Report of the Committee on Fossil Fuel Investment Principles

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Executive Summary

In this Report, the Committee on Fossil Fuel Investment Principles (the "Committee") proposes five Principles to guide Yale's investments in companies in the fossil fuel industry.

The Committee recognizes that climate change is an urgent, existential threat to humanity and a grave social injury. Climate change is a consequence of global warming, driven by the increase in greenhouse gas ("GHG")[1] emissions from the burning of fossil fuels.[2] Because of the unique responsibility of fossil fuel producers in contributing to climate change, the Principles address those activities, behaviors, and characteristics of fossil fuel producers that constitute "social injury" of such grave character that divestment is warranted. In order to focus and prioritize its energies, the Committee developed Principles that address grave social injury related to climate change; however, this should not be interpreted to mean other behaviors and activities of the fossil fuel industry cannot or should not be scrutinized under the university's ethical investment framework.

The Principles we propose are based on our view that to remain eligible for investment[3] by Yale, a fossil fuel company must avoid the exploration and production of fossil fuels that result in high levels of GHG emissions relative to energy supplied, as compared to feasible alternatives. This idea extends not only to the actual fossil fuels supplied, but also to the specific methods of extraction and whether there are feasible alternatives to such methods. Assuming a company extracts and produces fossil fuels in keeping with that minimum requirement, it must operate in a manner consistent with best industry practices to reduce GHG emissions. This includes, for example, GHG emissions associated with the energy used to power the company's operations, as well as the management of fugitive emissions. We believe that fossil fuel companies should support and not undermine meaningful and effective government policy to combat climate change, refrain from supporting climate change denial, and provide accurate information about climate science and climate change. Finally, fossil fuel companies should be transparent with Yale and Yale's Investment Managers about their activities related to climate change.

The application of these Principles is expected to be dynamic, resulting in different implications for various fossil fuel producers over time. This will be due to technological innovations in cleaner energy alternatives and carbon capture and storage, as well as changes in industry and market practices. At the same time, the university should anticipate the worldwide transition to clean energy. We believe that divestment does not have to wait until the economy has fully completed that transition. Thus, we expect that many fossil fuel companies

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[1] Carbon dioxide (CO_2) is the primary GHG emitted by burning fossil fuels. As used in this Report, "carbon" may include other GHGs, depending on context (e.g., "carbon tax").

[2] For purposes of this Report, "fossil fuels" is defined to mean coal, oil, and natural gas.

[3] In this Report, "divestment" and "not eligible for investment" are used interchangeably. A company that is subject to divestment would not be eligible for investment if it is not already in Yale's portfolio. If the company is already in Yale's portfolio, Yale would seek to divest.

will run afoul of these Principles today, and an increasing number will run afoul of the Principles over time absent a fundamental shift in their business strategies or major technological developments. In keeping with our charge, we do not target specific companies in this Report, but offer a principled approach that allows the university to apply its ethical investment principles to any fossil fuel company for purposes of divestment.

The Committee recommends the following Principles:

Principle No. 1: Fossil fuel producers should neither explore for, produce or supply fossil fuels, nor engage in methods of extraction, that result in high GHG emissions relative to energy supplied, if there are feasible alternatives that result in significantly lower GHG emissions.

Principle No. 2: Fossil fuel producers should operate in a manner consistent with best industry practices to reduce GHG emissions.

Principle No. 3: Fossil fuel producers should not undermine but support sensible government regulation and industry self-regulation addressing climate change.

Principle No. 4: Fossil fuel producers should not undermine but support accurate climate science and accurate public communication about fossil fuel products, climate science, and climate change.

Principle No. 5: Fossil fuel producers should be transparent with Yale and Yale's Investment Managers about their compliance with Principles Nos. 1 through 4.

Since this Committee was appointed by President Peter Salovey in October 2020, we have grappled with ethical issues surrounding Yale's ability to invest in fossil fuel companies in the face of the immediate and catastrophic threat of climate change. Our discussions, readings, and outreach enabled us to consider questions related to the harms inflicted on the planet by climate change, the role of fossil fuels and the companies that produce them, the substitutability of fossil fuels, the achievements and forward trajectory of scientific and technological innovation, the effectiveness of investor engagement versus divestment, environmental justice and more. The Committee also heard from community members and experts regarding significant harms inflicted by the fossil fuel industry that do not relate to climate change but nevertheless result in social injury. In order to focus and prioritize its work, the Committee developed Principles that address grave social injury related to climate change; however, this should not be interpreted to mean other behaviors and activities of the fossil fuel industry cannot or should not be scrutinized under the university's ethical investment framework.[4]

Our charge is stated, in part, as follows: "To produce a report that recommends a set of principles to guide the [Corporation Committee on Investor Responsibility] in applying to fossil fuel producers Yale's ethical investment policy set forth in *The Ethical Investor*. The committee should identify the activities, behaviors, and/or characteristics of fossil fuel producers that constitute 'social injury' of such grave character that divestment is warranted." We have applied our efforts over the past several months to answer this charge and pursued this work in service to Yale as an institution. Yale has a long history and, we trust, a long future. Our part is small, but we hope meaningful and helpful for that future, and future generations overall.

