate risks	Report on Greenhouse Gas Emissions Goals	73.5%
Exxon Mobil Corporation	Climate risks	Report on Risks of Petrochemical Operations in Flood Prone Areas	24.5%
J.B. Hunt Transport Services Inc.	Climate risks	Report on Climate Change Initiatives	54.5%
JP Morgan Chase & Co	Climate risks	Report on Climate Change	49.6%
Phillips 66	Climate risks	Report on Risks of Gulf Coast Petrochemical Investments	54.7%
Transdigm Group Incorporated	Climate risks	Adopt Quantitative Company-wide GHG Goals	45.1%
United Parcel Service Inc.	Climate risks	Report on Climate Change	29.6%
Yum! Brands Inc.	Climate risks	Report on Supply Chain Impact on Deforestation	33.3%
Ameren Corporation	Governance	Require Independent Board Chairman	29.2%
Chevron Corporation	Governance	Require Independent Board Chair	26.9%
Dominion Energy Inc	Governance	Shareholder Proposal Regarding Independent Chair	46.6%
Duke Energy Corporation	Governance	Require Independent Board Chairman	40.1%
Exxon Mobil Corporation	Governance	Require Independent Board Chair	32.7%
JP Morgan Chase & Co	Governance	Require Independent Board Chair	41.9%
PPL Corporation	Governance	Require Independent Board Chairman	44.7%
Sempra Energy	Governance	Shareholder Proposal Regarding Independent Chair	38.3%
Southern Company (The)	Governance	Require Independent Board Chair	22.3%
Caterpillar Inc.	Money in politics	Report on Lobbying Payments and Policy	33.5%
Chevron Corporation	Money in politics	Report on Climate Lobbying Aligned with Paris Agreement Goals	53.5%
CMS Energy Corporation	Money in politics	Report on Political Contributions	34.9%
Delta Air Lines Inc.	Money in politics	Report on Climate Lobbying	45.9%
Delta Air Lines Inc.	Money in politics	Report on Political Contributions	46.0%
DTE Energy Company	Money in politics	Report on Political Contributions	36.5%
Duke Energy Corporation	Money in politics	Report on Lobbying Payments and Policy	42.4%
Duke Energy Corporation	Money in politics	Report on Political Contributions	38.9%
Exxon Mobil Corporation	Money in politics	Report on Lobbying Payments and Policy	37.5%
Exxon Mobil Corporation	Money in politics	Report on Political Contributions	30.9%
Ford Motor Company	Money in politics	Report on Lobbying Payments and Policy	20.2%
General Motors Company	Money in politics	Report on Lobbying Payments and Policy	33.1%
J.B. Hunt Transport Services Inc.	Money in politics	Report on Political Contributions	53.2%
Nextera Energy, Inc.	Money in politics	Report on Political Contributions	38.9%
Southern Company (The)	Money in politics	Report on Lobbying Payments and Policy	28.2%
United Airlines Holdings, Inc.	Money in politics	Report on Global Warming-Related Lobbying Activities	31.5%
United Airlines Holdings, Inc.	Money in politics	Report on Lobbying Payments and Policy	28.8%
United Parcel Service Inc.	Money in politics	Report on Lobbying Payments and Policy	23.5%

ENDNOTES

¹ Intergovernmental Panel on Climate Change, Special Report on Global Warming of 1.5 Celsius, Technical Summary, October 2018, pp. TS-6, TS-7. See https://report.ipcc.ch/sr15/pdf/sr15_ts.pdf. "Net-zero" is defined as the state in which no net carbon is emitted, either because emissions are reduced to zero or because any remaining emissions are offset.

² Cole Triedman, et al, American Utilities and the Climate Change Countermovement: An Industry In Flux, Fall 2019 Utilities Report, Brown University Climate and Development Lab, December 11, 2019, http://www.climatedevlab.brown.edu/uploads/2/8/4/0/28401609/cdl_utilities_report_fall_2019_.pdf; Stanley Reed, "Oil Companies Ponder Climate Change, but Profits Still Rule," New York Times, October 7, 2019, <https://www.nytimes.com/2019/10/07/business/energy-environment/oil-companies-climate-change-profits.html>; Rainforest Action Network, BankTrack, Indigenous Environmental Network, Oil Change International, Reclaim Finance, and the Sierra Club; Banking on Climate Change: Fossil Fuel Finance Report 2020, March 2020, p.8 <https://www.ran.org/bankingonclimatechange2020/>; Lauren Reid, "How car companies are speeding us towards a climate crash (and what we can do to stop them)," Greenpeace, August 28, 2019, <https://www.greenpeace.org/international/story/23992/how-car-companies-are-speeding-us-towards-a-climate-crash-and-what-we-can-do-to-stop-them/>

³ Larry Fink, BlackRock Letter to CEOs, January 2020, <https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter>; Vanguard Investment Stewardship Insights, June 20, 2020, https://about.vanguard.com/investment-stewardship/perspectives-and-commentary/ISCLRG_062020.pdf

⁴ IPE Top 400 Asset Managers, 2019, <https://www.ipe.com/Uploads/j/e/b/Top-400-Asset-Managers-2019.pdf>, converted to U.S. dollar from euros at the exchange rate of 1.122701, as of December 31, 2019

⁵ Larry Fink, BlackRock Letter to CEOs, January 2020, <https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter>

⁶ Kelly Roache, "Duke Energy Climate Report charts fossil fuel-laden path to net-zero, lagging behind peers," Energy and Policy Institute, May 5, 2020, <https://www.energyandpolicy.org/duke-2020-climate-report/>

