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The Honorable Rep. Virginia Foxx, Chairwoman, Committee on Education and the Workforce
The Honorable Rep. Robert Scott, Ranking Member, Committee on Education and the Workforce
The Honorable Rep. Patrick McHenry, Chairman, Financial Services Committee
The Honorable Rep. Maxine Waters, Ranking Member, Financial Services Committee

CC: The Honorable Rep. Mike Johnson, Speaker of the House
The Honorable Rep. Hakeem Jefferies, House Minority Leader
The Honorable Rep. James Comer, Chairman, Oversight Committee
The Honorable Rep. Jamie Raskin, Ranking Member, Oversight Committee
The Honorable Sen. Chuck Schumer, Senate Majority Leader
The Honorable Sen. Mitch McConnell, Senate Minority Leader
The Honorable Sen. Bernie Sanders, Chairman, Committee on Health, Education, Labor, and Pensions
The Honorable Sen. Bill Cassidy, Ranking Member, Committee on Health, Education, Labor, and Pensions

December 14, 2023

Dear Representatives Foxx, Scott, McHenry, and Waters:

The undersigned Attorneys General write to explain why fund managers' use of Environmental, Social, and Governance ("ESG") factors is consistent with prudent investment decision-making. This letter addresses the use of ESG factors in evaluating risks and returns to further investor objectives, outlines the current ESG regulatory framework, and responds to recent efforts to hinder the use of ESG factors, including H.R. 5339 (2023)[1] and H.R. 4237 (2023).[2] We encourage Congress to recognize the importance of fund managers' consideration of all ESG factors, including, in particular, climate change-related investment risks and opportunities.

I. BACKGROUND & LEGISLATION

ESG factors can be critical components to prudent investment decision-making. Environmental factors evaluate a company's environmental impact and ability to mitigate climate-related financial risks. Social factors examine how a company manages relationships with employees, suppliers, customers, and communities. Governance factors assess a company's leadership, executive pay, audits, internal controls, and shareholder rights.[3] As discussed below, fund managers can properly integrate ESG factors, particularly environmental factors,[4] into investment decisions to maximize returns and minimize risks.

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[1] H.R. 5339, 118th Cong. (2023), https://www.congress.gov/118/bills/hr5339/BILLS-118hr5339rh.pdf.
[2] H.R. 4237, 118th Cong. (2023), https://www.congress.gov/118/bills/hr4237/BILLS-118hr4237ih.pdf.
[3] 87 Fed. Reg. 72,822, 73,832 (Dec. 1, 2022).
[4] Although we mainly focus on climate-related risks (i.e., the "E" in "ESG"), social and governance factors also can be material to investment decision-making. Justin Sloggett & Bettina Reinboth, *ESG Integration: How Are Social Issues Influencing Investment Decisions?* at 17-22, 34, United Nations Principles for Responsible Investing (2017); *see infra* Section III.A.

A. The Current Department of Labor Rule Provides Clarity About the Use of ESG Factors

Guided by mischaracterizations of ESG investment strategies and seeking to chill their use, H.R. 5339 ("Roll back ESG To Increase Retirement Earnings Act") and H.R. 4237 ("Ensuring Sound Guidance Act") (together, the "House Bills"), if enacted, would codify language from the superseded 2020 Department of Labor ("DOL") rule pertaining to fiduciaries' duties under the Employee Retirement Income Security Act of 1974 ("ERISA").[5] In 2022, DOL concluded that the 2020 rule created substantial confusion about whether and how fiduciaries could consider climate-related financial risks and other ESG factors when making investment decisions.[6] Accordingly, DOL issued a new rule in 2022, which clarified that ERISA fiduciaries may consider ESG and other investment factors when the fiduciary determines they are relevant to financial risks or returns.[7]

The 2022 DOL rule retains the core principle of the 2020 rule by prioritizing the financial interests of plan participants while allowing fiduciaries to consider all factors that are relevant to a risk-return analysis, including the economic effects of climate change and other ESG considerations.[8] In other words, the rule does not require fiduciaries to take ESG factors into account in all instances, but it permits them to consider ESG-related risks and opportunities when relevant. The 2022 rule allows fiduciaries to select investments that may have collateral benefits other than investment returns *if, and only if,* "competing investments, or competing investment courses of action, equally serve the financial interests of the plan over the appropriate time horizon."[9] The 2022 DOL rule eliminated the 2020 rule's chilling effect on considering material ESG factors.[10]

Rather than permitting the consideration of material ESG factors, as the current DOL rule does, the House Bills would return to the language from the 2020 DOL rule that sows confusion, improperly limits the information available to fiduciaries, and inhibits reasoned investment decision-making.

B. ESG Strategy Distinctions

Many efforts to limit or prohibit the use of ESG factors in investing over-broadly characterize all ESG-based investments as prioritizing environmental or social policy preferences over returns. Fiduciaries may incorporate ESG factors into decision-making, however, through distinct strategies depending upon investor objectives.

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[5] Financial Factors in Selecting Plan Investments, 85 Fed. Reg. 72,846 (Nov. 13, 2020) (codified at 29 C.F.R. §§ 2509, 2550) (superseded by Prudence and Loyalty in Selecting Plan Investments and Exercising Shareholder Rights, 87 Fed. Reg. 73,822 (Dec. 1, 2022) (codified at 29 C.F.R. § 2550)).

[6] Prudence and Loyalty in Selecting Plan Investments and Exercising Shareholder Rights, 87 Fed. Reg. 73,822, 73,825-826 (Dec. 1, 2022) (codified at 29 C.F.R. § 2550) (mandating fiduciaries consider solely "pecuniary factors").

[7] *Id*. at 73,827.

[8] 29 C.F.R. § 2550.404a-1(b)(4), (c).

[9] 29 C.F.R § 2550.404a-1(c)(2).

[10] *See* California *et al.*, Comments on Department of Labor's Proposed Rule "Prudence and Loyalty in Selecting Plan Investments and Exercising Shareholder Rights," (Dec. 13, 2021), https://stateimpactcenter.org/files/AgactionComment-Letter-ISO-DOL-Proposed-Rule.pdf; 87 Fed Reg at 73,826.

Three such strategies, as described by the Securities and Exchange Commission ("SEC"), are worth mentioning here.[11] ESG-*integration* strategies consider ESG only to inform risk and return projections for a particular investment fund. An ESG-integration strategy prioritizes nothing but returns, and simply considers ESG factors alongside all other relevant factors in decision-making. ESG-*focused* strategies consider collateral benefits when choosing between funds that equally benefit investors' financial interests. ESG-*impact* strategies consider ESG in parallel or paramount to pure risk or return considerations when investors wish to direct their assets toward investments that further particular values, such as sustainability, potentially—but not necessarily—at the expense of higher returns.

Given how critical an ESG-integration strategy can be to prudent investment decision-making—and how that strategy has been mischaracterized by opponents to any consideration of ESG factors—this letter focuses on the key role of ESG-integration strategies in protecting the bottom line: investor returns.

C. ESG Mischaracterizations

Recent legislative attempts to restrict the use of ESG factors in investment decision-making,[12] as well as some challenges to private institutions' use of ESG factors,[13] conflate and confuse the numerous ways that ESG factors are utilized to inform investment decisions. The general position advanced in the letters and bills opposing ESG rely on three falsities: (1) consideration of ESG factors means that investment managers prioritize corporate

[11] Enhanced Disclosures by Certain Investment Advisers and Investment Companies about Environmental, Social, and Governance Investment Practices, 87 Fed. Reg. 36654 (June 17, 2022) (hereinafter "SEC's Proposed ESG Disclosure Rule").

[12] *See, e.g.,* H.R. 5339, 118th Cong. (2023); *Press Release: Committee Republicans Introduce Measures to Combat the Influence of ESG Initiatives in America's Financial System*, Fin. Serv. Comm. Of the U.S. House of Rep. (July 25, 2023), https://financialservices.house.gov/news/documentsingle.aspx?DocumentID=408927 (detailing several bills introduced into Congress in July seeking to limit consideration of ESG); Connor Gibson and Frances Sawyer, *2023 Statehouse Report: Right-Wing Attacks on the Freedom to Invest Responsibly Falter in Legislatures*, Pleiades Strategy (2023), https://www.pleiadesstrategy.com/state-house-report-bill-tracker-republican-anti-esg-attacks-on-freedom-to-invest-responsibly-earns-business-labor-and-environmental-opposition; Mana Behbin *et al*., *ESG Investing Regulations Across the 50 States*, Morgan Lewis (July 21, 2023), https://www.morganlewis.com/pubs/2023/07/esg-investing-regulations-across-the-50-states.

[13] *See, e.g.,* Letter from 19 Republican Attorneys General Led by Arizona and Nebraska to BlackRock Inc. (Aug. 4, 2022), https://mcusercontent.com/cc1fad182b6d6f8b1e352e206/files/5bcd9811-ee15-e7a3-0a00-923a9b327aa7/BlackRock_Letter.pdf; Letter from 21 Attorneys General Led by Montana, Louisiana, and Utah to 53 Financial Institutions (Mar. 30, 2023), https://content.govdelivery.com/attachments/MTAG/2023/03/30/file_attachments/2453301/2023-03-30%20Asset%20Manager%20letter%20Press%20FINAL.pdf (hereinafter "Financial Institutions Letter"); Letter from Senators Cotton, Grassley, Rubia, Lee, and Blackburn to 51 Law Firms (Nov. 3, 2022), https://www.grassley.senate.gov/imo/media/doc/cotton_grassley_et_altolawfirmsesgcollusion.pdf (hereinafter "Law Firm Letter").

policies over returns on investment[14]; (2) ESG factors are never relevant to the bottom line[15]; and (3) considering ESG factors in investing always results in poorer returns.[16]

First, investors may consider ESG factors to advance different objectives.[17] While some investors employ ESG factors to maximize the environmental or social benefits of their investments (ESG-impact strategies, as explained above), investors may also use the factors as criteria to maximize returns in a rapidly changing market (ESG-integration strategies), among other uses.[18] The view that consideration of ESG factors always means prioritizing policies over returns stems from ESG opponents' conflation of these distinct strategies. Second, ESG factors can pertain to companies' financial exposure and opportunities, and thus may inform investors' risk-return analyses based on the investment horizon.[19] Congress should protect fiduciaries' ability to use ESG factors as prudential tools to protect the bottom line. Third, the data indicates that considering ESG factors does not have to result in poorer returns.[20] A July 2023 literature review on ESG and sustainable investment found that "empirical studies and meta-analyses consistently

[14] Representative Rick Allen (introducer of H.R. 5339), *Rep. Rick W. Allen Introduces The Retire Act* (Sept. 6, 2023), Rick W. Allen: Press Release, https://allen.house.gov/news/documentsingle.aspx?DocumentID=5903 ("By empowering financial advisors to invest Americans' retirement savings in risky, climate-related ESG funds, the Department of Labor (DOL) is blatantly prioritizing its radical political agenda over Americans' hard-earned savings"); Law Firm Letter ("The ESG movement attempts to weaponize corporations to reshape society in ways that Americans would never endorse at the ballot box.").