The ending point of the Committee's work is a set of Principles that can enable Yale to identify those activities, behaviors and/or characteristics that will help distinguish among fossil fuel producers for purposes of potential divestment. The starting point is *The Ethical Investor*.

I. Yale's History with Respect to Ethical Investing

In the fall of 1969, Yale held an academic seminar to study the issue of investor responsibility. This was not a typical seminar. Scholars and students with backgrounds in economics, biology, religious studies, environmental studies, law, and political science came together to examine and wrestle with issues ranging from South Africa's system of apartheid to environmental pollution, in the context of socially responsible investing and other activities of a university. President Kingman Brewster led "one of [the] most stimulating seminar sessions," and a Ford Foundation grant helped cover costs.[5] In short, it was an extraordinary demonstration

[4] Examples of behaviors that warrant scrutiny are wastewater pollution, oil spills and other environmental disasters, poor safety records, and other aspects of operations that have harmful effects on local communities, public health, workers and the environment. Comments received by the Committee raised these and other concerns, including disparate impacts along racial and socioeconomic lines. Our Principles focus on GHG emissions with the understanding that other wrongs are still subject to examination under the principles of *The Ethical Investor* discussed *infra*.

[5] Unless stated otherwise, all quotations in this section are from John G. Simon, Charles W. Powers, and Jon P. Gunnemann, *The Ethical Investor: Universities and Corporate Responsibility* (New Haven: Yale University Press, 1972), available at https://acir.yale.edu/sites/default/files/files/EthicalInvestor.pdf.

of multi-disciplinary exploration of social issues with real-world implications for Yale as an institution.

"[I]nformed, inspired and influenced by this seminar," Professors Simon, Powers, and Gunnemann developed and articulated an ethical investment framework for universities. In 1972, the year *The Ethical Investor* was published, the university formally adopted its own guidelines and, according to *The New York Times*, became "the first major university to resolve this issue by abandoning the role of passive institutional investor." While not without skeptics, the principles have endured for nearly half a century and continue to govern Yale's investment activities today.

Since adopting the guidelines of *The Ethical Investor*, Yale has articulated how the principles of *The Ethical Investor* apply in a host of contexts, including apartheid in South Africa, tobacco, genocide in the Darfur region of Sudan, private prisons, and assault weapon retailers. Conscientious and passionate students, faculty, staff, and alumni have engaged these issues through debates, petitions, and protests. Perhaps social media has influenced the discussion forums and mobilization tools, but the substantive arguments and appeals to reason and morality remain largely the same. Thus, the ethical investment principles developed in the early 1970s have no less relevance today. At the same time, an institution should interpret and apply the principles in a way that makes sense for new social problems and controversies. We understand our charge to be just that – to take the principles of *The Ethical Investor* and explain how best to apply them to the fossil fuel industry in the current climate crisis.

The touchstone of *The Ethical Investor* is the concept of "social injury". Social injury is defined as:

> the injurious impact which the activities of a company are found to have on consumers, employees, or other persons, particularly including activities which violate, or frustrate the enforcement of, rules of domestic or international law intended to protect individuals against deprivation of health, safety, or basic freedoms; for purposes of these Guidelines, social injury shall not consist of doing business with other companies which are themselves engaged in socially injurious activities.

Social injury is at the heart of a decision to engage or divest (apart from normal prudential considerations).

In arriving at the concept of social injury, the authors begin with the premise that a university's primary mission is the pursuit of knowledge. Thus, it must reconcile corporate responsibility with its "essential function": "to promote a climate for teaching and scholarship," a climate which must be protected not only against "politicization" but also "external reprisal." In addition, the law requires charitable fiduciaries to observe the "prudent person" investment rule and to observe a web of charter provisions, gift conditions, and tax rules on exempt organizations. *The Ethical Investor* resolves this tension by identifying corporate responsibility as "the making of profits in such a way as to minimize social injury." This can also be expressed

in economic terms: it is "often a matter of a corporation internalizing costs which have been externalized or imposed on the larger society."

As a result, *The Ethical Investor* does not call for a university to make investments in order to "promote social goals;" rather, investments should be based on "maximum-return principles."[6] At the same time, it requires investors to address practices that inflict significant social injury, and if that injury is "grave," to take a wider range of actions to reduce it. *The Ethical Investor* also recognizes that correcting some social injury may require industry-wide regulation or government action. In those cases, the university can urge company management either to effect industry-wide corrective action or to seek government action.

With regard to divestment, *The Ethical Investor* views this remedy as a last resort, to be undertaken only if:

> it is unlikely that, within a reasonable period of time, the exercise of shareholder rights by the university (together with any action taken by others) will succeed in modifying the company's activities sufficiently to eliminate at least that aspect of social injury which is grave in character.