⁷ Larry Fink, BlackRock's Letter to CEOs, January 2020, <https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter>

⁸ Intergovernmental Panel on Climate Change, Special Report on Global Warming of 1.5 Celsius, Technical Summary, October 2018, pp. TS-6, TS-7. See https://report.ipcc.ch/sr15/pdf/sr15_ts.pdf

⁹ Laura Paddison, "2019 Was The Year The World Burned," HuffPost, Updated January 2, 2020, https://www.huffpost.com/entry/wildfires-california-amazon-indonesia-climate-change_n_5dcd3f4ee4b0d43931d01baf

¹⁰ Matthew Cappucci, "Freak storms of 2019 Atlantic hurricane season left trail of destruction and revealed climate change fingerprints," The Washington Post, December 4, 2019 <https://www.washingtonpost.com/weather/2019/12/04/headlined-by-horrible-dorian-other-freak-storms-atlantic-hurricane-season-is-done/>

¹¹ University of Leeds, "Sea level rise from ice sheets track worst-case climate change scenario," ScienceDaily, August 31, 2020, <https://www.sciencedaily.com/releases/2020/08/200831112101.html>

¹² Carolyn Gramling, "A Siberian town hit 100 degrees, setting a new record for the Arctic Circle," Science News, June 23, 2020, <https://www.sciencenews.org/article/siberia-verkhoyansk-record-heat-wave-arctic-circle>

¹³ Thomas Lenton, et al., "Climate tipping points — too risky to bet against," Nature, 575, November 27 2019, Corrected April 9, 2020, <https://www.nature.com/articles/d41586-019-03595-0>

¹⁴ Reuters Staff, "Text: Reuters interview with ECB board member Schnabel," Reuters, August 31, 2020, <https://www.reuters.com/article/us-ecb-policy-schnabel-text/text-reuters-interview-with-ecb-board-member-schnabel-idUSKBN25R10L>

¹⁵ Commodity Futures Trading Commission, Managing Climate Risk in the U.S. Financial System, pp 2 & i, September 9, 2020, https://www.cftc.gov/About/AdvisoryCommittees/MarketRiskAdvisory/MRAC_Reports.html

¹⁶ Central Banks and Supervisors Network for Greening the Financial System (NGFS), NGFS Climate Scenarios for central banks and supervisors, p. 8, June 2020, https://www.ngfs.net/sites/default/files/medias/documents/ngfs_climate_scenarios_final.pdf

¹⁷ The Hamilton Project and the Stanford Institute for Economic Policy Research, Ten Facts about the Economics of Climate Change and Climate Policy, October 2019, <https://siepr.stanford.edu/sites/default/files/publications/Ten-Facts-about-Economics-of-Climate-Change-and-Policy.pdf>

¹⁸ The Hamilton Project and the Stanford Institute for Economic Policy Research, Ten Facts about the Economics of Climate Change and Climate Policy, October 2019, <https://siepr.stanford.edu/sites/default/files/publications/Ten-Facts-about-Economics-of-Climate-Change-and-Policy.pdf>; Ben Casselman, "A Collapse That Wiped Out 5 Years of Growth, With No Bounce in Sight," The New York Times, July 30, 2020, <https://www.nytimes.com/2020/07/30/business/economy/q2-gdp-coronavirus-economy.html>

¹⁹ International Actuarial Association, Climate Change and Mortality, p. 15, November 2017, https://www.actuaries.org/CTTEES_ENVIRO/Papers/REWG_CCandMortality_final_Nov2017.pdf

²⁰ Cambridge Centre for Risk Studies, Unhedgeable Risk: How Climate Change Sentiment Impacts Investment, p. 2 December 2015, <https://www.jbs.cam.ac.uk/wp-content/uploads/2020/08/crs-unhedgeable-risk.pdf>

²¹ Cambridge Centre for Risk Studies, Unhedgeable Risk: How Climate Change Sentiment Impacts Investment, p. 4, December 2015, <https://www.jbs.cam.ac.uk/wp-content/uploads/2020/08/crs-unhedgeable-risk.pdf>

²² McKinsey Global Institute, Climate Risk and Response: Physical Hazards and Socioeconomic Impacts, January 2020, <https://www.mckinsey.com/business-functions/sustainability/our-insights/climate-risk-and-response-physical-hazards-and-socioeconomic-impacts>

²³ Network for Greening the Financial System, The Macroeconomic and Financial Stability Impacts of Climate Change Research Priorities, p. 6, June 2020, https://www.ngfs.net/sites/default/files/medias/documents/ngfs_research_priorities_final.pdf

²⁴ Nahfeez Ahmed, "The UN's Devastating Climate Change Report Was Too Optimistic," Vice, October 15, 2018, https://www.vice.com/en_us/article/43e8yp/the-uns-devastating-climate-change-report-was-too-optimistic

²⁵ The Earth Institute, The London School of Economics and Political Science, and Potsdam Institute for Climate Impact Research; The Missing Economic Risks in Assessments of Climate Change Impacts, September 2019, <https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2019/09/The-missing-economic-risks-in-assessments-of-climate-change-impacts-2.pdf>

²⁶ Bank for International Settlements, "The green swan: Central banking and financial stability," pp. ix, 3, 10, January 2020, <https://www.bis.org/publ/othp31.pdf>

²⁷ NOAA National Center for Environmental Information, "Billion-Dollar Weather and Climate Disasters: Summary Stats," Accessed September 14, 2020, <https://www.ncdc.noaa.gov/billions/summary-stats>. Data refers to the table titled, "Select Time Period Comparisons of United States Billion-Dollar All Disasters," which shows that total costs associated with these events between 1980 and 2020 amounted to \$1.79 trillion, with more than \$807 billion having incurred between 2010 and 2019.