[15] Financial Institutions Letter at 17 (assumptions that climate change will impact company operations "are speculative and unrealistic").

[16] Rep. Andy Barr and Rick Allen (introducers of H.R. 4237), *Barr and Allen Introduce ESG Act to Protect Investors and Preserve Access to Capital for Energy Producers*, Congressman Barr: Press Releases (June 21, 2023), https://barr.house.gov/2023/6/barr-and-allen-introduce-esg-act-to-protect-investors-and-preserve-access-to-capital-for-energy-producers ("We must take significant action to protect retail investors and retirees from the cancer within our capital markets that is ESG, which prioritizes higher-fee, less diversified and lower return investments").

[17] *See supra* Section I.B.

[18] SEC's Proposed ESG Disclosure Rule.

[19] *See infra* Section III.A.

[20] Tensie Whelan *et al*., *ESG And Financial Performance: Uncovering the Relationship by Aggregating Evidence from 1,000 Plus Studies Published between 2015–2020* at 2, New York University Stern School of Business (Feb. 2021), https://www.stern.nyu.edu/sites/default/files/assets/documents/NYU-RAM_ESG-Paper_2021%20Rev_0.pdf; Rui Coelho *et al*., *The impact of social responsibility on corporate financial performance: A systematic literature review* at 1535, 1556, Corporate Social Responsibility and Environmental Management, Vol. 30: 1535-1560 (May 12, 2022), https://onlinelibrary.wiley.com/doi/epdf/10.1002/csr.2446 ("Our study suggests that [Corporate Social Responsibility, as measured by ESG performance indicators,] directly impacts a company's financial performance, and this impact becomes more significant as the company's [ESG] scores improve…. [They have] a direct positive impact on companies' financial performance."). To be sure, other studies suggest there is nuance to the rate of investment returns with regard to ESG-factor consideration, but even those studies do not support limiting ERISA fiduciaries' ability to consider ESG factors. *See, e.g.*, Lubos Pastor *et al*., *ESG Investment Returns Face a Slowdown*, Financial Times (July 5, 2023), https://www.ft.com/content/f3d9f74e-df3d-4ec5-b3ae-04746c4bdde7 ("green assets are a climate hedge, performing better than brown in the face of bad news about climate change"); N.C. Ashwin Kumar *et al.*, *ESG Factors and Risk-Adjusted Performance: A New Quantitative Model*, Journal of Sustainable Finance & Inv. (2016), https://www.unpri.org/Uploads/g/t/y/ESG-Factors-and-Risk-Adjusted-Performance.-A-New-Quantitative-Model.pdf (although ESG factors may negatively affect certain industries, such as automobiles, durables, banking, and insurance, even in those industries, stocks of companies considering ESG factors are less volatile; conclusion is that "integrating ESG factors into the investment decision can provide superior risk-adjusted returns and is specifically relevant for improving efficiency of low-risk investment strategies such as those followed by pension funds."). Still, the point of this letter is that fiduciaries should not be barred from considering ESG factors, regardless of how ESG funds perform.

demonstrate a positive relationship between ESG integration and financial performance."[21] Fiduciaries can make better investment decisions when they can consider all material factors that inform those decisions.[22]

II. IMPLICATIONS OF CLIMATE CHANGE

A. Physical Risks: Financial Impacts of Climate Change

Fiduciaries must be able to consider the economic risks that climate change poses to businesses and the value of their securities. Our nation is experiencing the devastating effects of climate change *right now*, including extreme heat, historic drought, wildfires, sea level rise, and coastal flooding, and the economic costs of climate change will likely increase in the coming decades. Appendix A highlights some of the physical effects of climate change on state signatories to this letter, which pose financial risks to businesses now that will only increase in years to come.

B. Transition Risks and Opportunities: State Policies Changing the Investment Landscape

Another factor that fiduciaries must be able to consider is how companies will navigate the regulatory and market changes associated with climate change. Independent of any federal action, many states have implemented policies to incentivize investments in renewable energy and climate resilience. Appendix B details the laws, regulations, and policies established by many of the undersigned states aimed at reducing emissions and facilitating the transition to renewables. Currently, 33 states have released a climate action plan or are in the process of developing one,[23] and prudent investors should anticipate this number may grow. Those policies are resulting in an increasingly rapid shift away from the use of fossil fuels to power our economy. That shift, in turn, creates material risks to carbon-intensive industries and creates opportunities for cleaner-energy

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[21] Prashant Debnath *et al*., *An In-Depth Systematic Literature Review On ESG And Sustainable Investment: Current Perspectives And Future Directions* at 19, International Journal of Socio-Economic and Environmental Outlook, Vol. 10, No. 7 (July 2023) ("Companies with strong ESG practices tend to achieve competitive risk adjusted returns, lower costs of capital, and improved profitability."); Whelan *et al*., *supra* note 20, at 10 ("For investors seeking to construct portfolios that generate alpha, some ESG strategies seem to generate market rate or excess returns when compared to conventional investment strategies, especially for long-term investors, and provide downside protection during economic or social crisis. Notably, very few studies found definitive negative correlations between ESG and financial performance."); *see also* N. C. Ashwin Kumar *et al*., *ESG factors and risk-adjusted performance: a new quantitative model* at 1, Journal of Sustainable Finance & Investment (Oct. 2016), http://dx.doi.org/10.1080/20430795.2016.1234909 ("[C]ompanies that incorporate [ESG] factors show lower volatility in their stock performances than their peers in the same industry, that each industry is affected differently by ESG factors, and that ESG companies generate higher returns.").

[22] Whelan *et al*., *supra* note 20; *see also* Debnath *et al*., *supra* note 21, at 13 ("ESG factors can materially affect a company's financial performance…. integrating ESG factors into investment analysis can lead to more informed decision making.").

[23] Center for Climate and Energy Solutions, U.S. State Climate Action Plans (Dec. 2022), https://www.c2es.org/document/climate-action-plans/. Municipalities are also implementing their own climate action plans. *See*, *e.g.*, N.Y.C., N.Y., Local Law 97 (Apr. 2019), https://www1.nyc.gov/assets/buildings/local_laws/ll97of2019.pdf; Green Cmties. Div., Mass. Dep't of Energy Res., *Becoming a Designated Green Cmty.*, Mass.gov, https://www.mass.gov/guides/becoming-a-designated-green-community, (last visited Nov. 8, 2023); City of Berkeley, *Green Bldg. Reqts.*, https://berkeleyca.gov/construction-development/permits-design-parameters/design-parameters/green-building-requirements (last visited Nov. 8, 2023).

industries. These risks and benefits are precisely what ESG factors allow fiduciaries to weigh in making investment decisions. Fiduciaries should not be prohibited from considering how state regulations and associated market transitions may affect investments.

III. FIDUCIARY DUTY TO CONSIDER LONG-TERM INVESTMENT HORIZONS

The finance industry understands—and studies confirm—that consideration of ESG factors can yield important information about risks and rewards, which can lead to greater value for beneficiaries.[24] A 2019 article found that the "overwhelming weight of accumulated research" demonstrates that companies that pay attention to ESG concerns do not experience smaller returns—"in fact, quite the opposite."[25] Correlations exist between companies that consider and manage risks associated with ESG factors and higher equity returns, with attention to ESG factors "correspond[ing] [to] a reduction in downside risk."[26] Thus, ESG factors can be material to investor decision-making and their analyses should not be barred by law.

A. ESG Integration Protects and Advances Investment Returns

1. Climate and Environmental Considerations are Important to the Bottom Line

Climate-related risks and opportunities increasingly impact investor returns. The physical and transitional risks discussed in Section II are impacting major industries ranging from agriculture to tourism to commercial fishing. ERISA and other fiduciaries should be able to consider that reality in their investment decision-making.

A company's exposure to climate change risks is often a material factor under a long-term investment horizon. The rapidly changing climate is already forcing many companies to adapt to address associated hazards that will impact supply chain stability, degrade private infrastructure, and undermine global trade and development—and the need for that adaptation will likely grow as the world warms. Currently, only one in five companies has a plan in place to adapt to the physical risks of climate change; a company's ability to adapt can be important information fiduciaries should be able to consider in making investment decisions.[27]

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[24] World Economic Forum, *The Global Risks Report 2023: 18th Edition* (January 2023), https://www3.weforum.org/docs/WEF_Global_Risks_Report_2023.pdf ("Climate and environmental risks are the core focus of global risks perceptions over the next decade – and are the risks for which we are seen to be the least prepared."); Gunnar Friede *et al*., *ESG and financial performance: Aggregated evidence from more than 2000 empirical studies* at 210-33 (Oct. 2015), Journal of Sustainable Finance & Investment, Vol. 5, No. 4; *see also* Coelho *et al*., *supra* note 20, at 1535, 1556.

[25] Witold Henisz *et al*., *Five Ways That ESG Creates Value*, McKinsey and Company, Mckinsey Quarterly (Nov. 2019), https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/five-ways-that-esg-creates-value; *see also* Debnath *et al*., *supra* note 21, at 19.

[26] Henisz *et al*., *supra* note 25; *see also* Niccolò Nirino *et al*., *Corporate controversies and company's financial performance: Exploring the moderating role of ESG practices* at 5, Technological Forecasting and Social Change, Vol. 162 (Sept. 2020) (ESG factors help avoid controversies detrimental to financial performance); Boffo, R., and R. Patalano, *ESG Investing: Practices, Progress and Challenges* (2020), OECD Paris, www.oecd.org/finance/ESG-Investing-Practices-Progress-and-Challenges.pdf.

[27] Jennifer Laidlaw *et al*., *Adaptation Planning is the Next Step for Companies to Prepare for Climate Risk* (February 21, 2023), S&P Global, https://www.spglobal.com/esg/insights/adaptation-planning-is-the-next-step-for-companies-to-prepare-for-climate-risk.

In addition to adapting to the physical risks of climate change, companies also face a world that understands climate change as an existential threat, with regulations at the municipal, state, federal, and international levels already being implemented and likely to increase. In addition to the states' efforts described in Appendix B, the European Union mandated net zero emissions by 2050 and committed to engage with industries charting the path to climate neutrality.[28] Further, to ensure the EU's climate objectives are not undermined, the EU instituted the Carbon Border Adjustment Mechanism that also accounts for, via taxation, emissions generated from the production of goods imported into the EU.[29] Companies that respond to these new regulatory pressures may present more favorable investment opportunities over the long run than those that do not. If the goal is to allow investors to make better informed investment decisions to maximize returns—which it should be—then allowing investment managers to integrate ESG factors alongside other material factors is fully consistent with that aim.