Only where there is grave social injury and all corrective methods have failed or appear doomed to failure does divestment appear as a possible response:

> [I]f the harm caused is grave and if there is nothing the university as a shareholder – or anyone else – can do about it in any reasonably near future, then the university should disaffiliate.

Despite the high bar for divestment, Yale has found in the past that certain company behaviors clear that bar, resulting in divestment policies that have been adopted over the years.[7]

Last but not least, *The Ethical Investor* addressed the corporate governance structure and process by which the university makes determinations on specific social issues – through the Corporation Committee on Investor Responsibility (CCIR), as supported by the Advisory Committee on Investor Responsibility (ACIR). These procedures take into account the need to manage the Endowment effectively, to avoid undue disturbance to the university enterprise, and the availability of expertise from university constituents who serve on the ACIR.

II. Ethical Investing and Climate Change

Among the various social issues that have given rise to recent ethical investment discussions, none have been quite as pronounced as the climate change crisis and the fossil fuel

[6] Maximum economic return is defined as "those long-term and short-term financial results, with respect to yield, gain, and safety of capital, which the trustees and the university officers are, at any point in time, seeking to achieve in the management of the university's investments."

[7] Yale adopted divestment policies with respect to companies doing business in South Africa (adopted in 1978); oil and gas companies operating in Sudan, as well as obligations of the Sudanese government (adopted in 2006); and assault weapon retailers (adopted in 2018). These remain in effect except for the first policy, which was lifted in 1994.

divestment movement. At Yale, this movement has been led by Fossil Free Yale, a student group tied to a broader national movement called 350.org.

In 2014, the CCIR issued a statement in response to a request from Fossil Free Yale that Yale divest from a number of publicly-traded fossil fuel producers if a strategy of investor engagement with the companies failed.[8] The CCIR agreed that climate change is a "grave threat to human welfare" and introduced new proxy voting guidelines regarding engagement with companies about disclosure, the impact of climate change on a company's business activities, reducing climate impact, and supporting effective governmental policies. However, the CCIR concluded that divestment would not be the right means of addressing climate change. Rather, Yale's greatest impact would be through research, scholarship, and education.

In rejecting divestment, the CCIR noted that, because climate change is caused by the combustion of fossil fuels, targeting the supply side while ignoring the direct contribution by consumers was misdirected, and divestment "does nothing to improve public or private policies that are capable of addressing the problem, either in the United States or globally." The CCIR noted that, unlike the university's past decisions, the injury in the case of GHG emissions was "complex and the number of contributing actors spans the economy." Given that fossil fuels remain essential for now, trying to determine a company's "net socially injurious impact" was "fraught with difficulty" and not a wise use of university resources. The solution would not be found in a specific set of companies or even companies alone. It would depend on government policy interventions.

At the same time the CCIR statement was issued, Yale's Chief Investment Officer, David Swensen, sent a letter to all of Yale's external investment managers urging them to consider the financial risks associated with climate change in making investment decisions on behalf of Yale. These risks included not only the direct consequences of climate change, but also the costs of current and prospective government policies to reduce GHG emissions. He expressed concern about business models that "rely on mispriced externalities" and asked Yale's external investment managers to avoid companies that refused to acknowledge the social and financial costs of climate change and that failed to take economically sensible steps to reduce GHG emissions.

Notwithstanding these actions in 2014, the divestment movement at Yale has remained energized with the support of a large number of students.[9] Over the past six years, students from Fossil Free Yale, together with other members of the Yale Endowment Justice Coalition, led petitions, staged sit-ins at the Yale Investments Office and Woodbridge Hall, and garnered national media attention when they interrupted the Yale-Harvard football game in a planned protest with Harvard activists. Representatives of the coalition advocated for divestment from fossil fuels at the Faculty of Arts and Sciences (FAS) Senate meeting in February 2020, where the Chief Investment Officer and the chair of this Committee presented as well. It is not only

[8] A copy of the statement is attached as Appendix A.

[9] For example, surveys and focus group meetings conducted by the Yale College Council indicated majority support in favor of divestment. In 2013, 83 percent of survey respondents were in favor of divestment from those fossil fuel companies contributing the most to climate change and associated social harms. In 2020, 71 percent of survey respondents agreed that Yale should immediately divest from all fossil fuel investments.

students and faculty who have been engaged on the issue, but also alumni. Yale Forward, a coalition of students and alumni, launched a ballot campaign to propose a trustee candidate in 2021 to champion fossil fuel divestment and make Yale carbon neutral by 2030.

III. Formation of the Committee and Its Work

On October 22, 2020, President Salovey formed this committee

> To produce a report that recommends a set of principles to guide the CCIR in applying to fossil fuel producers Yale's ethical investment policy set forth in *The Ethical Investor*. The committee should identify the activities, behaviors, and/or characteristics of fossil fuel producers that constitute "social injury" of such grave character that divestment is warranted.