²⁸ "Felix Suntheim and Jérôme Vandenbussche, "Equity Investors Must Pay More Attention to Climate Change Physical Risk," May 29, 2020, <https://blogs.imf.org/2020/05/29/equity-investors-must-pay-more-attention-to-climate-change-physical-risk/>

²⁹ U.S. Global Change Research Program, Climate Change Impacts in the United States, Revised October 2014, <https://nca2014.globalchange.gov/highlights/report-findings/extreme-weather>

³⁰ Bank for International Settlements, "The green swan: Central banking and financial stability in the age of climate change," pp. viii, 19, January 2020, <https://www.bis.org/publ/othp31.pdf>

³¹ Ron Bousso, "Shell to cut asset values by up to \$22 billion after coronavirus hit," Reuters, June 30, 2020, <https://www.reuters.com/article/us-shell-outlook/shell-to-cut-asset-values-by-up-to-22-billion-after-coronavirus-hit-idUSKBN24100Q>

³² BP Press Release, June 15, 2020, <https://www.bp.com/en/global/corporate/news-and-insights/press-releases/bp-revises-long-term-price-assumptions.htm>

³³ Carbon Tracker, "The Impair State: The Paris Agreement starts to impact oil & gas accounting," June 15, 2020, <https://carbontracker.org/reports/the-impair-state/>

³⁴ Central Banks and Supervisors Network for Greening the Financial System (NGFS), NGFS Climate Scenarios for central banks and supervisors, p. 8, June 2020, https://www.ngfs.net/sites/default/files/medias/documents/ngfs_climate_scenarios_final.pdf

³⁵ Central Banks and Supervisors Network for Greening the Financial System (NGFS), NGFS Climate Scenarios for central banks and supervisors, p. 8, June 2020, https://www.ngfs.net/sites/default/files/medias/documents/ngfs_climate_scenarios_final.pdf

³⁶ World Economic Forum, "The Global Risks Report 2020," p. 32, http://www3.weforum.org/docs/WEF_Global_Risk_Report_2020.pdf

³⁷ Principles for Responsible Investment, "Forecast Policy Scenario: Equity Market Impacts," <https://www.unpri.org/inevitable-policy-response/forecast-policy-scenario-equity-markets-impacts/5191.article>

³⁸ Moody's Investor Service, "Scenario Analysis Key Tool in Assessing Credit Impact of Climate Change", March 10, 2020, https://www.moodys.com/research/Moodys-Scenario-analysis-key-tool-in-assessing-credit-impact-of-PBC_1217369

³⁹ Carbon Tracker, "Decline and Fall: The Size and Vulnerability of the Fossil Fuel System", pp. 6 & 23, June 4, 2020, <https://carbontracker.org/reports/decline-and-fall/>

⁴⁰ Ben Caldecott, "With the TCFD in its fifth year, it's time to make 'net zero' mandatory for financial institutions," Responsible Investor, July 29, 2020, <https://www.responsible-investor.com/articles/with-the-tcfd-in-its-fifth-year-it-s-time-to-make-net-zero-mandatory-for-financial-institutions>

⁴¹ BlackRock, Voting Bulletin: Chevron Corporation, <https://www.blackrock.com/corporate/literature/press-release/blk-vote-bulletin-chevron-may-2020.pdf>; Carbon Tracker, "Absolute Impact: Why oil majors' climate ambitions fall short of Paris limits," June 24, 2020" <https://carbontracker.org/reports/absolute-impact/>

⁴² Ceres, Addressing Climate as a Systemic Risk: A call to action for U.S. financial regulators, p. 13, June 1, 2020, <https://www.ceres.org/resources/reports/addressing-climate-systemic-risk>

⁴³ Umair Irfan, "Why the US bears the most responsibility for climate change, in one chart," Updated December 4, 2019, <https://www.vox.com/energy-and-environment/2019/4/24/18512804/climate-change-united-states-china-emissions>; Union of Concerned Scientists, "Each Country's Share of CO2 Emissions", Updated August 12, 2020, <https://www.ucsusa.org/resources/each-countrys-share-co2-emissions>

⁴⁴ U.S. Environmental Protection Agency, "Overview of Greenhouse Gases," Accessed September 13, 2020, <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>

⁴⁵ U.S. Energy Information Administration, "What are U.S. energy-related carbon dioxide emissions by source and sector?" Updated May 26, 2020. Note: Emissions for the industrial, residential, commercial, and transportation sectors exclude those from electric power to avoid double counting. <https://www.eia.gov/tools/faqs/faq.php?id=75&t=11>

⁴⁶ U.S. Environmental Protection Agency, U.S. Transportation Sector Greenhouse Gas Emissions: 1990-2018, p. 1, June 2020, <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P100ZK4P.pdf>

⁴⁷ U.S. Energy Information Administration, "What are U.S. energy-related carbon dioxide emissions by source and sector?" Updated May 26, 2020, <https://www.eia.gov/tools/faqs/faq.php?id=75&t=11>; U.S. Environmental Protection Agency, "U.S. Transportation Sector Greenhouse Gas Emissions: 1990-2018", June 2020, <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P100ZK4P.pdf>

⁴⁸ U.S. Energy Information Administration, "U.S. Energy-Related Carbon Dioxide Emissions, 2018", November 14, 2019, <https://www.eia.gov/environment/emissions/carbon/>

⁴⁹ U.S. Energy Information Administration, "U.S. coal-fired electricity generation in 2019 falls to 42-year low," May 11, 2020, <https://www.eia.gov/todayinenergy/detail.php?id=43675>