Climate change also provides opportunities. To mitigate the most devastating impacts of climate change, the United States must decarbonize our economy and enhance infrastructure resiliency as soon as possible.[30] Reducing emissions and improving resiliency offer investment opportunities. As evidenced by the participating states,[31] climate change preparations are on the rise. To achieve global net zero emissions by 2050, the consensus target to avoid catastrophic impacts,[32] annual renewable energy use must increase at an average rate of about 13% during 2023-2030, twice as much as the average over the past 5 years.[33] Indeed, a 2022 report from the International Energy Agency indicated that renewable energy resources are set to account for over 90% of global electricity expansion over the next five years, overtaking coal to become the largest generator of electricity globally by early 2025.[34] Thus, the renewable energy industry—along with other industries like sustainable infrastructure, biotechnology, HVAC, and electric vehicles—are poised to grow.[35] Fiduciaries should not be dissuaded from considering these variables as part of their risk-return analyses.

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[28] European Commission, *EU Action: European Climate Law* (July 29, 2021), https://climate.ec.europa.eu/eu-action/european-climate-law_en#:~:text=The%20Climate%20Law%20includes%3A,of%20emission%20reductions%20and%20removals.

[29] European Commission, Taxation and Customs Union, *Carbon Border Adjustment Mechanism*, https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism_en (last visited Nov. 9, 2023).

[30] IPCC, *Climate Change 2022: Impacts, Adaptation, and Vulnerability* at 33, 66, Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, https://www.ipcc.ch/report/ar6/wg2/ ("The cumulative scientific evidence is unequivocal: Climate change is a threat to human well-being and planetary health. Any further delay in concerted anticipatory global action on adaptation and mitigation will miss a brief and rapidly closing window of opportunity to secure a livable and sustainable future for all."), ("[P]rojected global economic damage from climate impacts are higher than previous estimates and generally increase with global average temperature…. Without limiting warming to 1.5°C global warming level, many key risks are projected to intensify rapidly in almost all regions of the world, causing damage to assets and infrastructure and losses to economic sectors and entailing high recovery and adaptation costs.").

[31] *Supra* section II.A-B.

[32] United Nations, *Climate Action: Net Zero* (Nov. 2023), https://www.un.org/en/climatechange/net-zero-coalition.

[33] International Energy Agency (IEA), *Tracking Renewables* (June 2023), https://www.iea.org/energy-system/renewables.

[34] IEA, *Renewables 2022: Analysis & Forecast to 2027* at 10 (Dec. 2022), https://www.iea.org/reports/renewables-2022.

[35] *See generally, e.g.,* US EPA, *Investing in America: Climate Action Funding Resource Guide*, https://www.epa.gov/inflation-reduction-act/investing-america-climate-action-funding-resource-guide (last visited Nov. 25, 2023); US Senate, Joint Economics Committee, *Acting On Climate Will Fight Inflation, Lower Costs And*

2. Community Relationships and Social Accountability Can Be Profitable

Social accountability is also critical to analyzing risk. For example, after allegations of child labor, sweatshops, and corporate abuse, Nike revenues and stock prices decreased by approximately 50% in 1998 alone.[36] To better address this risk, Nike implemented corporate social responsibility practices. Its efforts paid off. In its 2005 annual report, Nike announced it was moving away from using corporate responsibility as a crisis management tool and would instead be using it as an opportunity for innovation and growth.[37] And in 2013, Nike appeared in *Fortune's* list of "The World's Most Admired Companies" as the number one most admired apparel company.[38] Meanwhile, Nike's revenue more than quintupled since the sweatshop scandal, increasing from roughly $9 billion in 1998 to over $50 billion in 2023.[39]

Companies may also derive financial benefits from incorporating more diversity into their management teams. For instance, one study noted that companies in the top 25th percentile for gender diversity on their executive teams were 21% more likely to experience above-average profits, and more culturally and ethnically diverse executive teams were 33% more likely to realize above-average profits.[40] Researchers explain, "[t]hriving in a highly uncertain competitive environment requires creative thinking in those areas, and the diverse collaborators were better equipped to deliver it."[41]

Grow The Economy Faster For Decades To Come (Aug. 5, 2022), https://www.jec.senate.gov/public/index.cfm/democrats/issue-briefs?ID=43BEFE7D-1C87-4D85-9CDC-226D80B5C5A8; IEA, *World Energy Outlook 2023* (Oct. 2023), https://iea.blob.core.windows.net/assets/614bb748-dc5e-440b-966a-adae9ea022fe/WorldEnergyOutlook2023.pdf; USDA, *Biotechnology and Climate Change*, https://www.usda.gov/topics/biotechnology/climate-change (last visited Nov. 24, 2023).

[36] Auburn University, Habert College of Business, *Nike: Managing Ethical Missteps-Sweatshops to Leadership in Employment Practices* at 3 (June 19, 2019), https://harbert.auburn.edu/binaries/documents/center-for-ethical-organizational-cultures/cases/nike.pdf.

[37] *Id.* at 4.

[38] *Id.* at 7.

[39] *Compare* Nike, Inc. Annual Report 1998, https://s1.q4cdn.com/806093406/files/doc_financials/1998/main_ar.html, *with* Nike, Inc. Annual Report 2023, https://s1.q4cdn.com/806093406/files/doc_downloads/2023/414759-1-_5_Nike-NPS-Combo_Form-10-K_WR.pdf.

[40] NASDAQ Stock Market LLC, *Response to Comments and Notice of Filing of Amendment No. 1 of Proposed Rule Change to Adopt Listing Rules Related to Board Diversity* at 29-30 (Feb. 2021), https://www.sec.gov/comments/sr-nasdaq-2020-081/srnasdaq2020081-8425992-229601.pdf; Dame Hunt *et al*., *Delivering Through Diversity* (Jan. 18, 2018), McKinsey & Company, https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/delivering-through-diversity; *see also* Max M. Schanzenbach & Robert H. Sitkoff, *Reconciling Fiduciary Duty and Social Conscience: The Law and Economics of ESG Investing by a Trustee,* 72 Stan. L. Rev. 381,397 (2020); Robert G. Eccles *et al*., *The Impact of Corporate Sustainability on Organizational Processes and Performance* at 2849, Management Science, vol. 60, no. 11 (Nov. 2014) (study finding that over a twenty-year period, companies that prioritized ESG factors significantly outperformed companies that did not**);** Cole Horton & Simon Jessop, *Positive ESG Performance Improves Returns Globally, Research Shows*, Reuters (July 28, 2022), https://www.reuters.com/business/sustainable-business/positiveesg-performance-improves-returns-globally-research-shows-2022-07-28/ (global study finding that companies with strong corporate governance metrics outperformed benchmark portfolios by 1.42% over the past five years)**;** Paul Gompers & Silpa Kovvali, *The Other Diversity Dividend,* Harvard Business Review (July-Aug. 2018), https://hbr.org/2018/07/the-other-diversity-dividend (finding that lack of diversity reduced venture capitalists' investment's success rate by 26.4% to 32.2%).

[41] Gompers & Kovvali, *supra* note 40.

To avoid the market consequences of neglecting social factors, and to evaluate the strategic benefit of integrating social factors into business practices, fiduciaries should be able to consider how companies are managing their relationships when analyzing risks and returns.

3. Markets Favor Good Governance

Corporate governance factors may also affect investor returns. In recent years, attorneys general across the political spectrum have investigated corporate misbehavior related to consumer fraud and environmental compliance. For example, following disclosures of emissions cheating by Volkswagen, a coalition of 43-state attorneys general investigated the company under state consumer protection and environmental laws, which resulted in the company paying the coalition over $600 million.[42] The scandal caused a significant downgrade in Volkswagen's ESG ratings in September 2015.[43] Concurrently, Volkswagen's stock fell over 30% within days after publication of the scandal.[44] These types of violations, and their corresponding losses, can happen because of a lack of internal governance controls, like internal monitoring and compliance protocols (governance factors). Companies with good governance are better structured to reduce the risks of similar outcomes harmful to investors.[45]

Meta-analyses have shown that companies that score higher in positive-governance criteria not only are more likely to enjoy more efficient and effective corporate management systems, but may also reduce exposure to adverse government action and gain better access to finance (i.e. lines of credit, loans, and investments) at lower costs.[46] "[T]ypically one-third of corporate profits are

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[42] *See,* e.g., National Association of Attorneys General, Rules and Regulations of the VW Settlement Fund, https://www.naag.org/wp-content/uploads/2020/08/VW-Settlement-Fund-Rules-and-Regulations-Final.pdf; Jeffrey Rothfeder, *The Volkswagen Settlement: How Bad Management Leads to Big Punishment*, The New Yorker (July 1, 2016), https://www.newyorker.com/business/currency/the-volkswagen-settlement-how-bad-management-leads-to-big-punishment; see *also* Ken Paxton Attorney General of Texas, *AG Pax-ton Secures $85 Million Settlement in Principle with Volkswagen and Audi Over Their Violations of Texas Environmental Laws* (May 25, 2023), https://www.texasattorneygeneral.gov/news/releases/ag-paxton-secures-85-million-settlement-principle-volkswagen-and-audi-over-their-violations-texas.

[43] MSCI, *Volkswagen scandal underlines need for ESG analysis* (undated, accessed on Sept. 14, 2023), https://www.msci.com/volkswagen-scandal.

[44] Paul La Monica, *Volkswagen has plunged 50%. Will it ever recover?* (Sept. 25, 2015), CNN Business, https://money.cnn.com/2015/09/24/investing/volkswagen-vw-emissions-scandal-stock/.

[45] Kelly Tang, *Exploring the G in ESG: The Relationship Between Good Corporate Governance and Stock Performance – Part 2*, S&P Global (Mar. 22, 2019), https://www.spglobal.com/en/research-insights/articles/exploring-the-g-in-esg-the-relationship-between-good-corporate-governance-and-stock-performance-part-2; Wajdi Affes & Anis Jarboui, *The impact of corporate governance on financial performance: a cross-sector study* at 19, International Journal of Disclosure and Governance (May 6, 2023), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10226873/ ("[D]espite the variation in the sectors of activity, corporate governance plays a key role in improving the financial performance of English corporations.").

[46] *See, e.g.,* Deloitte & Nyenrode Business University, *Good Governance Driving Corporate Performance? A meta-analysis of academic research & invitation to engage in the dialogue* (Dec. 2016), https://www2.deloitte.com/content/dam/Deloitte/nl/Documents/risk/deloitte-nl-risk-good-governance-driving-corporate-performance.pdf; Phillip C. James, *Does Corporate Governance Score Affect Stock Price? Evidence from a Developing Country* at 7, International Journal of Business and Social Research, Vol. 13, No. 2 (2023), https://thejournalofbusiness.org/index.php/site/article/view/1459/757 ("The results showed that stock prices are affected by a company's corporate governance structure which is in line with the literature that argues that better managed/governed companies are able to access finance at lower cost."); Affes & Jarboui, *supra* note 45, at 18 (results showed "positive and significant association between the governance score and financial performance").

at risk from state intervention."[47] Positive and active governance can decrease a company's risk of violating federal, state, or local laws and regulations and incurring the costs (including penalties) resulting from government enforcement actions because such governance may prevent violations before they occur.[48] Considering companies' compliance with regulations and their approach to avoiding violations will likely serve prudent investors in the long run. Although how one looks at ESG, and what standards one applies, is critical to its correlation with positive outcomes, it is common sense for investment professionals to look at issues that impact a company's bottom line.

