Attorney General Michelle Henry
Office of the Attorney General
c/o Charitable Trusts and Organizations Section
14th Floor, Strawberry Square
Harrisburg, PA 17120

Division of Charities Investigation Unit/Audits
401 North Street, 212 North Office Building
Harrisburg, PA 17120

Dear Attorney General Henry —

The University of Pennsylvania Trustees, as fiduciaries of a non-profit educational institution, are bound by the laws of the Commonwealth to promote the well-being of Penn's students and community and to further the university's commitment to "taking action to mitigate climate impacts, adapt to emerging environmental conditions, and prepare our university—and our students—to lead in a rapidly evolving world." Under the Pennsylvania Decedents, Estates, and Fiduciaries Code and Nonprofit Law, the Trustees have a fiduciary duty to invest with consideration for the University's "charitable purposes" — a duty that distinguishes non-profit institutions from other investors. Instead, the Board of Trustees has invested a portion of their $21 billion endowment in the fossil fuel industry — damaging the world's natural systems; disproportionately harming youth, low-income people, and communities of color; and imperiling the university's financial and physical condition. In the midst of the climate crisis, powerful institutions must take responsibility for their contributions to global warming. As concerned students, faculty, alumni, political leaders, civic groups, and community members, we ask that you investigate this conduct and that you use your enforcement powers to order the University of Pennsylvania Trustees to cease all direct *and* indirect investments in fossil fuels.

Pennsylvania law provides rules that charitable managers and investors must follow in managing institutional funds. Penn is required to act in good faith and with loyalty, taking care that its investments further the purposes of the university. The board of trustees may not simply seek profit at any cost: the privileges that Penn enjoys as a non-profit institution come with the responsibility to ensure that its resources are put to socially beneficial ends. By investing millions of dollars in fossil fuel stocks, Penn has violated these duties to the public.

The values that should guide the Trustees' investments are clear. The board has in the past recognized and affirmed its social responsibility to divest from what is considered a "moral evil."[1] Furthermore, the University of Pennsylvania as an institution has demonstrated a clear understanding of its responsibility to do good in the world and play a part in the climate crisis solution. Penn's own motto, which translates to "Laws Without Morals are Useless," ties the university's identity to a strong moral code. Additionally, Penn has explicitly recognized the connections between its educational mission and fighting the climate crisis through its Climate and Sustainability Action Plan, which states that Penn "will continue to lead through inclusive

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[1] Divestment, Office of the University Secretary (last visited Oct. 10, 2023).

climate change scholarship, innovate policy formation, and adoption of best practices to dramatically impact campus efficiency and reduce emissions through deliberate assessment, analysis and planning."[2] Although Penn claims to be "taking action to mitigate climate impacts, adapt to emerging environmental conditions, and prepare our university — and our students — to lead in a rapidly evolving world,"[3] the Penn administration has in reality remained steadfast in its support of an industry whose business model is based on environmental destruction and social injustice. There are demonstrable financial and social benefits of institutional fossil fuel divestment, and at this late stage, it is both financially irresponsible and morally untenable for charitable educational institutions to continue investing in the fossil fuel industry.

Climate change is an existential threat to humanity and our environment. In addition to sea level rise, extreme weather events, and species die-off, climate change causes injuries to all members of society and particularly to the most vulnerable. Pollution from the combustion of fossil fuels results in an estimated 10,000 premature deaths daily. Communities of color disproportionately suffer pollution and health detriments from fossil fuel extraction and combustion. Low-income people bear the brunt of climate-based economic disruption, as illustrated by the plight of climate migrants and refugees already displaced from their homes by drought, flooding, and social conflict. Indigenous communities are regularly encroached upon and harmed by the spread of fossil fuel infrastructure. As a result of the economic precarity and increased burden of care work that results from climate disruptions, women suffer more serious injuries from unabated climate change.

The need to refrain from promoting such outcomes is obvious for any institution that calls itself a charity. Yet the Trustees have repeatedly refused to apply Penn's values to its investment activity. This conduct is especially galling for managers of an institution of higher education. Fossil fuel companies have long engaged in a well-documented campaign to undermine climate science and distort public debate about how to deal with the climate crisis—including through efforts targeting Penn scientists and researchers. The industry's spread of scientific misinformation undermines the work of Penn faculty and students who are researching and designing solutions for a sustainable future. Likewise, the flow of fossil fuel money to politicians and think tanks has diverted or delayed serious government action to address the climate crisis, placing a special burden on young people whose futures will be most impacted by these investments. Even as Penn recognizes its responsibility in the climate crisis and its President acknowledges that "the use of fossil fuels accelerates climate change, that society must transition to a carbon-free economy without punishing the world's most economically vulnerable, and that climate change creates investment risks that we must consider," the University channels funds to an industry dedicated to winning short-term profits at the expense of the public welfare.

A similar inversion of values underlie the Trustees' funding of climate degradation despite their duty to protect Penn's physical property and students. In the coming decades, sea level rise, higher temperatures, extreme rainfall, invasive pests, and many other environmental changes will pose serious threats to university land and buildings and to the health of community members and students. Instead of facilitating such injuries, the Trustees should be doing

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[2] Climate and Sustainability Action Plan 3.0 at 5, University of Pennsylvania (2019).
[3] *Ibid.*

everything in their power to prevent them. Philadelphia infrastructure is not equipped to withstand climate disasters, and there have already been serious public health and economic consequences due to climate change, which is caused by our ongoing reliance on fossil fuels.

This reckless support of a dangerous industry is compounded by conflicts of interest involving members of the Board of Trustees and the fossil fuel sector. Several members work for major fossil fuel companies or derive significant business income from their ties with the industry. In addition, the Board has allowed large amounts of fossil fuel money to flow into Penn's academic and research programs.

The Trustees are bound by an additional legal duty: the requirement to manage Penn's assets with prudence. Prudent investment practice cannot be squared with the long-term ownership of fossil fuel assets. Investment in the oil, gas, and coal sectors has become excessively risky as a result of increasingly cost-competitive alternative technologies, increased government regulation, and the fossil fuel industry's own failure to diversify its operations. Fossil fuel stocks have performed significantly worse than market averages over the last ten years. The oil industry has suffered from a decade of lost value, and recently elevated commodity prices for oil and gas have not made up for this long-term poor performance. The domestic coal sector has nearly collapsed, and natural gas likewise stands to lose much of its value as cheaper, more sustainable energy sources become more readily available. For any prudent investor, these signs clearly indicate that continued long-term investment in fossil fuels is a losing decision.

Exacerbating the industry's poor financial performance is a well-documented pattern of disinformation and misrepresentation. Fossil fuel companies such as ExxonMobil have allegedly misled investors by concealing the anticipated impact of climate change and energy regulation on the value of assets such as untapped oil reserves. The Trustees continue to invest in the sector despite their legal duty to exercise care and prudence in avoiding dangerous securities.

The Trustees cannot plead ignorance of their duty to divest. For decades, Penn students and faculty have pushed for investment practices that align with the University's mission. This pressure was instrumental in the Trustees' decision in 1987 to withdraw investments from companies doing business in apartheid South Africa[4]—a direct acknowledgment that Penn's investment activity must comport with its missions and values. In recent years, various student and faculty bodies have voted for fossil fuel divestment, a position consistently endorsed by majorities in student referenda in 2015. The student group Fossil Free Penn has submitted divestment proposals, held repeated rallies, disrupted and shut down Board of Trustees meetings, hosted a sit-in inside College Hall, held an encampment on College Green for 39 days, and disrupted the most recent homecoming football game, gaining national attention.[5] But the Trustees have spurned our efforts at persuasion.

[4] Penn and South Africa: The Issue of Divestment, *in* Penn around the World: A History of Penn's Engagement with Specific Regions and Countries, University Archives and Records Center (last visited Oct. 27, 2023).

[5] See Section XII below for a more-complete discussion of this history.

Divestment from fossil fuels is a defensive measure designed to protect institutional investors from the risks associated with climate change. This means avoiding speculative strategies and instead prioritizing the long-term value of the fund. Especially when alternatives exist that can deliver comparable returns without comparable climate risk exposure, institutional investors' mandate to maximize returns and minimize risk makes investment in fossil fuels both risky and unnecessary.

It is too late for the Trustees to deny the relation between their investments and climate change. Its obligations under Pennsylvania law and its own governing documents are clear, and fossil fuel investment is incompatible with those obligations.

We have included below a fuller description of the Trustees' violations, along with documents and reports supporting the claims made in this complaint. We would appreciate the opportunity to have members of our group meet with your staff to discuss legal avenues to address this matter.

Sincerely,

Concerned students, faculty, alumni, civic groups, and community members:*

*In alphabetical order. For individual signatories, institutional affiliation is for identification purposes only. Names of individual signatories have been temporarily removed to protect confidentiality.

UPenn Faculty & Staff

Adjunct Assistant Professor, Graduate School of Education
Adjunct Associate Professor, Graduate School of Education
Assistant Professor, Dept. of Earth and Environmental Science
Associate Director, Gender, Sexuality, and Women's Studies
Associate Director, Graduate School of Education
Associate Director, Philosophy, Politics, & Economics [PPE]; Lecturer, History and Sociology of Science
Associate Professor of Cinema & Media Studies and Francophone, Italian & Germanic Studies
Associate Professor of City Planning and Urban Studies, Department of Urban Studies
Associate Professor of English, Department of English
Associate Professor of History, Department of History
Associate Professor of History, Department of History
Associate Professor, Annenberg School for Communication
Associate Professor, Annenberg School of Communication | Gender, Sexuality and Women's Studies Program
Faculty, School of Arts & Sciences & School of Social Policy & Practice
Lecturer in Critical Writing, Marks Family Center for Excellence in Writing

Lecturer of French & Francophone Studies, Department of Francophone, Italian & Germanic Studies
Lecturer of French & Francophone Studies, Department of Francophone, Italian & Germanic Studies
Lecturer, Department of Spanish and Portuguese
Lecturer, Department of Spanish and Portuguese
Postdoctoral Researcher / Lecturer, Dept. Earth & Environmental Sci.
Postdoctoral Researcher, Philosophy, Politics & Economics Program
Postdoctoral Researcher, Philosophy, Politics & Economics Program
Postdoctoral Researcher, Philosophy, Politics & Economics Program
Practice Associate Professor, Mechanical Engineering and Applied Mechanics
Professor Emeritus, Cinema and Media Studies
Professor of Business Economic and Public Policy, The Wharton School
Professor of English and Comparative Literature, Department of English
Professor of English, Department of English
Professor of English, Department of English
Professor of English, Department of English
Professor of English, Department of English
Professor of Law & Energy Policy, Penn Carey Law & the Kleinman Center for Energy Policy
Professor of Media Policy and Political Economy, Annenberg School for Communication
Professor of Political Science, Department of Political Science
Professor, Department of Anthropology
Professor, Depayrtment of Anthropology; Penn Museum
Professor, Department of Francophone, Italian & Germanic Studies
Professor, Earth and Environmental Science Dept.
Professor, Graduate School of Education/Educational Linguistics
Professor, Theatre Arts Dept.
Senior Fellow, Graduate School of Education

Alumni

School of Arts and Sciences, ‘72
School of Arts and Sciences, ‘77
School of Arts and Sciences, ‘78
School of Arts and Sciences (FAS), ‘78
Wharton ‘87
School of Arts and Sciences, College of General studies '90
Fels Center of Government, ‘91
School of Engineering and Applied Science, ‘91
School of Arts and Sciences, ‘92
School of Engineering and College of Arts and Sciences, ‘98
School of Arts and Sciences, 2000 (PhD)

School of Arts and Sciences, ‘05
School of Arts and Sciences, ‘06
School of Arts and Sciences, '06
School of Arts and Science, ‘10
School of Arts and Sciences, ‘10
School of Arts and Science, ‘10
School of Arts and Sciences '11
School of Arts and Sciences, ‘11
School of Arts and Sciences, ‘12
School of Arts and Sciences, ‘12
School of Arts and Sciences ‘13
School of Arts and Sciences, ’13
Graduate School of Education, ‘13 (M.S.Ed)
Graduate School of Education ‘14
School of Arts and Sciences ‘17, School of Social Policy and Practice ‘18
School of Arts and Sciences, ‘20
School of Arts and Sciences, ‘21
School of Arts and Sciences, ‘22
School of Engineering and Applied Sciences, ‘22
School of Engineering and Applied Sciences '22
School of Arts and Sciences, ‘23
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School of Arts and Science, ‘23
School of Arts and Sciences, ‘23
School of Arts and Sciences '23
School of Engineering and Applied Science ‘22, ‘23
School of Engineering and Applied Science ‘23
School of Engineering and Applied Science ‘23
School of Social Policy and Practice, ‘23

Penn Affiliated Groups

Asian Pacific Student Coalition
Disabled Coalition
Executive Committee, University of Pennsylvania Chapter of the American Association of University Professors (AAUP-Penn)
Graduate Employees Together - University of Pennsylvania
Latinx Coalition
Penn Aces & Aros
Penn Against the Occupation of Palestine
Penn Association for Gender Equity
Penn Disorientation Guide
Police Free Penn

Penn for Immigrant Rights
Penn Non-Cis
Penn Pay PILOTs
Penn Young Democratic Socialists of America
Reproductive Justice Working Group at Penn
United RAs at Penn
University of Pennsylvania Outdoors Club

Other Student Groups

Berkeley ASUC* Eco Office (*title for identification purposes only)
Climate Justice at Boston College
Divest Claremont Colleges
Divest Princeton
Divest UChicago
Drexel Community for Justice
Fossil Free Pitt Coalition
Fossil Free UC Davis
Fossil Fuel Divest Harvard
Green Action WashU
Green New Deal at UCSD
MIT Divest
Penn State Eco-Action
Students for Environmental Concerns UIUC
Sunrise Brown
Sunrise Columbia
Sunrise NYU
Temple Climate Action
Tufts Climate Action
UCSC Climate Coalition
University of California Green New Deal Coalition

Philly Organizations

Black Lives Matter Philly
Coalition to Save the UC Townhomes
Earth Quaker Action Team
No Arena in Chinatown Solidarity Group
Penn Museum Workers United, AFSCME Local 397
Pennsylvania Working Families Party
Philadelphia Liberation Center
Philadelphia Young Communist League
Philly Democratic Socialists of America
POWER Interfaith
Reclaim Philadelphia
Save the Meadows
Students for the Preservation of Chinatown

Sunrise Movement Philly
The People's Kitchen Philadelphia

National Organizations

Atlantic Coast Conference Climate Justice Coalition
Campus Climate Network (formerly known as Fossil Free Research)
Catholic Divestment Network
Fridays for Future US
Protecting Our Waters
Seeding Sovereignty
SUSTAIN The Mag
Third Act Educators
TIAA-Divest!
Youth Climate Finance Alliance

International Organizations

350.org
End Fossil International
GreenFaith
Stand.earth
Tuesdays for Trash

Prepared with assistance from attorneys at Climate Defense Project.

SUPPORTING DOCUMENTATION

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I. The Board of Trustees' violation of Pennsylvania law

The Trustees of the University of Pennsylvania ("the Trustees") is a charitable corporation organized under Title 15 of the Pennsylvania Consolidated Statutes. Its 1791 charter confirmed the consolidation of various schools into the present-day University of Pennsylvania and conferred governance and financial responsibility upon the Trustees.[6] According to the Statutes of the Trustees, "[a] trustee of the University shall stand in a fiduciary relation to the University and shall perform his or her duties as a trustee, including his or her duties as a member of any committee upon which he or she may serve, in good faith, in a manner he or she reasonably believes to be in the best interests of the University, and with such care, including reasonable inquiry, skill and diligence, as a person of ordinary prudence would use under similar circumstances."[7] The Trustees elect an Investment Board, which "shall have sole and complete responsibility with respect to the management and custody of all real and personal property held by the University as an investment."[8]

- Continued investment in fossil fuels by the Trustees ***violates the fiduciary duties spelled out in the Pennsylvania Decedents, Estates, and Fiduciaries Code and Nonprofit Law.***
    - Chapter 72 of the Decedents, Estates, and Fiduciaries Code (Title 20) states: "A fiduciary shall invest and manage property held in a trust as a prudent investor would, by considering the purposes, terms and other circumstances of the trust and by pursuing an overall investment strategy reasonably suited to the trust."[9]
    - Chapter 72 further requires that, "[i]n making investment and management decisions, a fiduciary shall consider, among other things, to the extent relevant to the decision or action . . . *an asset's special relationship or special value, if any, to the purposes of the trust or to one or more of the beneficiaries, including, in the case of a charitable trust, the special relationship of the asset and its economic impact as a principal business enterprise on the community in which the beneficiary of the trust is located and the special value of the integration of the beneficiary's activities with the community where that asset is located*."[10]
    - Chapter 72 also mandates that "[a] fiduciary shall exercise *reasonable care, skill and caution* in making and implementing investment and management decisions."[11]
    - According to the Nonprofit Law (Title 15, subpart C), "[a] director of a nonprofit corporation shall stand in a fiduciary relation to the corporation and shall perform the duties of a director, including duties as a member of any committee of the board upon which the director may serve, *in good faith, in a manner the director reasonably believes to be in the best interests of the corporation and with such care, including the skill and diligence that a person of ordinary prudence would use under similar circumstances*."[12]

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[6] 1791 Additional Charter, University Archives and Records Center (last visited Oct. 27, 2023).
[7] Statutes of the Trustees, § 2.11. Office of the University Secretary (last modified Mar. 3, 2023).
[8] *Id.*
[9] 20 Pa.C.S.A. § 7203(a).
[10] 20 Pa.C.S.A. § 7203(c).
[11] 20 Pa.C.S.A. § 7212.
[12] 15 Pa.C.S.A. § 5712(a).

    - Although the directors of charitable institutions may delegate investment authority to an external agent,[13] such delegation relieves the directors of responsibility for investment decisions only "if the fiduciary exercises reasonable care, skill, and caution in selecting the investment agent, in establishing the scope and specific terms of the delegation and in reviewing periodically the investment agent's actions in order to monitor the investment agent's performance and compliance with the scope and specific terms of the delegation."[14] Furthermore, a director relying upon investment managers "is not considered to be acting in good faith under subsection (a.1) if the director has actual knowledge concerning the matter that causes the director to believe reliance is unwarranted."[15]
    - The Commonwealth Court has noted that "as fiduciary, a director of a nonprofit also has *the duty of loyalty and obedience*."[16]
- The Trustees have ***failed to consider their investments' special relationship or special value to the purposes of the University of Pennsylvania*** by financially supporting the degradation of the climate, widespread damage to ecological and human health, and massive injuries to environmental and social equity.
    - The duty to consider the charitable purposes for which the University of Pennsylvania was established distinguishes the Trustees from other investors, imposing a special legal responsibility to screen assets for their possible interference with the university's goals.
    - Yet the outcomes of the Trustees' fossil fuel investments are directly contrary to Penn's stated commitments to "taking action to mitigate climate impacts, adapt to emerging environmental conditions, and prepare our university—and our students—to lead in a rapidly evolving world"[17] and to "inform the transition to a more resilient society and foster harmony with nature."[18]
        - Penn's continuing investment in fossil fuels contravenes Penn President Liz Magill's recent statement that "Our policies recognize that the use of fossil fuels accelerates climate change, that society must transition to a carbon-free economy without punishing the world's most economically vulnerable, and that climate change creates investment risks that we must consider."[19]
    - The well-known scientific misinformation campaigns of the fossil fuel industry likewise contravene Penn's policy "to maintain and encourage freedom of inquiry, discourse, teaching, research, and publication and to protect any member of the academic staff against influences, from within or without the University, that would restrict him or her in the exercise of these freedoms in his or her area of scholarly interest."[20]

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[13] M.G.L. c. 180A § 4.
[14] 20 Pa.C.S.A. § 7206.
[15] 15 Pa.C.S.A. § 5712.
[16] *Commonwealth by Kane v. New Foundations, Inc*., 182 A.3d 1059, 1067 (Pa. Commw. Ct. 2018).
[17] Climate and Sustainability Action Plan 3.0 at 5, University of Pennsylvania (2019).
[18] One Planet, One Penn at 3, University of Pennsylvania Environmental Innovations Initiative (Jan. 2023).
[19] Mary Elizabeth Magill & Scott Bok, A message about Penn's Endowment and Sustainability, Penn Today, (Nov. 29, 2022).
[20] Statutes of the Trustees, § 11.4. Office of the University Secretary. Last modified March 3, 2023.

- The Trustees have ***violated their duty of loyalty*** to the University of Pennsylvania community by funding activity that directly imperils the lives and prospects of young people and that poses a physical threat to University property, thus failing to act in the best interests of the institution.
- The Trustees have ***violated their duty to act in good faith*** by refusing to abide by their previous commitments to socially responsible investing; by ignoring the warnings of students, faculty, and alumni that investments in fossil fuel companies are immoral, financially risky, and based on fraudulent information; and by spurning efforts by campus groups to push the university's investment practices toward a more consistent and sustainable approach.
- The Trustees have ***violated their duty of care*** by investing the University's endowment in financially risky and volatile fossil fuel stocks, which have underperformed the broader market for a ten-year period and face a decidedly negative long-term outlook. This violation is exacerbated by the Trustees' failure to follow the lead of peer institutions who, under similar circumstances, have recognized the prudence of divestment.
- Former Securities and Exchange Commissioner Bevis Longstreth has called for the application of the prudence standard to the threats of climate change. As Longstreth writes, the risks posed by fossil fuel investments are so serious that institutional investors will be hard-pressed to justify continued holdings in the industry: "The prudence standard of the Act can easily support a decision not to continue to hold or invest in fossil fuel companies. The risks and rewards now offered by such securities are asymmetric, in the sense that the foreseeable rewards are not likely to be equal to the foreseeable risks. The risk that, at some unknown and unknowable, yet highly likely, point in the future, markets will begin to adjust the equity price of fossil fuel company securities downward to reflect the swiftly changing future prospects of those companies, is as serious as it is immense. Moreover, the possibility of that adjustment being a swift one is also a serious risk. A decision to linger in an investment with such an overhanging risk, and expect to time one's exit before the danger is recognized in the market, is a strategy hard to fit within the concept of prudence."[21]
    - Mr. Longstreth has more recently observed that in light of these risks, "the fossil-fuel industry's business model is now so misaligned with scientific and financial reality that betting on these companies… is not just misguided. It is negligently wrong as a matter of law."[22]
- In a report analyzing fiduciary duties owed by public pension funds, the Center for International Environmental Law concludes that "climate change should be considered an independent risk variable when making investment decisions, and it will trigger the obligations of pension fund fiduciaries . . . If pension fund fiduciaries do not take the financial risks posed by climate change seriously, they may be subject to liability. A failure to properly consider climate change as a risk factor could result in lawsuits under various theories of liability for breaches of fiduciary duties."[23]

[21] Bevis Longstreth, Outline of Possible Interpretative Release by States' Attorneys General Under The Uniform Prudent Management of Institutional Funds Act at 1, Inside Climate News, (Jan. 29, 2016).
[22] Bevis Longstreth and Connor Chung, Finance Must Combat Climate Change – or Else, Project Syndicate (Nov. 9, 2021).
[23] Trillion Dollar Transformation: Fiduciary Duty, Divestment, and Fossil Fuels in an Era of Climate Risk at 1, Center for International Environmental Law (Dec. 2016).