⁵⁰ U.S. Energy Information Administration, "U.S. coal-fired electricity generation in 2019 falls to 42-year low," May 11, 2020, <https://www.eia.gov/todayinenergy/detail.php?id=43675>

⁵¹ Influence Map, Fossil Fuel Lobbyists are Dominating Climate Policy Battles During COVID-19, July 9, 2020, <https://influencemap.org/report/Fossil-Fuel-Lobbyists-Are-Dominating-Climate-Policy-Battles-During-COVID-19-a78b11aa1be42aef5d7078d09457603b>

⁵² Carbon Tracker, "Making it mainstream--CA100+ power utility profiles," July 11, 2019, carbontracker.org/reports/making-it-mainstream-ca100-power-utility-profiles/

⁵³ S&P Global Market Intelligence, "Overpowered: Why a US gas-building spree continues despite electricity glut," December 2, 2019, <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/54188928>

⁵⁴ Rocky Mountain Institute, "The Growing Market for Clean Energy Portfolios," September 2019, p. 6, <https://rmi.org/insight/clean-energy-portfolios-pipelines-and-plants>

⁵⁵ Largest U.S. electric utilities as measured by electricity generated. See "Emissions Benchmarking Report" at <https://www.mjbradley.com/content/emissions-benchmarking-generation-charts>

⁵⁶ Xcel Energy, "Building a Carbon-free Future," p. 2, February 2019, <https://www.xcelenergy.com/staticfiles/xcel/PDF/Xcel%20Energy%20Carbon%20Report%20-%20Feb%202019.pdf>

⁵⁷ "Duke Energy's Path to Net Zero Carbon," <https://sustainabilityreport.duke-energy.com/operations/duke-energys-path-to-net-zero-carbon/> and September 17, 2019 press release available at <https://news.duke-energy.com/releases/duke-energy-aims-to-achieve-net-zero-carbon-emissions-by-2050>

⁵⁸ "NRG Accelerates Emission-Reduction Goals to Align with 1.5°C Trajectory," September 24, 2019, <https://www.nrg.com/about/newsroom/2019/38151.html>

⁵⁹ "Net Zero Carbon emissions goal announced by DTE Energy Electric Company," September 26, 2019, <https://ir.dteenergy.com/news/press-release-details/2019/Net-Zero-Carbon-emissions-goal-announced-by-DTE-Energy-Electric-Company/default.aspx>

⁶⁰ "Our Commitment: 100 Percent Clean Energy by 2050," updated June 2020, <http://www.pinnaclewest.com/corporate-responsibility/environment/clean-energy/default.aspx>; <https://www.azcentral.com/story/money/business/energy/2020/01/22/arizona-public-service-to-end-all-carbon-emissions-by-2050-ceo-jeff-guldner-says/4530389002/>

⁶¹ "Dominion Energy Sets New Goal of Net Zero Emissions by 2050," February 11, 2020, <https://news.dominionenergy.com/2020-02-11-Dominion-Energy-Sets-New-Goal-of-Net-Zero-Emissions-by-2050>

⁶² "Southern Company announces transition to net-zero carbon emissions goal," May 27, 2020, <https://www.southerncompany.com/newsroom/2020/may-2020/transition-to-net-zero-carbon-emissions-goal.html#:~:text=Southern%20Company%20today%20moved%20to,net%2Dzero%20emissions%20by%202050.&text=Today's%20action%2C%20announced%20during%20the,unveiled%20in%20April%20of%202018>.

⁶³ "WEC Energy Group announces goal to be carbon neutral by 2050," Wisbusiness, July 30, 2020, <https://www.wisbusiness.com/2020/%EF%BB%BFwec-energy-group-announces-goal-to-be-carbon-neutral-by-2050/>

⁶⁴ <https://www.mjbradley.com/content/emissions-benchmarking-generation-charts>

⁶⁵ Duke Energy, "Achieving a Net Zero Carbon Future," see esp. pp. 23-26, https://www.duke-energy.com/_/media/pdfs/our-company/climate-report-2020.pdf?la=en

⁶⁶ Catherine Morehouse, "Duke IRP includes scenarios to reduce carbon emissions 70% by 2030," September 2, 2020, <https://www.utilitydive.com/news/duke-irp-includes-scenarios-to-reduce-carbon-emissions-70-by-2030/584561/> and NC Sustainable Energy Association Statement, September 4, 2020, available at <https://energync.org/statement-duke-energy-files-2020-irps/>

⁶⁷ See "Emissions Benchmarking Report" at <https://www.mjbradley.com/content/emissions-benchmarking-generation-charts>

⁶⁸ Daniel Tait, "Southern Company Pledges Net Zero Emissions by 2050 but Doubles Down on Fossil Fuels," May 28, 2020, <https://www.energyandpolicy.org/southern-company-pledges-net-zero-emissions-by-2050-but-doubles-down-on-fossil-fuels/>

⁶⁹ Carbon Tracker, Breaking the Habit: Why none of the large oil companies are "Paris-aligned", and what they need to do get there, September 13, 2019, <https://www.carbontracker.org/reports/breaking-the-habit/>

⁷⁰ Carbon Tracker, Breaking the Habit: Why none of the large oil companies are "Paris-aligned", and what they need to do get there, September 13, 2019, p. 25, <https://www.carbontracker.org/reports/breaking-the-habit/>

⁷¹ Christopher M. Matthews, "Exxon Used to Be America's Most Valuable Company. What Happened?" Wall St Journal, September 13, 2020 <https://www.wsj.com/articles/exxon-used-to-be-americas-most-valuable-company-what-happened-oil-gas-11600037243>

⁷² In the third week of August 2020 we reviewed the “sustainability,” “environmental,” or “corporate social responsibility” reports which appear on the website of each of the 21 energy sector companies covered by this report. We also reviewed the most recent reports that some of these companies had filed at cdp.net, a non-profit organization that “runs the global disclosure system” that companies and governments use to “manage their environmental impacts.” (<https://www.cdp.net/en>) None of these reports included a commitment to achieve net-zero emissions at any future date.