B. Fiduciary Duties Must Permit Consideration of ESG Factors

Fiduciaries need to have flexibility to consider how climate change and social trends impact investment opportunities, and legislation that narrows the scope of material factors that fiduciaries may consider is inconsistent with the fundamental concept of the duty of prudence. The Supreme Court has recognized that the duty of prudence requires ongoing analyses contingent on the circumstances. "[A] trustee has a continuing duty to monitor trust investments and remove imprudent ones. This continuing duty exists separate and apart from the trustee's duty to exercise prudence in selecting investments at the outset."[49] Fiduciaries must have discretion to consider the context in which their investments are made, including whether companies exposed to climate change-related risks, among other risks, are adequately accounting for those risks, and whether companies' profits are at risk from public perceptions of their structure, governance, and adherence to human rights.

Acknowledging the risks and opportunities of the practical realities affecting market trends and conditions is part of prudent investment decision-making. Indeed, a 2018 paper found that the majority of "asset owners (81%) and asset managers (68%) already view climate change as a material risk or opportunity across their entire investment portfolio."[50] Further, a 2022 study showed that, in recent years, state and municipal public pension plans, voting directly or through their managers, voted 90% of the time in favor of shareholder proposals to address corporate ESG-related practices.[51] Indeed, in a 2023 survey issued by Russell Investments of 169 asset managers representing nearly $20 trillion in assets, only 7% of respondents said that ESG factors do not drive investment decisions, down from the 22% recorded in 2022.[52] To now restrict fiduciaries' ability to evaluate real and present risks would inhibit fund managers' ability to see

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[47] Henisz *et al*., *supra* note 25.
[48] *See e.g. id*.; Nirino *et al*., *supra* note 26, at 5.
[49] *Tibble v. Edison Int'l*, 575 U.S. 523, 529 (2015); *Tibble*, 575 U.S. at 528 ("a fiduciary is required to conduct a regular review of its investment with the nature and timing of the review contingent on the circumstances").
[50] *See, e.g.,* Geraldine Ang & Hannah Copeland, OECD, *Integrating Climate Change-Related Factors In Inst. Inv*. at 13 (Feb. 2018), https://www.oecd.org/sd-roundtable/papersandpublications/Integrating%20Climate%20Change-related%20Factors%20in%20Institutional%20Investment.pdf.**;** *Rsch. Announcement: Moody's - Fin. Firms that Take Rapid, Predictable Pace to Zero Financed Emissions Will Win the Race,* Moody's Inv. Serv. (Oct. 12, 2021)**,** https://www.moodys.com/research/Moodys-Financial-firms-that-take-rapid-predictable-pace-to-zero--PBC_1305598.
[51] Janet Yang Rohr, *Public Pensions Overwhelmingly Vote for ESG,* Morningstar (Aug. 29, 2022), https://www.morningstar.com/articles/1111714/public-pensions-overwhelmingly-vote-for-esg.
[52] Tom Lotshaw, *Russell Survey Finds ESG Driving More Investment Decisions* (October 24, 2023), Law360, https://www.law360.com/articles/1735829/russell-survey-finds-esg-driving-more-investment-decisions ("We believe this reflects a deepening recognition that ESG issues — encompassing areas such as climate risk and labor relations — are financially material").

investments in the context of the financial risks posed by societal and environmental developments.[53]

Legislation to limit or bar consideration of ESG factors would unduly inhibit fiduciaries' abilities to maximize returns and hedge against risks. The arguments against consideration of ESG factors often only make vague references to "ESG funds" and often conflate informed, investor-driven "ESG-impact" investing with a fiduciary's consideration of material factors that affect the value of a business's securities or a fund's long-term risk. But these are separate uses for ESG factors. When those factors are material to returns, fiduciaries would be ill advised to ignore them.

Given the importance of ESG factors in evaluating plan investments, efforts to undermine consideration of ESG factors should raise red flags for policymakers. "[T]he circumstances facing an ERISA fiduciary will implicate difficult tradeoffs, and courts must give *due regard* to the range of reasonable judgments a fiduciary may make *based on her experience and expertise*."[54] ESG opponents pursue regulations that may not only expose fiduciaries to liability, but also risk their beneficiaries' financial interests by forcing those fiduciaries to ignore material information and devalue their expertise.

IV. CONCLUSION

Climate change is dramatically shifting the investment landscape for many companies. ESG factors are tools investors can use to accommodate this shift in their risk-return analyses. ESG opponents disregard the facts underlying how ESG factors may be employed to allow investors to make informed investment decisions that increase value and decrease risk. To be clear, this letter does not advocate for the use of ESG factors to promote policy goals ("ESG-impact" strategies); rather it explains why fund managers should be free to integrate ESG factors into their scope of considerations for investment decisions. In sum, we hope this letter provides information that will permit Congress to better protect investor returns and our economy more broadly.

Sincerely,

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Attorney General of Minnesota

KRISTIN K. MAYES
Attorney General of Arizona

[53] "Because the content of the duty of prudence turns on the circumstances prevailing at the time the fiduciary acts, the appropriate inquiry will necessarily be context specific." *Fifth Third Bancorp v. Dudenhoeffer*, 573 U.S. 409, 425 (2014).
[54] *Hughes v. Nw. Univ.*, 595 U.S. 170, 177 (2022).

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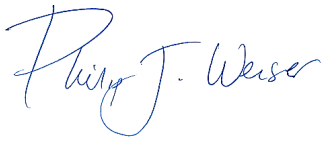

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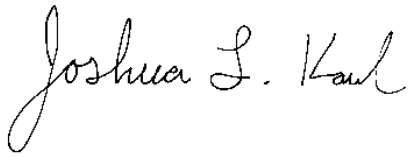

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APPENDIX A

Impacts of Climate Change in the Signatory States

Arizona

In Arizona, climate change has caused an increase in already-sweltering summer heat, including 2023's unprecedented heatwave of 31 consecutive days of 110+ degree temperatures in Phoenix.[55] Extreme heat poses the greatest threat to Arizona's most vulnerable populations, including children, the elderly, the disabled, and the unhoused.[56] Despite Arizona's strides to improve air quality, pollutants like ozone and particular matter are difficult to control in high temperatures, resulting in increased costs to meet federal air quality standards and higher health care costs associated with increased rates of respiratory disease.[57] Climate change has also triggered intensified droughts in Arizona. The depletion of the Colorado River and its reservoirs due to drought has already reduced Arizona's allocation of water.[58] As surface water supply depletes, Arizona becomes more reliant on groundwater resources, resulting in drying up of wells, deterioration of groundwater quality and potable drinking water supplies, and increased energy costs for pumping, all of which negatively impact the state's economic growth.[59] Finally, extreme heat and drought due to climate change increases the duration of Arizona's fire season and the size and frequency of fires. According to Arizona's Department of Forestry and Fire Management, the 2020 season was one of the worst in nearly a decade, burning nearly one million acres of public land with requisite adverse impacts on tourism and recreation.[60]

California

Climate change has long impacted California, from droughts to wildfires to mudslides. In recent months, California has seen three large insurers withdraw from or significantly limit writing new policies in California, due in large part to the rising risks from climate change.[61] California

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[55] *See* Ellie Williard, *31 days of 110-degree temperatures in Phoenix. Will the streak end Monday?*, Arizona Republic (July 31, 2023), https://www.azcentral.com/story/news/local/phoenix-weather/2023/07/30/phoenix-reaches-31-straight-days-with-110-degree-temperatures/70495444007/.

[56] *See* Arizona Department of Health Services (ADHS), *Heat-Caused and Heat-Related Deaths in Arizona by Year* (2011-2021), https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/extreme-weather/pubs/heat-related-mortality-year.pdf.

[57] *See* Arizona State University and ADHS, *Building Resilience Against Climate Effects. Arizona Extreme Weather, Climate and Health. Synthesis Report, 2015*, https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/extreme-weather/pubs/climate-and-health-profile-synthesis-report-2015.pdf.

[58] *See* Debra Utacia Krol, *Arizona loses more of its Colorado River water allocation under new drought plan*, Arizona Republic (August 16, 2022), https://www.azcentral.com/story/news/local/arizona-environment/2022/08/16/federal-officials-impose-cuts-colorado-river/10311378002/.

[59] *See* United States Geological Survey, *Excessive pumping can overdraw the groundwater "bank account,"* Groundwater Decline and Depletion (June 6, 2018), https://www.usgs.gov/special-topics/water-science-school/science/groundwater-decline-and-depletion.

[60] *See* Department of Forestry and Fire Management, *2020 Wildfire Season one of the Worst in Decade* (January 27, 2021), https://dffm.az.gov/2020-wildfire-season-one-worst-decade.

[61] *See* Matthew Kupfer, *After State Farm's and Allstate's Exits, Farmers Insurance Sets Limits in California*, San Francisco Standard (July 7, 2023), https://sfstandard.com/2023/07/07/farmers-insurance-state-farm-allstate-california/; Sam Dean, *Farmers, California's Second-Largest Insurer, Limits New Home Insurance Policies*, L.A. Times (July 11, 2023), https://www.latimes.com/business/story/2023-07-11/farmers-californias-second-largest-insurer-limits-new-home-insurance-policies.

residents are already facing adverse health effects from climate change, such as from extreme heat and wildfire smoke.[62]

Colorado

Extreme heat, droughts, wildfires, and flooding impacts are combining to materially harm Colorado's economy. Infrastructure damage from climate change, such as to buildings and roads, will cost Colorado billions.[63] Wildfires and droughts caused over $1 billion in damages in Colorado in 2020 alone.[64] The 2021 Marshall Fire in Boulder County destroyed over 1,000 homes, causing over $2 billion in damage, making it the 10th costliest wildfire in U.S. history. [65] Studies have predicted that, by century's end, ski mountains will experience a majority of days in winter with above-freezing temperatures, which will likely affect Colorado's tourism economy.[66]

Connecticut

Connecticut has already begun to experience the severe consequences of climate change. Between 1895 and 2011, temperatures in the Connecticut increased by almost 2ºF (0.16ºF per decade), and precipitation increased by approximately five inches, or more than 10% (0.4 inches per decade).[67] Between 1980 and 2018, average annual temperature in Connecticut has risen by over 2ºF. Over the same period, winter temperatures have warmed by 3ºF. According to the Governor's Steering Committee on Climate Change, the maple syrup, apple and pear production, and shellfish industries will suffer, infrastructure will become vulnerable to damage from coastal

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[62] *See* Cal. Legis. Analyst's Office, *Climate Change Impacts across California*, 7-8 (Apr. 2022), https://lao.ca.gov/reports/2022/4575/Climate-Change-Impacts-Crosscutting-Issues-040522.pdf.