  - The report identifies four categories of risk to the value of fossil fuel assets: 1) impact risk (the risk of loss due to the physical effects of global warming, such as sea level rise and wildfires); 2) carbon asset risk (the risk that fossil fuel reserves will never be exploited and remain unprofitable); 3) transition risk (the risk that regulation and the growth of renewable energy will render fossil fuel products too expensive for or unappealing to consumers); and 4) litigation risk (the risk of financial penalties from lawsuits and other legal actions, such as the Attorney General's action against ExxonMobil).
  - As a result of these four risks to the value of fossil fuel assets, the report concludes that fossil fuel investments may violate the fiduciary duties of inquiry, monitoring, loyalty, diversification, impartiality, and acting with reasonable care. The report concludes that "[t]he cleanest and simplest way to avoid climate vulnerability in a portfolio is to divest or, at minimum, dramatically reduce exposure to fossil fuel and other highly climate-vulnerable holdings."[24]
- The public benefit purpose of non-profits like the University of Pennsylvania distinguishes charitable corporations from private trusts and makes the fiduciary duties of loyalty and care more tailored and specific. As the Restatement of the Law for Charitable Nonprofit Organizations states: ". . . in the case of a private trust, property is devoted to the use of specified or described persons who are designated as beneficiaries of the trust, whereas in the case of a charitable trust, property is devoted to purposes the law deems appropriately beneficial to the public . . . unlike in the case of a private trust in which fiduciary duties are owed to the beneficiaries, *in the case of a charity, fiduciary duties are owed to the charity's purposes rather than to a specific person or persons* . . . the fiduciaries of a charity owe the duty of loyalty to the charity's purposes rather than the entity."[25]
- In the context of investment, the standard prudent investor rule carries the additional burden of considering charitable purposes. "[T]he test of prudence evaluates the care, diligence, and skill demonstrated by the actor considering the relevant circumstances, as well as whether the person acted in good faith . . . *In the case of charities, however, the most relevant circumstance is the purpose to which the funds must be devoted*."[26]
- While it is difficult to estimate the exact amount of money that Penn currently invests in fossil fuel companies, we know that Harvard directly held $394 million in fossil fuel companies and **$838 million** total before their divestment announcement in 2021,[27] and that Princeton had $13 million directly invested in fossil fuel companies, compared to **$1.7 billion** total (including 1 billion in private investments and 700 million in public investments[28]) before their divestment announcement in 2022.[29] Although Penn has promised to cease new commitments to private equity vehicles focused on fossil fuels

[24] *Id.* at 5-7, 12-17, 19.
[25] Restatement of the Law for Charitable Nonprofit Organizations, § 2.02, cmt. (2021) (emphasis added).
[26] *Id.* at § 2.04 ("Management, Investment, and Expenditure of a Charity's Assets), cmt. (emphasis added).
[27] Naomi Oreskes & Sofia Andrade, Harvard and Other Schools Make a Choice on Fossil Fuels, The New York Times (Oct. 2, 2021).
[28] Divest Princeton, Princeton must remain steadfast and transparent in its divestment commitments, The Daily Princetonian (Sept 28, 2023).
[29] Paige Cromley, Princeton to dissociate from 90 fossil fuel companies, including Exxon Mobil, The Daily Princetonian (Sept. 29, 2022).

and affirmed their policy of refraining from direct investments in companies engaged in fossil fuel production,[30] it is safe to assume that **the total dollar amount of Penn's current fossil fuel investments is comparable to that of these other universities prior to their divestment commitments.**

II. The University of Pennsylvania's social and environmental commitments

In addition to their general duties to the public as managers of a charity, the University of Pennsylvania ("Penn") Trustees are legally bound to uphold particular *charitable purposes*, which include commitments to social justice and environmental well-being. The Trustees have demonstrated through their policies and statements that they understand this legal obligation, despite their continued investments in the fossil fuel industry.

- Penn's motto, adopted shortly after Penn's founding,[31] translates to "Laws without morals are useless," tying the University's mission to moral principles.
- Penn has explicitly recognized the connections between its educational mission and fighting the climate crisis, most notably through its Climate and Sustainability Action Plan.
    - The Plan was first launched in 2009 and is reevaluated and updated every 5 years. In the Plan, Penn has stated that it "*will continue to lead through inclusive climate change scholarship, innovative policy formation, and adoption of best practices* to dramatically impact campus efficiency and reduce emissions. Through deliberate assessment, analysis, and planning, *Penn is taking action to mitigate climate impacts, adapt to emerging environmental conditions, and prepare our university—and our students—to lead in a rapidly evolving world*."[32]
    - The Plan commits Penn's campus to carbon neutrality by 2042[33]—underlining the Trustees' understanding of the devastating effects of climate change and the importance of achieving carbon neutrality as soon as possible.
- The "One Planet, One Penn" initiative affirms Penn's goal of research and cross-disciplinary academics to address climate change and environmental challenges, noting: "Our Vision is to inform the transition to a more resilient society and foster harmony with nature. Our Mission is to catalyze solutions to significant real-world environmental challenges."[34]
- Penn's Kleinman Center for Energy Policy, which aims to "create the conditions for policy innovation that support a just and efficient transition to sustainable energy," acknowledges that "it is impossible to discuss energy without acknowledging the climate

[30] Scott L. Bok, Chair, Board of Trustees; Amy Gutmann, President; Beth A. Winkelstein, Interim Provost; Craig R. Carnaroli, Senior Executive Vice President; and J. Larry Jameson, EVP for UPHS and Dean of the Perelman School of Medicine, Update to Penn community on Penn's efforts to combat the effects of climate change, Penn Today (Nov. 5, 2021).
[31] A Guide to the Usage of the Seal and Arms of the University of Pennsylvania, Penn Libraries University Archives & Records Center (last visited June 18, 2023).
[32] Climate and Sustainability Action Plan 3.0 at 5, University of Pennsylvania (2019).
[33] *Id.* at 3.
[34] One Planet, One Penn at 3, University of Pennsylvania Environmental Innovations Initiative (Jan. 2023).

impact of the way we power our buildings, cities, vehicles, and industries. As we imagine our energy future, we must do so with the recognition that climate change will transform how we move and power our lives."[35]

- Penn schools and programs such as the School of Veterinary Medicine[36] and the Wharton School of Business (Initiative for Global Environmental Leadership (IGEL))[37] have issued statements and held conferences stressing the importance of the United Nations (UN) Sustainable Development Goals. Goal 13 ("Climate Action") strives for the world to take "urgent action to combat climate change and its impacts." In response to the COVID-19 pandemic and under Goal 13, the UN notes that "Investments must accelerate the decarbonization of all aspects of our economy." [38]
- The Trustees acknowledge that divestment from certain assets is mandated by their legal obligation to further Penn's charitable purposes: "While the Trustees have the fiduciary obligation to invest the University endowment so as to maximize University resources, the Trustees recognize that in extraordinary circumstances it may be appropriate to consider divesting the endowment of specific corporate securities based upon thoughtful, thoroughly considered, and sustained social responsibility concerns."[39]
    - The Trustees' divestment policy states that "the purpose of divestment is to separate the University from companies whose conduct is so abhorrent to the University community, and so inconsistent with core University values, that the University does not wish to be associated with the conduct in any way."[40]
    - The divestment policy defines social responsibility for the purposes of divestment decisions as follows: "(1) There exists a moral evil implicating a core University value that is creating a substantial social injury; (2) There must be a specific company or companies identified for divestment, rather than a broad proposal directed at an industry or activity more generally; (3) The company or companies identified for divestment must have a significant, clear, and undeniable nexus to the moral evil; (4) The proposal for divestment must have the support of a broad and sustained consensus of the University community reflected over a sustained period of time."[41]
- In November 2022, Penn President Liz Magill stated that "Our policies recognize that the use of fossil fuels accelerates climate change, that society must transition to a carbon-free economy without punishing the world's most economically vulnerable, and that climate change creates investment risks that we must consider."[42] (President Magill announced that Penn will no longer hold *direct* investments in fossil fuel production companies — acknowledging that holding such assets contradicts Penn's charitable purposes, while failing to recognizing that other assets, including the likely much larger set of *indirect*

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[35] What We Do and Climate, Kleinman Center for Energy Policy (last visited June 18, 2023).
[36] Climate Connection Statement, The School of Veterinary Medicine at the University of Pennsylvania (Apr. 18, 2022).
[37] No Time To Waste: Achieving the UN's Sustainability Goals, Knowledge at Wharton (Feb. 28, 2020).
[38] Goal 13: Take urgent action to combat climate change and its impacts, UN Sustainable Development Goals (last visited June 18, 2022).
[39] Divestment. Office of the University Secretary (last visited Oct. 10, 2023).
[40] *Id.*
[41] *Id.*
[42] Mary Elizabeth Magill & Scott Bok, A message about Penn's Endowment and Sustainability, Penn Today (Nov. 29, 2022).

investments in the fossil fuel industry, constitute an equivalent violation of fiduciary duties).

  - "Our policies recognize that the use of fossil fuels accelerates climate change, that society must transition to a carbon-free economy without punishing the world's most economically vulnerable, and that climate change creates investment risks that we must consider."

III. The scientific reality and risks of climate change

The current and future effects of climate change jeopardize the physical integrity of Philadelphia's infrastructure and the safety of Penn's students, faculty, staff, and surrounding community, undermining the Trustees' *charitable purposes*. By investing in companies that are disproportionately responsible for the climate crisis, the Trustees expose the Penn community to severe injury, thus failing to act in Penn's best interests and violating the *duty of loyalty*.

- Statistically significant, historically unprecedented, and potentially irreversible changes are taking place in the Earth's oceans, atmosphere, and biospheres, which constitute what is collectively known as climate change. Such changes are "unequivocally" the result of human activities—primarily carbon dioxide emissions resulting from extraction and combustion of fossil fuels including but not limited to coal, oil, and gas—according to the Sixth Assessment Report Summary for Policymakers by the Intergovernmental Panel on Climate Change (IPCC), the leading global authority responsible for synthesizing and producing much of the scientific research on climate change across the globe.[43]
- The International Energy Agency has found that a moratorium on investment in new oil and gas fields and coal mines is necessary for the world to reach the goal of the international climate accord known as the Paris Agreement, *i.e.*, net-zero carbon dioxide emissions by 2050.[44]
- A small number of fossil fuel producers have been disproportionately responsible for greenhouse gas emissions since the Industrial Revolution: twenty companies account for nearly thirty percent of all emissions between 1751 and 2010.[45] A 2017 report by the Carbon Disclosure Project found that 71% of all global greenhouse gas emissions since 1988 "can be traced to just 100 fossil fuel producers."[46]
- There is a near-linear relationship between the cumulative amount of carbon dioxide emitted and the amount of global warming it causes.[47] Every half of a degree Celsius of global warming results in discernible increases in intensity and frequency of temperature extremes, heavy precipitation, and agricultural, hydrological, and ecological droughts in

[43] Summary for Policymakers at 3, *in* Climate Change 2021: The Physical Science Basis, Working Group I Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (Oct. 2021).
[44] International Energy Agency, Net Zero by 2050 at 99 (Oct. 2021); "Article 4" at 4, Paris Agreement, United Nations (2015).
[45] Richard Heede, Tracing anthropogenic carbon dioxide and methane emissions to fossil fuel and cement producers, 1854–2010, 122 Climatic Change 229, 234 (2014). These companies include Chevron, ExxonMobil, BP, Shell, ConocoPhillips, and Peabody. *Id.* at 237.
[46] New report shows just 100 companies are source of over 70% of emissions, Carbon Disclosure Project (July 10, 2017).
[47] IPCC, Summary for Policymakers, *supra* at note 43, at 37.

some regions.[48] Anthropogenic climate change is already affecting every inhabited region across the globe, leading to observed changes in weather and climate extremes.[49]

- The Fourth National Climate Assessment, released in 2018 by thirteen federal agencies comprising the U.S. Global Change Research Program (USGCRP), noted that "[t]he impacts of climate change are already being felt in communities across the country. More frequent and intense extreme weather and climate-related events, as well as changes in average climate conditions, are expected to continue to damage infrastructure, ecosystems, and social systems that provide essential benefits to communities. Future climate change is expected to further disrupt many areas of life, exacerbating existing challenges to prosperity posed by aging and deteriorating infrastructure, stressed ecosystems, and economic inequality."[50] The USGRCP report concluded that, as a result of climate change, "annual losses in some economic sectors are projected to reach hundreds of billions of dollars by the end of the century — more than the current gross domestic product . . . of many U.S. states."[51]
- Continued global warming is projected to further intensify the global water cycle, including the severity of wet and dry events.[52] Many changes due to past and future greenhouse gas emissions are irreversible for centuries to millennia, especially changes in the ocean, ice sheets, and global sea level.[53]
- Global warming will exceed two degrees Celsius by the end of this century unless drastic reductions in carbon dioxide and other greenhouse gas emissions occur in the coming decades.[54] To limit warming, cumulative carbon dioxide emissions must reach net zero, along with strong reductions in other greenhouse gasses.[55]
- The global mean water level in the ocean rose by 0.14 inches (3.6 millimeters) per year from 2006 through 2015, which was 2.5 times the average rate of 0.06 inches (1.4 millimeters) per year throughout most of the twentieth century. By the end of the century, global mean sea level is likely to rise at least one foot (0.3 meters) above 2000 levels, even if greenhouse gas emissions follow a relatively low pathway in coming decades.[56]
- According to the Pennsylvania DEP's 2021 Climate Change Impacts Assessment, the most severe climate change effects in Pennsylvania include increased average temperatures, heavier precipitation and inland flooding, heat waves, landslides, sea level rise, and more severe cyclones.[57]

IV. The societal effects of climate change and fossil fuel infrastructure

[48] *Id.* at 19.
[49] *Id.* at 10.
[50] Fourth National Climate Assessment, Volume II at 25, U.S. Global Change Research Program (Mar. 2021).
[51] *Id.* at 26.
[52] *Id.* at 25.
[53] *Id.* at 28.
[54] *Id.*
[55] *Id.* at 36.
[56] Rebecca Lindsey, Climate Change: Global Sea Level, Climate.gov (Aug. 14, 2020).
[57] Climate Change Impacts, Pennsylvania Dep't of Environmental Protection (last visited Oct. 27, 2023) (see "Total Consequences" bar chart halfway down page).

Mounting evidence demonstrates that fossil fuel investments create disproportionate burdens on people of color, Indigenous communities, low-income communities, and children. Fossil fuel investments also harm the public health and property of Philadelphia residents, including those in the Penn community, violating the Trustees' duties to *consider the charitable purposes* of Penn and to act with *loyalty* toward its community and property.

- Climate change heavily impacts so-called frontline communities, including communities of color and Indigenous communities, with their disproportionate exposure to air pollution, sea level rise, drought, and other consequences of climate change.[58] In general, those who have contributed the least to the climate crisis by virtue of their economic position stand to suffer the most from dislocation and natural disasters caused by increased warming.
    - Climate change exacerbates racial inequality by focusing health and economic injuries on people of color, who tend to have fewer economic resources to adjust to rising temperature and tend to receive less government assistance to deal with emergencies.[59]
    - According to a study from the Program for Environmental and Regional Equity at the University of Southern California, racial minorities will disproportionately suffer from an inability to pay for basic necessities and from decreased job prospects in sectors such as agriculture and tourism as the climate crisis accelerates.[60]
    - According to the United Nations, "[c]limate change exacerbates the difficulties already faced by Indigenous communities, including political and economic marginalization, loss of land and resources, human rights violations, discrimination, and unemployment."[61] Indigenous communities are also vulnerable to climate change impacts because of the enduring legacy of colonialism, forced relocations, the loss of cultural practices, and other harms, which create health burdens.[62]

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[58] The Geography of Climate Justice, Mary Robinson Foundation (last visited Feb. 10, 2021).

[59] Steven Hiseh, People of Color Are Already Getting Hit the Hardest by Climate Change, The Nation (Apr. 22, 2014); Office of Health Equity's Climate Change and Health Equity Program, Racism Increases Vulnerability to Health Impacts of Climate Change, California Department of Public Health (Aug. 17, 2020).

[60] Rachel Morello Frosch, Manuel Pastor, Jim Sadd, & Seth Shonkoff, The Climate Gap: Inequalities in How Climate Change Hurts Americans & How to Close the Gap at 5, University of Southern California Program on Environmental and Regional Equity (May 2009).

[61] United Nations Department of Economic and Social Affairs — Indigenous Peoples, Climate Change (last visited Oct. 5, 2021).

[62] Jantarasami, L.C., *et al.*, Chapter 15: Tribes and Indigenous Peoples at 582. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II, U.S. Global Change Research Program (2018) ("A number of health risks are higher among Indigenous populations due in part to historic and contemporary social, political, and economic factors that can affect conditions of daily life and limit resources and opportunities for leading a healthy life. Many Indigenous peoples still experience historical trauma associated with colonization, removal from their homelands, and loss of their traditional ways of life, and this has been identified as a contributor to contemporary physical and mental health impacts. Other factors include institutional racism, living and working circumstances that increase exposure to health threats, and limited access to healthcare services. Though local trends may differ across the country, in general, Indigenous peoples have disproportionately higher rates of asthma, cardiovascular disease, Alzheimer's disease or dementia, diabetes, and obesity. These health disparities have direct linkages to increased vulnerability to climate change impacts, including changes in the pollen season and

- Throughout the world, migration due to climate change has increased in recent years and is anticipated to increase further as many areas of the globe become inhospitable to agriculture and human habitation, leading to political and social instability.[63]

- Climate change has specific impacts in Pennsylvania. According to the Pennsylvania DEP's 2021 Climate Change Impacts Assessment, climate change causes an increased prevalence of heat-related illness and death, allergies, mosquito- and tick-borne illness, violent crime, and anxiety and mood disorders.[64]
- In September 2021, The Lancet published a Comment co-signed and co-published by the editors of more than 200 leading medical journals worldwide.[65] The authors noted that "[h]ealth institutions have already divested more than $42 billion of assets from fossil fuels" and urged others to join them, since "[t]he greatest threat to global public health is the continued failure of world leaders to keep the global temperature rise below 1.5°C and to restore nature."[66]
- Fossil fuel emissions are directly responsible for nearly one-fifth of all deaths globally. Particulate matter spread by fossil fuel combustion killed eight million people in 2018, about eighteen percent of total deaths that year.[67]
- Children bear especially heavy burdens from the impacts of climate change and fossil fuel extraction.
    - According to UNICEF, one billion children live at extreme risk of climate and environmental hazards, shocks, and stresses.[68] The United States ranks among the countries in which children face at least five major climate and environmental shocks.[69]
    - Children are more vulnerable than adults to extreme weather. They are less able to regulate their body temperature during heat waves,[70] breathe at twice the adult rate,[71] and are at crucial stages of brain and organ development.[72] Exposure to toxins has more potential to harm their cognitive ability and lung capacity,[73] and they suffer these deficits their entire lives. Climate change-caused disasters, air

allergenicity, air quality, and extreme weather events. For example, diabetes prevalence within federally recognized tribes is about twice that of the general U.S. population. People with diabetes are more sensitive to extreme heat and air pollution, and physical health impacts can also influence mental health.").

[63] Michael Werz & Laura Conley, Climate Change, Migration, and Conflict: Addressing complex crisis scenarios in the 21st century, at 3-5, 12-14, Center for American Progress (Jan. 2012).

[64] Climate Change Impacts, Pennsylvania Dep't of Environmental Protection (last visited Oct. 27, 2023).

[65] Lukoye Atwoli, *et al.*, Call for emergency action to limit global temperature increases, restore biodiversity, and protect health, 398 (10304) The Lancet 939 (2021).

[66] *Id.*

[67] Karn Vohra, Alina Vodonos, Joel Schwartz, Eloise A. Marais, Melissa P. Sulprizio, & Loretta Mickley, Global mortality from outdoor fine particle pollution generated by fossil fuel combustion, 195 Envt'l Res. 110754 (2021).

[68] UNICEF, The climate crisis is a child rights crisis: Introducing the Children's Climate Risk Index (Aug. 2021).

[69] *Id.* at 80.

[70] *Id.* at 110.

[71] *Id*.

[72] *Id*. at 20.

[73] *Id*.

pollution extremes, and environmental degradation also disrupt education, and excessive heat interferes with learning capacity.[74]
    - UNICEF concludes that "the climate crisis affects or will affect all children, everywhere, in often significant, life-changing ways, throughout their lives" and "undermines the effective enjoyment of the rights enshrined in the Convention on the Rights of the Child."[75]
- Burning fossil fuels has altered ocean chemistry, making it more acidic.[76] Acidification has caused serious economic harm to the global fishing industry and also threatens coral reefs and other marine ecosystems.[77]
- Plastic waste — a direct by-product of fossil fuel extraction, with ninety-eight percent of plastics made from fossil fuels — further damages marine ecosystems.[78] The United Nations Environment Programme estimates that damage to marine ecosystems from plastic waste causes thirteen billion dollars worth of damage every year.[79] Fossil fuel companies rely on plastic production to shore up profits.[80]
- Finally, climate change causes an increase in the frequency of pandemics such as COVID-19: according to the Intergovernmental Platform on Biodiversity and Ecosystem Services, climate change will "cause substantial future pandemic risks and other localized disease emergence."[81] A paper published in The New England Journal of Medicine concludes that the climate crisis exacerbates the effects of COVID-19, as high heat, wildfire smoke, and high pollen counts amplify underlying conditions such as pulmonary disease, and as emergency responses to events such as hurricanes and fires reduce the ability to mitigate COVID-19 spread. These effects are felt particularly by the most vulnerable communities.[82]

V. The failure of fossil fuel companies to address climate risks

The fossil fuel industry remains resolutely committed to a business model that produces and exacerbates climate change, and to the suppression of nonviolent protest. Penn's *charitable purposes* are directly contravened by investments that promote this activity.

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[74] *Id.* at 110; Joshua Goodman, Michael Hurwitz, Jisung Park, & Jonathan Smith, Heat and Learning, National Bureau of Economic Research (May 2018).
[75] *Id.*
[76] Scott Doney, Oceans of Acid: How Fossil Fuels Could Destroy Marine Ecosystems, Public Broadcasting Service (Feb. 12, 2014).
[77] *Id.*
[78] Marty Mulvihill, Gretta Goldenman, & Arlene Blum, The Proliferation of Plastics and Toxic Chemicals Must End, The New York Times (Aug. 27, 2021).
[79] UNEP, Plastic Waste Causes Financial Damage of US$13 Billion to Marine Ecosystems Each Year as Concern Grows over Microplastics (June 23, 2014).
[80] Mulvihill, *et al.*, *supra* at note 78.
[81] Intergovernmental Platform on Biodiversity and Ecosystem Services, IPBES Workshop on Biodiversity and Pandemics: Workshop Report (Oct. 29, 2020).
[82] Renee N. Salas, James M. Shultz, & Caren G. Solomon, The Climate Crisis and Covid-19 — A Major Threat to the Pandemic Response, New Eng. J. Med. (2020).