⁷³ CarbonTracker, “Absolute Impact: Why oil majors ambitions fall short of Paris limits,” June 24, 2020 <https://carbontracker.org/reports/absolute-impact/>

⁷⁴ S&P Global Market Intelligence, “Path to net zero: European oil majors outpace US companies on climate goals,” July 28, 2020, https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/path-to-net-zero-european-oil-majors-outpace-us-companies-on-climate-goals-59543423?utm_campaign=corporatepro&utm_medium=contentdigest&utm_source=pathnetzero

⁷⁵ Nichols Kusnetz, “What Does Net Zero Emissions Mean for Big Oil? Not What You’d Think,” July 16, 2020, <https://insideclimatenews.org/news/15072020/oil-gas-climate-pledges-bp-shell-exxon>

⁷⁶ Ben German, “Cracks emerge in the oil lobby over climate change,” February 26, 2020, <https://www.axios.com/big-oil-lobbying-climate-change-00292385-f4f3-4042-a184-50adb6d60391.html>

⁷⁷ 2019 list of global systemically important banks <https://www.fsb.org/2019/11/2019-list-of-global-systemically-important-banks-g-sibs/>

⁷⁸ See Rainforest Action Network, et al., Banking on Climate Change: Fossil Fuel Finance Report 2020, March 2020, pp. 8, 10, 18, <https://www.ran.org/bankingonclimatechange2020/>

⁷⁹ See <https://carbonaccountingfinancials.com/financial-institutions-taking-action#overview-of-institutions>

⁸⁰ See <https://www.jpmorganchase.com/corporate/news/pr/jpmorgan-chase-expands-commitment-to-low-carbon-economy-and-clean-energy.htm>

⁸¹ Rachel Koning Beals, “JPMorgan Chase shareholders defeat call for greater climate-change disclosure at world’s largest oil funder,” May 20, 2020, <https://www.marketwatch.com/story/jpmorgan-chase-shareholders-defeat-call-for-greater-climate-change-disclosure-at-worlds-largest-oil-funder-2020-05-19>

⁸² Barclays, “Our ambition to be a net zero bank by 2050,” <https://home.barclays/society/our-position-on-climate-change/>; “Five banks sign to Bankers for Net Zero Initiative,” July 23, 2020, <https://netzerocarbon.com/news/five-banks-sign-up-to-bankers-for-net-zero-initiative/>

⁸³ Alastair Marsh, “RBS Plans to Cut Fossil Fuel Loans, Be Climate Positive by 2025,” February 14, 2020, <https://www.bloomberg.com/news/articles/2020-02-14/rbs-plans-to-cut-fossil-fuel-loans-be-climate-positive-by-2025#:~:text=Royal%20Bank%20of%20Scotland%20Group,more%20carbon%20than%20it%20emits.>

⁸⁴ Lloyds Banking Group Press Release, January 21, 2020, <https://www.lloydsbankinggroup.com/globalassets/documents/media/press-releases/lloyds-banking-group/2020/lloyds-banking-group-pledges-to-cut-carbon-by-half.pdf>

⁸⁵ <https://climate.worldbenchmarkingalliance.org/rankings/>

⁸⁶ Union of Concerned Scientists, “Automaker Rankings 2018,” pp. 8-9, <https://ucsusa.org/sites/default/files/attach/2018/06/cv-automaker-rankings-2018-report.pdf>

⁸⁷ Union of Concerned Scientists, “Automaker Rankings 2018,” p. 2, <https://ucsusa.org/sites/default/files/attach/2018/06/cv-automaker-rankings-2018-report.pdf>

⁸⁸ Ford Sustainability Report, 2019/20, p. 33, <https://corporate.ford.com/microsites/sustainability-report-2020/sustainability-strategy.html>

⁸⁹ General Motors 2019 Sustainability Report, p. 34, https://www.gmsustainability.com/pdf/resources-and-downloads/GM_2019_SR.pdf

⁹⁰ Larry Fink, “Dear CEO,” <https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter>

⁹¹ Larry Fink, “Dear CEO,” <https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter> (emphasis on original)

⁹² Lucian A. Bebchuk and Scott Hirst, “The Specter of the Giant Three,” Boston University Law Review, Volume 99, Number 3, 2019, p. 735, <https://www.bu.edu/bulawreview/files/2019/06/BEBCHUK-HIRST-1.pdf>.

⁹³ Lucian A. Bebchuk and Scott Hirst, “The Specter of the Giant Three,” Boston University Law Review, Volume 99, Number 3, 2019, p. 736, <https://www.bu.edu/bulawreview/files/2019/06/BEBCHUK-HIRST-1.pdf>.

⁹⁴ IPE Top 400 Asset Managers, 2019, <https://www.ipe.com/Uploads/j/e/b/Top-400-Asset-Managers-2019.pdf>, converted to US dollar from euros at the exchange rate of 1.122701, as of December 31, 2019

⁹⁵ Proxyinsight.com, accessed September 12, 2020.