[63] *See* State of Colorado, Colorado Climate Plan: State Level Policies and Strategies to Mitigate and Adapt, 48-49 https://dnrweblink.state.co.us/cwcb/0/doc/205387/Electronic.aspx?searchid=4fdc6e80-96ca-44b1-911c-57fe7793e3f6; see also S. Weiser, Glenwood Canyon I-70 closure wreaks havoc on travel and the economy, Denver Gazette (Aug. 11, 2021), https://denvergazette.com/news/glenwood-canyon-i-70-closure-wreaks-havoc-on-travel-and-the-economy/article_46f10050-f896-11eb-b05a-03c4947b5863.html.

[64] Boulder County, Marshall Fire Recovery Dashboard, available at https://bouldercounty.gov/disasters/wildfires/marshall/marshall-fire-recovery-dashboard/; Noelle Phillips, Marshall fire losses now expected to exceed $2 billion — making it the 10th costliest wildfire in U.S. history, Denver Post (Oct. 27, 2022), https://www.denverpost.com/2022/10/27/marshall-fire-property-losses-value/.

[65] Justin S. Mankin *et al*., NOAA Drought Task Force Report on the 2020–2021 Southwestern U.S. Drought, NOAA, 7, Table 1 (2021), https://repository.library.noaa.gov/view/noaa/46463.

[66] Stephen Saunders *et al*., Climate Projections in Summit County, Colorado, Rocky Mountain Climate Org., 16 (Aug. 2021), https://www.summitcountyco.gov/DocumentCenter/View/33131/55-Page-Report_Climate-Projections-in-Summit-County-Co.; *See, e.g.,* Olivia Prentzel, *Yes, it hasn't snowed yet in Denver. But it's Colorado's meager snowpack that should worry you*, The Colorado Sun (Dec. 2, 2021), https://coloradosun.com/2021/12/02/no-snow-denver-bad-mountain-snowpack/ (many Colorado mountains are already seeing historic lows for snowfall and ski days); Erica Siirila-Woodburn, *What a Low-to-No-Snow Future Could Mean for the Western U.S., Environmental System*, U.S. Department of Energy, Environmental System Science Program (Oct. 16, 2021) https://ess.science.energy.gov/highlight/what-a-low-to-no-snow-future-could-mean-for-the-western-u-s/ ("future snow losses are projected to decrease 20-30% by the 2050s and 40-60% by the 2100s" throughout the Western U.S.).

[67] *See* Horton, R., Yohe, G., Easterling, W., Kates, R., Matthias, R., Sussman, E., Whelchel, A., Wolfe, D., and Lipschultz, F. (2014). Ch. 16: Northeast. *Climate Change Impacts in the United States: The Third National Climate Assessment*, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 16-1-nn.

flooding and stormwater, rare habitats and critical species will face elimination, and public health of its most vulnerable communities will be threatened by worsening air quality and extreme heat.[68]

District of Columbia

The District of Columbia is a densely populated area located at the confluence of two tidal rivers and accordingly is particularly vulnerable to the impacts of climate change. The District is already experiencing extreme weather such as intense, heavy rains and sea level rise which have led to frequent flooding events.[69] For instance, waters levels have increased 11 inches in the past 90 years and nuisance flooding has increased by more than 300%.[70] At the same time, heavy rain events are projected to grow more frequent and intense.[71] The combined impact of rising tides and heavier rains pose significant threats to the District's infrastructure, community resources, cultural assets, government and military facilities, and residents. In addition, the District has also suffered from record-breaking heat waves.[72] As dangerously hot days grow more frequent, heat-related illnesses are likely to increase. Hotter temperatures can also stress infrastructure like roads, rail lines, and the power grid, causing disruptions.

Illinois

Climate change has fundamentally and adversely altered Illinois' environment, resulting in harm to agriculture, shipping, and recreation. In 2012, Illinois suffered its third driest summer on record. The very next year, Illinois endured the wettest January-to-June period ever recorded, forcing farmers to delay planting and lose revenue. Heat waves and milder winters may reduce future crop yield by 15% in the next decade and up to 73% by the end of the next century.[73] In January 2013, Lake Michigan's water level hit an all-time low. In 2015, it climbed to its highest level since 1998, the second-largest recorded gain over a 24-month span. These whipsawing water levels hurt the commercial shipping industry, recreational boaters, wildlife, and beach-goers.[74] In

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[68] *See* Adaptation Subcommittee to the Governor's Steering Committee on Climate Change, *The Impacts of Climate Change on Connecticut Agriculture, Infrastructure, Natural Resources and Public Health* (2010), http://www.ct.gov/deep/lib/deep/climatechange/impactsofclimatechange.pdf.

[69] World Health Organization, Heath and Climate Change Urban Profiles: Washington, District of Columbia (May 4, 2022), https://cdn.who.int/media/docs/default-source/climate-change/55232_o3_who-city-profile_washington_web.pdf?sfvrsn=ee7b4a6b_3&download=true.

[70] National Oceanic and Atmospheric Administration (2014), *Sea Level Rise and Nuisance Flood Frequency Changes around the United States,* NOAA Technical Report NOS CO-OPS 073, http://www.noaanews.noaa.gov/stories2014/20140728_nuisanceflooding.html.

[71] District of Columbia Department of Energy & Environment (2015), *Climate Projections & Scenario Development,* p. 46, https://doee.dc.gov/sites/default/files/dc/sites/ddoe/publication/attachments/150828_AREA_Research_Report_Small.pdf (stating that today's 100 year rain event could become a one in 25-year event by mid-century).

[72] *Id.* (stating that the District's heat emergency days could more than double, from the current 30 days per year to 70 days per year (low-emissions scenario) or 105 days per year (high-emissions scenario) by the 2080s.)

[73] *See* University of Illinois–Institute of Government & Public Affairs, *Preparing for Climate Change in Illinois: An Overview of Anticipated Impacts*, https://indigo.uic.edu/articles/report/Preparing_for_Climate_Change_in_Illinois_An_Overview_of_Anticipated_Impacts/15078939/1. *See also* U.S. Dept. of Agriculture Climate Hubs and Great Lakes Research Integrated Science Assessment, *Climate Change Impacts on Illinois Agriculture* (2022), https://www.climatehubs.usda.gov/sites/default/files/2022_ClimateChangeImpactsOnIllinoisAgriculture.pdf.

[74] *See* Tony Briscoe, *Lake Michigan Water Levels Rising at Near Record Rate*, CHICAGO TRIBUNE (July 12, 2015), http://www.chicagotribune.com/news/local/breaking/ct-lake-michigan-water-levels-met-20150710-story.html (last

addition, climate change-induced flooding has dramatically damaged the lives and property of Illinois residents. In 2009, a 54-mile-long fish kill occurred on the Rock River when ethanol flowed downstream, killing over 70,000 fish.[75] In 2011, a major flood struck Jo Daviess County in northwestern Illinois after 15 inches of rain fell during a 12-hour time period. The flood waters caused extensive damage to roads and train tracks and at least one fatality.[76] Climate change will only cause these calamities to occur more frequently and with greater ferocity.

Maine

Maine's coast is experiencing significant negative effects of climate change in the form of rising sea levels, ocean acidification, and the encroachment of invasive species that expand their range northward as the environment warms. The Gulf of Maine is warming faster than 99% of the world's ocean waters, and these warmer waters have brought with them an invasion of non-native green crabs that are devastating economically important soft-shell clam flats throughout southern and mid-coast Maine.[77] At the same time, ocean waters globally have become approximately 30% more acidic over the last century, and features of the Gulf of Maine, including its extensive freshwater inputs, make it particularly vulnerable to acidification. The increasing acidity inhibits shell formation in all shellfish, including lobsters, which are the basis of an industry estimated to generate $1.7 billion annually in Maine.[78] Milder winters have also hurt the ski industry and interfered with maple sugaring operations.[79]

Maryland

Maryland has over 3,100 miles of shoreline, making it particularly vulnerable to the rising sea levels and increased incidence of extreme weather events associated with climate change.

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visited Aug. 4, 2023). *See also* The Nature Conservancy, *An Assessment of the Impacts of Climate Change in Illinois* (2021), https://www.nature.org/content/dam/tnc/nature/en/documents/IL_Climate_Assessment_2020_Executive_Summary.pdf (last visited Aug. 4, 2023).

[75] See Illinois Attorney General, Attorney General Madigan Reaches Settlement to Recover Costs of Rockford Train Derailment, Ethanol Leak, https://ag.state.il.us/pressroom/2015_03/20150305.html.

[76] *See Crews Find Body of Woman Swept Away by Flood in Galena*, ROCKFORD REGISTER STAR (July 30, 2011), https://www.rrstar.com/story/lifestyle/public-safety/2011/07/30/crews-find-body-woman-swept/44585321007/.

[77] *See* Woodard, C., *Mayday: Gulf of Maine in Distress*, Portland Press Herald, October 25, 2015, http://www.pressherald.com/2015/10/25/climate-change-imperils-gulf-maine-people-plants-species-rely/; Maine Climate Council Scientific and Technical Subcommittee, *Scientific Assessment of Climate Change and Its Effects in Maine*, "Telescoping impacts of a climate-driven species invasion: the green crab and soft-shell clam story, at 175, https://www.maine.gov/future/sites/maine.gov.future/files/inline-files/GOPIF_STS_REPORT_092320.pdf, (August 2020).

[78] *See* Gledhill, D.K., *et al*., Ocean and Coastal Acidification off New England and Nova Scotia. *Oceanography* 28(2):182–197, 2015, http://tos.org/oceanography/article/ocean-and-coastal-acidification-off-newengland-and-nova-scotia (https://tos.org/oceanography/assets/docs/28-2_gledhill.pdf); Dahlman, L, Climate Change, Ocean Heat Content, National Oceanic and Atmospheric Administration, https://www.climate.gov/news-features/climate-and/climate-lobsters; Hall, J., From Bought to Caught, Lobsters all about Economics, Portland Press Herald, August 11, 2012, http://www.pressherald.com/2012/08/11/market-forces-make-everyone-feel-the-pinch_2012-08-12/.

[79] *See* Lye, K., Rising Temperatures Threaten Fundamental Change for Ski Slopes, The New York Times, December 12, 2012, http://www.nytimes.com/2012/12/13/us/climate-change-threatens-ski-industrys-livelihood.html.; Curtis, Abigail, *How Climate Change Is Affecting The Maine Maple Syrup Industry*, Maine Public—Bangor Daily News, March 26, 2018; Taylor, C., *How Climate Change Threatens Your Breakfast*, Science Friday Initiative, March 17, 2017, https://www.sciencefriday.com/segments/how-climate-change-threatens-your-breakfast/.