- Fossil fuel companies knew about the connection between their products and climate change decades before the general public, "as early as the 1950s and no later than 1968."[83]
    - Coal industry publications suggested as early as 1966 that the combustion of fossil fuels could cause "vast changes in the climates of the earth."[84] By 1968, the American Petroleum Institute, an industry trade group, was familiar with a study concluding that the burning of fossil fuels was likely to create significant environmental consequences.[85]
    - As early as 1977, Exxon scientists had privately concluded that "there is general scientific agreement that the most likely manner in which mankind is influencing the global climate is through carbon dioxide release from the burning of fossil fuels."[86]
    - Shell internally reached similar conclusions by at least the 1980s,[87] as did Mobil (then separate from Exxon).[88] By the 1980s, major fossil fuel companies had "internally acknowledged that climate change was real, it was caused by fossil fuel consumption, and it would have significant impacts on the environment and human health."[89]
- A 2017 report by the Carbon Disclosure Project found that seventy-one percent of all global greenhouse gas emissions since 1988 "can be traced to just 100 fossil fuel producers."[90]
- The fossil fuel industry has consistently refused to participate in the transition to renewable energy.
    - According to the International Energy Agency, just one percent of the fossil fuel industry's cash spending, proportionally speaking, was devoted to low-carbon energy in 2022.[91]
    - Numerous independent analyses have found no evidence that the industry is meaningfully aligned with net-zero goals.
        - A 2023 report by major climate data disclosure clearinghouse CDP found that the "oil and gas sector has made almost no progress towards the Paris Agreement goals since 2021."[92]

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[83] Brief of Amici Curiae Robert Brulle, Center for Climate Integrity, Justin Farrell, Benjamin Franta, Stephan Lewandowsky, Naomi Oreskes, and Geoffrey Supran in Support of Appellees and Affirmance, County of San Mateo v. Chevron Corporation, et al., County of Imperial Beach v. Chevron Corporation, et al., County of Marin v. Chevron Corporation, et al., County of Santa Cruz, et al., v. Chevron Corporation, et al., Nos. 18-15499, 18-15502, 18-15503, 18-16376 at 2 (9th Cir. 2019).

[84] Elan Young, Exxon knew -- and so did coal, Grist (Nov. 29, 2019).

[85] Oliver Milman, Oil industry knew of 'serious' climate concerns more than 45 years ago, The Guardian (Apr. 13, 2016).

[86] Shannon Hall, Exxon Knew about Climate Change almost 40 years ago, Sci. Am. (Oct. 26, 2015).

[87] John H. Cushman Jr., Shell Knew Fossil Fuels Created Climate Change Risks Back in 1980s, Internal Documents Show, Inside Climate News (Apr. 5, 2018).

[88] Nicholas Kusnetz, Exxon Turns to Academia to Try to Discredit Harvard Research, Inside Climate News (Oct. 20, 2020).

[89] Brief of Amici Curiae Robert Brulle, *et al.*, *supra* at note 83, at 15.

[90] New report shows just 100 companies are source of over 70% of emissions, Carbon Disclosure Project (July 2017).

[91] World Energy Investment 2023, International Energy Agency (May 2023).

[92] Research reveals no oil and gas companies have plans in place to phase out fossil fuels, CDP (Jun. 29, 2023).

        - According to the March 2023 company-level benchmark from investor consortium Climate Action 100+, no evaluated fossil fuel company is in meaningful alignment with a Paris-aligned pathway.[93]
        - A 2022 report by climate research group Oil Change International concluded that "the climate promises of major U.S. and European oil and gas companies still fail to meet the bare minimum for alignment with the Paris Agreement."[94]
        - Financial think tank Carbon Tracker found in a 2022 analysis that most fossil fuel companies remain far away from Paris alignment, with even the best climate plans containing significant loopholes and credibility gaps.[95]
        - A 2022 peer-reviewed academic study found that none of the most prominent European or American oil and gas majors have financial strategies to back up their climate rhetoric.[96]
        - A study by the London School of Economics found that no fossil fuel major had carbon-reduction plans that were Paris-compliant as of October 2020.[97]
        - The American Petroleum Institute has asserted that the oil industry remains essential to the American economy and promised to resist President Biden's climate agenda.[98]
- Individual fossil fuel companies, for their part, also continue to bet on long-term fossil fuel reliance.
    - In 2023, BP abandoned its (already insufficient) commitment to reduce carbon emissions thirty-five to forty percent by 2030 and increased gas production targets.[99]
    - In 2023, Shell increased its investment targets for fossil fuels and dropped plans to expand investment in renewables.[100] Several leading executives from Shell's renewable energy sectors recently quit in response to the company's lackluster efforts to decarbonize.[101] The company is actively fighting a ruling by a Dutch court compelling it to adopt a science-based decarbonization plan.[102]

[93] Net Zero Company Benchmark, Climate Action 100+ (2023).
[94] David Tong, Big Oil Reality Check, Oil Change International (May 24, 2022).
[95] Mike Coffin & May O'Connor, Absolute Impact: Why Oil and Gas Companies Need Credible Plans to Meet Climate Targets, CarbonTracker (May 12, 2022).
[96] Mei Li, *et al.*, The clean energy claims of BP, Chevron, ExxonMobil and Shell: A mismatch between discourse, actions and investments, PLoS ONE 17(2) (2022).
[97] Anjli Raval, Big fossil fuel groups all failing climate goals, study shows, Financial Times (Oct. 6, 2020).
[98] Nicholas Kusnetz, American Petroleum Institute Chief Promises to Fight Biden and the Democrats on Drilling, Tax Policy, Inside Climate News (Jan. 14, 2021).
[99] Evan Halper & Aaron Gregg, BP dials back climate pledge amid soaring oil profits, Washington Post (Feb. 3, 2022).
[100] Lottie Limb, Shell joins BP and Total in U-turning on climate pledges 'to reward shareholders', EuroNews (June 15, 2023).
[101] Anjli Raval & Leslie Hook, Shell Executives Quit Amid Discord Over Green Push, Financial Times (Dec. 8, 2020).
[102] Shell filed appeal against landmark Dutch climate ruling, Reuters (Mar. 29, 2022).

    - ExxonMobil is spending $21 million per day on capital expenditures misaligned with a net-zero pathway—projects that analysts have termed "carbon bombs."[103] In 2023, Exxon abandoned its biofuels research, which it had long used as evidence of its climate commitments.[104] And, just last week, the company agreed to buy Pioneer Natural Resources for $60 billion, "a bet that U.S. energy policy will not move against fossil fuels in a major way."[105]
    - In 2021, Chevron's CEO confirmed that "the company prefers to return money to its shareholders rather than use it to invest in solar and wind power projects," and suggested that shareholders concerned about emissions "plant trees" instead.[106] In 2022, Chevron announced a significant expansion of its capital expenditures on fossil fuels.[107]
    - In 2023, ConocoPhillips won approval for Willow, a massive drilling project that "has the potential to produce 180,000 barrels of oil per day."[108]
- Shareholder engagement has not been an effective tactic for changing the industry's core business model. Recent attempts by shareholders to persuade fossil fuel companies to address climate risks have mostly failed.
    - The Interfaith Center on Corporate Responsibility found that "150 requests from various responsible shareholders asking fossil fuel companies to evaluate financial risk from climate change regulation [between 1992 and 2015] were ignored or met with a dismissive reply," with leaders of companies including ExxonMobil and Shell explicitly stating their intentions to continue producing fossil fuels without interruption.[109]
    - Shareholder engagement group As You Sow noted in a 2018 report that, although oil and gas companies are disproportionate targets of shareholders' attempts to engage and intervene, these companies have been singularly unresponsive to requests to reduce greenhouse gas emissions.[110]
    - A Cambridge University report found in 2021 that "[b]y any threshold one could devise as to the efficacy of a tactic for action on climate change and other social and environmental issues, it would be difficult to deem shareholder engagement a success."[111]

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[103] Damien Carrington & Mathew Taylor, Revealed: the 'carbon bombs' set to trigger catastrophic climate breakdown, The Guardian (May 11, 2022).
[104] Kate Yoder, Why are BP, Shell, and Exxon suddenly backing off their climate promises?, Grist (Feb. 16, 2023).
[105] Clifford Kraus, Exxon Mobil Strikes $60 Billion Deal for Shale Giant, The New York Times (Oct. 11, 2023).
[106] Chevron would rather pay dividends than invest in wind and solar -CEO, Reuters (Sept. 15, 2021).
[107] Sabrina Valle, UPDATE 3-Chevron raises 2023 project spending budget to $17 bln, Reuters (Dec. 7, 2022).
[108] Joe Hernandez, The Biden administration approves the controversial Willow drilling project in Alaska, NPR (March 13, 2022).
[109] Taavi Tillmann, Jonny Currie, Alistair Wardrobe, & David McCoy, Fossil fuel companies and climate change: the case for divestment, 350 Brit. Med. J. (June 2015).
[110] 2020: A Clear Vision for Paris-Compliant Shareholder Engagement, As You Sow (Sept. 2018). The report urges fiduciaries to divest from the oil and gas sector so as to "protect their beneficiaries" if the companies do not adopt Paris-compliant plans by the close of the 2020 proxy season. *Id.* at 25. That deadline has now passed without any meaningful change of course by the industry. Raval, Big fossil fuel groups all failing, *supra* at note 97.
[111] Ellen Quigley, Emily Bugden, & Anthony Odgers, Divestment: Advantages and Disadvantages for the University of Cambridge (2021).

- Even the most aggressive active ownership strategy to date—Engine No. 1's 2021 proxy fight for Exxon—"has not made a discernible difference in the way Exxon is addressing climate change."[112]
- Financial industry standard-setters have suggested that if an institution wishes to practice shareholder engagement, best practice requires that this be in addition to — not in place of — a fossil fuel divestment plan.[113] This is because shareholder engagement, at least by itself, is not an adequate tool for addressing climate risk: "While the tactic has proven itself viable in changing business practices, there's little precedent of it successfully changing business models…. When the business model is the primary source of risk, an engagement-only strategy is the wrong tool for the job."[114]
- The Church of England recently announced plans to divest its remaining shares in oil and gas majors after years of failed progress on shareholder engagement. In its announcement, a Church official said, "There is a significant misalignment between the long term interests of our pension fund and continued investment in companies seeking short term profit maximisation at the expense of the ambition needed to achieve the goals of the Paris Agreement."[115]

- In 2018, Harvard's Corporation Committee on Shareholder Responsibility voted to abstain on a shareholder proposal asking Chevron for a report on paths to decarbonization. The committee's reasoning was that "such a shift in strategy is properly a business decision for the company rather than a matter for shareholder input," and that "when considering company strategy on a core question of this kind, shareholders might prefer to invest in companies pursuing a strategy they favor (such as pursuing renewable energy opportunities), rather than pressuring one to move away from a core business in which it has long been involved."[116]
- Fossil fuel companies continue to undermine climate-friendly policymaking.
    - In the three years following the Paris Agreement, the five largest public fossil fuel companies "invested over $1 [billion] of shareholder funds on misleading climate-related branding and lobbying."[117]
    - Each year, "the world's five largest publicly owned oil and gas companies spend approximately $200 million on lobbying designed to control, delay or block binding climate-motivated policy."[118]

[112] Andrew Ross Sorkin, *et al.*, Reassessing the Board Fight That Was Meant to Transform Exxon, The New York Times (May 31, 2023). *See also* Tom Sanzillo, Months after tumultuous ExxonMobil annual meeting, no substantial change expected, Institute for Energy Economics and Financial Analysis (Aug. 6, 2021).
[113] For instance, the Science Based Target Initiative's draft standards for fossil fuel finance note that an asset manager must be willing to phase out holdings in companies "unable or unwilling to follow a 1.5°C transition within a pre-defined timeframe." Fossil Fuel Finance Position Paper (Consultation Draft) at 3, Science Based Targets Initiative (June 2023).
[114] Joshua Doh & Connor Chung, Divesting, Engaging, and the Problem with Fossil Fuels, ESGClarity (Mar. 16, 2022).
[115] Church of England Pensions Board disinvests from Shell and remaining oil and gas holdings, The Church of England (June 22, 2023).
[116] Annual Report 2017-2018 at 15, Harvard University Corporation Committee on Shareholder Responsibility (last visited Mar. 8, 2021).
[117] Big Oil's Real Agenda on Climate Change, InfluenceMap (Mar. 2019).
[118] Niall McCarthy, Oil and Gas Giants Spend Millions Lobbying to Block Climate Change Policies, Forbes (Mar. 25, 2019). BP spends approximately $53 million, Shell $49 million, and ExxonMobil $29 million per year. *Id.*

    - In 2018, the fossil fuel industry spent nearly $100 million to stymie three proposed climate initiatives in Western states: a carbon emissions fee in Washington, restrictions on hydraulic fracturing in Colorado, and improved renewable energy standards in Arizona.[119]
- As a 2013 article by environmental sociologists explained: "[a]lthough many factors have contributed to the failure to enact strong international and national climate change policies… a powerful and sustained effort to deny the reality and significance of human-induced climate change has been a key factor."[120]
- Finally, the fossil fuel industry has engaged in a sustained effort to silence climate protesters and increase the severity of criminal punishment for their activities.
    - Since 2017, the industry has pushed for the passage of numerous "critical infrastructure" bills in U.S. state legislatures, thirteen of which have become law.[121] Many of the bills are similar or identical to model legislation authored by the corporate lobbying group American Legislative Exchange Council, and at least three were accompanied by political contributions from oil and gas companies to the bills' sponsors.[122]
        - A recent report found that sixty percent of U.S. oil and gas infrastructure is located in states that have enacted critical infrastructure laws.[123]
        - A wide range of commentators have criticized critical infrastructure laws as unnecessary, vague, and overly punitive, and some have been challenged in court as unconstitutional.[124]
    - The industry has also used lawsuits and subpoenas to accuse environmental advocates of defamation, racketeering, and other crimes, to label advocates as terrorists, and to chill advocacy targeting the industry's activities.[125]
    - There is mounting evidence of collusion between fossil fuel companies, local police departments, and private security firms hired by fossil fuel companies in suppressing climate protest using heavy-handed tactics.

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[119] Amy Harder, With deep pockets, energy industry notches big midterm wins, Axios (Nov. 7, 2018).
[120] Shaun W. Elsasser & Riley E. Dunlap, Leading Voices in the Conservative Choir: Conservative Columnists' Dismissal of Global Warming and Denigration of Climate Science, 57(6) Am. Behav. Scientist 754, 755 (2013).
[121] Institute for Policy Studies, Muzzling Dissent: How Corporate Influence Over Politics Has Fueled Anti-Protest Laws (Oct. 2020). The states in which bills have passed into law are Indiana, Kentucky, Louisiana, Mississippi, Missouri, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, Texas, West Virginia, and Wisconsin. US Protest Law Tracker, International Center for Not-for-Profit Law (last visited Feb. 10, 2021).
[122] New Report Details Impact of Secretive American Legislative Exchange Council on Communities of Color, Center for Constitutional Rights (Dec. 23, 2019); Gabrielle Cochette & Basav Sen, Muzzling Dissent: How Corporate Influence Over Politics Has Fueled Anti-Protest Laws at 8-9, Institute for Policy Studies (Oct. 2020).
[123] Dollars vs. Democracy: Inside the Fossil Fuel Industry's Playbook to Suppress Protest and Dissent in the United States, Greenpeace (2023).
[124] Nicholas Kusnetz, More States Crack Down on Pipeline Protesters, Including Supporters Who Aren't Even on the Scene, Inside Climate News (Mar. 28, 2019); Susie Cagle, 'Protesters as terrorists': growing number of states turn anti-pipeline activism into a crime, The Guardian (July 8, 2019).
[125] *See, e.g.*, Amal Ahmed, Energy Transfer Partners Files Lawsuit Against Greenpeace, Texas Monthly (Dec. 15, 2017); Exxon's Campaign of Intimidation against Climate Defenders Ushers in a New McCarthy Era, EarthRights International (Dec. 21, 2016); Green Group Holdings v. Schaeffer: Defense of Environmental Protesters Against Defamation Lawsuit, American Civil Liberties Union (Feb. 7, 2017). A national coalition of civil rights organizations called Protect the Protest tracks and opposes these tactics.

- In response to protests at the Standing Rock reservation against Energy Transfer Partners' Dakota Access pipeline in 2016 and 2017, Energy Transfer Partners hired TigerSwan, a military contractor with experience in Iraq and Afghanistan. In collaboration with local police, TigerSwan used legally questionable tactics against protesters, including digital surveillance.[126] Water cannons, tear gas, and rubber bullets were also used, resulting in hundreds of injuries.[127] Energy Transfer Partners also retained TigerSwan to respond to vandalism targeting the Dakota Access pipeline in Iowa in 2017, using scare tactics, residential surveillance, and the hiring of locals to pursue suspects in a wide-ranging operation that swept in dozens of people.[128] A multi-part reporting series by the investigative journalism publication The Intercept concluded that "[l]eaked documents and public records reveal a troubling fusion of private security, public law enforcement, and corporate money in the fight over the Dakota Access pipeline."[129]
- In 2019, the Canadian pipeline company Enbridge used digital and aerial surveillance, along with embedded informants, against nonviolent protesters targeting the company's Line 3 pipeline in Minnesota, attempting to follow the same playbook used by law enforcement at Standing Rock.[130]
- At least seven major fossil fuel companies — Chevron, Marathon, Shell, Valero, Hilcorp, Energy Transfer Partners, Aramco, and Cabot Oil & Gas — donate money or sit on the board of municipal police foundations, and this money is concentrated in places with oil and gas operations, including New Orleans, Houston, Dallas, and Corpus Christi.[131]

- The militarized response to climate protest by fossil fuel companies is over a decade old. At a 2011 conference attended by members of the fossil fuel industry, an executive of Anadarko Petroleum recommended military-style tactics against citizen groups protesting hydraulic fracturing (also known as fracking): "I want you to download the US Army/Marine Corps counterinsurgency manual because we are dealing with an insurgency here."[132]

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[126] Antonia Juhasz, Paramilitary security tracked and targeted DAPL opponents as 'jihadists,' docs show, Grist (Jun. 1, 2017).
[127] Alleen Brown, Medics Describe How Police Sprayed Standing Rock Demonstrators with Tear Gas and Water Cannons, The Intercept (Nov. 21, 2016).
[128] Alleen Brown, Will Parrish & Alice Speri, Tigerswan Responded to Pipeline Vandalism by Launching Multi-State Dragnet, The Intercept (Aug. 26, 2017).
[129] *Id.*
[130] Will Parrish & Alleen Brown, How Police Are Preparing for a Standoff Over Enbridge Line 3, The Intercept (Jan. 30, 2019). Among the private security firms contracted by Enbridge was Securitas—the same firm that provides security services to Harvard University. *Id.*; Cara J. Chang & Meimei Xu, Harvard Security Guards Ratify One-Year Contract With Securitas, The Harvard Crimson (Jan. 5, 2021) (noting that "Harvard contracts with Securitas North America, a division of a multinational Swedish company with 370,000 employees across the world, to handle most of its security guard operations").
[131] Gin Armstrong, Fossil Fuel Industry Pollutes Black & Brown Communities While Propping Up Racist Policing, Eyes on the Ties (July 27, 2020).
[132] Bill McKibben, Shake Harvard Free of Oil Stock, The Boston Globe (Apr. 7, 2015).

VI. The financial risk of fossil fuel investments

The Trustees have also violated their *duty of care* by failing to consider the burgeoning risks of investing in the fossil fuel sector. On a purely financial basis, fossil fuel investments fail to meet the standards of prudent long-term investing.

- Over the past decade, fossil fuel assets have performed poorly.
    - Oil and gas stocks have greatly underperformed other investments over the last ten years. While the S&P 500 has gained approximately 316 percent in the past decade, the S&P Energy Sector (which reflects only the performance of the fossil fuel value chain; renewables are categorized separately) has returned only about half as much.[133]
    - The fossil fuel sector has seen a long-term decline as other sectors grow: in 1980, energy was nearly 30% of the S&P 500 by weight. Today, it is 4.3%.[134]
    - As a result, fossil-inclusive indices have tended to underperform fossil-free indices over the same period. To take two of the most common indices used in institutional funds, the S&P 500 Index has underperformed the S&P 500 Ex-Fossil Fuel Index by about 50 basis points per year over the past decade, and the MSCI ACWI Index has underperformed the MSCI ACWI Ex-Fossil Fuel Index by about 40 basis points per year over the same timeframe.[135]
- Prior to and during the COVID-19 era, the fossil fuel industry's decline became clear.
    - By the mid-2010s, the U.S. coal industry was already in freefall. The share of U.S. electricity produced by coal declined from forty-five percent in 2008 to twenty-four percent in 2020, while eight coal companies, including the largest privately held coal firm, declared bankruptcy in 2019.[136]
    - From the fourth quarter of 2019 to August 2020, seven of the world's largest oil companies lost $87 billion in value as a result of increased emissions regulations and collapsing demand during the COVID-19 pandemic.[137]
    - In January 2021, the S&P rating agency warned leading fossil fuel companies that they were at risk of imminent credit downgrades due to economic pressures resulting from the energy transition.[138]
    - In August 2020, leading oil company ExxonMobil Corp. was dropped from the Dow Jones Industrial Average for the first time since it joined the index in 1928. The company also left its long-time spot in the top 10 largest companies in the

[133] Data from S&P Dow Jones Indices, S&P Global (Aug. 22, 2023).
[134] Historical data: Siblis Research, *cited in* Tom Sanillo & Kathy Hipple, Fossil Fuel Investments: Looking Backwards May Prove Costly to Investors in Today's Market, Institute for Energy Economics and Financial Analysis (Feb. 1, 2019). Current numbers: S&P 500 Data, S&P Global (Aug. 22, 2023).
[135] Data from S&P Dow Jones Indices, S&P Global (Aug. 22, 2023) and ACWI Ex-Fossil Fuels (USD), MSCI (Aug. 22, 2023).
[136] Fred Pearce, As Investors and Insurers Back Away, the Economics of Coal Turn Toxic, Yale Environment 360 (Mar. 10, 2020).
[137] Jillian Ambrose, Seven top oil firms downgrade $87bn in nine months, The Guardian (Aug. 14, 2020).
[138] Ben Butler, Rating agency S&P warns 13 oil and gas companies they risk downgrades as renewables pick up steam, The Guardian (Jan. 27, 2021).