⁹⁶ Financial Stability Board, "2019 list of global systemically important banks (G-SIBs)," <https://www.fsb.org/2019/11/2019-list-of-global-systemically-important-banks-g-sibs/>

⁹⁷ <https://www.majorityaction.us/2020-key-shareholder-votes>

⁹⁸ <https://climateaction100.wpcomstaging.com/proxy-season-2020/>

⁹⁹ Majority Action, "Climate in the Boardroom," September 2019, <https://static1.squarespace.com/static/5d4df99c531b6d0001b48264/t/5d8006692e5b035cf0d2b17f/1568674165939/assetmanagerreport2019.pdf>

¹⁰⁰ Majority Action, "Climate in the Boardroom: How Asset Manager Voting Shaped Corporate Climate Action in 2019," <https://www.majorityaction.us/asset-manager-report>; 50/50 Climate Project, "Asset Manager Climate Scorecard 2018," <https://static1.squarespace.com/static/5d4df99c531b6d0001b48264/t/5d644d9318862f000149075f/1566854548347/2018+Asset+Manager+Scorecard.pdf>

¹⁰¹ BlackRock, "Our approach to sustainability," <https://www.blackrock.com/corporate/literature/publication/our-commitment-to-sustainability-full-report.pdf>

¹⁰² According to S&P Global Market Intelligence, 13 U.S. utilities had made some kind of net-zero commitment as of mid-July. See <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/path-to-net-zero-in-taking-plunge-us-utilities-ahead-of-global-oil-mining-59543532>
Twelve of these were S&P 500 companies included in this report. BlackRock voted against one director at a utility that had not made a net-zero commitment and no directors at companies that had done so. Vanguard voted against two directors at companies that had not made a net-zero commitment, and against two directors at companies that had made such a commitment.

¹⁰³ Majority Action, "State Treasurers Step Up Call for Independent, Climate-Competent Governance at JPMorgan Chase," May 14, 2020, <https://static1.squarespace.com/static/5d4df99c531b6d0001b48264/t/5ebd48f5159bc974adc24fc6/1589463287076/>

¹⁰⁴ Colin Kellaher, "New York City Pension Funds Urge JPMorgan Shareholders to Oust Lee Raymond," The Wall Street Journal, April 23, 2020, <https://www.wsj.com/articles/new-york-city-pension-funds-urge-jpmorgan-shareholders-to-oust-lee-raymond-11587591444#>

¹⁰⁵ Scott Stringer, New York City Comptroller, Exempt solicitation to shareholders of JPMorgan Chase, April 22, 2020, <https://www.sec.gov/Archives/edgar/data/19617/000121465920003609/r421200px14a6g.htm>

¹⁰⁶ Laura Noonan, "Proxy adviser urges removal of Lee Raymond from JPMorgan board," Financial Times, May 18, 2020, <https://www.ft.com/content/6f9dfe52-7371-4545-b96f-bfa292fc8f0b>

¹⁰⁷ JPMorgan Chase, Filing on Form Def 14-a, p. 21, April 6, 2020, https://www.sec.gov/Archives/edgar/data/19617/000119312520098865/d822689ddef14a.htm#toc822689_56

¹⁰⁸ JPMorgan Chase, Filing on Form 8-K, May 21, 2020, <https://www.sec.gov/ix?doc=/Archives/edgar/data/19617/000001961720000339/ots8k05202020agm.htm>

¹⁰⁹ According to data from Proxy Insight aggregating vote data from SEC filings

¹¹⁰ All BlackRock and Vanguard ownership percentages are sourced from company proxy statements, unless otherwise noted.

¹¹¹ BlackRock, Global Vote Disclosure, JPMorgan Chase 2020, <https://www.blackrock.com/corporate/about-us/investment-stewardship#engagement-and-voting-history> (click on Global Vote Disclosure and retrieve votes by searching on the company's name or ticker); Vanguard, "Investment Stewardship:2020 Annual Report," <https://about.vanguard.com/investment-stewardship/perspectives-and-commentary/2020-investment-stewardship-annual-report.pdf>

¹¹² BlackRock's Global Executive Committee, Letter to Clients, "Sustainability as BlackRock's New Standard for Investing," January 14, 2020, <https://www.sec.gov/comments/s7-23-19/s72319-6706471-206111.pdf>

¹¹³ <https://www.blackrock.com/corporate/about-us/investment-stewardship#engagement-and-voting-history>

¹¹⁴ BlackRock, "Our approach to sustainability," pp. 14-15, 2020, <https://www.blackrock.com/corporate/literature/publication/our-commitment-to-sustainability-full-report.pdf>

¹¹⁵ Vanguard Investment Stewardship, 2020 Annual Report, pp. 38, 63. https://about.vanguard.com/investment-stewardship/perspectives-and-commentary/2020_investment_stewardship_annual_report.pdf

¹¹⁶ Thomas DiNapoli, New York State Comptroller, Exempt solicitation to shareholders of Exxon Mobil, April 23, 2020, <https://www.sec.gov/Archives/edgar/data/34088/000121465920003635/0001214659-20-003635-index.htm>

¹¹⁷ BlackRock, Investment Stewardship Group Voting Bulletin: Exxon Mobil Corporation, May 2020, <https://www.blackrock.com/corporate/literature/press-release/blk-vote-bulletin-exxon-may-2020.pdf>

¹¹⁸ Vanguard Investment Stewardship, 2020 Annual Report, p. 24, https://about.vanguard.com/investment-stewardship/perspectives-and-commentary/2020_investment_stewardship_annual_report.pdf

¹¹⁹ <https://climateaction100.wpcomstaging.com/proxy-season-2020/>

¹²⁰ While different company bylaws treat abstentions differently, this report treats abstentions as neither vote in favor or against a resolution. Percent support is calculated by dividing votes for by votes for and against. See the Note on Data and Methods and Appendix D for more detail.