The Committee, chaired by Jonathan Macey, Sam Harris Professor of Corporate Law, Corporate Finance, and Securities Law, Yale Law School, included Ruth E. Blake, Professor of Earth & Planetary Sciences, Department of Earth and Planetary Sciences; Kenneth Gillingham, Associate Professor of Environmental & Energy Economics, School of the Environment; Benjamin Polak, William C. Brainard Professor of Economics, Department of Economics, and Professor, School of Management; Mary-Louise Timmermans, Damon Wells Professor of Earth & Planetary Sciences; and Xinchen Wang, Director, Yale Investments Office.

Prompted by the charge, the Committee consulted other experts in relevant fields and collected and reviewed input from the community.

In the following pages, we have proposed a set of Principles that we believe should guide the CCIR in applying to fossil fuel producers Yale's ethical investment policy set forth in *The Ethical Investor* in light of the urgent, existential threat posed by climate change. We attempt to pick up where the CCIR left off in its 2014 statement and discuss the predicates for these Principles. Much has happened since 2014. Natural gas has been replacing coal for electricity generation in many places in the U.S. and around the world. Advances in clean energy are accelerating and may be reaching a tipping point. More information has become available about the fossil fuel industry. At the same time, governments remain too slow to act and the window is narrowing to avert catastrophic harm. In the present context, we hope to come up with principles that remain true and compelling, even in the face of continual evolution in research, technology, government policies, and company positioning. We agree with President Salovey that the time is ripe for identifying those "activities, behaviors, and/or characteristics" of fossil fuel producers that constitute social injury of such grave character that divestment is warranted.

In coming up with these Principles, we sought to understand *The Ethical Investor* framework; Yale's history in applying that framework, especially with regard to fossil fuel companies; the fossil fuel industry; scientific and technological advances affecting the substitutability of fossil fuels and/or continued use of fossil fuels made possible by carbon capture and storage technologies; philosophical and economic arguments in favor of or against divestment; the historic and current behaviors of fossil fuel companies related to climate science

and government policy; recent announcements and efforts by fossil fuel companies to shift their strategies; disclosure policies, and more.

Although we could not conduct in-person outreach due to the Covid-19 pandemic, we solicited feedback from a broad range of university constituents through videoconference and webform comments. Early on, the Committee met with the Chair of the FAS Senate. The Committee heard from students through their representative student governments – the Yale College Council, the Graduate Student Association, and the Graduate and Professional Student Senate – and conducted focus group meetings. The Committee sought input from students and the broader Yale community via a webform.[10] The link to the webform was distributed to the faculty of all FAS departments and professional schools through their respective Deans, the Yale Alumni Association through social media, and a wide swath of staff through groups connected to the Office of Sustainability.[11] Over 250 individuals responded to the questions in the webform by the time this Report was finalized.

In noting the large number of submissions received, the Committee would be remiss if it did not acknowledge that many individuals, especially students, called on the university to evaluate fossil fuel companies not only with regard to their contribution to climate change, but also their behaviors that result in grave social injury through other environmental impacts. For example, air and water pollution remain significant harms, and these social injuries are exacerbated by disparate impacts experienced along racial and socioeconomic lines. Other commenters raised concerns about worker safety, oil spills and other environmental degradation. Although the Committee developed Principles focused on company behaviors directly related to climate change in light of its existential threat to all of humanity, it strongly urges the university to take full consideration of these other behaviors and injuries when determining whether or not to divest from fossil fuel companies.

In developing the recommended Principles, the Committee also consulted experts at Yale and outside of Yale. These included experts in the fields of environmental economics, environmental justice, climate change communication, renewable energy, public health, and investment management. The Committee also received a report on political activities of the fossil fuel industry from a nonprofit research organization that provides support to the ACIR. As designed, the Committee comprised experts in relevant fields who contributed their expertise and reading materials.

[10] The webform asked the following questions:

1. What principles should guide the CCIR in applying to fossil fuel producers Yale's ethical investment policy set forth in The Ethical Investor?
2. What criteria do you consider most important for evaluating fossil fuel producers' impact on climate? For example, some illustrative criteria could include: the greenhouse gas intensity of the operations or products of the firm; their engagement in transitions away from fossil fuels and in reducing CO_2 emissions; their reputation for responsible practices with respect to environmental damages (e.g., fugitive methane emissions); and their support of national and international climate change agreements.

[11] The Office of Sustainability's network includes operations teams at residential colleges and professional schools, and "green team" representatives in human resources, administrative staff, ITS, hospitality, global strategy, museums, athletics, libraries, health services and other units.

Altogether, the Committee met internally or with experts or community representatives over 30 times over the course of five months.

IV. The Foundational Predicates on Which Our Principles Are Based

In the course of our study and outreach, the Committee coalesced around the following foundational predicates that tie together the reality of the current climate crisis, the role of fossil fuel producers, and Yale's ethical investment framework embodied in *The Ethical Investor*. In the context of an academic institution that seeks knowledge through diversity of thought and disciplines and rigorous examination thereof, the Committee sought to identify basic ideas around which there can be found broad moral consensus. Where there might not be such consensus, we sought to take a reasoned approach.