Standard & Poors 500 index in 2019.[139] Since 2008, ExxonMobil's market capitalization has shrunk from $500 billion to around $150 billion in 2020 before climbing to about $445 billion today.[140]

- Between 2010 and 2020, the world's five oil "supermajors"—ExxonMobil, BP, Chevron, Shell, and Total SA—spent far more on dividends and stock buybacks ($556 billion) than they earned from business operations ($340 billion), indicating an unsustainable reliance on borrowing and asset sales to inflate financial performance.[141]
    - All five supermajors have recognized in their financial disclosures that worldwide emissions-related laws and regulations and operation in a carbon-constrained environment will increase costs and reduce demand for their core products.[142]
    - Chevron has publicly recognized that some stakeholders have been divesting from fossil fuel companies and that the possibly compounding effects of divestment could have a negative impact on Chevron's stock price, as well as its access to capital.[143]

- The pandemic and Russian invasion further strained the industry's traditional value thesis.
    - Russia's invasion of Ukraine caused short-term pressure in energy markets, resulting in sky-high commodity prices for fossil fuels in 2022. However, the invasion also hastened demand destruction for fossil fuels, with higher prices accelerating the shift toward renewables and low-carbon technologies and ultimately undermining the industry's long-term interests.[144] For instance, dramatic price volatility has undermined future demand for liquified natural gas in Asian countries, seen as a growth market for the industry.[145]
    - See-sawing fossil fuel commodity prices illustrate the erosion of the industry's traditional value thesis. While fossil fuel investment was once predicated on the industry's ability to produce reliable and steady returns, the industry now finds itself at the mercy of factors outside its control. "[H]oping for war, or relying on a global oil cartel to manipulate prices, is the opposite of a sustainable, low-risk business model. Any financial endeavor that depends on bloodshed and geopolitical machinations for its profits is, by its nature, a speculative, high-risk endeavor—a far cry from the blue-chip investment thesis that investors historically demanded from the oil and gas industry."[146]

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[139] Tsvetana Paraskova, Exxon Drops Out Of Top 10 In S&P 500, OilPrice.com (Sept. 2, 2019).
[140] Avi Salzman, Why Exxon Is Being Dropped From the Dow, Barron's (Aug. 25, 2020).
[141] Clark Williams-Derry, Tom Sanzillo, & Kathy Hipple, In Q1, Four of Five Oil Majors Paid More Cash to Investors Than They Made From Operations, Institute for Energy Economics and Financial Analysis (May 2020).
[142] Chevron Corp., 2022 Form 10-K, at 24-25.
[143] *Id.*
[144] Tsvetana Paraskova, IEA Slashes Oil Forecast As Demand Destruction Looms Over The Market, Oil Price (July 13, 2022).
[145] Shafiqul Alam, *et al.*, Global LNG Outlook 2023-27, Institute for Energy Economics and Financial Analysis (Feb. 15, 2023).
[146] Clark Williams-Derry, Declining supermajors profits reveal flaws in the oil and gas business model, Institute for Energy Economics and Financial Analysis (Aug. 9, 2023).

  - Crucially, even the temporary increase in oil prices and subsequent record-breaking profits for the fossil fuel industry could not reverse the pattern of long-term financial decline. In 2023, broad stock market indices continue to underperform fossil-free variants on a 10-year basis (see discussion of index returns above). The market tumult instigated by Russia's invasion of Ukraine did not close this gap.
  - As markets adjust to the impact of the invasion of Ukraine, the industry finds itself exhibiting a familiar pattern. Throughout 2023, the sector has been at or near last place out of all components of the S&P 500.[147] In Q2 2023, the oil majors once again found themselves in deficit spending.[148]
- Annualized returns yielded by fossil fuel investments have lagged behind the S&P 500 in the last five years (2.67 percent annual return compared with 11.86 percent) and particularly in the last ten years (0.58 percent annual return compared with 10.5 percent).[149] To put that in perspective, projections show that $100 invested in the broader stock market in 2013 would be worth about $232 in early 2021, while that same $100 would be worth just $42 if invested in fossil fuel production.[150]
- Although fossil fuels posted market-leading gains in 2021 and 2022, this performance is an anomaly after ten years of poor returns. The cumulative effect of these returns is neatly captured in a comparison of broad stock market indexes, for example MSCI's All Country World Index (ACWI) and a fossil-free version of the same index.[151]
  - The fossil-free index consistently outperformed the full ACWI, with annualized gross returns of 9.53% for the 10 years to August 31, 2023, compared to 9.12% for the full ACWI.
  - The difference of 0.41 percentage points is significant because repeated outperformance leads to a large difference in total return. A hypothetical $100 million investment in MSCI's fossil-free index from Nov. 30, 2010, to Aug. 31, 2023, would have grown by nearly $18 million more than the same amount invested in the standard ACWI index.
  - The implication of this data is that broader portfolio diversification into fossil fuels has resulted not in value maximization but in value losses, and a prudent investor would investigate the factors underlying this phenomenon to evaluate continued holdings in fossil fuels.
- The fossil fuel industry has barely improved its overall weighting among sectors of the economy as measured by the Standard & Poors 500 index.
  - The energy sector started 2021 at 2.3% of the total value in the index and currently stands at 4.4%.[152]

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[147] Yardeni Research, Performance 2023 S&P 500 Sectors & Industries (Aug. 21, 2023). *See also* Tom Sanzillo, Taking stock of the oil and gas sector as the transition to sustainable finance proceeds apace, Institute for Energy Economics and Financial Analysis(Aug. 9, 2023).
[148] Clark Williams-Derry, Declining supermajors profits reveal flaws in the oil and gas business model, Institute for Energy Economics and Financial Analysis (Aug. 9, 2023).
[149] See S&P 500 Energy Sector Returns (reflecting a price of $448 on December 31, 2015 and a price of $286 on December 31, 2020) and S&P 500 Index Returns (reflecting a price of $2,044 on December 31, 2015 and $3,756 on December 31, 2020).
[150] S&P 500 Energy Sector Returns (last visited Oct. 5, 2023).
[151] MSCI ACWI ex Fossil Fuels Index, MSCI Inc. (Aug. 31, 2023).
[152] S&P 500 Sector Fact Sheet, S&P Dow Jones Indices, (Aug. 31, 2023).

    - The leading sectors of the economy comprise a far larger portion of the index: information technology (28%), healthcare (13%), financials (12.5%), and consumer discretionary (10.6%).
    - These weights represent investors' expectations about which sectors represent the economy's long-term profit centers.
- In 2021, in the United States, forty percent of electricity from the electric power sector was from non-fossil fuel-based sources.[153] This was in part due to an increased reliance on wind and solar power, which overtook nuclear power in 2021.
- A 2022 study from Ipsos revealed that consumer demand is shifting away from fossil fuels in favor of renewables: eighty-four percent of those surveyed globally and seventy-five percent of those surveyed in the U.S. feel it is important for their country to shift to climate-friendly energy sources in the next five years.[154]
- In 2023, energy stocks have once again begun to fall, indicating the volatility of the fossil fuel industry. Through the start of August 2023, energy stocks lost 1.3 percent in 2023, while the broader stock market had an increase of 17.2 percent.[155]
- The International Energy Agency has determined that, under current scenarios, we cannot develop new oil or gas fields besides those already producing oil or under development.[156]
- Looking forward, fossil fuel companies face significant investment risks.
    - Nearly all major financial regulatory bodies have noted that climate change and the energy transition create material financial risks for the global economy.
        - The Securities and Exchange Commission is currently preparing disclosure rules to help investors better navigate climate risk. One commissioner recently noted that, "[w]ith climate change, we have ample, well-documented warning of potentially vast and complex impacts to financial markets. . . . Indeed, we have more than just warning as many of those risks have already materialized. Climate change thus poses a pressing and urgent risk — for investors, companies, capital markets, and the economy."[157]
        - The Federal Reserve Board noted in 2021 that "[c]limate change poses significant challenges for the global economy and financial system, with implications for the structure of economic activity, the safety and soundness of financial institutions and the stability of the financial sector more broadly."[158] In its 2020 financial stability report, the Federal Reserve reported that "climate change, which increases the likelihood of dislocations and disruptions in the economy, is likely to increase financial

[153] FOTW #1258, October 3, 2022: In 2021, 40% of the Electricity Produced in the United States Was Derived from Non-Fossil Fuel Sources, Energy.gov (last visited Oct. 27, 2023).
[154] Ipsos Energy & Environment, Global consumers support shift from fossil fuels as they expect spike in energy prices to reduce their purchasing power (Mar. 30, 2022).
[155] *Id.*
[156] Banking on Climate Chaos: Fossil Fuel Finance Report 2022 at 3, Rainforest Action Network, Banktrack, Indigenous Environmental Network, OilChange International, Reclaim Finance, Sierra Club, & Urgewald (2022).
[157] Allison Herren Lee, Shelter from the Storm: Helping Investors Navigate Climate Change Risk (Mar. 21, 2022).
[158] Board of Governors of the Federal Reserve System, Federal Reserve Board issues statement in support of the Glasgow Declaration by the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) (Nov. 3, 2021).

shocks and financial system vulnerabilities that could further amplify these shocks."[159]

    - In a 2020 report, the Commodity Futures Trading Commission warned that "[c]limate change poses a major risk to the stability of the U.S. financial system and to its ability to sustain the American economy."[160]

- According to a 2019 study by the Mercer consulting firm, investment portfolios will be greatly affected by future global warming. If warming is held to two degrees Celsius — the target set by the 2015 Paris Agreement and one which will still result in widespread harm — the global economy will suffer significant damage from climate change while also transitioning to a renewable energy base. In this scenario, according to the study, portfolio assets in the coal industry will suffer cumulative impacts of 58.9 percentage points by 2030 and 100 percentage points by 2050, while assets in oil and gas will suffer cumulative impacts of 42.1 and 95.1 percentage points, respectively.[161] Other studies have concluded that major energy companies that continue to rely on fossil fuels will lose between thirty and sixty percent of their value.[162]
- Many fossil fuel assets "are likely to become 'unburnable' or stranded" as a result of the clean energy transition.[163] Stranded assets are expected to add up to USD $1 trillion globally under a two-degrees-Celsius warming scenario.[164]
    - Fossil fuel investments can be unstable, as losses due to stranded assets can "cascade" back to their ultimate owners.[165] If anticipated losses in the United States are summed "along the ownership chain," "an upper bound of $681 billion in potential losses could affect financial companies."[166]
    - Despite the risk of stranding, financial markets and fossil fuel companies have continued to invest in fossil fuel assets: fossil fuel reserves owned by publicly traded companies increased from 700 gigatons of CO_2 in 2011 to 1,060 gigatons in 2022. The Carbon Tracker Project, a nonprofit think tank, warns that this could make the ultimate financial fallout worse.[167]
    - Referencing potential losses from stranded assets, The Carbon Tracker initiative concluded that "potential losses for investors [are] clearly a function of how much of this risk is already priced into market valuation of fossil fuels companies — it is up to individual institutions to assess how the transition will pan out, and their risk exposure as a result."[168]

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159 Board of Governors of the Federal Reserve System, Financial Stability Report at 58 (Nov. 2020).
160 Commissioner Rostin Behnam, David Gillers, Bob Litterman, Leonardo Martinez-Diaz, Jesse M. Keenan, Stephen Moch, Managing Climate Risk In the U.S. Financial System, Climate-Related Subcommittee, Market Risk Advisory Committee of the U.S. Commodity Futures Trading Commission (Sept. 2020).
161 Mercer LLC, Investing in a Time of Climate Change: The Sequel 2019 at 34 (2019).
162 European Green Party, The Carbon Bubble: The financial risk of fossil fuels and need for divestment at 7 (2020).
163 J.-F. Mercure, *et al.*, Reframing incentives for climate policy action, Nature Energy 6, 1133-43 (2021).
164 Sini Matikainen & Eléonore Soubeyran, What are stranded assets?, Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science (July 27, 2022).
165 *Id.*
166 *Id.*
167 Mark Campanale, $1 Trillion of Oil and Gas Assets Risk Being Stranded by Climate Change, BRINK News (Jan. 22, 2023).
168 Thom Allen & Mike Coffin, Unburnable Carbon: Ten Years On at 35, the Carbon Tracker Initiative (June 2022).

        - A 2022 study from academic economists found that pensions and other institutional investors are disproportionately on the hook for stranded assets: "We calculate that global stranded assets as present value of future lost profits in the upstream oil and gas sector exceed US$1 trillion under plausible changes in expectations about the effects of climate policy. . . . Most of the market risk falls on private investors, overwhelmingly in OECD countries, including substantial exposure through pension funds and financial markets."[169]
- Investment in the fossil fuel sector is now unacceptably risky thanks to price volatility, the rise of renewable energy sources, government climate regulations, and other factors that leave the industry ill-prepared to manage shareholder value in the years to come. The traditional value thesis that justified investment in the sector — based on the assumptions that demand for oil, gas, and coal will continue to grow and that companies' extensive untapped reserves will ensure future profits — is no longer tenable.[170] There are several structural headwinds facing the industry:
    - Transition and competitive risk: As the economy decarbonizes, global demand for oil, gas, and coal will fall. Meanwhile, competitive pressure from green technologies is crowding out fossil fuels in the electricity and transportation sectors, which have traditionally been the primary customers for fossil fuel companies.[171]
    - Physical risk: Much of the oil industry's physical assets lie in flood-prone areas. As sea levels rise and severe weather grows more frequent, climate chaos could hinder the ability to access these assets.[172]
    - Asset risk: Meeting Paris Agreement goals will require keeping vast swaths of proven reserves in the ground. When a company's valuation is rooted in assumptions that this extraction will take place, the collision between market assumptions and reality becomes a source of financial instability. A similar story is true for the pipelines and other infrastructure supporting the fossil fuel economy: changing market conditions may force the early retirement of some infrastructure, creating losses for investors betting on their continued operation.[173]
    - Legal risk: The fossil fuel industry faces serious legal challenges, including claims that it misled investors and the public about climate change, that it is tortiously liable for climate damages, and that its business operations violate environmental protection laws and emissions reduction commitments. With many of these cases moving forward, the industry could find itself facing significant legal exposure.
        - A report from the law firm Clyde & Co LLP concludes that "[o]il majors are currently facing threatened or pending litigation on a number of fronts and across a number of jurisdictions. Their liability insurers and reinsurers

[169] Gregor Semienuik, *et al.*, Stranded fossil-fuel assets translate to major losses for investors in advanced economies, Nature Climate Change (May 26, 2022).
[170] Tom Sanzillo, Dan Cohn, & Connor Chung, Two Economies Collide: Competition, conflict, and the financial case for fossil fuel divestment, Institute for Energy Economics and Financial Analysis (Oct. 2022).
[171] *Id.* at 35.
[172] *Id.* at 44.
[173] *Id.* at 43-44.

will undoubtedly be watching these cases with keen interest . . . Companies in a number of sectors may find themselves exposed not just to damages claims for climate change, but also the cost of defending litigation, the reputational harm of being associated with such litigation and the consequential impacts on operations and value."[174]

        - Since the Clyde & Co report, there have been sixty-six global climate suits against corporations worldwide.[175] In Milieudefensie et al.v. Royal Dutch Shell (2022), The Hague District court ruled Shell had a duty to comply with the Paris Climate Agreement, and subsequently ordered the company "to reduce CO2 emissions associated with its products by 45 per cent from 2019 levels by 2030."[176]
    - Regulatory risk: The fossil fuel industry faces a patchwork of policy responses from the world's countries that cumulatively pose significant risks to its business model. Regulatory approvals of infrastructure projects are no longer certain, economic taxonomies that define categories of "clean" and "dirty" investments threaten to realign investment capital away from the industry, electric utilities face regulatory obligations to increase the use of renewable energy, and end-use regulations like bans on single-use plastics threaten to decrease demand for petrochemical products.[177]
    - Geopolitical risk: As discussed above, the industry's profitability has become reliant on a factor largely outside its control: the commodity price of fossil fuels. As nation states deploy oil and gas as a tool of political leverage in global power bloc alignments, market volatility is likely to intensify, putting long-term capital plans and existing contractual arrangements at risk.[178]
- Fossil fuel companies seem to be doing little to mitigate these risks, with "fossil fuel companies [having] refused to meaningfully participate in the necessary energy transition. As a result, they are structurally unprepared for the low-carbon future."[179] In other words, "[t]he energy sector has gone from a reliably consistent, stable, blue-chip contributor to institutional investment funds to a high-risk set of companies and national governments with a speculative investment rationale and a negative long-term financial outlook. The business model no longer works. Based on this history, investors should carefully consider whether their interests and the industry's interests still align."[180] From a financial perspective alone, "investors should move away from fossil fuels because the coal, oil and gas sectors are confronted with competitive pressures that they are ill-prepared to navigate."[181]

[174] Clyde & Co LLP, Climate change: Liability risks at 37 (Mar. 2019).
[175] Search, Climate Change Litigation Databases (last visited Aug. 30, 2023).
[176] United Nations Environment Programme, Global Climate Litigation Report: 2023 Status Review at 50-51 (2023).
[177] Tom Sanzillo, Dan Cohn, & Connor Chung, Two Economies Collide: Competition, conflict, and the financial case for fossil fuel divestment at 38-41, Institute for Energy Economics and Financial Analysis (Oct. 2022).
[178] *Id.* at 31-34.
[179] *Id.* at 25.
[180] *Id.* at 52.
[181] *Id.* at 1.

- Another way of assessing the future of the fossil fuel industry is through its employees.[182] Nearly half of people currently working in the energy sector want to leave the industry everywhere within the next five years. Furthermore, over half of employees working in the fossil fuel industry said that they are interested in switching to working in renewables. A recent study found that "58% of millennials questioned working in particular sectors due to their negative image, with oil and gas being regarded as the most unappealing globally,"[183] which has led to a reliance on crews returning after retirement.
- In an August 2020 open letter, over 100 leading economists, including Nobel Prize laureate Joseph Stiglitz and former Secretary of Labor Robert Reich, identified the continued existence of the fossil fuel economy as "fundamentally incompatible" with long-term social and economic well-being and cited divestment as an essential tactic for bringing about systemic change: "When our largest banks, most influential investors and most prestigious universities place bets on the success of the fossil fuel industry, they provide it with the economic and social capital necessary to maintain the dangerous status quo. Instead, these institutions should divest from fossil fuel companies and end financing of their continued operations while reinvesting those resources in a just and stable future."

VII. The financial prudence of fossil fuel divestment

Fossil fuel divestment poses no risk to a portfolio's diversity and flexibility, nor does it negatively impact returns. The Trustees have violated their *duty of care* and its *duty of loyalty* by failing to embrace a divestment strategy that would both improve the endowment's performance and cure the fiduciary violations described in this complaint.

- More than 1,500 institutional investors have committed to divest from fossil fuels, including major institutional investors who have recognized divestment as a fiduciarily responsible course of action.[184]
- Two major financial management firms, BlackRock and Meketa, have separately concluded that investment funds have experienced no negative financial impacts from divesting from fossil fuels. Instead, they found evidence that divestment is neutral or marginally improves returns.[185] BlackRock's report to the City of New York takes note of the fact that, while public campaigns for fossil fuel divestment were initiated by small, religious investors and non-profit organizations,[186] the financial logic of divestment has

[182] Regina Mayor & Stefano Moritsch, "Top Risks Facing the Oil and Gas Industry in 2022 - and What You Can Do about It," KPMG (2022).
[183] Andreas Exarheas, Are Enough Young People Entering the Oil and Gas Workforce?, Rigzone (2023).

[184] Stand.earth, Global Fossil Fuel Divestment Commitments Database (last visited Sept. 14, 2023).
[185] Tom Sanzillo, IEEFA: Major investment advisors BlackRock and Meketa provide a fiduciary path through the energy transition, Institute for Energy Economics and Financial Analysis (Mar. 22, 2021).
[186] *Id.*

been validated by large financial institutions,[187] including significant universities, insurance companies, foundations, and major asset managers.[188]

- In addition to reducing an investor's exposure to risky holdings, divestment can help influence companies, markets, and civil society more broadly as to adopt more stringent climate policies. As such, it can play a role in both reducing a portfolio's risk exposure, and decarbonizing the real economy.[189]
- A 2018 London School of Economics analysis led by Jeremy Grantham, one of the world's leading asset managers, concluded that removing any one of ten major asset classes such as technology or utilities from a portfolio produced no discernible impact on overall long-term returns. The analysis states that the purported financial peril of fossil fuel divestment was "mythical," and that "[i]nvestors with long-term horizons should avoid oil . . . on investment grounds."[190]
- Divestment from fossil fuels does not threaten the profitability of invested funds and, as such, does not violate a fiduciary's duty to ensure the prudent management of an endowment. In recent years, investment portfolios lacking fossil fuel holdings have matched or outperformed funds containing them.
    - The most comprehensive study to date of the endowment performance at universities that have divested from fossil fuels concludes that divestment does not have a negative effect on investment returns.[191] Other research indicates that fossil fuel divestment does not significantly limit portfolio diversification opportunities, allowing investors to satisfy their fiduciary duty to maintain balanced holdings even as they avoid the risks posed by stranded assets and the energy transition.[192]
    - A 2019 study of university endowments with "socially responsible investment" [SRI] policies concludes that such policies benefit universities. Surveying SRI endowment returns from 2010 to 2019, the study reports that "donations are 33.3% per year higher among universities that incorporate SRI policies into their endowments" and that "SRI policies predict greater university donations, higher student enrollment, and more extensive risk management practices by the endowment fund."[193]
    - In 2020, the financial research agency Morningstar reported that European sustainable investment funds — defined as "funds that use environmental, social,

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[187] 200 and counting: Global financial institutions are exiting coal, Institute for Energy Economics and Financial Analysis (May 4, 2023).
[188] Invest Divest 2021: A Decade of Progress Towards a Just Climate Future, DivestInvest.org (Oct. 2021).
[189] For a study of divestment's ability to reduce a company's carbon emissions, see Martin Rohleder, *et al.*, The effects of mutual fund decarbonization on stock prices and carbon emissions, J. Banking & Finance (Jan. 2022). For a study of how the divestment movement has increased support for other climate regulations, such as a carbon tax, see Todd Schifeling & Andrew Hoffmam, Bill McKibben's Influence on U.S. Climate Change Discourse, Org. & Env't (Nov. 2017).
[190] Jeremy Grantham, The mythical peril of divesting from fossil fuels, London School of Economics (June 13, 2018).
[191] Christopher Ryan & Christopher Mariscano, Examining the Impact of Divestment from Fossil Fuels on University Endowments, 17 NYU J. L. and Business, Roger Williams Univ. L. Studies Paper No. 195 (June 23, 2020).
[192] Auke Plantinga & Bert Scholtens, The financial impact of fossil fuel divestment, 21 Climate Policy 1 (2020).
[193] George O. Aragon, Yuxiang Jiang, Juha Joenväärä, & Cristian Ioan Tiu, Socially Responsible Investments: Costs and Benefits for University Endowment Funds at 5 (July 21, 2020).

and governance criteria as a key part of their security selection and portfolio-construction process, and/or indicate that they pursue a sustainability-related theme, and/or seek a measurable positive impact alongside financial return" — had outperformed traditional funds over the past ten years, generally posting higher returns and surviving longer than traditional funds.