¹²¹ Dominion Energy, Filing on Form 8-K, May 6, 2020, https://www.sec.gov/ix?doc=/Archives/edgar/data/715957/000156459020022975/d-8k_20200506.htm

¹²² ISS recommendation accessed at proxyinsight.com

¹²³ Dominion Energy, Filing on Form 8-K, May 7, 2019, <https://www.sec.gov/Archives/edgar/data/715957/000071595719000012/deiannualmeeting8k05072019.htm>

¹²⁴ Majority Action, Exempt solicitation to shareholders of Dominion Energy, April 6, 2020, https://www.sec.gov/Archives/edgar/data/715957/000138713120003721/dom-px14a6g_040320.htm

¹²⁵ Majority Action, Exempt solicitation to shareholders of Dominion Energy, April 6, 2020, https://www.sec.gov/Archives/edgar/data/715957/000138713120003721/dom-px14a6g_040320.htm

¹²⁶ Dominion Energy Press Release, July 5, 2020, <https://news.dominionenergy.com/2020-07-05-Dominion-Energy-and-Duke-Energy-Cancel-the-Atlantic-Coast-Pipeline>

¹²⁷ Scott DiSavino & Taru Jain, "Dominion takes \$2.8 bln charge to exit Atlantic Coast natgas pipeline," Reuters, July 31, 2020, <https://www.reuters.com/article/us-dominion-results-atlantic-coast/dominion-takes-2-8-bln-charge-to-exit-atlantic-coast-natgas-pipe-idUSKCN24W21Z>

¹²⁸ "Dominion Energy Names New Executive Leadership Team," PR Newswire, July 31, 2020, <https://news.dominionenergy.com/2020-07-31-Dominion-Energy-Names-New-Executive-Leadership-Team>; "Southern Sells its Stake in ACP to Dominion," <https://www.shaledirectories.com/blog/southern-sells-its-stake-in-ACP-to-dominion/>

¹²⁹ JPMorgan Chase, Filing on Form Def 14-a, April 6, 2020, Proposal 6, p. 97, https://www.sec.gov/Archives/edgar/data/19617/000119312520098865/d822689ddef14a.htm#toc822689_56

¹³⁰ Rainforest Action Network, et al., Banking on Climate Change: Fossil Fuel Finance Report 2020, March 2020, p.15, <https://www.ran.org/bankingonclimatechange2020/>

¹³¹ ISS recommendation accessed at proxyinsight.com; JPMorgan Chase, Filing on Form 8-K, May 21, 2020, <https://www.sec.gov/ix?doc=/Archives/edgar/data/19617/000001961720000339/ots8k05202020agm.htm>

¹³² BlackRock, Global Vote Disclosure, JPMorgan Chase 2020, <https://www.blackrock.com/corporate/about-us/investment-stewardship#engagement-and-voting-history> (click on Global Vote Disclosure and retrieve votes by searching on the company's name or ticker); Vanguard, Filing on Form NPX, August 31, 2020, https://www.sec.gov/Archives/edgar/data/36405/0001104465920099318/tm2026413-11_npx.txt

¹³³ Vanguard, "Investment Stewardship Insights: Votes on selected climate-related shareholder proposals," p. 4, June 20, 2020, https://about.vanguard.com/investment-stewardship/perspectives-and-commentary/ISVCSP_062020.pdf

¹³⁴ BlackRock, Global Vote Disclosure, JPMorgan Chase 2020, <https://www.blackrock.com/corporate/about-us/investment-stewardship#engagement-and-voting-history> (click on Global Vote Disclosure and retrieve votes by searching on the company's name or ticker)

¹³⁵ Majority Action, Exempt solicitation to shareholders of JPMorgan Chase, April 17, 2020, slide 10, https://www.sec.gov/Archives/edgar/data/19617/000138713120003979/mja-px14a6g_041720.htm

¹³⁶ JPMorgan Chase, Filings on Form 8-K, May 21, 2020, May 18, 2018, May 19, 2017, May 19, 2016, May 21, 2015, May 23, 2013, May 18, 2012, May 20, 2010, available at <https://www.sec.gov/cgi-bin/browse-edgar?CIK=19617>

¹³⁷ JPMorgan Chase, Filing on Form Def 14-a, April 6, 2020, p. 93, https://www.sec.gov/Archives/edgar/data/19617/000119312520098865/d822689ddef14a.htm#toc822689_56

¹³⁸ BlackRock, Global Vote Disclosure, JPMorgan Chase 2020, <https://www.blackrock.com/corporate/about-us/investment-stewardship#engagement-and-voting-history> (click on Global Vote Disclosure and retrieve votes by searching on the company's name or ticker)

¹³⁸ BlackRock, Global Vote Disclosure, JPMorgan Chase 2020, <http://vds.issproxy.com/SearchPage.php?CustomerID=10228> (click on Global Vote Disclosure and retrieve votes by searching on the company's name or ticker); Vanguard, "Investment Stewardship Insights: Votes on selected climate-related shareholder proposals," June 20, 2020, https://about.vanguard.com/investment-stewardship/perspectives-and-commentary/ISVCSP_062020.pdf

¹⁴⁰ Duke Energy, Filing on Form Def 14a, May 7, 2020, p. 77, <https://www.sec.gov/Archives/edgar/data/1326160/000104746920001812/a2240669zdef14a.htm>

¹⁴¹ Mercy Investments, Exempt Solicitation to Shareholders of Duke Energy, April 1, 2020, <https://www.sec.gov/Archives/edgar/data/1326160/000121465920003081/p41201px14a6g.htm>

¹⁴² See Duke Energy, Filings on Form 8-K, May 5, 2016, https://www.sec.gov/Archives/edgar/data/1326160/000110465916119780/a16-10869_18k.htm; May 4, 2017, <https://www.sec.gov/Archives/edgar/data/1326160/000132616017000113/a5-10x17form8xkamvotingres.htm>; May 2, 2019, <https://www.sec.gov/Archives/edgar/data/1326160/000132616019000147/may82019form8-kre2019annua.htm>; May 7, 2020, https://www.sec.gov/ix?doc=/Archives/edgar/data/1326160/000110465920060467/tm2019452d1_8k.htm

¹⁴³ ISS recommendation accessed at proxyinsight.com

¹⁴⁴ See Vote Outcomes table above.