Maryland is projected to experience between 2.1 and 5.7 feet of sea level rise over the next century.[80] In fact, sea level could be as much as 2.1 feet higher in 2050 along Maryland's shorelines than it was in 2000."[81] Sea level rise could inundate some facilities of the Port of Baltimore, placing one of the most important ports along the East Coast, and one of the 20 large ports in the nation, at risk. In 2016, for instance, the Port generated nearly $3 billion in wages and salaries, supported over 13,000 direct jobs, and moved 31.8 million tons of international cargo.[82]

Extreme weather events have also become more common in Maryland, causing significant economic damage to the state and its residents. From 2010 to 2021, Maryland experienced 38 extreme weather events, costing up to $10 billion. Between 1980 and 1989 there were 7 climate and weather-related disasters costing $1.0 to $2.0 billion; between 1990 and 1999 there were 13 disasters costing $2.0-$5.0 billion; between 2000 and 2009 there were 10 disasters costing $2.0-$5.0 billion dollars; between 2010 and 2019 there were 27 disasters costing $5.0 to $10 billion.[83]

Massachusetts

As a coastal state, Massachusetts is especially vulnerable to sea level rise triggered by climate change and the resulting exacerbation of coastal flooding and erosion from storm events. If global emissions are not significantly reduced, Massachusetts predicts sea levels to rise up to two and a half feet by 2050 and four and a half feet by 2070 as compared to 2008. Due to climate change, Massachusetts' coastal communities face increased flooding risks to homes, businesses, critical infrastructure, and natural resources.[84] As of 2022, 43% of Massachusetts' total population resides on the coast, including in the City of Boston, Massachusetts' major economic hub.[85] Estimates of projected direct flood damage to commercial and industrial structures in Massachusetts' coastal areas are expected to more than double by 2030 (up to $56 million) and the incremental cost could reach as high as $270 million by 2090, more than ten times higher than current levels.[86]

Minnesota

In Minnesota, flooding from unprecedented extreme rains has threatened more than 155,000 residential properties, 29,000 miles of roads, 13,000 commercial buildings, and 515

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[80] Maryland Commission on Climate Change, 2015 Annual Report at 13, http://mde.maryland.gov/programs/Air/ClimateChange/MCCC/Publications/MCCC2015Report.pdf.

[81] *Id*.

[82] Maryland Commission on Climate Change, 2017 Annual Report at 12. http://www.mde.state.md.us/programs/Air/ClimateChange/MCCC/Documents/MCCC_2017_final.pdf.

[83] Maryland Commission on Climate Change, 2022 Annual Report at 30, https://mde.maryland.gov/programs/air/ClimateChange/MCCC/Documents/2022%20Annual%20Report%20-%20Final%20(4).pdf.

[84] *See* 2022 Massachusetts Climate Change Assessment at Volume II, Appendix B: Additional Information on Climate Inputs and Assessment Methods, at B9, Table B-1, Panel B. https://www.mass.gov/doc/2022-massachusetts-climate-change-assessment-december-2022-volume-ii-appendix-b/download.

[85] *See id*. at p. 7.

[86] *See id*. at Appendix A: Full Statewide Impact Rankings and Scores by Sector, at A124-25, Table A40, https://www.mass.gov/doc/2022-massachusetts-climate-change-assessment-december-2022-volume-ii-appendix-a/download.

critical infrastructure facilities, causing insurance premiums to soar by nearly 400%.[87] Air pollution related to greenhouse gas emissions annually costs Minnesota more than $800 million in increased health care costs.[88] Since the early 1970s, warmer winters have decreased ice coverage in the Great Lakes by 63%, shortening the season for recreational activities like ice fishing, snowmobiling, skiing, ice skating, and snowboarding and harming local economies.[89] Agriculture, which generates $106 billion in revenue annually, will suffer as intense rain and hail events increase soil erosion, prevent spring planting, and destroy crops, and warmer temperatures and drought devastate entire crop seasons through increased crop diseases, invasive species, and other pests.[90] For example, drought decimated Minnesota's 2013 soybean harvest, at a loss of $175 million to Minnesota's agricultural economy.[91]

New Jersey

New Jersey is a coastal state vulnerable to the effects of rising sea levels. The average sea level in New Jersey is increasing at almost twice the global rate, and New Jersey already has suffered devastating human and financial losses from extreme weather events connected to climate change.[92] Superstorm Sandy in 2012 caused 38 deaths, $29.4 billion in damage, and destroyed more than 70,000 buildings, and 2021's Hurricane Ida caused 30 deaths and an estimated $2.02 billion in damage.[93] In addition, higher temperatures negatively impact livestock through loss of productivity in summer months and increased exposure to vector-borne diseases. In New Jersey, the reduction of cattle milk production is estimated to result in a $3.3 million loss to the dairy industry by 2100.[94]

New Mexico

In New Mexico, average temperatures have increased 50% faster than the global average over the past century.[95] Streamflow totals in the Rio Grande and other rivers in the Southwest were 5% to 37% lower between 2001 and 2010 than average flows during the 20th century.[96] Projections

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[87] *See* Minnesota Pollution Control Agency (MPCA), *Climate Change Impacts on Infrastructure,* https://www.pca.state.mn.us/air-water-land-climate/climate-impacts-on-infrastructure (accessed Sept. 2, 2023); Caroline Cummings, *More Extreme Weather Driving Increased Homeowner Insurance Premiums*, CBS News (Feb. 8, 2023), https://www.cbsnews.com/minnesota/news/more-extreme-weather-driving-increased-homeowners-insurance-premiums-industry-official-tells-minn-house-panel/.

[88] *See* Minnesota Environmental Quality Board, *Climate Solutions and Economic Opportunities* (April 9, 2020), https://www.eqb.state.mn.us/content/climate-change.

[89] *See* United States Environmental Protection Agency, *What Climate Change Means for Minnesota* (Aug. 2016), https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-mn.pdf.

[90] *See* Minnesota Department of Employment and Economic Development, *Food and Agriculture*, https://mn.gov/deed/joinusmn/key-industries/food-agriculture/ (accessed Sept. 2. 2023).

[91] Mark Steil, *Drought Hurts Minnesota's Soybean Crop* (Sept. 12, 2013), Minnesota Public Radio News, https://www.mprnews.org/story/2013/09/12/drought-damages-minnesota-soybean-crop.

[92] *See* New Jersey Department of Environmental Protection, *2020 New Jersey Scientific Report on Climate Change* (June 30, 2020), https://www.nj.gov/dep/climatechange/data.html (accessed Nov. 29, 2023).

[93] *See id*.

[94] *See id*.

[95] *See* Robert Repetto, *New Mexico's Rising Economic Risks from Climate Change*, DĒMOS, at 1 (2012), *available at* https://www.demos.org/sites/default/files/publications/UpdatedNMFullReport.

[96] *See* U.S. Global Change Research Program, *2014 National Climate Assessment*, at 463 (2014), *available at* https://nca2014.globalchange.gov/downloads/low/NCA3_Full_Report_20_Southwest_LowRes.pdf.

of further reduction of late-winter and spring snowpack and subsequent reductions in runoff and soil moisture pose increased risks to water supplies needed to maintain cities, agriculture, and ecosystems.[97] Severe and sustained drought will stress water sources, already over-utilized in many areas, forcing increasing water-allocation competition among farmers, energy producers, urban dwellers, and ecosystems.[98]

New York

The impacts of climate change in New York include increased temperatures, sea levels, precipitation, and storm frequency. Tropical Storm Lee, Hurricane Irene, and Hurricane Sandy collectively killed over 50 people and caused billions of dollars in damage.[99] More recently, in 2021, Hurricane Ida killed 18 people in New York and caused $7.15 billion in damage.[100] In addition, climate change results in higher health care costs due to illnesses triggered by air pollution caused by increased wildfires. In June 2023, smoke from wildfires in Canada caused the air quality index in New York City to reach 366 (24 times the World Health Organization guidelines), causing ER visits for asthma-related conditions to be the highest all year.[101]

Oregon

Oregonians have already experienced devastating impacts from climate change: wildfire smoke, deadly heat, flooding, landslides, disruption of transportation systems, drought, damaged fisheries, burnt forests, and the cost to taxpayers of responding to these impacts. The Oregon Health Authority has predicted that climate change will cause more frequent wildfires leading to increased respiratory illnesses and heart disease as well as higher temperatures with attendant heat-related hospitalizations and deaths.[102] Wildfires in September 2020 resulted in costs of $75.63 million from the State Highway Fund and $75.75 million from the State General Fund just to

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[97] *Id.*

[98] *See* The White House, Office of the Press Secretary, *FACT SHEET: What Climate Change Means for New Mexico and the Southwest*, at 3 (2014), *available at* https://obamawhitehouse.archives.gov/sites/default/files/docs/state/reports/NEWMEXICO_NCA_2014.pdf.

[99] *Current & Future Trends in Extreme Rainfall Across New York State, A Report from the Environmental Protection Bureau of the New York State Attorney General* (Sept. 2014) (based on data from the 2014 National Climate Assessment and the National Oceanographic and Atmospheric Administration's Northeast Regional Climate Center), *available at* https://ag.ny.gov/sites/default/files/extreme_precipitation_report9214b.pdf.

[100] Andy Newman and Ellen Barry, *Tropical Storm Henri Brings Power Outages and Record Rain to Northeast,* N.Y. Times, (Aug. 22, 2021), https://www.nytimes.com/2021/08/22/nyregion/tropical-storm-henri.html?searchResultPosition=1; *Governor Hochul Announces Recovery Action Plan to Assist New Yorkers Impacted by Deadly Storm,* Governor's Press Release (Aug. 29, 2022), available at https://www.governor.ny.gov/news/governor-hochul-announces-hurricane-ida-recovery-action-plan-assist-new-yorkers-impacted.

[101] *See* Gina Jiménez, *ER Visits for Asthma in New York City Soared as Wildfire Smoke Blanketed the Region,* Inside Climate News (Jun 14, 2023), *available at* https://insideclimatenews.org/news/14062023/new-york-er-asthma-willdfire-smoke/.

[102] *See* Oregon Health Authority*, Climate and Health in Oregon: 2020 Report* ("OHA 2020 Report") at 3, available at https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/CLIMATECHANGE/Documents/2020/Climate%20and%20Health%20in%20Oregon%202020%20-%20Full%20Report.pdf; Oregon Climate Change Research Institute, *Sixth Oregon Climate Assessment* (Jan. 4, 2023), https://ir.library.oregonstate.edu/concern/technical_reports/gt54kw197.

remove ash, debris, hazardous materials, and trees that threatened to impede the roadway.[103] In June 2021, an exceptional and unprecedented heat wave occurred across Oregon, causing record-breaking temperatures in Portland of 118 on June 26, 112 on June 17, and 116 on June 28.[104] This warmer, drier climate adversely impacts Oregon's timber industry and is estimated cause a 39% loss of private timberland value by 2050.[105] Finally, climate change also affects tourism and commercial fishing in Oregon due to harmful algal blooms caused by warming ocean waters and reduced Dungeness crab and Pacific oyster productivity due to ocean acidification.[106]

Pennsylvania

The Commonwealth of Pennsylvania faces fundamental threats related to climate change. The average annual temperature statewide is expected to increase by 5.9°F by mid-century, altering the growing season, increasing the days people need to cool their homes, and leading to increased heat-related injuries and deaths.[107] In addition, tidal influenced flooding is expected to increase in the Delaware estuary coastal zone, adversely impacting communities and cities in the Delaware River Basin, including the city of Philadelphia, and increasing the risk of property loss and personal injury due to flooding.[108]

Vermont

Since 1960 in Vermont, the average annual precipitation has increased by 6.71 inches and the average annual temperature, which already has increased by 1.47°F, is expected to rise by an

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[103] *See* F. Reading, Oregon Debris Management Task Force, Oregon Department of Transportation, personal communication, 16 December 2021.