- Comparing more recent MSCI indexes corroborates Morningstar's reporting. Indexes assigned by MCSI to have high Environmental, Social, and Governance (ESG) scores "were resilient [in 2021], outperforming the parent MSCI ACWI Index for the second year in a row, even though market conditions were very different [across the two years]."[194]
  - MSCI's research team reported a correlation between higher ESG scores and financial performance during the turbulent FY 2020. "All ESG indexes outperformed the "parent" MSCI ACWI index by the end of 2020. In fact, splitting the FY 2020 into slump and rally periods for the financial market, ESG indexes 'outperformed during both.'" Notably, both concentrations of ESG scores and the average ESG scores for the indexes predicted the relationship.[195]
  - Indexes with higher ESG scores experienced lower volatility during FY 2020. While reduced volatility "impaired performance during the rally," it also "provided a 'protective' effect during the slump" that ultimately led ESG indexes to outperform by the end of the year.[196]
- A 2018 analysis concluded that the New York State Common Retirement Fund would have earned an additional 22.2 billion dollars (137 billion dollars versus 114.8 billion dollars) from 2008 to 2018 had it divested from fossil fuels.[197]

- In a sign of the growing consensus that fund managers have a duty to assess climate risks in their portfolios, the multibillion-dollar Australian Retail Employees Superannuation Trust (REST) recently settled a beneficiary lawsuit that faulted the fund for failing to disclose how it would manage the risks posed by climate change and the plummeting value of fossil fuel stocks. REST acknowledged that "climate change is a material, direct and current financial risk" and committed to manage its investments in a way that would support net-zero greenhouse gas emissions by 2050 and the Paris Agreement goal of 1.5 degrees Celsius warming.[198]
- Elevated commodity prices for oil and gas in 2021 and 2022 do not justify continued portfolio holdings in the fossil fuel industry. Although high commodity prices have driven rising profits and stock valuations for energy companies, the main causes of current high prices are the debottlenecking supply chains from the pandemic,[199] along

[194] Yuliya Plyakha Ferenc, Despite Oil & Gas's Rebound, ESG Indexes Outperformed, MCSI (Jan. 28, 2022).
[195] Yuliya Plyakha Ferenc, ESG Indexes Through the Slump and Rally of 2020 at 1, MSCI (Mar. 2021).
[196] *Id.* at 2.
[197] Toby A.A. Heaps, Divestment would have made NY pension fund $22B richer, Corporate Knights (Oct. 4, 2018).
[198] Michael Slezak, Rest super fund commits to net-zero emission investments after Brisbane man sues, ABC News (Nov. 2, 2020).
[199] David Gaffen, Analysis: Oil's journey from worthless in the pandemic to $100 a barrel, Reuters (Feb. 24, 2022).

with Russia's invasion of Ukraine.[200] These are not investable events, as they cannot be relied upon to reoccur in the future. In fact, elevated prices and the weaponization of fossil fuel energy are undermining forecasted future demand for fossil fuels in Asia and Europe.[201]

VIII. Industry fraud and the fiduciary duty to avoid fraudulent investments

Allegations that the fossil fuel industry has attempted to defraud investors are widely known and well documented. The Trustees' persistence in buying industry securities in spite of these warning signs violates the *duty of care*.

- Fossil fuel companies have allegedly long engaged in a fraudulent attempt to hide the financial risks associated with emissions regulations and future fossil fuel extraction. This alleged fraud has been a matter of public record since at least 2015,[202] and a matter of common knowledge for investors since at least 2019.
- In 2019, the Massachusetts Attorney General sued ExxonMobil for three alleged violations of the Massachusetts Consumer Protection Act.
    - The state's Second Amended Complaint alleges that "[f]or many years, Exxon Mobil Corporation . . . the world's largest publicly traded oil and gas company, systematically and intentionally has misled Massachusetts investors and consumers about climate change. In order to increase its short-term profits, stock price, and access to capital, ExxonMobil has been dishonest with investors about the material climate-driven risks to its business and with consumers about how its fossil fuel products cause climate change—all in violation of Massachusetts law."[203]
    - According to the Complaint, ExxonMobil scientists in the 1970s accurately predicted the rate of global warming that would be caused by fossil fuel use. The company was well aware of how its business activity would damage the planet; for example, a company scientist told management in 1981 that climate change will "produce effects which will indeed be catastrophic" and that it would be necessary to sharply reduce fossil fuel use.[204]
    - Despite this knowledge, ExxonMobil — like many of its peers in the industry — persisted in a "highly misleading" campaign to spread doubt about climate science and to prevent measures that would decrease the use of fossil fuels. As

[200] Kevin Dobbs, Natural Gas, Oil Prices Soar as Russia Attacks Ukraine, Creating Potential Supply Headwinds, Natural Gas Intel (Feb. 24, 2022). *See also*: Russian supplies to global energy markets, International Energy Agency (Feb. 2022).
[201] Shafiqul Alam, *et al.*, Global LNG Outlook 2023-27, Institute for Energy Economics and Financial Analysis (Feb. 15, 2023).
[202] Neela Banerjee, Lisa Song, & David Hasemyer, Exxon's Own Research Confirmed Fossil Fuels' Role in Global Warming Decades Ago, Inside Climate News (Sept. 16, 2015).
[203] Second Amended Complaint, Massachusetts v. ExxonMobil, No. 1984-CV-03333-BLS1 (Mass. Sup. Ct. June 5, 2020) at 1.
[204] *Id.* at 5.

late as 2015, ExxonMobil's CEO was publicly disputing the scientific consensus that rising atmospheric carbon dioxide levels produce catastrophic warming.[205]
    - The Attorney General concluded that ExxonMobil's value will fall precipitously in coming years, thanks in large part to an expected transition to renewable energy: "When those reserves cease to have future value, other things being equal, ExxonMobil securities are likely to decline in value as well, perhaps dramatically, much as the market value of coal companies has collapsed in recent years as the deployment of cleaner, more efficient fuel sources has reduced expected future coal demand."[206]
    - According to the Complaint, "[t]he systemic risk climate change poses to the world's financial markets is comparable to, and could well exceed, the impact of the 2008 global financial crisis . . . The risks of climate change and regulatory responses to it pose an existential threat to [the company's] business model and therefore to investments in ExxonMobil securities, including by Massachusetts investors."[207]
    - The Attorney General explicitly stated that investment in companies like ExxonMobil puts investors at risk: "ExxonMobil's omissions and misrepresentations put its Massachusetts investors at increased risk of losses in the future, as greater recognition of the physical and transition risks of climate change to ExxonMobil, other fossil fuel companies, and the global economy increasingly diminishes the market valuation of ExxonMobil securities, potentially under sudden, chaotic, and disorderly circumstances."[208]
- In September 2020, the State of Connecticut sued ExxonMobil for violations of the state's Unfair Trade Practices Act, alleging that the company has for decades "misled and deceived Connecticut consumers about the negative effects of its business practices on the climate."[209]
    - The lawsuit alleges that, beginning in the 1980s, ExxonMobil defied its own scientists' warnings dating back to the 1950s and "began a systematic campaign of deception to undermine public acceptance of the scientific facts and methods relied upon by climate scientists who knew that anthropogenic (human-caused) climate change was real and dangerous to humanity."[210]
    - The complaint goes on to note that "ExxonMobil's strategy to create uncertainty about climate science successfully kept consumers purchasing ExxonMobil products by deceiving consumers about the serious harm caused by ExxonMobil's industry and business practices."[211]
- Also in September 2020, Hoboken became the first city in New Jersey to sue fossil fuel companies for climate change damages. Hoboken "seeks to recover the cumulative cost of hundreds of millions of dollars to compensate the city for past, current and future costs associated with climate change adaptation, remediation, and economic losses." Hoboken

[205] *Id.* at 9, 50-51.
[206] *Id.* at 8.
[207] *Id.* at 65, 80-81.
[208] *Id.* at 138.
[209] Complaint, Connecticut v. ExxonMobil, No. HHDCV206132568S (Conn.. Super. Ct. Spe. 14, 2020) at 1.
[210] *Id.*
[211] *Id.* at 2.

alleges violations of the New Jersey Consumer Fraud Act and claims for negligence and common law remedies "to prevent and abate hazards to public health, safety, welfare and the environment."[212]

- In January 2021, a former senior accounting analyst for ExxonMobil alleged in a whistleblower complaint to the Securities and Exchange Commission that the company has repeatedly overstated the value of its U.S. oil and gas assets — which will likely prove unprofitable due to the collapse of the fracking boom — fraudulently inflating the company's worth to investors by as much as fifty-six billion dollars.[213]
- In April 2021, neighboring New York City sued Exxon Mobil, Royal Dutch Shell, and the American Petroleum Institute (an industry trade association) for systematically and intentionally deceiving consumers.[214] A former senior accounting analyst for ExxonMobil has alleged in a whistleblower complaint to the Securities and Exchange Commission that the company has repeatedly overstated the value of its U.S. oil and gas assets — which will likely prove unprofitable due to the collapse of the fracking boom — fraudulently inflating the company's worth to investors by as much as fifty-six billion dollars.[215]
- In June 2021, an Exxon lobbyist admitted that ExxonMobil was engaged in a concerted effort to block climate change measures and deceive the public.[216] This revelation led the House Oversight Committee to ask the chief executives of Exxon Mobil, Chevron, BP, and Shell, along with the American Petroleum Institute and the Chamber of Commerce, to appear at a hearing and provide emails and documents about whether the industry led an effort to mislead the public and prevent action to fight climate change.[217]
- According to PBS, as of August 2022, "there [were] at least 20 pending lawsuits filed by cities and states across the U.S., alleging major players in the fossil fuel industry misled the public on climate change to devastating effect."[218]
- In November of 2022, sixteen Puerto Rican municipalities filed a complaint against ExxonMobil Corp, Shell plc, Chevron Corp, BP plc and others, alleging that they had "misrepresented the dangers of the carbon-based products which they marketed and sold despite their early awareness of the devastation they would cause Puerto Rico."[219] Specifically, the complaint seeks damages for the 2017 hurricane season (Hurricanes Irma and Maria), which left thousands dead and much of the island's critical

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[212] Hoboken becomes first NJ city to sue Big Oil companies, American Petroleum Institute for climate change damages, Hoboken, NJ Gov (Sept. 2, 2020).
[213] Nick Cuningham, Exclusive: Whistleblower Accuses Exxon of 'Fraudulent' Behavior for Overvaluing Fracking Assets For Years, Desmog Blog (Feb. 2, 2021).
[214] New York City Sues ExxonMobil, Shell, BP, and The American Petroleum Institute for Systematically and Intentionally Deceiving New Yorkers, The Official Website of the City of New York (Apr. 22, 2021).
[215] Nick Cuningham, Exclusive: Whistleblower Accuses Exxon of 'Fraudulent' Behavior for Overvaluing Fracking Assets For Years, Desmog Blog (Feb. 2, 2021).
[216] Hiroko Tabuchi, In Video, Exxon Lobbyist Describes Efforts to Undercut Climate Action, The New York Times (June 30, 2021).
[217] Timothy Gardner, U.S. House panel to probe oil companies over climate disinformation, Reuters (Sept. 16, 2021).
[218] Bruce Gill, U.S. Cities and States Are Suing Big Oil Over Climate Change. Here's What the Claims Say and Where They Stand, PBS (Aug. 1, 2022).
[219] Municipalities of Puerto Rico v. Exxon Mobil Corp, et al., No. 3:22-cv-01550, Complaint for Damages, at p. 4 (2022).

infrastructure in peril.[220] Filed in federal court, this case is the first with Racketeer Influenced and Corrupt Organizations Act (RICO) claims.[221]

- Despite these revelations of alleged fraudulent behavior, and in the face of existential threats to their business models, oil companies continue to refuse to provide investors with any assurances that they are preparing for the effects of climate change. ExxonMobil and Chevron, for example, have blocked shareholder proposals that ask the companies to describe how they will adjust their operations to satisfy the warming targets established under the Paris Agreement.[222]

IX. The fossil fuel industry's misinformation campaigns and attacks on academia

Fossil fuel companies have engaged in decades-long efforts to obscure scientific reality and undermine academic research. By funding this activity, the Trustees contravene Penn's core *charitable purposes* as an educational institution and violate their *duty of loyalty.*

- Beginning in the 1980s, in response to mounting evidence of climate risks, fossil fuel companies halted their climate research and "began a campaign to discredit climate science and delay actions perceived as contrary to their business interests."[223] This campaign was multi-pronged, consisting of the development of internal policies to suppress the companies' own knowledge, public communications to sow doubt about the dangers of fossil fuels, and the funding of organizations and research to undermine climate science.[224]
  - In 2019 testimony to the Senate Special Committee on the Climate Crisis, Dr. Justin Farrell described a decades-old movement "to deceive the American people about the reality of climate change." This movement has been largely successful "sowing seeds of widespread popular doubt, transforming climate change into a sharply politicized issue, infusing climate denial into the highest levels of government, and obstructing policy solutions that are so direly needed to decarbonize our economy and mitigate the impacts of warming." Research shows that fossil fuel companies launched a "multi-pronged manipulation effort" to manufacture uncertainty around climate science by funding climate denial groups as well as creating "fake grassroots efforts" to promote climate misinformation.

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[220] Clark Mindock, Puerto Rican towns sue Big Oil under RICO alleging collusion on climate denial, Reuters (Nov. 29, 2022).
[221] Korey Silverman-Roati & Maria Antonia Tigre, Municipalities of Puerto Rico v. Exxon: a unique class action against fossil fuel companies presses for climate accountability in the United States, Climate Law: A Sabine Center Blog, Sabin Center for Climate Change Law (Dec. 2, 2022).
[222] Dana Drugman, Exxon, Chevron, Chase Reject Shareholder Requests to Address Climate Risk, The Climate Docket (Jan. 29, 2020).
[223] Brief of Amici Curiae Robert Brulle, Center for Climate Integrity, Justin Farrell, Benjamin Franta, Stephan Lewandowsky, Naomi Oreskes, & Geoffrey Supran in Support of Appellees and Affirmance at 17, County of San Mateo v. Chevron Corporation, et al., County of Imperial Beach v. Chevron Corporation, et al., County of Marin v. Chevron Corporation, et al., County of Santa Cruz, et al., v. Chevron Corporation, et al., Nos. 18-15499, 18-15502, 18-15503, 18-16376 (9th Cir. 2019).
[224] *See generally id.*

"Money facilitated coordination between 200 organizations," said Farrell, to create the "appearance of scientific credibility."[225]
    - In his analysis of the funding sources of 164 climate denialist organizations, Farrell found that ExxonMobil and the Koch foundations were "the most reliable and theoretically important across-time indicators of corporate involvement."[226]
    - Between 1998 and 2005, ExxonMobil alone spent nearly sixteen million dollars funding groups that promote climate denial, according to a report by the Union of Concerned Scientists.[227]
    - Since 1997, Koch Industries, through its various foundations and institutes including the Koch Family Foundation, has donated more than $145 million from 1997 to 2018, financing 90 organizations that attack climate science and policy solutions.[228]
    - Over about the last three decades, "five major U.S. oil companies have spent a total of at least $3.6 [billion] on advertisements."[229] These ads, along with other public communications, have promoted narratives the companies know to be false: In the case of ExxonMobil, for example, between 1977 and 2014, only twelve percent of ads acknowledged that anthropogenic climate change is real, compared to eighty percent of internal documents.[230]
- These activities were summarized in an amicus brief by academics and researchers as part of the ongoing tort litigation by California counties against fossil fuel companies,[231] and by the Massachusetts Attorney General's complaint against ExxonMobil in its deceptive advertising litigation.[232]
- Academic research has confirmed that the fossil fuel industry's "major tactic was and continues to be manufacturing uncertainty . . . [and] constantly asserting that the evidence is not sufficient to warrant regulatory action. Historically these efforts focused on specific problems such as secondhand smoke, acid rain, and ozone depletion, but in the case of [climate change] they have ballooned into a full-scale assault on the multifaceted field of climate science, the IPCC, scientific organizations endorsing [climate change], and even individual scientists."[233]
- Undermining the work of academics and scholars has been another key tactic of the fossil fuel industry, and Penn researchers have been among those targeted.
    - Following publication of his famous "hockey stick graph," climate scientist Michael E. Mann faced years of efforts to discredit him and his work, and "many

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[225] Senate Dems, Senate Dems Special Committee on the Climate Crisis Hearing (Oct. 29, 2019).
[226] Justin Farrell, Corporate Funding and Ideological Polarization, 113(1) Proceedings of the National Academy of Sciences 92-97 (2016).
[227] Union of Concerned Scientists, Smoke, Mirrors & Hot Air: How ExxonMobil Uses Big Tobacco's Tactics to Manufacture Uncertainty on Climate Science at 5 (Jan. 2007).
[228] Koch Industries: Secretly Funding the Climate Denial Machine, Greenpeace (last visited Jan. 31, 2022).
[229] Emily Holden, How the oil industry has spent billions to control the climate change conversation, The Guardian (Jan. 8, 2020).
[230] Geoffrey Supran & Naomi Oreskes, Assessing ExxonMobil's climate change communications (1977–2014), 12(8) Envtl. Res. Letters (Aug. 2017).
[231] *See* Brief of Amici Curiae Robert Brulle, *et al.*, *supra* at note 239.
[232] *See* Second Amended Complaint, Massachusetts v. ExxonMobil, *supra* at note 203, at Part IV.B.
[233] Riley E. Dunlap & Peter J. Jacques, Climate Change Denial Books and Conservative Think Tanks: Exploring the Connection, 57(6) Am. Behav. Scientist 699, 700 (2013) (internal citations omitted).

[of these] attacks . . . trace directly to involvement by the fossil fuel industry."[234] One of the main perpetrators of such harassment was a Koch-funded think tank.[235]

- ExxonMobil has repeatedly sought to portray the Intergovernmental Panel on Climate Change—a coordinating body of respected scientists and academics, which includes a Penn Scholar[236], who publish periodic reports on climate science to aid policymakers—as biased and untrustworthy.[237]

- Even while engaging in these attacks, the fossil fuel industry has quietly courted academic institutions and individual researchers in an attempt to burnish its image, legitimize its policy positions, and further its own business interests. These efforts have taken the form of funding for research and programs at prominent universities,[238] including Penn.
  - Researchers at Penn's School of Engineering and Applied Science teamed up with ExxonMobil researchers to conduct a study on nanoscale measurements of friction and lubrication, since ExxonMobil has a "vested interest in the chemistry and performance of lubricants" in products such as motor oil.[239]
  - Associate Professor Robert Riggleman and Harold Pender Professor Karen Winey in Penn's School of Engineering and Applied Science "have been engaged in partnership activities with ExxonMobil since 2017 around a multi-year study of longtime deformation in polymer nanocomposites."[240]
  - J. Scott Armstrong, an Emeritus Professor of Marketing at the Wharton School, won the Lifetime Achievement Award in Climate Science from the Heartland Institute, which is a public policy think tank known for rejecting the scientific consensus on climate change.[241]
  - The External Advisory Board of Penn's School of Engineering and Applied Science Department of Mechanical Engineering and Applied Mechanics includes Mary Hollein (ME '88), an ExxonMobil Senior Logistics Advisor and ExxonMobil Campus Recruiting Team Captain for the University of Pennsylvania and Manhattan College.[242] Ms. Hollein worked for ExxonMobil for over twenty-three years and has recruited students on campuses for the company for over fifteen years.[243]
  - Penn's Department of Chemistry, in the School of Arts and Sciences, encourages its students to consider Dupont, Exxon-Mobil Corp, BASF, and Sun Oil in their post-graduate job searches, and to connect with these companies through an

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[234] How the Fossil Fuel Industry Harassed Climate Scientist Michael Mann, Union of Concerned Scientists (Oct. 12, 2017).
[235] *See id.*
[236] Michael Weisberg, Penn Philosophy (last visited Sept. 11, 2023).
[237] David Hasemyer & John H. Cushman Jr., Exxon Sowed Doubt About Climate Science for Decades by Stressing Uncertainty, Inside Climate News (Oct. 22, 2015).
[238] These funding relationships are not unique to Penn. *See* Benjamin Franta & Geoffrey Supran, The fossil fuel industry's invisible colonization of academia, The Guardian (Mar. 13, 2017).
[239] Evan Lerner, Penn and ExxonMobil Researchers Address Long-standing Mysteries Behind Anti-wear Motor Oil Additive, Penn Today (Mar. 12, 2015).
[240] ExxonMobil continues R&D partnership with Penn Engineering, Penn Center for Innovation (Sep. 20, 2020).
[241] J. Scott Armstrong, Marketing Department (last visited Sept. 11, 2023).
[242] MEAM Advisory Board, Penn Engineering (last visited Sept. 11, 2023).
[243] *Id.*

annual Corporate Recruiting Program, workshops and discussion panels offered by Penn's Career Services, and/or alumni ties.[244]

- Funding relationships like these, which are widespread at prominent universities,[245] call into question the intellectual independence of academic programming and the balance of perspectives within the academy. According to Robert Brulle, a sociologist at Drexel University, "[T]he financial steering of intellectual inquiry is a big issue. . . . The academy is really dependent on external funding sources, and it drives a certain research agenda. I'm not saying that the people they fund are dishonest or illegitimate. But this has a systematic effect, in that it heightens certain voices and leaves others invisible, or reduces their staying power, within the academy. And so you end up with a biased system."[246]
- Exxon has in the past tried to influence the outcome of ongoing litigation by funding academic research, again undermining the institutional integrity of universities.
    - In 1989, the Exxon Valdez oil spill led to a $5.3 billion verdict against the oil giant by an Alaskan jury in *In re Exxon Valdez*. By the 1980s Exxon had embraced an aggressive form of philanthropy known as "venture philanthropy,"[247] and rather than simply appeal the award, the company undertook to fund academic research that might undermine the verdict. As one Exxon official opined, "With the judges, there's at least a reasonably good chance that they'll be able to see things as they ought to be . . . ."[248]
    - The upshot of the research was that juries' punitive damage awards in cases that involve "normative judgments" are "arbitrary," "unpredictable," "erratic," and "incoherent," and ought to be replaced with a schedule-based system of fines.[249] One professor called for the total abolishment of punitive damages.[250]

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[244] Career Opportunities in Industry and Academia, Penn Department of Chemistry (last visited Sep. 11, 2023).
[245] Benjamin Franta & Geoffrey Supran, The fossil fuel industry's invisible colonization of academia, The Guardian (Mar. 13, 2017).
[246] Wen Stephenson, Other Universities Are Divesting From Fossil Fuels—but Harvard Is Doubling Down on Them, The Nation (May 4, 2016).
[247] Lee Smith, The Unsentimental Corporate Giver, Fortune (Sept. 21, 1981) ("With relatively few employees and correspondingly little need to support local institutions that employees depend upon, Exxon [could] concentrate its charity on projects remote from immediate concerns, such as interdisciplinary studies at universities."). Exxon's charity program director at the time was Stephen Stamas, who was also on the Harvard Board of Overseers. *Id.*
[248] Stephanie Mencimer, Blocking the Courthouse Door: How the Republican Party and its Corporate Allies Are Taking Away Your Right to Sue 231 (2006) (quoting Freudenberg notes from conversation with Exxon official). "The authors of the studies have insisted they were given complete autonomy in pursuing their work. One academic who took Exxon money, however, was fired after he produced an article that conflicted with the company's political agenda." *Id*. at 230.
[249] Mencimer at 230; Thomas O. McGarity, A Movement, A Lawsuit, and the Integrity of Sponsored Law and Economics Research, 21(1) Stan. L. & Pol'y Rev. 51, 52, 55-56 (2010); Cass Sunstein, Daniel Kahneman, & David Schkade, Assessing Punitive Damages (With Notes on Cognition and Valuation in Law), 107 Yale L.J. 2071 (1998); Cass Sunstein, Daniel Kahneman, et al, Predictably Incoherent Judgments, 54 Stanford L. Rev. 1153 (2002); Cass R. Sunstein, Reid Hastie, John W. Payne, David A. Schkade, & W. Kip Viscusi, Punitive Damages: How Juries Decide (University of Chicago Press 2002). In Exxon Shipping Co. v. Baker, the U.S. Supreme Court substantially reduced the damage award against Exxon, holding that punitive damages may not exceed actual damages in maritime cases. 554 U.S. 471, 513 (2008). The Court declined to rely on the funded studies but was aware of their existence. *Id.* at 501 n. 17.
[250] McGarity, *supra* at note 249, at 55-56 (citing W. Kip Viscusi, The Social Costs of Punitive Damages Against Corporations in Environmental and Safety Torts, 87 Geo. L.J. 285 (1998)).