These predicates are that: (A) climate change constitutes grave social injury; (B) humans, through the burning of fossil fuels, are a leading driver of climate change; (C) fossil fuel producers bear a special responsibility in the fight against climate change; (D) there is a dilemma in that the world today needs fossil fuels to some degree; (E) climate change is a collective action problem that requires government intervention; (F) technological innovation in the area of clean energy, and carbon capture and storage, will help determine how to evaluate fossil fuels as an ethical matter over time; and (G) it is expected that some fossil fuel companies will seek to shift their business strategies in keeping with the world's need to transition while others will not. We discuss each in turn.

A. Climate Change Constitutes Grave Social Injury

In 2019, 81 percent of total energy used in the United States came from coal, oil, and natural gas.[12] The extraction and burning of these fossil fuels causes severe environmental damage via global warming and is driving climate change, which has potentially catastrophic consequences for humanity and global ecosystems.[13] Among the consequences of failing to address climate change are intense heat waves, drought and flooding, collapsed ecosystems, sea-

[12] The National Academies of Sciences, Engineering, and Medicine, "What You Need to Know About Energy: Fossil Fuels," http://needtoknow.nas.edu/energy/energy-sources/fossil-fuels [https://perma.cc/9FQQ-AUKL] (last accessed March 4, 2021).

[13] In its Fifth Assessment Report, the Intergovernmental Panel on Climate Change (IPCC) (a group of 1,300 independent scientific experts from across the world, working under the auspices of the United Nations) concluded there is a more than 95 percent probability that human activities over the past 50 years have warmed our planet. IPCC, "Summary for Policymakers," in Ottmar Edenhofer et al., *Climate Change 2014: Mitigation of Climate Change: Working Group III Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge: Cambridge University Press, 2014), https://www.ipcc.ch/site/assets/uploads/2018/03/ipcc_wg3_ar5_summary-for-policymakers-1.pdf [https://perma.cc/ZZ2D-UE9W] [hereinafter Fifth Assessment Report]. For further references, see Environmental Protection Agency, *Global Greenhouse Gas Emissions Data*, https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data [https://perma.cc/C4RA-CW2V] (last accessed March 4, 2021); National Aeronautics and Space Administration, *The Causes of Climate Change*, https://climate.nasa.gov/causes [https://perma.cc/9UFQ-Z3QJ] (last accessed March 4, 2021); and Samantha Gross, *Why Are Fossil Fuels So Hard to Quit?*, Brookings Institution(June 2020), https://www.brookings.edu/essay/why-are-fossil-fuels-so-hard-to-quit [https://perma.cc/YJU8-3KUB] (last accessed March 4, 2021).

level rise, degradation of agricultural lands and disrupted food supply, wildfires, and increased extreme weather events such as hurricanes.[14]

Time is of the essence for change. As the United Nations Intergovernmental Panel on Climate Change has emphasized, the transition away from fossil fuels must be "rapid, far-reaching and unprecedented."[15] Specifically, if GHG emissions are not dramatically curtailed soon, the results will likely become irreversible. In addition, climate change will have a disproportionate impact on the poorest and most vulnerable members of our global society who are less able to protect against and recover from the damage caused by climate change.[16] Climate change, as a result of its catastrophic impacts and existential threat to humanity and planet Earth, constitutes a grave social injury of an unprecedented nature.

B. Human Contributions to Climate Change

GHG emissions from the burning of fossil fuels have been the primary cause of global warming since the pre-industrial era. Fossil fuel emissions have raised atmospheric carbon dioxide levels from 280 parts per million (ppm) to 414 ppm in the last 150 years. Human-produced GHGs such as carbon dioxide, methane, and nitrous oxide have caused most of the observed increases in the Earth's temperatures over the past 50 years.[17] Thus, humanity as a whole is complicit and bears responsibility for today's climate crisis.

The responsibility is not only shared, but also overlapping, because often more than one person or organization has influence over the generation of a specific GHG emission. One organization's direct emissions (e.g., a power plant's direct emissions) may be another organization's indirect emissions (e.g., a business's purchase of electricity sourced from the power plant). In attempting to track and measure an organization's "carbon footprint", standard GHG emissions accounting seeks to group the direct and indirect emissions into separate categories, known as Scope 1, Scope 2 and Scope 3 emissions.[18] More importantly, we agree

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[14] D.J. Wuebbles et al., *2017: Climate Science Special Report: Fourth National Climate Assessment*, (Washington, DC: U.S. Global Change Research Program, 2017), vol. 1.

[15] See Fifth Assessment Report, *supra* note 13.

[16] See S. Nazrul Islam and John Winkel, "Climate Change and Social Inequality," United Nations Department of Economic and Social Affairs Working Paper No. 152 (October 2017), available at https://www.un.org/esa/desa/papers/2017/wp152_2017.pdf.