¹⁴⁵ Duke Energy, Filing on Form Def 14a, May 7, 2020, Proposal 4, p. 70, <https://www.sec.gov/Archives/edgar/data/1326160/000104746920001812/a2240669zdef14a.htm>;

¹⁴⁶ ISS recommendation accessed at proxyinsight.com; for shareholder support, see Vote Outcomes table above.

¹⁴⁷ BlackRock, Global Vote Disclosure, at <http://vds.issproxy.com/SearchPage.php?CustomerID=10228> (click on Global Vote Disclosure and retrieve JPMorgan Chase votes by searching on the company's name or ticker); Vanguard, Filing on Form NPX, August 27, 2020, https://www.sec.gov/Archives/edgar/data/36405/000110465920099318/tm2026413-11_npx.txt

¹⁴⁸ <http://vds.issproxy.com/SearchPage.php?CustomerID=10228>

¹⁴⁹ Delta Air Lines, Filing of Form Def 14a, June 18, 2020, Proposal 5, p. 62, https://www.sec.gov/Archives/edgar/data/27904/000130817920000240/ldal2020_def14a.htm

¹⁵⁰ Delta Air Lines, Filing on Form 8-K, June 18, 2020, https://www.sec.gov/ix?doc=/Archives/edgar/data/27904/000168316820002010/delta_i8k.htm

¹⁵¹ Delta Air Lines, Filing of Form Def 14a, June 18, 2020, https://www.sec.gov/Archives/edgar/data/27904/000130817920000240/ldal2020_def14a.htm

¹⁵² See Vote Outcomes table, above.

¹⁵³ BlackRock vote disclosure at <http://vds.issproxy.com/SearchPage.php?CustomerID=10228> (click on Global Vote Disclosure and retrieve votes by searching on the company's name or ticker); Vanguard, Filing on Form NPX, August 31, 2020, https://www.sec.gov/Archives/edgar/data/36405/000110465920099318/tm2026413-11_npx.txt

¹⁵⁴ BlackRock, Voting Bulletin: Delta Air Lines, <https://www.blackrock.com/corporate/literature/press-release/blk-vote-bulletin-delta-jun-2020.pdf>

¹⁵⁵ BlackRock, Global Vote Disclosure, at <http://vds.issproxy.com/SearchPage.php?CustomerID=10228> (click on Global Vote Disclosure and retrieve votes by searching on the company's name or ticker)

¹⁵⁶ Chevron, Filing on Form Def-14a, April 7, 2020, item 7, p. 80, https://www.sec.gov/Archives/edgar/data/93410/000119312520100407/d838093ddef14a.htm#toc838093_61

¹⁵⁷ As You Sow, Exempt solicitation to shareholders of Chevron Corporation, April 17, 2020, <https://www.sec.gov/Archives/edgar/data/93410/000121465920003443/r416202px14a6g.htm>

¹⁵⁸ BlackRock, Global Vote Disclosure, at <http://vds.issproxy.com/SearchPage.php?CustomerID=10228> (click on Global Vote Disclosure and retrieve votes by searching on the company's name or ticker); Vanguard, Filing on Form NPX, August 27, 2020, https://www.sec.gov/Archives/edgar/data/36405/000110465920099318/tm2026413-11_npx.txt

¹⁵⁹ See BlackRock, "Voting Bulletin: Chevron Corporation," pp. 3-4, <https://www.blackrock.com/corporate/literature/press-release/blk-vote-bulletin-chevron-may-2020.pdf>

¹⁶⁰ Chevron, Filing on Form Def-14a, April 7, 2020, item 6, p. 78, https://www.sec.gov/Archives/edgar/data/93410/000119312520100407/d838093ddef14a.htm#toc838093_61

¹⁶¹ See BlackRock, "Voting Bulletin: Chevron Corporation," <https://www.blackrock.com/corporate/literature/press-release/blk-vote-bulletin-chevron-may-2020.pdf>

¹⁶² See: CarbonTracker, "Absolute Impact: Why oil majors ambitions fall short of Paris limits," June 24, 2020 <https://carbontracker.org/reports/absolute-impact/>; Corbin Hiar, "Slip-up reveals Chevron ties to architect of climate attack," E&E News, June 18, 2020 <https://www.eenews.net/stories/1063407645>, BlackRock, "Voting Bulletin: Chevron Corporation," <https://www.blackrock.com/corporate/literature/press-release/blk-vote-bulletin-chevron-may-2020.pdf>

¹⁶³ IPE Top 400 Asset Managers, 2019, <https://www.ipe.com/Uploads/j/e/b/Top-400-Asset-Managers-2019.pdf>

¹⁶⁴ <https://www.x-rates.com/graph/?from=USD&to=EUR>

¹⁶⁵ Industry Sectors as classified by [ProxyInsight.com](https://www.proxyinsight.com)