- A comparison of industry-funded law review articles on punitive damages with those supported by universities "found that the former were uniformly critical of punitive damages and jury awards, while the latter overwhelmingly defended them."[251] The same study found that courts cited industry-funded studies more often.[252]

X. Divestment by other large institutions

Hundreds of large institutional investors have opted in recent years to divest from fossil fuel producers, including many universities situated similarly to Penn. Their reasoning applies to Penn's circumstances as well as their own. The Trustees have failed to invest *in the best interests of the corporation and with such care, including the skill and diligence that a person of ordinary prudence would use under similar circumstances*.

- Institutional divestment from the fossil fuel industry has become increasingly common. More than 1,500 institutional investors have committed to divestment from fossil fuels, including major institutional investors.[253] In so doing, they have recognized divestment as a fiduciarily responsible course of action.[254]
- BlackRock's recent reports to the City of New York note that although fossil fuel divestment was initiated by small, religious investors and non-profit organizations, its financial logic has been validated by globally significant financial institutions as larger funds have begun divesting from fossil fuels.[255] This group of institutions includes significant universities, insurance companies, foundations, and major asset managers.[256]
- Although investor discontent with an industry typically recedes during periods of rising prices and profitability, major institutional investors continued divesting from fossil fuels throughout 2021 and 2022:
    - In April 2021, the New York State Comptroller announced divestment from major oil sands companies after probing the sector's lack of preparation for the energy

[251] McGarity, *supra* at note 249, at 56 (citing Shireen A. Barday, Note, Punitive Damages, Remunerated Research, and the Legal Profession, 61 Stan. L. Rev. 711, 713 n. 9, app. A (2008)). Beyond power to control research, sponsorship can compromise research integrity by coloring peer evaluation and through the implicit threat of funding termination. *Id.* at 53. McGarity writes, "Since it is normally impossible to know whether a sponsor has in fact determined the outcome of research . . . it may be appropriate to conclude that sponsorship undermines the integrity of sponsored research when the researchers behave as if the sponsor controlled the research." *Id.*
[252] *Id.* at 56.
[253] Global Fossil Fuel Divestment Commitments Database, Stand.earth (last accessed Aug. 15, 2022).
[254] *See, e.g.*, Update to the Legislature Regarding NYSTRS' Deliberative Process to Address Climate Risk and Opportunities, New York State Teachers' Retirement System (Dec. 28, 2021) (discussing at length the relationship between climate-conscious investment and fiduciary duty).
[255] BlackRock, Investment and Fiduciary Analysis for Potential Fossil Fuel Divestment, Phase 1: Survey of Divestments of Fossil Fuel Reserve Owners and Identification of Securities Issued by Fossil Fuel Reserve Owners at 5 (Mar. 2021).
[256] *See* Invest Divest 2021: A Decade of Progress Towards a Just Climate Future, DivestInvest.org (Oct. 2021); 100 and Counting: Financial institutions are restricting fossil fuel funding, Institute for Energy Economics and Financial Analysis (last accessed Aug. 15, 2022).

transition.[257] In February 2022, the New York State Comptroller announced divestment from major shale oil and gas companies after probing the companies' readiness for the energy transition.[258]

    - In September 2021, Harvard University President Lawrence Bacow announced the school would divest its endowment of fossil fuels.[259]
    - In October 2021, the Ford Foundation made a similar commitment.[260]
    - In July 2022, commissioners at a general assembly of the Presbyterian Church (U.S.A.) voted to divest from five oil companies.[261] The same month, other churches from seven countries and multiple denominations jointly announced their divestment from fossil fuel companies.[262]
    - Later in July 2022, the United Kingdom's Wellcome Trust, a major philanthropic funder of health-related scientific research, quietly announced that it had divested from large fossil fuel companies such as BP and Shell.[263]
- Many institutions have pointed to the moral and financial imperative of abandoning holdings in oil, gas, and coal, and there is broad consensus that fossil fuel divestment is both necessary and effective as a means of mitigating climate disaster.[264]
    - Institutional investment in fossil fuel firms "provid[es] [those firms] with the capital to continue oil and gas production, to persuade members of Congress to provide industry-specific tax breaks and other favors, and to thwart carbon taxes and new public-transportation projects and other policies — actions that ultimately delay the transition from the greenhouse gas-emitting fuels."[265]
    - In its lawsuit against ExxonMobil, the Massachusetts Attorney General concluded that institutional divestment is effective in reducing the fossil fuel industry's harmful effects on the climate: "Insofar as they damage companies' reputations for their social responsibility and environmental stewardship, and thus their societal 'license to operate,' divestment efforts pose an additional climate-related risk to oil and gas companies. In 2018, an oil major that competes with

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[257] Office of the New York State Comptroller, DiNapoli Moves State Pension Fund Toward Net Zero Target, Restricts Investments in Oil Sands Companies (April 12, 2021).
[258] Office of the New York State Comptroller, DiNapoli Restricts Investments in 21 Shale Oil & Gas Companies (February 9, 2022).
[259] Lawrence Bacow, Climate Change: Update on Harvard Actions, Harvard Office of the President (Sept. 9, 2021).
[260] Darren Walker, Aligning our investments and our values, Ford Foundation (Oct. 18, 2021).
[261] Darla Carter, GA committee approves MRTI's fossil fuel divestment proposal, Presbyterian Church (U.S.A.) (July 6, 2022). *See also* Bob Smietana, Presbyterians to divest from 5 oil companies, including Exxon Mobil, after years of debate, Religion News Service (July 7, 2022).
[262] Operation Noah, Global faith institutions announce divestment as oil and gas companies threaten 1.5°C climate goal with reckless expansion plans (July 5, 2022).
[263] Jim Waterson & Damian Carrington, Wellcome Trust sells stakes in large oil and mining companies, The Guardian (July 21, 2022).
[264] *See, e.g.*, How falling demand for oil is set to transform international relations, World Economic Forum (Aug. 20, 2019) (citing the "global campaign in support of divestment from fossil fuels" as one of the key factors in the ongoing energy transition worldwide); Gunther Thallinger, The zero that every investment portfolio needs, World Economic Forum (Jan. 14, 2021) ("To address climate change effectively, investors must steer their entire portfolios towards climate neutrality. . . . [I]t could become necessary to reduce assets with a non-satisfactory sustainability approach. In the extreme case of non-existence of such approaches, divestment is the ultima ratio.").
[265] Prem Thakkar, Reading the Fine Print of University Fossil Fuel Divestment Pledges, The American Prospect (Mar. 1, 2021).

ExxonMobil acknowledged that divestment campaigns and related efforts pose a material risk to its business and the price of its securities."[266]

- The Attorney General was referencing an investor disclosure by Shell, in which the company stated that the divestment movement "could have a material adverse effect on the price of our securities and our ability to access equity capital markets . . . other financial institutions also appear to be considering limiting their exposure to certain fossil fuel projects. Accordingly, our ability to use financing for future projects may be adversely impacted."[267]
- Other fossil fuel companies have likewise acknowledged the effects of investors' decisions to pull their funds: Prior to its bankruptcy declaration, for example, Peabody Energy stated in SEC filings that "[t]here have also been efforts in recent years affecting the investment community, including investment advisors, sovereign wealth funds, public pension funds, universities and other groups, promoting the divestment of fossil fuel equities and also pressuring lenders to limit funding to companies engaged in the extraction of fossil fuel reserves. The impact of such efforts may adversely affect the demand for and price of securities issued by us, and impact our access to the capital and financial markets."[268]

- In addition to "hasten[ing] the [fossil fuel] industry's decline," divestment commitments from large institutions create pressure on governments to take action and make political space for the shift away from fossil fuels."[269]

- Many of Penn's peer educational institutions have pledged to abandon their fossil fuel assets, citing the financial and ethical obligation to divest. Such institutions have often chosen divestment *in addition* to a suite of other policies, including producing climate- and sustainability-related research, reducing on-campus environmental impact through emissions reductions and other measures, and engaging in shareholder advocacy with companies that have demonstrated their real commitment to the goals of the Paris Agreement and whose core business model is not at odds with those goals. Many of Penn's peer institutions have also committed to meaningful climate action on a much more rapid timescale.
  - On September 29, 2022, Princeton University's Board of Trustees voted to dissociate from 90 fossil fuel companies, including ExxonMobil, NRG Energy, Total, Suncor, and Syncrude.[270] The companies dissociated from were identified as responsible for some of the most-polluting segments of the fossil fuel industry and were involved in corporate climate disinformation campaigns. The decision ended not only investments but also research funding and other associations between the university and the companies identified. Princeton also created a fund

[266] Second Amended Complaint, Massachusetts v. ExxonMobil, *supra* at note 203, at 108-09.
[267] Royal Dutch Shell PLC, Annual Report and Form 20-F 2017 — Strategic Report at 13 (2017).
[268] Peabody Energy Corporation, Form 10-K: Annual Report at 30 (2014).
[269] Emma Howard, A beginner's guide to fossil fuel divestment, The Guardian (June 23, 2015) (quoting Jamie Henn, of 350.org, who explains that institutional divestment commitments "hasten the [fossil fuel] industry's decline and help push governments to take action," while also serving to stigmatise fossil fuel companies in order to "make the space for progress" and reduce those companies' corrupting influence on politics).
[270] Princeton University, Fossil Fuel Dissociation (Sept. 29, 2022).

to support funding needs for energy research as a result of the dissociation. Princeton University President Christopher Eisgruber said of the decision, "Princeton will have the most significant impact on the climate crisis through the scholarship we generate and the people we educate."[271]

- ○ On October 8, 2021, Dartmouth College announced that the Dartmouth Investment Office would let its remaining public investments in the fossil fuel industry expire.[272] The decision was made based on both moral and financial considerations. Dartmouth's statement cited the worsening effects of climate change, saying that the "damaging effects will continue to exacerbate existing threats to global health, nutrition, and biodiversity while also creating new hazards."[273] Dartmouth President Phil Hanlon said the College has noticed "that investments in energy transitions are now comparable or better than the investment opportunities in fossil fuel companies."[274]
- ○ On October 6, 2021, California State University System, the largest in the US, announced that the system would no longer invest in fossil fuels.[275] The California State University Chancellor said that the move was "consistent with our values" and that "it is an appropriate time to start to transition away from these types of investments, both to further demonstrate our commitment to a sustainable CSU but also to ensure strong future returns on the funds invested by the university."[276]
- ○ On September 23, 2021, Boston University announced that it would fully divest from fossil fuels as part of an overarching climate action strategy.[277]
    - ■ President Robert Brown stated that the decision was motivated by an urgently worded climate report released by the Intergovernmental Panel on Climate Change in 2021, and said that "we face the challenge of changing our way of life at unprecedented speed if we are going to preserve Earth's environment as we know it."[278]
    - ■ Brown added that the move to divest "is putting us on the right side of history," highlighting the existential threat of climate change and the need to take immediate action.[279]
- ○ On September 9, 2021, Harvard University announced that it would divest from fossil fuels.[280]
    - ■ President Lawrence Bacow stated: "Given the need to decarbonize the economy and our responsibility as fiduciaries to make long-term

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[271] *Id.*
[272] Office of Communications, Darmouth Taking Formal Steps to Address Climate Crisis, Dartmouth College (Oct. 8, 2021).
[273] *Id.*
[274] Taylor Haber, College formally announces plan to divest from fossil fuels, The Dartmouth (Oct. 8, 2021).
[275] California State University Will Not Make Future Fossil Fuel Investments in University Investment Portfolios and Funds, The California State University (Oct. 6, 2021).
[276] *Id.*
[277] Robert A. Brown, Board of Trustees Approves Fossil Fuel Divestment Policy, Boston University (Sept. 23, 2021).
[278] *Id.*
[279] *Id.*
[280] Anemona Hartocollis, Harvard Says It Will Not Invest In Fossil Fuels, The New York Times (Sept. 10, 2021).

investment decisions that support our teaching and research mission, we do not believe such investments are prudent."[281]

- President Bacow also noted that "[c]limate change is the most consequential threat facing humanity… without concerted action, this dire situation is only going to get worse."[282]

- In January 2021, Columbia University announced that it did not hold any direct investments in publicly traded oil and gas companies, and was formalizing this policy of non-investment for the foreseeable future. The university had already divested from thermal coal in 2017.[283] "There is an undeniable obligation binding upon Columbia and other universities to confront the climate crisis across every dimension of our institutions," said Columbia University President Lee C. Bollinger.
- In March 2020, Brown University made public that it had begun selling its investments in fossil fuel extraction companies in October 2017, arguing that the climate crisis called for serious action beyond teaching and research.
  - "The urgency of the situation calls for additional action," Brown's president Christina Paxson wrote in a letter to the Brown community.[284]
  - Paxson explained the move as aligning with "the view that, as the world shifts to sustainable energy sources, investments in fossil fuels carry too much long-term financial risk."[285]
- On May 22, 2020, the Cornell University Board of Trustees announced a moratorium on new private investments focused on fossil fuels and a phase-out of existing investments in that area, effectively divesting the endowment from the fossil fuel industry.[286] Like many investors, when Cornell's Trustees announced their moratorium on fossil fuel investments, they cited the financial imperative behind their actions: "We're doing the right thing from an investment perspective, particularly for an endowment with a perpetual time horizon" said Ken Miranda, the university's chief investment officer, in a Cornell press release.[287]
- On October 1, 2020, the University of Cambridge announced plans to divest all direct and indirect holdings from the fossil fuel industry and to achieve net-zero greenhouse gas emissions by 2038.[288]
  - As of December 2020, the university had already withdrawn investments in "conventional energy-focused public equity measures," and planned to divest from "all meaningful exposure in fossil fuels" by 2030. It now aims to achieve net-zero greenhouse gas emissions across its entire investment portfolio by 2038.[289]

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281 Harvard Office of the President, Harvard University (last visited Jan. 27, 2022).
282 *Id.*
283 University Announcement on Fossil Fuel Investments, Columbia News (last visited Jan. 27, 2022).
284 Christina Paxson, Letter from President Paxson: Brown's actions on climate change, Brown University (Mar. 4, 2020).
285 *Id.*
286 Kathryn Stamm, Cornell to Effectively Divest from Fossil Fuels, Trustees Vote, Cornell Daily Sun (May 22, 2020).
287 James Dean, Cornell announces moratorium on fossil fuel investments, Cornell Chronicle (May 22, 2020).
288 Matthew Taylor, Cambridge University to divest from fossil fuels by 2030, The Guardian (Oct. 1, 2020).
289 *Id.*

        - Cambridge's announcement was justified on moral grounds. "The University is responding comprehensively to a pressing environmental and moral need for action with an historic announcement that demonstrates our determination to seek solutions to the climate crisis," said Stephen Toope, the university's vice-chancellor.[290]
        - In addition to leveraging the university's endowment, Cambridge also made clear its continued commitment to research and teaching, emphasizing that all research funding and donations will now be scrutinized against the university's goal of reducing greenhouse gas emissions "before any funding is accepted."[291]
    - In April 2020, the University of Oxford announced plans to divest its endowment from fossil fuel companies.[292]
        - Oxford's divestment decision was made in accordance with its Oxford Martin Principles for Climate-Conscious Investment, a set of guidelines that led the university to determine that fossil fuel investments "hinder" worldwide efforts to (1) bring CO2 emissions to zero and (2) limit global warming to 1.5 degrees Celsius.[293]
        - While some universities have insisted on "shareholder engagement" *instead of* divestment, Oxford chose to pursue both strategies, divesting from fossil fuel companies while also pledging to work with companies around the world, "helping them assess whether investments are compatible with transition to a more stable climate and the goals of the Paris Agreement on climate change." Oxford also plans to engage with fund managers "to request evidence of net-zero carbon business plans across their portfolios."[294]
        - Oxford's divestment pledge was seen as consistent with the university's academic and teaching mission, and administrators did not see divestment as precluding climate- and sustainability-related research or efforts to promote sustainable campus operations. In fall 2020, months after announcing its divestment pledge, Oxford released drafts of a sustainability plan to achieve net-zero carbon and biodiversity net gain by 2035[295] — eleven years before Princeton committed to neutralizing its greenhouse gas emissions.
    - In February 2020, Georgetown University announced the divestment of its endowment from all public and private fossil fuel assets.[296]
        - In its announcement, Georgetown stressed the financial risk of continued investment, with Michael Barry, Georgetown's chief investment officer,

[290] Cambridge to divest from fossil fuels with 'net zero' plan, University of Cambridge (Oct. 1, 2020).
[291] *Id.*
[292] University of Oxford cuts ties to fossil fuels industry, BBC News (Apr. 28, 2020).
[293] Oxford Martin Principles for Climate-Conscious Investment, Oxford Martin Net Zero Carbon Investment Initiative (Feb. 2018) (adapted from R.J. Millar, C. Hepburn, J. Beddington, J., & M.R. Allen, Principles to guide investment towards a stable climate, 8 Nature Climate Change 2-4 (2018)).
[294] Oxford announces historic commitment to fossil fuel divestment, University of Oxford (Apr. 27, 2020).
[295] Aiming for zero carbon and biodiversity net gain by 2035, University of Oxford (Nov. 20, 2020).
[296] Fossil Fuels Divestment Continues Georgetown's Commitment to Sustainability, Georgetown University (Feb. 6, 2020).

noting that "climate change, in addition to threatening our planet, is increasing the risk of investing in oil and gas companies, as we expect a more volatile range of financial outcomes."[297]

        - Georgetown President John J. DeGioia also identified moral concerns as important to the decision, noting that "caring for our environment is one of the most urgent moral and practical concerns of our time."[298]
    - In September 2019, the University of California system announced divestment of its over eighty-three billion dollar endowment and pension fund from fossil fuels.[299]
        - In an op-ed in the Los Angeles Times, fund managers cited their fiduciary duty to the long-term financial wellbeing of the institution, writing that "[t]he reason we sold some $150 million in fossil fuel assets from our endowment was the reason we sell other assets: They posed a long-term risk to generating strong returns for UC's diversified portfolios."[300]
        - The fund managers also pledged to take the opportunity to reinvest in climate change solutions, writing that "[w]e have been looking years, decades and centuries ahead as we place our bets that clean energy will fuel the world's future. That means we believe there is money to be made."[301]
- Aside from peer universities, many other large-scale charitable funds with analogous fiduciary duties have divested.
    - Pension funds that have divested from fossil fuels include the California Public Employees' Retirement System (coal), the California State Teachers' Retirement System (coal), the country of Ireland, the New York City Employees Retirement System, the New York State Common Retirement Fund, the Teachers Retirement System of the City of New York, and the City of Providence, Rhode Island (partial).[302] In September 2021 the Caisse de dépôt et placement du Québec — Canada's second-biggest pension fund at 310 billion dollars — announced it was divesting from oil production investments by the end of 2022.[303]
    - In the fall of 2021, two of America's largest and most prestigious foundations announced their divestment from fossil fuels. The MacArthur Foundation announced that it was divesting from fossil fuels, citing a number of reasons including fiduciary duty.[304] Shortly after, the Ford Foundation announced it was divesting its thirteen billion dollar endowment from fossil fuels.[305] The foundation president apologized for not having divested sooner.[306]

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[297] *Id.*
[298] *Id.*
[299] Jagdeep Singh Baccher & Richard Sherman, Opinion: UC investments are going fossil free. But not exactly for the reasons you may think, The Los Angeles Times (Sept. 17, 2019).
[300] *Id.*
[301] *Id.*
[302] 1000+ Divestment Commitments, GoFossilFree.org (updated Dec. 9, 2020).
[303] CDPQ announces its new climate strategy, Caisse de dépôt et placement du Québec (Sept. 28, 2021).
[304] Our Approach toAchieving Impact with Investment Assets, MacArthur Foundation (Sept. 22, 2021).
[305] Darren Walker, Aligning our investments and our value, Ford Foundation (Oct. 18, 2021).
[306] InvestDivest 2021 Event Video, DivestInvest (last visited Jan. 27, 2022).

- Other major funds that have divested include the five-billion-dollar Rockefeller Foundation,[307] Norway's 1.1 trillion dollar sovereign wealth fund (oil and gas exploration and production)[308] and the ninety-billion Storebrand hedge fund (ExxonMobil, Chevron, and other environmental bad actors).[309]

XI. Penn's ties to the fossil fuel industry and conflicts of interest

Penn's Board of Trustees, members of the Boards of Advisors for numerous schools, and the University itself maintain significant professional and financial ties to the fossil fuel industry. These apparent conflicts of interest may violate the Trustees' *duty of loyalty* insofar as they hinder impartial decision-making with regard to fossil fuel securities, which, as detailed above, conflict with Penn's mission as a public charity.

- In 2017, Penn appeared in the Paradise Papers, documents that exposed the offshore interests of 104 U.S. colleges and universities—accounts for which they pay little or no tax.[310] Columbia, Princeton, Stanford, and Penn have a combined $73.7 billion dollars of reserves in these accounts.[311]
    - The potential for offshore accounts to shield Penn's investments from public scrutiny is concerning. Some of the funds in these accounts are invested in "carbon-polluting industries," according to an investigation by The Guardian.[312]
    - Penn is a shareholder in Genesis Limited, an entity incorporated in Bermuda in 1980, along with at least a dozen other U.S. colleges and universities, including Princeton, Columbia, Brown, and Temple;[313] Penn is also a shareholder in Quaker Insurance Company Limited, an entity incorporated in Bermuda in 1997.[314] Following the release of the Paradise Papers in 2017, the Daily Pennsylvanian (DP) identified four offshore accounts that are entirely owned by Penn: Naya 1740 Fund, Pine River 1740 Fund, Pine River 1740 Tactical Fund, and PAM 1740 Fund.[315] According to Penn's 2020 Form 990, the University moved over $200 million between accounts located in the Cayman Islands (inclusive of and in addition to the accounts the DP identified), including at least $100 million of contributions in that fiscal year.[316]
- Many members of Penn's Board of Trustees have ties to the fossil fuel industry.