[17] *Intergovernmental Panel on Climate Change: Climate Change 2014: Synthesis Report*, ed., R.K. Pachauri and L.A. Meyer (Geneva: IPCC, 2014).

[18] The standardized framework is provided by the Greenhouse Gas Protocol ("GHG Protocol"). The GHG Protocol defines direct and indirect emissions as follows:

> Direct GHG emissions are emissions from sources that are owned or controlled by the reporting entity. Indirect GHG emissions are emissions that are a consequence of the activities of the reporting entity, but occur at sources owned or controlled by another entity.

The GHG Protocol further categorizes these direct and indirect emissions into three broad scopes:

> Scope 1: All direct GHG emissions.
> Scope 2: Indirect GHG emissions from consumption of purchased electricity, heat or steam.
> Scope 3: Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. T&D losses) not covered in Scope 2, outsourced activities, waste disposal, etc.

with the CCIR's view as expressed in its 2014 statement that the "contributing actors span the economy" and that "all individuals and institutions must work effectively on solutions of all kinds."

C. Fossil Fuel Producers' Special Responsibility

The committee believes that all of us, whether as producers or consumers, have a responsibility to act individually and collectively to find solutions to the problem of climate change, including by reducing our individual direct and indirect use of fossil fuels. But the Committee believes that *producers* of fossil fuels have a special responsibility in the fight against climate change and their conduct should be scrutinized with particular care.

The Committee identified a number of key ways in which fossil fuel producers bear distinct responsibility for the social harm of climate change, and therefore why they should be treated differently than other companies. First, as an industry, fossil fuel producers supply the main medium that causes anthropogenic climate change. No other industry's output has the same direct causal influence on climate change. Another way to state this, the Scopes 1, 2 and 3 emissions of this industry account for most human-caused emissions. For the world to stay within 1.5°C to 2°C warming limits, the vast majority of fossil fuel reserves must stay in the ground. Fossil fuel companies own and have direct control over these reserves; specifically, they decide how and when to extract and produce fossil fuels as they mobilize their financial, technological, structural, and human resources.

Second, fossil fuel producers have an inherent self-interest in the perpetuation of their industry and slowing down the development of alternative sources of energy. A number of companies have shown a sustained proclivity to act on those incentives through funding scientific misinformation in service of climate change denial, subverting sensible government action through their lobbying and political activities (including through trade associations), and undermining the public will to act through deceptive communication practices.

At the same time, fossil fuel companies, particularly the "majors,"[19] have vast power and resources, which can be deployed to help humanity transition to clean energy systems. These include not only their deep political networks, but also financial, scientific, infrastructure, and research and development resources related to energy production and distribution. With such power comes great responsibility.

While it is true that the use of fossil fuels is unavoidable at present, there are certain aspects of fossil fuel company behavior that are avoidable and ought to be avoided.[20] This

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https://ghgprotocol.org/calculationg-tools-faq.

[19] These are the largest publicly traded oil and gas companies: ExxonMobil, Chevron, Royal Dutch Shell, BP, and Total.

[20] As noted earlier in the Report, there are other fossil fuel company behaviors that warrant scrutiny under Yale's ethical investment principles. By prioritizing climate change-related harms, the Committee by no means seeks to minimize the association between fossil fuel companies and other forms of social injury, such as air and water pollution that have significant adverse effects on natural ecosystems and public health. Burning fossil fuels results in the release of particulate matter and other air pollutants that contribute to asthma, reduced lung function, and lung

includes avoiding those specific fossil fuel products for which feasible cleaner alternatives are available. Thus, if warranted by ethical investment principles, divestment may and should occur even if the world has not ceased using fossil fuels.

Fossil fuel companies stand at a fulcrum. They bear special responsibility for, and are in a unique position to reduce, the grave social injury that is climate change. As an ethical investor, the university is obliged to address the unique characteristics of this industry with special focus.

D. The Dilemma: The World Today Needs Energy to Survive

In evaluating the grave social injury caused by climate change, we recognize that fossil fuels have provided a major benefit in the form of low-cost energy, which has contributed to human development and flourishing. The concept of social injury is anchored in human welfare; however, it is by that same measure that fossil fuels provide a social good. Fossil fuels are, at the moment, the primary source of energy for transportation, healthcare, education, manufacturing, heating homes and businesses, and many other essential human activities. Our analysis takes into account that fossil fuels have *both* positive and negative impacts on the world, and that ending human dependence on fossil fuels will take time. Given the world's dependence on fossil fuels *today*, it would be naïve to think supply would not find a way to meet that demand.