[104] *See* Sixth Assessment, at 49, citing Bercos-Hickey, E., T.A. O'Brien, M.F. Wehner, L. Zhang, C.M. Patricola, H. Huang, and M.D. Risser, *Anthropogenic contributions to the 2021 Pacific Northwest heatwave*, Geophysical Research Letters (2022); Neal, E., C.S.Y. Huang, and N. Nakamura *The 2021 Pacific Northwest heat wave and associated blocking: meteorology and the role of an upstream cyclone as a diabatic source of wave activity*, Geophysical Research Letters (2022); Thompson, V., A.T. Kennedy-Asser, Y.T.E. Lo, C. Huntingford, O. Andrews, M. Collins, G.C.Hegerl, and D. Mitchell, *The 2021 western North America heat wave among the most extreme events ever recorded globally*. Science Advances (2022); Vescio, M.D., and A. Bair. 2022. *State Climate Extremes Committee memorandum on the Oregon all time maximum temperature record tied at Pelton Dam, OR and Moody Farms, OR,* NOAA National Centers for Environmental Information, www.ncei.noaa.gov/monitoring-content/extremes/scec/reports/20220210-Oregon-Maximum-Temperature.pdf, accessed August 2022; Philip, S.Y., *et al*. In press. *Rapid attribution analysis of the extraordinary heatwave on the Pacific coast of the US and Canada June 2021*. Earth System Dynamics.

[105] *See id.* at 147, citing Restaino, C.M., D.L. Peterson, and J. Littell, *Increased water deficit decreases Douglas fir growth throughout western US forests,* Proceedings of the National Academy of Sciences 113:9557–9562 (2016); Weiskittel, A.R., N.L. Crookston, and G.E. Rehfeldt. 2012. *Projected future suitable habitat and productivity of Douglas-fir in western North America*, Schweizerische Zeitschrift fur Forstwesen 163:70–78 (2012); Hashida, Y., and D.J. Lewis, *The intersection between climate adaptation, mitigation, and natural resources: an empirical analysis of forest management,* Journal of the Association of Environmental and Resource Economists 6:893–926 (2019); Hashida, Y., and D.J. Lewis, *Estimating welfare impacts of climate change using discrete- choice models of land management: an application to western U.S. forestry*. Resource and Energy Economics 68:101295 (2022).

[106] Sixth Assessment, at 148.

[107] *See* PA Climate Impacts Assessment 2021, (Revised July 28, 2021), http://www.depgreenport.state.pa.us/elibrary/GetDocument?docId=3667348&DocName=PENNSYLVANIA%20CLIMATE%20IMPACTS%20ASSESSMENT%202021.PDF%20%20%3cspan%20style%3D%22color:green%3b%22%3e%3c/span%3e%20%3cspan%20style%3D%22color:blue%3b%22%3e%28NEW%29%3c/span%3e%204/30/2023.

[108] *See id*.

additional 5-9°F, or more, by 2100.[109] In 2011, Tropical Storm Irene dumped up to 11 inches of rain on Vermont, causing $733 million in damage due to the destruction of homes, businesses, roads, bridges, and culverts.[110] On July 10-11, 2023, a storm dumped as much as 9 inches of rain on Vermont, at a time when rivers were high and soils saturated from prior storms, causing catastrophic flooding in the cities of Montpelier, Barre, Weston, Ludlow, and Johnson.[111] In addition to threatening human lives and property, climate change adversely impacts key sectors of Vermont's economy dependent on seasonal climate patterns, such as maple sugaring and winter sports.[112]

Washington

Hotter and drier summers in Washington are making forests more vulnerable to pests, disease, and wildfire, with increasing burdens on the State and its citizens. The cost to manage large wildfires in Washington averaged nearly $37 million per year between 2008 and 2012. Between 2013 and 2018, the average annual expense quadrupled to $153 million.[113] Climate change "is likely to more than double the area in the Northwest burned by forest fires during an average year by the end of the 21st century."[114] Warmer winters are also reducing mountain snowpack – a critical source of drinking water and irrigation water for agriculture.[115] Washington produces two-thirds of the nation's supply of apples, but global warming of 1.5°C will cause a twenty-three percent decline in summer streamflow, resulting in irrigation shortages for this and other crops.[116] Ocean acidification threatens marine ecosystems, including fisheries and shellfish industries critical to local economies and culture.[117]

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[109] *See* Galford, G.L., Faulkner, J., Dupigny-Giroux, L.-A., Posner, S. and Edling, L. (eds.) *Vermont Climate Assessment* (2021), https://site.uvm.edu/vtclimateassessment/.

[110] *See* Pierre-Louis, Kendra, *Five Years After Hurricane Irene, Vermont Still Striving for Resilience,* Inside Climate News (Sept. 1, 2016), https://insideclimatenews.org/news/31082016/five-years-after-hurricane-irene-2011-effects-flooding-vermont-damage-resilience-climate-change; Darren Perron, WCAX-3, *Remembering Irene: The destruction and the recovery* (Updated Aug. 24, 2021), https://www.wcax.com/2021/08/23/remembering-irene-destruction-recovery/.

[111] *See* Seven Days Staff, *'Historic and Catastrophic': Unrelenting Rain Swamped Vermont's Cities, Towns and Hamlets. The Recovery is Just Beginning.* (Updated July 13, 2023), https://www.sevendaysvt.com/vermont/historic-and-catastrophic-unrelenting-rain-swamped-vermonts-cities-towns-and-hamlets-the-recovery-is-just-beginning/Content?oid=38643810 (last visited July 18, 2023).

[112] *See* U.S. EPA, *What Climate Change Means for Vermont* (August 2016), https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-vt.pdf (last visited July 18, 2023); Vermont Agency of Agriculture Food & Markets, Vermont Sugar Season Sweet Success (June 10, 2022), https://agriculture.vermont.gov/agency-agriculture-food-markets-news/vermont-sugar-season-sweet-success#:~:text=Vermont%20remains%20the%20top%20producing,150K%20over%20the%202021%20total.

[113] *See* Wash. Dept. Natural Resources, *Safeguarding our Lands, Waters, and Communities: DNR's Plan for Climate Resilience* (Feb. 2020), 34, available at: https://www.dnr.wa.gov/publications/em_climaterresilienceplan_feb2020.pdf.

[114] *See* ENV. PROT. AGENCY, *What Climate Change Means for Washington* (2016).

[115] *See id*.

[116] *See id*.; WASH. REV. CODE § 70A.45.020, Intent - 2020 c 79 (2020).

[117] *See id*.

APPENDIX B

State Policies Changing Investment Landscape

California

California has enacted numerous climate policies and programs. California's efforts include, for example, in 2006, the legislature required California to reduce its overall greenhouse gas emissions to 1990 levels by 2020 and 40% below 1990 levels by 2030.[118] To meet the 2030 reductions, the California Air Resources Board established a Cap and Trade program and developed a Climate Change Scoping Plan that outlines the state's approach to achieving greenhouse gas reduction targets.[119] The Draft 2022 Scoping Plan Update includes the goal of carbon neutrality by 2045.[120] Other recent laws and policies include Senate Bill 100 and Senate Bill 350, requiring the state to procure 60% of all electricity from renewable sources by 2030 and 100% carbon-free sources by 2045, and the Green Building Standard, providing energy efficiency standards for new construction and retrofitting of existing buildings.[121]

Colorado

Colorado has put in place numerous regulatory and legislative frameworks to address climate change. Notably, Colorado released its first Greenhouse Gas Pollution Reduction Roadmap in January 2021 which laid out an achievable pathway to meet the state's science-based climate targets of 26% by 2025, 50% by 2030 and 90% by 2050 from 2005 levels.[122] Colorado tracked the implementation of an identified list of Near Term Actions, and by December 2022 was underway or completed with over 90% of the identified actions.[123] The state is now working to update the Greenhouse Gas Pollution Reduction Roadmap, including an updated inventory of emissions and a new set of Near Term Actions that will guide implementation in the state.

District of Columbia

The District of Columbia has enacted many significant policies focused on reducing greenhouse gas emissions to help address climate change. In August 2018, the District's Department of Energy and Environment released its Clean Energy DC Plan ("Plan") which set a

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[118] *See* California Global Warming Solutions Act of 2006, AB-32, § 1 (2006).
[119] *See* CAL. CODE REGS., tit. 17, § 95800, et seq.; CAL. AIR RES. BD., AB 32 Climate Change Scoping Plan, https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan.
[120] *See* CAL. AIR RES. BD., Final 2022 Scoping Plan Update and Apendices (December 2022), https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents.
[121] *See* California Renewables Portfolio Standard Program: Emissions of Greenhouse Gasses, SB-100 (2018); Clean Energy and Pollution Reduction Act of 2015, SB-350 (2015); CAL. ENERGY COMM'N, Renewables Portfolio Standard–RPS, https://www.energy.ca.gov/programs-and-topics/programs/renewables-portfolio-standard; CAL. GREEN BUILDING STANDARDS CODE, tit. 24, part 11 (2019).
[122] *See Colorado Greenhouse Pollution Reduction Roadmap* (2021), available at https://drive.google.com/file/d/1jzLvFcrDryhhs9ZkT_UXkQM_0LiiYZfq/view.
[123] *See* Colorado Energy Office, GHG Pollution Reduction Roadmap 2.0, https://energyoffice.colorado.gov/climate-energy/ghg-pollution-reduction-roadmap-20.

target to achieve greenhouse gas reductions of 50% below 2006 levels by 2035.[124] Shortly after the Plan was released, the District strengthened its Renewable Energy Portfolio Standard laws to require 100% of retail electricity sales to come from renewable energy by 2032.[125] In 2021, the Climate Commitment Act of 2021 codified the District's GHG reduction goals by mandating carbon neutrality by 2045.[126] The District laws and programs focus on reducing greenhouse gas emissions in predominantly three sectors – buildings, transportation, and energy supply. Thus, in addition to laws requiring an increase in electricity from renewable energy, the District has also set aggressive targets for reducing emissions in its buildings[127] and achieving transportation electrification goals.[128]

Maryland

Maryland has a long history of action to address climate change, including participation in the Regional Greenhouse Gas Initiative (RGGI). Most recently, the legislature passed the Climate Solutions Now Act of 2022, which established, among other things, targets of a 60% reduction in greenhouse gas emissions from a 2006 baseline by 2031 and net-zero emissions by 2045.[129] The state is currently in the process of developing plans, that when implemented, will meet those ambitious targets.