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307 *Id.*
308 Terje Solsvik, Norway sovereign wealth fund to divest oil explorers, keep refiners, Reuters (Oct. 1, 2019).
309 Jillian Ambrose, Major investment firm dumps Exxon, Chevron and Rio Tinto stock, The Guardian (Aug. 24, 2020).
310 Ed Pilkington, Top US universities use offshore funds to grow their huge endowments, The Guardian (Nov. 8, 2017).
311 *Id.*; Sasha Chavkin, Emilia Díaz-Struck & Cecile S. Gallego, More than 100 universities and colleges in Offshore Leaks data, The International Consortium of Investigative Journalists (Nov. 17, 2017).
312 *See supra* at note 310.
313 Genesis Limited, ICIJ Offshore Leaks Database (last visited Sept. 5, 2023).
314 Trustees of the University of Pennsylvania, ICIJ Offshore Leaks Database (last visited Sept. 5, 2023).
315 Caroline Simon, The Paradise Papers found that Penn dodges taxes by sending money abroad — here's what that means, The Daily Pennsylvanian (Nov. 18, 2017).
316 University of Pennsylvania 2020 Form 990, CauseIQ (last visited Oct. 30, 2023).

- Current Trustee Chair Scott L. Bok is Chairman and CEO of Greenhill & Co., an investment bank that has advised on billions of dollars' worth of fossil fuel transactions.[317] Bok also sits on Penn's investment committee.[318]
- David Blitzer sits on Penn's investment committee and the Wharton School board of advisors.[319] Blitzer is the Global Head of Tactical Opportunities for Blackstone, a private investment firm, and a member of the firm's Management Committee and Tac Opps Investment Committee.[320]
    - Blackstone is invested in oil and gas and has a significant stake in Energy Transfer Partners, the company behind the Dakota Access Pipeline.[321]
    - Blackstone's energy-focused funds have raised nearly $20 billion in capital for the industry since 2012.[322]
- Kenneth Moelis is the founder of Moelis & Company, where he was the chief advisor assisting the world's largest oil producer, Saudi Aramco, to go public.[323]
- Michael L. Barrett is the senior managing director at Wells Fargo, which is the second largest financier of fossil fuels globally, financing $316.7 billion in the industry between 2016-2022 alone.[324] Wells Fargo has been the top financier of fracking since the Paris Accords, lending nearly $50 billion, or twenty-two percent of all fracking financing. Wells Fargo loaned $120 million to Energy Transfer Partners.[325] Mr. Barrett also worked at General Electric, another of the key financiers of the Dakota Access Pipeline, for 26 years.[326]
- Former Vice Chairman Lee Doty serves as Head of U.S Equity at J.P. Morgan Asset Management and Managing Director at JP Morgan Investment Management.[327] JP Morgan & Chase is one of the largest funders of fossil fuel companies and holds $48B in fossil fuel assets, making them one of the top thirty institutional investors in the fossil fuel industry globally.[328]
- Alan D. Schnitzer is the Vice Chairman and CEO of Travelers Companies Inc., which earned a rating of 1.3/10 on underwriting and 1.1/10 on investments in Insure Our Future's 2022 Scorecard on Insurance, Fossil Fuels & Climate Change.[329] Travelers is one of the largest insurers of oil and gas projects and was

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317 Recent Transactions, Greenhill & Co., (Last visited Oct. 28, 2023).
318 Team, Penn Office of Investments, (Last visited Oct. 28, 2023).
319 Penn Office of Investments, University of Pennsylvania (last visited Oct. 26, 2023); Board of Advisors, Wharton Executive Boards (last visited Oct. 26, 2023).
320 David Blitzer, Blackstone (last visited Sept. 11, 2023).
321 Alyssa Giachino, Blackstone Drills Deeper as Investors Shift Away from Fossil Fuels, Private Equity Stakeholder Project (Oct. 1, 2020).
322 Private Equity's Dirty Dozen, Little Sis & the Private Equity Stakeholder Project (Feb. 2022).
323 Lauren Hirsch, Moelis chosen as an adviser for Saudi Aramco IPO - source, Reuters (Feb. 7, 2017).
324 Banking on Climate Chaos, Rainforest Action Network, (Last visited Oct. 27, 2023)
325 Fracking Fiasco: The Banks That Fueled The U.S. Shale Bust, Rainforest Action Network (Sept. 2020).
326 Michael L. Barrett, Linkedin (last visited Oct. 25, 2023).
327 Penn Justice Dems, Meet Penn's Board of Trustees, the reason why progress is never made, The Daily Pennsylvanian (Nov. 16, 2021).
328 Lisa Martine Jenkins, 60 Largest Banks Invested $3.8 Trillion Into Fossil Fuels in the Five Years After Paris Climate Deal, Report Finds, Morning Consult (Mar. 24, 2021); The Terrible Two, Investing in Climate Chaos (last visited Oct. 5, 2023).
329 Harriet Reuter Hapgood, Greenhouse Communications & Peter Bosshard, The Sunrise Project, 2022 Scorecard on Insurance, Fossil Fuels and the Climate Emergency, Insure Our Future (Oct. 2022).

one of seven insurance companies to whom the Senate Budget Committee sent inquiries to demand answers about the companies' underwriting for, investment in, and profits from the fossil fuel industry.[330]

- Christopher Franklin is the Chairman and Chief Executive Officer of Essential Utilities, Inc., which is headquartered in suburban Philadelphia and was formed from the merger of Aqua American and Peoples Natural Gas, a natural gas utility company.[331] Franklin is also a member the PNC Bank advisory board, according to a January 2023 bio.[332] PNC is a major fossil fuel financier, providing $46.5 billion worth of financing to fossil fuel corporations from 2016-2022 according to a Rainforest Action Network analysis.[333]
- Andrew R. Hayer is a member of the ARKO Corporation board of directors,[334] which is "one of the largest . . . wholesalers of fuel in the United States."[335]
- Richard W. Vague is the co-founder and former CEO of Energy Plus, an electricity and natural gas supply company operating in Connecticut, Illinois, Maryland, Massachusetts, New Jersey, New York, Ohio, and Pennsylvania.[336]
- James Dinan is the Chairman and CEO of York Capital Management,[337] a private equity firm that in 2019 jointly financed, with Bayswater Resources Fund III, a drilling project in Colorado's Niobrara basin.[338]
- Former trustee Rob Kapito, who served on the Board of Trustees from 2009 to 2019, is the President of BlackRock, a member of BlackRock's Global Executive Committee, and Chairman of the Global Operating Committee. BlackRock is the second-largest investor in the fossil fuel industry, with total investments in the industry estimated at $263 billion.[339]
- Former trustee Charles Leitner, who served on the Board of Trustees until 2020, is the Global CEO of CBRE Global Investors,[340] which partners with and delivers facility management services to four of the largest oil and gas supermajors, helping them build out their real estate portfolios.[341]

- Additionally, members of the Boards of Advisors for many of Penn's schools have ties to the fossil fuel industry.
    - At the Engineering School:[342]

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330 Emily DiSalvo, Environmental activists press Travelers to divest ties to fossil fuel companies, CT Insider (May 25, 2023); Brianna Sacks, Senate launches probe into insurance firm's fossil fuel investments, Washington Post (June 9, 2023).
331 About Essential Utilities, Essential Utilities (last visited Sept. 11, 2023).
332 CEO Chris Franklin Interviewed by Advisor Access, GlobeNewswire (last visited Oct. 27, 2023).
333 Banking on Climate Chaos, Rainforest Action Network (last visited Oct. 27, 2023).
334 Board of Directors, ARKO Corp. (Last visited Oct. 29, 2023).
335 ARKO Corp. Closes 23rd Acquisition, Expands its Retail Segment into Alabama and Mississippi with Purchase of the Assets of Transit Energy Group and its Affiliates, ARKO Corp. (Mar. 2, 2023).
336 FAQ – Frequently Asked Questions, Energy Plus Company (last visited Oct. 27, 2023).
337 Jamie Dinan, York Capital (last visited Oct. 29, 2023).
338 Bayswater Resources Fund III and York Tactical Energy Fund Form Joint Venture, Business Wire (Dec. 9, 2019).
339 The Terrible Two, Investing in Climate Chaos (2023).
340 Chuck Leitner Named Global CEO, CBRE Global Investors, CBRE (Oct. 8, 2019).
341 Zacks, CBRE to Provide Services to Royal Dutch Shell's Portfolio, Nasdaq (Apr. 15, 2016).
342 Penn Engineering Advisory Boards, Penn Engineering (last visited Sept. 11, 2023).

- Ms. Sarah Wolf Hallac (EE'86, W'86) is a consultant at BlackRock, which is the second highest investor in the fossil fuel industry, with total investments in the industry estimated at $263 billion.[343]
- Mr. Ryan D. Limaye (ENG'93, W'93, WG'93) is the Managing Director and Co-Head for Global Technology Investment Banking at Goldman Sachs, which is estimated to invest a total of $118.976 billion in the fossil fuel industry between 2016-2021.[344]

- At the School of Arts and Sciences:[345]
  - Jin Lee (C'92) is a partner at Capital Group, which is the fourth leading investor in the fossil fuel industry. Their total investments in the industry are estimated at $106 billion.[346]
- At the Wharton School:[347]
  - Vikram Malhotra (WG'86) is the Chairman of the Americas at McKinsey & Company, Inc., which has served 43 of the top 100 fossil fuel companies. Despite over 1,000 employees signing an open letter to the firm's head partners in October 2021 "urging them to disclose how much carbon their clients spew into the atmosphere,"[348] McKinsey has stood by its decision to serve top polluters.[349]
  - Nicolai Tangen (W'92) is the Chief Executive Officer of Norges Bank Investment Management (NBIM), which is the investment manager of Norway's Government Pension Fund Global.[350] Norway's Government Pension Fund Global is in the top fifteen investors in the fossil fuel industry, and their total investments in the industry are estimated at $41 billion.[351]
- At the School of Nursing:[352]
  - Decades ago, Cornelius C. Bond Jr. (Emeritus) was the president of the T. Rowe Price Growth Stock Fund and "spent ten formative years working with the firm's founder."[353] T. Rowe Price is among the top fifteen investors in the fossil fuel industry, with total investments estimated at $35 billion.[354]
- At the Graduate School of Education:[355]

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343 The Terrible Two, Investing in Climate Chaos (2023).
344 Fossil Fuel Finance Report 2022 at 5, Banking on Climate Chaos (Mar. 30, 2022).
345 Board of Advisors, School of Arts and Sciences - University of Pennsylvania (last visited Sept. 11, 2023).
346 The Terrible Two, Investing in Climate Chaos (2023).
347 Board of Advisors, The Wharton School (last visited Sept. 11, 2023).
348 Bob Sternfels, Why do we serve high-emissions companies? Because that is where the emissions are, McKinsey & Company (Oct. 27, 2021).
349 Michael Forsythe and Walt Bogdanich, At McKinsey, Widespread Furor Over Work With Planet's Biggest Polluters, The New York Times (Oct. 27, 2021).
350 Norges Bank Investment Management (last visited Sept. 5, 2023).
351 The Terrible Two, Investing in Climate Chaos (2023).
352 Board of Advisors, Penn Nursing (last visited Sept. 5, 2023).
353 T. Rowe Price: The Man, The Company, and the Investment Philosophy, Corneliusbond.com (last visited Oct. 5, 2023).
354 The Terrible Two, Investing in Climate Chaos (2023).
355 Penn GSE Leadership, Penn GSE (last visited Sept. 5, 2023).

    - Harlan Cherniak (W'01) worked for KKR & Co. Inc. for seven years, until 2020.[356] KKR & Co Inc. "has been especially active in oil and gas since . . . 2012."[357]
    - Samara E. Cohen (C'93, W'93) is the Chief Investment Officer of ETFs and Index Investments at BlackRock,[358] which is the second highest investor in the fossil fuel industry, with total investments estimated at $263 billion.[359]
    - Navin M. Valrani (W'93, GED'18, GED'22) is the Vice Chairman and Group Managing Director of the Al Shirawi Group (aka Oasis Investment Company),[360] an industrial conglomerate with substantial business in the oil and gas industry. [361]
- Exxon Mobil is listed as a Gold Sponsor of the LEADership, Education and Development program,[362] a national non-profit founded by professors from Penn's Wharton Business School and executives from McNeil Pharmaceutical in 1980 to create a pipeline of underserved high school students for multinational corporations.[363] Program activities at Penn include corporate site visits and on-campus presentations by a variety of companies, including Exxon Mobil.[364]
- Donald D. Humphreys (WG'76) was, until 2013, a Senior Vice President at ExxonMobil, where he had worked since 1976. In addition to being a guest lecturer at Wharton in 2008, he has "endowed numerous scholarships and fellowships, both at Wharton and at Oklahoma State."[365]
- Penn also has ties to Vanguard, the world's top investor in fossil fuels.[366] Amy Gutmann, a former Penn president, was a Vanguard Funds trustee from 2006 to 2022,[367] joining two years after becoming Penn's president.[368] As of February 2022, Gutmann has hundreds of thousands of dollars invested across many Vanguard funds and owns shares in thirteen Vanguard funds.[369]
    - According to an Urgewald report published in the spring of 2023, Vanguard has the largest amount of money in fossil fuels among all institutional investors in fossil fuels, with $269 billion, and dropped out of the Net Zero Asset Managers Initiative in December 2022. Vanguard is the largest investor in the coal industry, as estimated in the Global Coal Exit List, with $86 billion, and the second-largest

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[356] Harlan Cherniak, LinkedIn (last visited Sept. 5, 2023).
[357] Energy Real Assets, KKR (last visited Sept. 5, 2023).
[358] Samara Epstein Cohen, LinkedIn (last visited Sept. 5, 2023).
[359] The Terrible Two, Investing in Climate Chaos (2023).
[360] Navin Valrani, LinkedIn (last visited Sept. 11, 2023).
[361] Al Shirawi Group of Companies (last visited Sept. 11, 2023).
[362] Program Partners
[363] About LEAD, LEAD (last visited Sept. 5, 2023).
[364] University of Pennsylvania, LEAD (last visited Sept. 5, 2023).
[365] Leadership Spotlight: Donald D. Humphreys, WG'76, Wharton Magazine (2008).
[366] Earth Quaker Action Team, What Is the Never Vanguard Pledge?
[367] The Vanguard Group, Inc., Form DEF 14A,, (Nov. 15, 2017); The Vanguard Group, Inc., Statement of Additional Information Supplement (Feb. 22, 2022).
[368] Aliza Ohnouna, A Look Into Amy Gutmann's Role with One of the World's Largest Asset Management Firms, The Daily Pennsylvanian (Dec. 10, 2017).
[369] The Vanguard Group, Inc., Statement of Additional Information Supplement, (Feb. 22, 2022).

investor in the oil and gas industries, as estimated in the Global Oil and Gas Exit List, with $180 billion.[370]
    - Vanguard donates between $25,000 and $49,999 annually to Wharton.[371]
- Chevron Products Company donates between $10,000 and $24,999 annually to Wharton.[372]
- Finally, the company that manages Penn faculty's retirement funds, Teachers Insurance and Annuity Association of America (TIAA), invests a minimum of $78 billion in fossil fuels.[373]

XII. The Trustees' refusal to consider fossil fuel divestment

The Trustees have consistently refused to engage with students and faculty seeking to align the university's investment practices with its charitable mission, thereby failing to act in *good faith* or with *due care*.

- Members of the Penn Community have consistently argued that investment in fossil fuels is inconsistent with the university's values and with its mission as a public charity, a research center, and an institute of higher education.
- In September 2014, Fossil Free Penn (FFP) was founded by Penn students. The original demands of Fossil Free Penn were that the University freeze new investments in the fossil fuel industry, divest their current investments, and reinvest their money into sustainable endeavors.[374] A month later, then-President Amy Gutmann publicized Climate Action Plan 2.0, which contained no meaningful steps toward divestment from the fossil fuel industry.[375]
- On December 10, 2014, Fossil Free Penn submitted a petition for an undergraduate referendum on fossil fuel divestment to the Nominations and Elections Committee.[376] In February 2015, the undergraduate referendum passed with 87.8% of voters in favor of divestment and with thirty-three percent voter turnout. The threshold for the results of the referendum to be considered valid were fifty percent votes in favor and fifteen percent voter turnout.[377]
- In October, 2015, FFP submitted its first divestment proposal to the University Council Steering Committee. On November 11, 2015, the University Council Steering Committee reviewed the proposal and made plans to create an Ad Hoc Committee on Divestment, as

[370] The Terrible Two, Investing in Climate Chaos (2023).
[371] Wharton Partnerships For Recruiters and Corporations, FY2022 Wharton Partnership Members (last visited Oct. 5, 2023).
[372]Ibid.
[373] Elea Castiglione, Retirement funds for Penn faculty managed by company with billions in fossil fuel investments, The Daily Pennsylvanian (Feb. 21, 2023).
[374] Joyce Varma, New club encourages divestment from fossil fuels, The Daily Pennsylvanian (Sept. 29, 2014).
[375] Will Johnson & Thomas Lee, Gutmann's climate plan is not enough, The Daily Pennsylvanian (Oct. 28, 2014).
[376] Timeline, Fossil Free Penn (last visited June 15, 2023).
[377] Ellie Schroeder, Fossil Fuel referendum draws larger voter turnout than midterm elections, The Daily Pennsylvanian (Mar. 2, 2015).

the steering committee decided there was sufficient evidence to warrant further review. This divestment proposal was rejected in 2016. [378]

- On December 2, 2015, Fossil Free Penn held a rally on College Green, a central location on campus, before speaking at the University Council Open Forum on fossil fuel divestment.[379]
- On November 10, 2016, Fossil Free Penn held a one-day sit-in in College Hall and demanded a meeting with Gutmann and then-Board Chairman David Cohen. [380]
- In March 2017, 130 students staged a multi-night sit-in in College Hall to demand divestment.[381] Sixty-nine students were cited for violating University policy, and fourteen received disciplinary action.[382]
- In 2017, FFP held a silent protest at a Board of Trustees Executive Committee meeting and hosted DivestFest, a multi-day demonstration and education event held on College Green.[383]
- On Nov. 3, 2017, FFP flooded a Board of Trustees meeting a second time, after the Board had failed to acknowledge FFP's presence during the first silent protest.[384]
- In 2018, the Penn student government endorsed divestment with a vote of seventeen to one. FFP submitted a targeted proposal to the University Council Steering Committee for Coal and Tar Sands Divestment, but the proposal was rejected.[385]
- Action escalated in 2019, with FFP shutting down another Trustee meeting. According to The Daily Pennsylvanian: "When asked why Penn has maintained its fossil fuel investment, one Board of Trustees member who declined to provide his name said, 'I'm in the fossil fuel industry.'"[386]
- In 2020, Penn finally announced that it would divest from coal and tar sands.[387] However, FFP considered this a tiny victory, as most of Penn's endowment in fossil fuels lay in private equity, U.S. equity, and international equities. FFP therefore threw a "tiny party for a tiny victory" on January 31, 2020 in College Hall and outside of Gutmann's office to celebrate.[388]

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[378] 2015 Divestment Proposal, Fossil Free Penn (last visited June 15, 2023).
[379] JinAh Kim, Students cry for Gutmann to make Penn fossil-free, The Daily Pennsylvanian (Dec. 3, 2015).
[380] Luis Ferre Sadurni, Sources: Gutmann, Cohen agree to meet with student protesters after sit-in, The Daily Pennsylvanian (Nov. 10, 2016).
[381] Mari A. Schaefer, Penn students stage sit in over fossil fuel investments, The Philadelphia Inquirer (Mar. 27, 2017).
[382] Timeline, Fossil Free Penn (last visited June 15, 2023).
[383] Timeline, Fossil Free Penn (last visited June 15, 2023).
[384] Kelly Heinzerling, Sixty Students Marched Into the Trustees Meeting on Friday Calling for Fossil Fuel Divestment, The Daily Pennsylvanian (Nov. 3, 2017).
[385] Timeline, Fossil Free Penn (last visited Jun. 15, 2023).
[386] Hawthorne Ripley, About 100 Fossil Free Penn Members Shut Down Board of Trustees Meeting, The Daily Pennsylvanian (Nov. 8, 2019).
[387] Hawthorne Ripley, Penn Will Not Invest in Coal and Tar Sands, but FFP Says There is Still Work To Do, The Daily Pennsylvanian (Feb. 1, 2020).
[388] Susan Snyder, Students Are Celebrating a Small Victory after Penn Announced it Won't Invest Directly in Some Fossil Fuels, The Philadelphia Inquirer (Feb. 4, 2020).