Thus, another source of concern for the Committee was its recognition that, if certain fossil fuel producers go out of business, or if responsible institutional investors withdraw *en masse* from investing in fossil fuel producers, then other, less environmentally-concerned producers and investors will fill the void. In fact, the top oil producers in the world are state-controlled.[21] The consequences of such a withdrawal would be devastating, as it could lead to an

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cancer. NYU School of Law, State Energy and Environmental Impact Center, "Health Effects of Burning Fossil Fuels," https://www.law.nyu.edu/centers/state-impact/press-publications/research/climate-and-health/health-effects-of-burning-fossil-fuels (last accessed March 15, 2021). Oil spills also have negative impacts on human health and the marine ecosystem. For example, researchers studying the effects of the 2011 Deepwater Horizon oil spill in the Gulf of Mexico and the resulting clean-up have identified the potential for increase in harmful algal blooms or "red tide." See Ruth L. Eklund et al., "Oil Spills and Human Health: Contributions of the Gulf of Mexico Research Initiative," *GeoHealth* 3 (Dec. 2019): 391-406. Many of these harmful behaviors have a disproportionate impact on the poor and marginalized in society. See Tara Failey, "Poor Communities Exposed to Elevated Air Pollution Levels," Global Environmental Health Newsletter, National Institute of Environmental Health Sciences (April 2016), https://www.niehs.nih.gov/research/programs/geh/geh_newsletter/2016/4/spotlight/poor_communities_exposed_to_elevated_air_pollution_levels.cfm.

[21] Along these lines, we note that ExxonMobil, Chevron, Royal Dutch Shell, BP, and Total produce only about ten percent of the world's oil and natural gas. Ian Bremmer, "The Long Shadow of the Visible Hand," *Wall Street Journal*. (May 22, 2010), https://www.wsj.com/articles/SB10001424052748704852004575258541875590852 [https://perma.cc/EWK8-SW99].) By contrast, the top five oil companies in the world by production are Saudi Aramco, Rosneft (Russia), Kuwait Petroleum Corporation, National Iraqi Oil Company and China National Petroleum Corporation. N. Sönnichsen, "Leading Oil Companies Worldwide Based on Daily Production as of 2018," *Statista* (Oct. 6, 2020), https://www.statista.com/statistics/280705/leading-oil-companies-worldwide-based-on-daily-oil-production-2012/ (last accessed March 15, 2021). National oil companies "produce approximately 55 percent of the world's oil and gas" and are estimated to "control up to 90 percent of global oil and gas reserves." National Resource Governance Institute, *The National Oil Company Database* (April 25, 2019), available at https://resourcegovernance.org/analysis-tools/publications/national-oil-company-database. Thus, considering how energy is supplied, there is an apparent danger that targeting even the largest energy producers that can be the subject of a divestment policy might not result in a significant shift of energy production towards renewables and/or

increase in worse practices and concentration of power and influence over the industry in the hands of less ethical actors. Thus, care must be taken that well-intended actions such as divestment from fossil fuel producers will not lead to more GHG emissions rather than less.

The Committee was also sensitive to the fact that transitioning from fossil fuels to clean energy will be especially burdensome for poor and developing countries, and for the poorest and most vulnerable populations in developed countries.[22] Transitioning from coal to natural gas (a fossil fuel that has lower GHG emissions) may slow the pace of climate change[23] and be a realistic and cost-effective short-term strategy in developing countries and among poorer populations in developed countries for reducing (but not eliminating) the risks of climate change at this time. These considerations must be viewed against the backdrop of knowing that poor and vulnerable populations will bear the brunt of climate change impacts.[24]

These concerns have led the Committee to refrain from recommending Principles that would lead to immediate categorical divestment from all fossil fuel producers. During the period when Yale remains invested, the university should continue to engage with fossil fuel companies to push them to operate in an ethical manner and in line with the world's need to transition. A strong divestment movement and strong investor engagement are, in certain contexts, complements and not substitutes. Divestment and engagement can work in tandem to put pressure on companies to make necessary changes.[25] While every investor must make their own decision about how to act, we believe that *every investor must act*. Indeed, for institutional investors as a whole, the combination of divestment and strong engagement may be the best way to reach a shared goal of reducing GHG emissions on our planet.

E. The Role of Government Action

Grave social injury is not always attributable to the actions of just one company; sometimes, it is caused by the collective actions of all participants in an industry. In such cases, unilateral action by one company will likely be futile and could even exacerbate the social injury. For example, when divestment discourages some companies from engaging in a harmful activity, other, less responsible companies can gain a competitive advantage, or worse, move in to fill the

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clean energy. Rather, production may fall to state-controlled oil companies that lack transparency, are not subject to investor oversight or meaningful environmental regulation, and reside in countries that lack democratic processes.

[22] See Adam Goldstein, "What is the link between carbon emissions and poverty?" *World Economic Forum* (Dec. 15, 2015), https://www.weforum.org/agenda/2015/12/what-is-the-link-between-carbon-emissions-and-poverty/.

[23] International Energy Agency, *Special Report: The Role of Gas in Today's Energy Transitions* (July 2019), https://www.iea.org/reports/the-role-of-gas-in-todays-energy-transitions [https://perma.cc/C3H5-5KK9]. The GHG emissions from natural gas are lower than those associated with coal and oil. In addition, natural gas may, in the short term, be a complement rather than a substitute for wind and solar.