Massachusetts

Massachusetts has enacted a number of laws and regulations to hasten the transition to a low-carbon economy. Pursuant to the 2021 law, An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy, which amended the 2008 Global Warming Solutions Act, the Commonwealth of Massachusetts is mandated to achieve economy-wide net-zero greenhouse gas emissions by 2050.[130] To achieve that target, the Commonwealth has set interim statewide greenhouse gas emissions limits of 33 percent below 1990 levels by 2025 and 50 percent below 1990 levels by 2030 as well as sector-specific emissions sublimits.[131] Massachusetts also participates in the Regional Greenhouse Gas Initiative ("RGGI"), a cap and trade program for greenhouse gas emissions from the power sector.[132] In addition, the overwhelming majority of municipalities in Massachusetts have opted into the "Green Communities" program, which

[124] Department of Energy & Environment, Clean Energy DC: The District of Columbia Climate and Energy Action Plan (Aug. 2018), *available at* https://doee.dc.gov/cleanenergydc.
[125] D.C. Code § 34-1432(c)(22).
[126] D.C. Law 24-176.
[127] D.C. Law 22-257 (Title III. Building Energy Performance Standards and Benchmarking (requiring large buildings to reduce their energy consumption by 20% over a 5-year period); D.C. Law 24-177 (requiring all new buildings to be constructed to meet a net-zero-energy standard beginning in 2027).
[128] D.C. Law 22-257 (Title V. Transportation Emission Reduction); Department of Energy & Environment, Transportation Electrification Roadmap (Sept. 2022), *available at* https://electrificationcoalition.org/wp-content/uploads/2022/10/DC-Roadmap.pdf.
[129] *See* Climate Solutions Now Act of 2022, S.B. 528, 2022 Gen Assemb., Reg. Sess. (MD 2022).
[130] 2021 Mass. Acts Ch. 8 §§ 8–10, https://malegislature.gov/Laws/SessionLaws/Acts/2021/Chapter8.
[131] Mass. Exec. Off. of Energy & Env't Affairs, *Mass. Clean Energy & Climate Plan for 2025 and 2030* (June 30, 2022), https://www.mass.gov/doc/clean-energy-and-climate-plan-for-2025-and-2030/download.
[132] Reg'l GHG Initiative, www.rggi.org (last visited Nov. 16, 2023).

provides financial and technical support to municipalities that have committed to various energy efficiency and emissions reduction targets.[133]

Minnesota

In Minnesota, bipartisan legislation called the Next Generation Energy Act was passed into law in 2007 requiring an 80% reduction in GHG emissions by 2050.[134] In 2019, the Governor of Minnesota signed executive order 19-37 to "identify policies and strategies that will enhance the climate resiliency of Minnesota's natural resources, working lands, and communities and assist the state enterprise, families, businesses, and local communities to prepare for climate change impacts that cannot be avoided or mitigated."[135] And, in 2023, the Minnesota Legislature amended the act to mandate the state achieve net zero emissions by 2040.[136] In furtherance of these goals, Minnesota developed a Climate Action Framework—a plan to reduce Minnesota's contribution to climate change and prepare for its most devastating effects. The Climate Action Framework outlines investments in renewable energy, electric vehicles, resource management and recycling, protection, and expansion of forested areas for carbon sequestration, among many others.[137]

New Jersey

New Jersey's Global Warming Response Act requires reducing "emissions to 80 percent below the 2006 level by the year 2050."[138] Further, New Jersey's Clean Energy Act requires 35% of electricity sold in the state to be from renewable sources by 2025, and 50% of electricity to be renewable by 2050.[139] The Clean Energy Act also directs the Board of Public Utilities to "establish a process and mechanism for achieving the goal of . . . 2,000 megawatts of energy storage by 2030."[140] The Clean Energy Act further creates various credits and programs to increase production of renewable energy in New Jersey.[141] Following the Clean Energy Act, New Jersey has passed additional laws and executive action to rapidly develop offshore wind and solar energy resources.[142] As a result of these efforts, the portion of New Jersey's electricity mix supplied by fossil fuels such as methane gas is projected to decrease by over 50% by 2030.[143]

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[133] See Green Cmties. Div., Mass. Dep't of Energy Res., Becoming a Designated Green Cmty., https://www.mass.gov/guides/becoming-a-designated-green-community (last visited Nov. 16, 2023).
[134] MPCA, *Climate Change Initiatives*, https://www.pca.state.mn.us/air-water-land-climate/climate-change-initiatives (accessed Sept. 2, 2023); *see also* Minn. Stat. § 216H.02, subd. 1 (2022).
[135] Minnesota Governor Tim Walz, Exec. Order 19-37: Establishing the Climate Change Subcabinet and the Governor's Advisory Council on Climate Change to Promote Coordinated Climate Change Mitigation and Resilience Strategies in the State of Minnesota (Dec. 2, 2019).
[136] Minnesota Department of Commerce, *Governor Walz Signs Bill Moving Minnesota to 100 Percent Clean Energy by 2040* (Feb. 7, 2023), https://mn.gov/commerce/news/?id=17-563384.
[137] Minnesota Department of Commerce and MPCA, *2023 Biennial Greenhouse Gas Emissions Reduction Report* at 1 (January 2023).
[138] N.J. Stat. § 26:2C-38.
[139] N.J. Stat. §§ 48:3-87(d)(2), 48:3-51.
[140] *Id.* § 48:3-87.8(d).
[141] *See id*. § 48:3-87.8(e).
[142] *See, e.g.,* Offshore Wind Development Act, codified at N.J.S.A. 48:3-87 et seq. (as amended); Solar Act of 2021, codified at N.J.S.A. 48:3-114 et seq.
[143] *See* Sanem Sergici, *et al*., New Jersey Energy Master Plan Ratepayer Impact Study at 52 (2022), https://tinyurl.com/pf4tufuf ("Ratepayer Impact Study").

New York

By investing the proceeds from auctioned carbon pollution allowances under the Regional Greenhouse Gas Initiative program in energy efficiency and renewable energy programs, New York has reduced the demand for electricity, preventing consumer electricity prices from increasing.[144] New York's efforts to fight climate change, reduce harmful air pollution, and ensure a diverse and reliable low carbon energy supply are codified into law through the Climate Leadership and Community Protection Act (CLCPA). As one of the most ambitious efforts in the U.S. to reduce emissions, the CLCPA has greenhouse gas emission reduction requirements of 40% by 2030, and at least 85% from 1990 levels by 2050.[145] As the regulatory body behind the CLCPA, the Department of Environmental Conservation has decided on the cap-and-invest rule to fulfill the statutory requirement of having regulations in place, by next year, that require greenhouse emission limits.[146] Proceeds from the cap-and-invest auctions will be invested to bolster carbon reductions and help ensure the program is affordable for all New Yorkers and delivers benefits to disadvantaged communities, with at least 35% of benefits directed to disadvantaged communities.[147] In addition, the Public Service Commission has adopted a Clean Energy Standard to require that 70 percent of New York's electricity be generated by renewable sources by 2030 as part of a strategy to have 100 percent zero-emission electricity by 2040.[148]

Oregon

Oregon adopted laws and programs to significantly reduce its greenhouse gas emissions. Oregon has required its major investor-owned utilities, PGE and PacifiCorp, to transition to 100% renewable electricity by 2040.[149] Those utilities represent 87.8% of greenhouse gasses that electricity suppliers emitted as of 2020.[150] Oregon has also adopted regulations requiring reductions in greenhouse gas emissions from fossil fuels used throughout Oregon in transportation, residential, commercial and industrial settings (for purposes other than electricity generation).[151] Those regulations impose a declining cap that will require an 89% reduction in greenhouse gas emissions from those sources by 2050. The overall cap declines from 28,081,335 metric tons of CO2e in 2022 to 15,021,080 in 2035 and to 3,004,216 in 2050.[152]

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[144] *See* http://www.dec.ny.gov/energy/rggi.html; *see also* The Analysis Group, *The Economic Impacts of the Regional Greenhouse Gas Initiative on Ten Northeast and Mid-Atlantic States* (Nov. 15, 2011), available at: http://www.dec.ny.gov/docs/administration_pdf/ag11rggi.pdf; The Analysis Group, *The Economic Impacts of the Regional Greenhouse Gas Initiative on Nine Northeast and Mid-Atlantic States* (July 15, 2015), http://www.dec.ny.gov/docs/administration_pdf/ag15rggi.pdf.

[145] New York State Dept. of Envtl. Conservation, Reducing Pollution, Investing in Communities, Creating Jobs, & Preserving Competitiveness, https://capandinvest.ny.gov/.

[146] Environmental Conservation Law § 75-0109.

[147] New York State Dept. of Envtl. Conservation, New York's Cap-and-Invest Stakeholder Sessions Announced, https://climate.ny.gov/.

[148] *See* New York State Energy Research & Development Authority, Clean Energy Standard, https://www.nyserda.ny.gov/All-Programs/Programs/Clean-Energy-Standard.

[149] OR. REV. STAT. § 469A.410 (2021).

[150] *See* Oregon Department of Environmental Quality, Greenhouse Gas Emissions from Electricity Use 2010-2020, (15,065,072 metric tons of CO2e from PGE and PacifiCorp compared to a statewide total of 17,155,607), https://www.oregon.gov/deq/ghgp/Documents/ghgElectricityEms.xlsx.

[151] OR. ADMIN. R. Ch. 340, Div. 271.

[152] OR. ADMIN. R. 340-271-9000 (2021), Table 2.

Washington

Washington has set incremental limits on statewide emissions, which by 2050 will be 95 percent below 1990 levels.[153] In the electric sector, all retail sales of electricity to Washington customers must be greenhouse gas neutral by 2030.[154] By 2045, retail electricity must be 100 percent renewable.[155] Other sectors also must cap emissions and reduce them over time, consistent with Washington's emission limits.[156] For buildings, Washington code restricts the use of methane or other fossil fuels for HVAC systems in new buildings, and the Washington Department of Commerce has set energy performance standards to reduce energy use in large buildings.[157]

[153] RCW § 70A.45.020(1).
[154] RCW § 19.405.040 (2019).
[155] RCW § 19.405.050 (2019).
[156] RCW § 70A.65.060 (2021).
[157] *See* WASH. ADMIN. CODE § 51-11C-40314 (2023) (effective Oct. 29, 2023); WASH. ADMIN. CODE § 194-50 (implementing Washington State Energy Performance Standard, WASH. REV. CODE § 19.27A.210 (2021))