- On February, 13, 2020, FFP spearheaded "Fossil Fuel Divestment Day" (F2D2), which was an international day of coordinated divestment actions,[389] and blockaded that semester's Board of Trustees meeting.[390]
- In Summer 2020, FFP began to reaffirm our focus on intersectional justice and to better understand our own role in systems of injustice, oppression, and white supremacy.
- In 2021, some of FFP's most notable actions included holding a protest at Vanguard Headquarters with the Earth Quaker Action Team (EQAT)[391] and creating a divestment-themed chalk mural in front of Huntsman Hall.[392]
- In April of 2021, Penn announced a Net Zero Endowment Plan.[393] The Plan ignored FFP's demands and omitted Scope 3 emissions as a factor in its analysis even though Scope 3 emissions account for ninety percent of all fossil fuel companies' emissions.[394] FFP released a statement explaining that the plan does nothing to secure a livable future and that Penn's plans to offset its carbon footprint by purchasing carbon offsets does nothing to repair the damage done to communities already harmed by climate change.[395]
- In November 2021, Penn announced its commitment to halting investments in private equity vehicles dedicated to investments in fossil fuel production and to increase its funding of green research as an amendment to its Sustainability Action Plan 3.0.[396] FFP released a statement explaining that Penn's wording left open the possibility of investment in mixed funds and other vehicles not wholly dedicated to fossil fuels.[397]
- From April 19 to April 24th, 2022, FFP maintained an encampment on College Green. Over seventy students slept in the encampment, which hosted various actions and teach-ins throughout the week.[398] Eleven students were referred to the Center for Community Standards and Accountability (CSA, then named the Office of Student Conduct, or OSC) in response to encampment, but none received disciplinary action.
    - On April 22, 2022, FFP held a Climate Justice rally.[399]
    - On April 23, 2022, then-President Wendell Pritchett sent members of the University administration to offer a meeting with university administration in

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389 Fossil Free Penn, F2D2 ART BUILD RESCHEDULED TO TODAY AT 3PM!!!, Facebook (Feb. 8, 2020).
390 Hawthorne Ripley, Fossil Free Penn Blockades Board Meeting, Forcing Most Trustees to Leave Through Fire Exit,The Daily Pennsylvanian (Feb. 28, 2020).
391 Sheil Desai, Fossil Free Penn is Back and Ready to Put Pressure on Penn, 34th Street Magazine (Nov. 1, 2021).
392 Fossil Free Penn (@fossilfreepenn), OUR BELATED DIVESTMENT DAY OF ACTION!!!! check out our chalk mural in front of huntsman hall until the natural elements (or penn) withers it away, Instagram (Dec. 1, 2021).
393 A message to the Penn community on combatting climate change, Penn Today (April 7, 2021).
394 Emma Glasser & Katie Collier, Fossil Free Penn | Penn's new 'net-zero' climate goal is deceptive and ignores years of student activism, The Daily Pennsylvanian (Apr. 18, 2021).
395 Fossil Free Penn (@fossilfreepenn) Fossil Free Penn: In Response to the University's Announcement of "Reducing the Net Greenhouse Gas Emissions from Penn's Endowment Investments", Instagram (Apr. 8, 2021).
396 William Kuster, Student Groups Criticize Penn for Stopping Short of Divestment in Latest Climate Policy Update, The Daily Pennsylvanian (Nov. 9, 2021).
397 Fossil Free Penn (@fossilfreepenn), Fossil Free Penn: In Response to the University's Announcement of "Reducing the Net Greenhouse Gas Emissions from Penn's Endowment Investments", Instagram (Apr. 8, 2021).
398 Kate Ratner, Fossil Free Penn Ends Encampment as University-Wide Student Events Approach, The Daily Pennsylvanian (Apr. 25, 2022).
399 Fossil Free Penn (@fossilfreepenn), Rally Today!!, Instagram (Apr. 22, 2022).

exchange for the end of the encampment. FFP declined, believing that their demands were clear and actionable without a meeting.[400]
    - On April 27, 2022, after the encampment was over and students were going through OSC processes, 49 Penn Faculty members signed and published a Faculty Letter of Support for the FFP Encampment.[401]
- On August 9, 2022, FFP sent an email detailing FFP's history and demands and requesting a meeting with President Liz Magill, who was new to Penn in the 2022–2023 academic year. After exchanging scheduling emails with FFP and Vice President Mike Citro between August 29 and September 7, Magill's office stopped responding.[402]
- From September 14 to October 22, 2022, FFP started a second, larger encampment on College Green.[403] This encampment focused on three core demands: save the UC Townhomes, divest from Fossil Fuels, and pay "Payments in Lieu of Taxes" (PILOTs) to Philly Public Schools. The encampment lasted thirty-nine days, making it the longest-lasting protest on Penn's campus of which FFP is aware.
    - On September 26, 2022, FFP held a press conference about the administration's mistreatment of protestors.[404]
    - At the end of September 2022, University administrators visited the encampment numerous times and contacted FFP to request that FFP take down the encampment in exchange for potential meetings. FFP again declined, explaining that its demands were clear and actionable without the need for a meeting.[405]
    - On October 18, 2022 FFP met with Penn administrators about divestment on the condition that FFP would not be compelled to take down the encampment to set up the meeting, and that the meeting not be public nor its contents recorded or broadcasted. FFP was unsuccessful in persuading administrators to commit to divestment.[406]
    - Throughout the days of the encampment, FFP held teach-ins from local community groups, including other climate action and social justice groups.
- On October 22, 2022, on the last day of the FFP encampment, FFP stormed the field during the halftime of the homecoming football game between Penn and Yale.[407] Over seventy FFP protesters held the field for fifty minutes before Penn Police began arresting them. Nineteen people were arrested, including seventeen Penn students. The protest received national news coverage.[408]

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[400] Fossil Free Penn (@fossilfreepenn), Wendell sent his underlings to offer a meeting in exchange for an end to the #FFPEncampment. We say no way. You know what we demand, and how to achieve them. MAKE A PLAN, NOT A MEETING, Instagram (Apr. 23, 2022).
[401] 49 Penn Faculty: In Support of FFP's Encampment, The Daily Pennsylvanian (Apr. 27, 2022).
[402] Emails on file with FFP.
[403] Delaney Parks & Molly Cohen, Fossil Free Penn Encampment Returns to College Green, Calling for Divestment, UC Townhomes Action, The Daily Pennsylvanian (Sept. 16, 2022).
[404] Sejin Park, At Press Conference, Fossil Free Penn Alleges Admin. Are Intimidating Encampment Protestors, The Daily Pennsylvanian (Sept. 27, 2022).
[405] Email from Mike Citro, 9/30/2022, on file with FFP.
[406] Emails from Mike Citro, exchange starting 10/13/2022, on file with FFP.
[407] Imran Siddiqui, Fossil Free Penn Protestors Storm Field During Homecoming Football Game, Halting Play for Over an Hour, The Daily Pennsylvanian (Oct. 22, 2022).
[408] Late Drive Lifts Penn to 20-13 Win over Yale After Protest, The Associated Press (Oct. 22, 2022); Mike McDaniel, Yale-Penn Ivy League Football Game Disrupted by Protestors, Sports Illustrated (Oct. 22, 2022).

- On November 29, 2022, Magill and Board of Trustees Chair Scott L. Bok released an announcement to the Penn community entitled "A message about Penn's endowment and sustainability," writing that Penn did not hold direct investments in fossil fuel companies and was working toward net-zero carbon emissions on campus.[409] FFP published a statement in the Daily Pennsylvanian on November 30, 2022, noting that Magill and Bok's statement once again fell short of full divestment, and that if Penn's investments resembled those in the data released by Princeton following its divestment announcement, indirect funds would in any case account for the vast majority—99.97%, in Princeton's case—of Penn's investments in fossil fuel companies, rendering the commitments in the announcement nearly meaningless.[410]

Conclusion

The Charitable Trusts and Organization Section is responsible for ensuring that charitable assets are allocated appropriately and for investigating charitable managers' violations of fiduciary duties. We ask that you investigate the violations described above and that you take action to ensure that the investment activity of the Trustees of the University of Pennsylvania no longer harms the Penn community, the Commonwealth, and the public.

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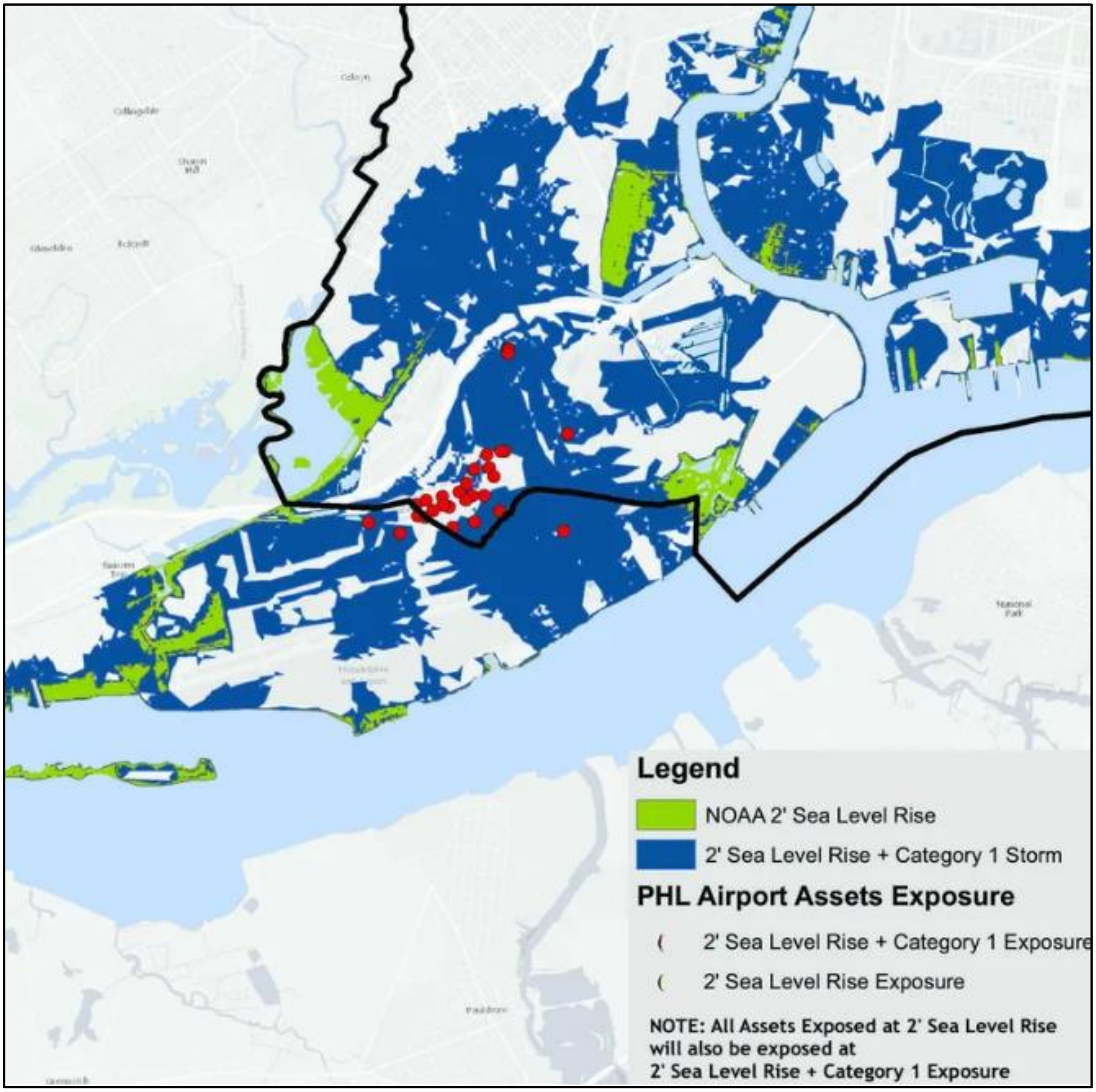
[409] President Liz Magill & Board of Trustees Chair Scott L. Bok, A message about Penn's endowment and sustainability, Penn Today (Nov. 29, 2022).
[410] Jared Mitovich, Penn Announces It No Longer Holds Direct Investments in Fossil Fuel Companies, The Daily Pennsylvanian (Nov. 30, 2022); Julie Bonette, Trustees Vote to Divest and Dissociate from Fossil Fuel Companies, Princeton Alumni Weekly (Nov. 2022).

Appendix A



Exposure of Philadelphia International Airport's Assets. Source: [Growing Stronger: Toward a Climate-Ready Philadelphia]() at 31, Mayor's Office of Sustainability & ICF International (Nov. 2015).

Appendix B

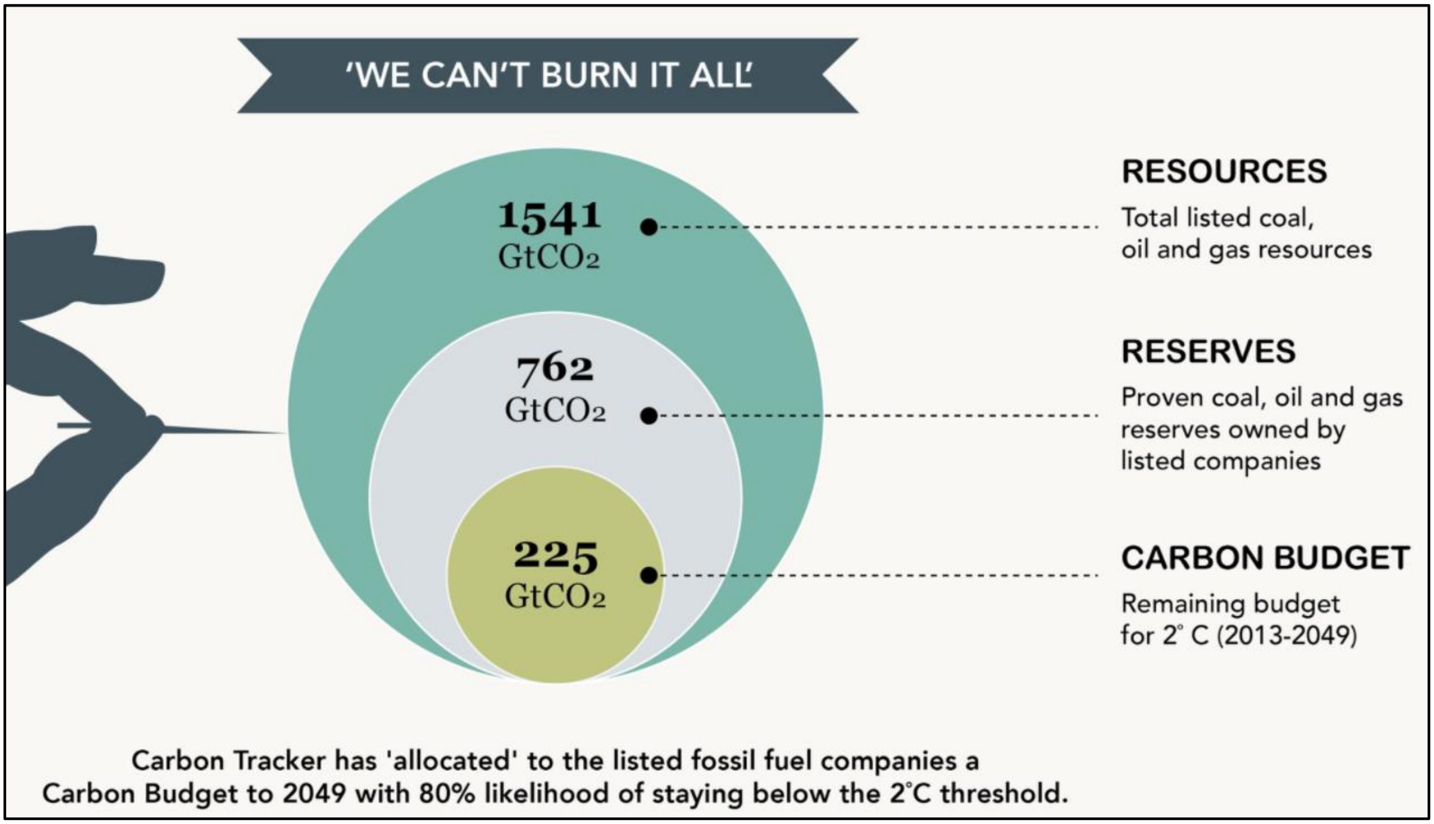


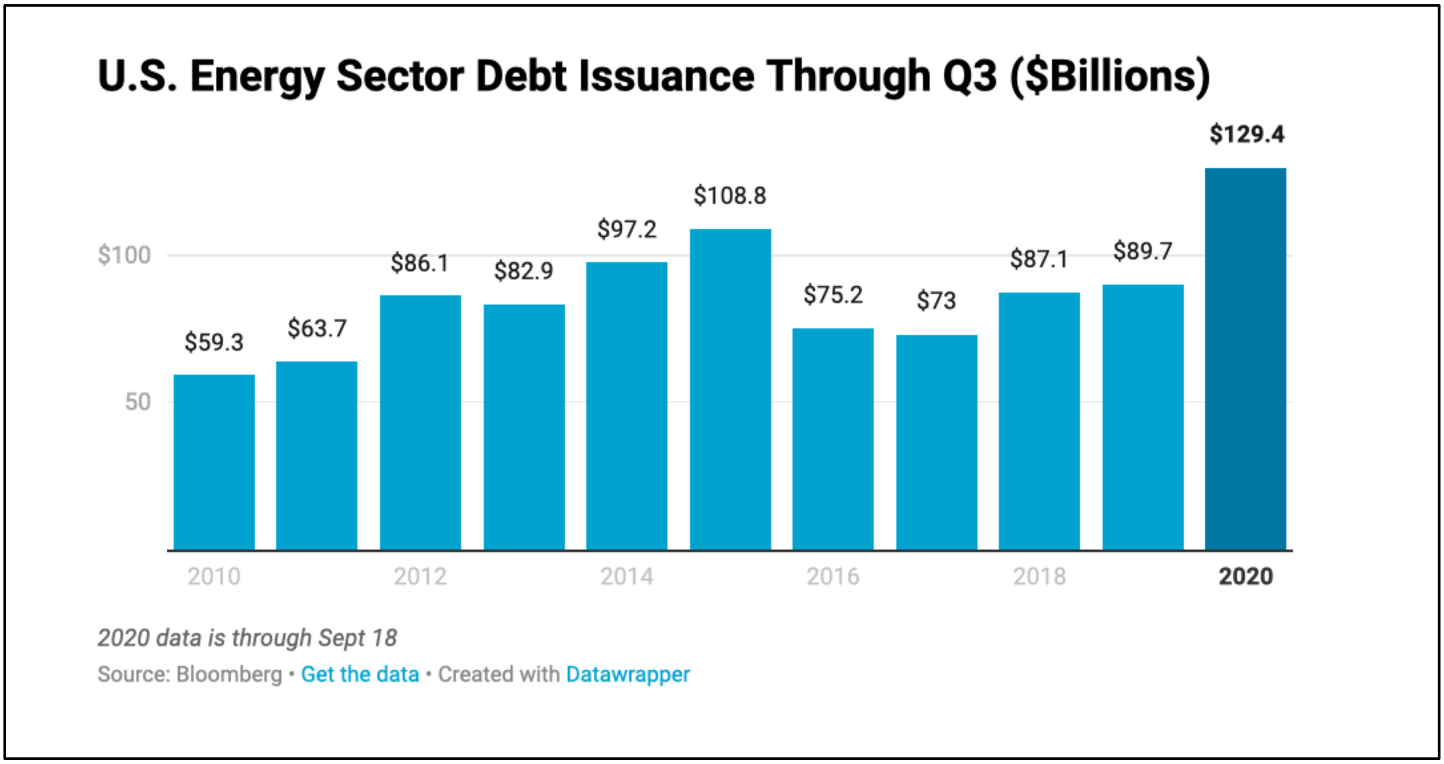
Illustration of carbon bubble, as reprinted in Katharine Earley, Carbon Tracker measures oil and coal risk for investors, The Guardian (Apr. 30, 2015). Source: Carbon Tracker Initiative.

Appendix C

Comparison of ten-year performance of S&P 500 Energy Index[411] (white) with S&P 500 Index (blue).[412] Created using comparison tool at S&P 500 Dow Jones Indices (as of Oct. 12, 2023).

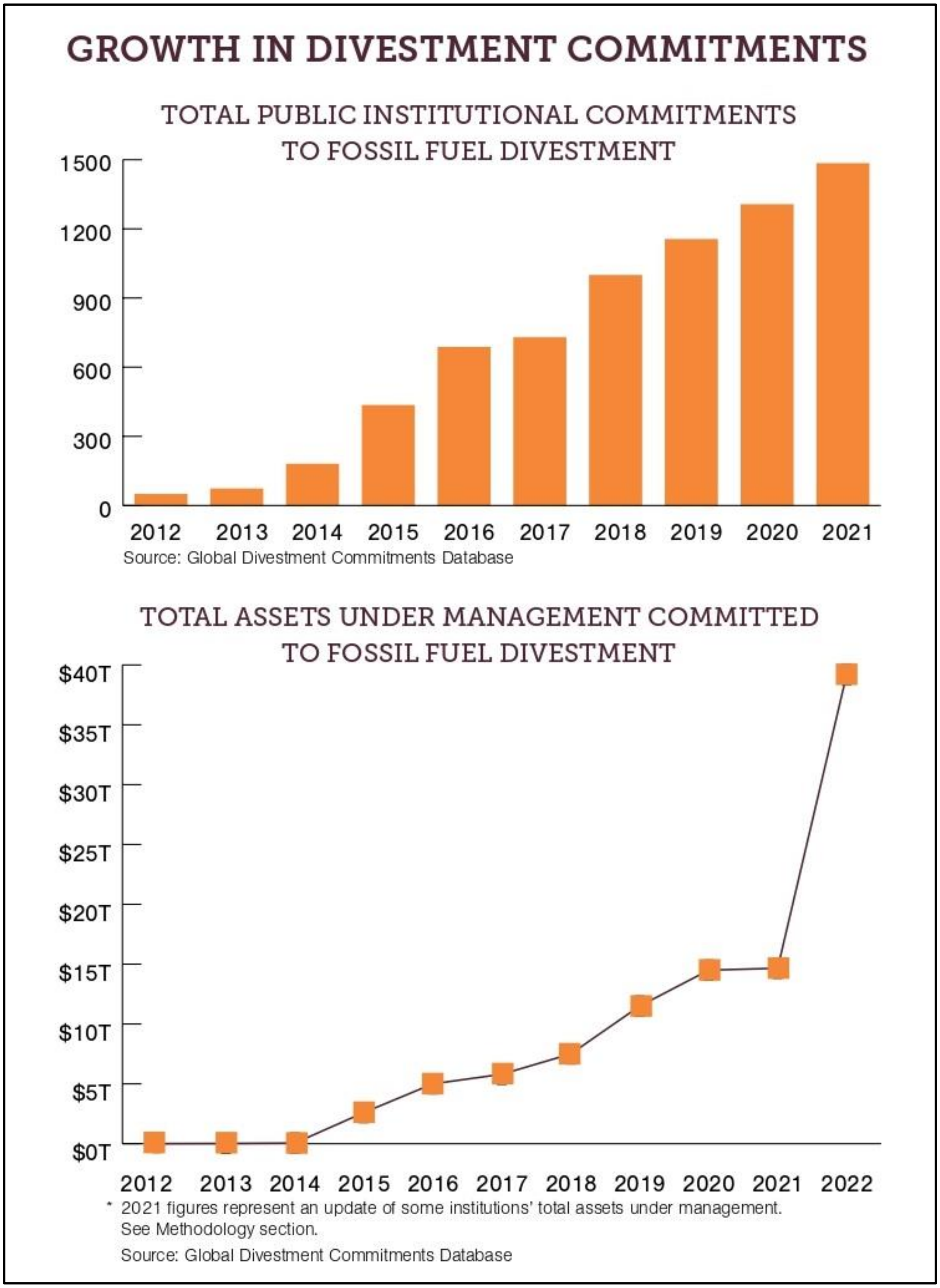
[411] The S&P 500 Energy Index includes only fossil fuel companies and does not encompass renewable energy.
[412] The energy sector's recovery in late 2020 came in part thanks to a large bailout of corporate debt markets by the federal government. *See* Lukas Ross, Alan Zibel, Dan Wagner & Chris Kuveke, Big Oil's $100 Billion Bender, Public Citizen (Sept. 30, 2020).

Appendix D



U.S. Energy Sector Debt Issuance Through Q3 ($Billions), as reprinted in Lukas Ross, Alan Zibel, Dan Wagner & Chris Kuveke, [Big Oil's $100 Billion Bender](), Public Citizen (Sept. 30, 2020). Source: Bloomberg.

Appendix E



GROWTH IN DIVESTMENT COMMITMENTS
TOTAL PUBLIC INSTITUTIONAL COMMITMENTS TO FOSSIL FUEL DIVESTMENT
1500
1200
900
600
300
0
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021
Source: Global Divestment Commitments Database
TOTAL ASSETS UNDER MANAGEMENT COMMITTED TO FOSSIL FUEL DIVESTMENT
$40T
$35T
$30T
$25T
$20T
$15T
$10T
$5T
$0T
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
* 2021 figures represent an update of some institutions' total assets under management. See Methodology section.
Source: Global Divestment Commitments Database

Growth in Divestment Commitments. Source: A Decade of Progress Towards a Just Climate Future, Institute for Energy Economics and Financial Analysis, Stand.earth, C40, & Wallace Global Fund (2021).