[24] At the same time, "[p]oor people and poor countries will bear the brunt of climate change." OECD Development Assistance Committee, "Climate Change: Helping Poor Countries to Adapt," ch. 5 in *Development Co-operation Report 2010* (2010), p. 67, available at https://www.oecd-ilibrary.org/docserver/dcr-2010-8-en.pdf.

[25] For example, Dwight Hall at Yale purchased $2,000 of stock in ExxonMobil in 2018 and joined other investor advocates in demanding that Exxon fully disclose its direct and indirect lobbying expenditures. Dwight Hall's efforts met with some success when, in July 2018, Exxon decided to leave the American Legislative Exchange Council, a conservative trade organization that funded climate change denial research. See Gabriel Malek, "Working From Within," *Yale Daily News* (January 13, 2020). Another example of successful engagement was the campaign by institutional investors to persuade Royal Dutch Shell to adopt short-term carbon footprint targets.

vacuum caused by the departure of more socially responsible companies. When these conditions exist, Yale's ethical investment guidelines place special emphasis on the need for industry-wide or government action and in urging company management to seek such actions.

Fossil fuel producers face exactly this kind of collective action problem. Any single company that ceases production internalizes all the associated costs without achieving any useful objective, given that competitors can increase their own production (and profits) to make up for the shortfall so long as demand for fossil fuels remains intact. Government action (in addition to action by the fossil fuel industry in the form of best practices) presents the most effective means of addressing this significant collective action problem.

For example, government regulations that impose a price on carbon, such as carbon taxes or cap-and-trade programs, provide a promising pathway to making fossil fuel companies that produce GHG emissions internalize the costs. Government support for low-carbon innovation, including carbon capture and storage technologies that prevent carbon dioxide from being released or capture it directly from the environment and store it, is also critically important. *The Ethical Investor* recognized this possible role of government, noting "some problems cannot be solved without government help, both technical and financial."[26] The transition to a net-zero carbon economy will almost certainly require innovation in many areas, and we still do not fully know what that will look like. However, it is clear that greater incentives are needed to generate such large-scale innovation.

Thus, the response to climate change involves a paradigmatic case in which government action is the appropriate channel for redressing grave social injury, because the grave social injury involves an industry-wide (if not worldwide) practice, and lone action or cessation by a single firm would not achieve the desired result of mitigating the grave social injury. Fossil fuel companies should support sensible government policies and be urged to do so by their shareholders. Actions taken by individual fossil fuel companies to impede government responses to climate change through lobbying or otherwise run counter to this ethical imperative. This includes suppressing the political will to act through funding climate change denial or engaging in deceptive public communication about fossil fuel products, climate science, or climate change.

F. The Role of Technological Innovation

The role that technology must play in addressing climate change also factored into our analysis. The technology required to combat climate change, including the use of renewables and carbon capture and storage, is developing rapidly. The speed at which we can transition away from fossil fuels will depend on the ability of scientists, entrepreneurs and corporations to: (a) develop cleaner energy sources; (b) transition from fossil fuels to such cleaner sources of energy; and/or (c) develop viable carbon capture and storage technologies.

Both the pace and direction of technological development should influence Yale's ongoing evaluation of how our proposed Principles should apply to the industry. The path of the transition will affect how the Principles will apply to specific fossil fuel companies over time, such that a company that is eligible for investment today, absent a change in business strategy,

[26] *The Ethical Investor*, *supra* note 5, at 38.

may no longer be eligible in a few years. For example, if carbon capture and storage technology develops at a relatively slow pace, but renewable energy sources become economical, widely available, and the problem of intermittency is solved, then investment in any fossil fuel company may cease to be appropriate from an ethical point of view.

G. The Possibility of Business Evolution

The Committee recognizes that some fossil fuel companies may be taking steps in sync with the reality that the world must transition to cleaner sources of energy and/or develop viable carbon capture and storage technologies. As such, in formulating the Principles, the Committee took into account that some companies will evolve and change their business models to ones that employ clean energy technologies or supply cleaner energy and/or renewables to meet energy demands. Indeed, some may succeed so far as to cease being a fossil fuel producer altogether and become a clean energy producer. Others may continue to be fossil fuel producers but invest in carbon capture and storage technologies to mitigate GHG emissions from their production processes. We found it significant that certain oil and gas companies are key innovators in producing what are known as "green patents," otherwise described as patents for new environmental technologies.[27] Certain fossil fuel energy producers generate significant, high quality, green innovations.[28] The Committee believes that such innovation is commendable as it supports the transition away from the utilization or production of fossil fuels. Furthermore, scientific innovation is integral to the university's own mission and the critical role it plays in the fight against climate change.

The Committee also recognizes that some fossil fuel producers may not have the means to develop green patents or transition into a renewables company, but they are committed to being a responsible operator during the transition and winding down their production as cleaner energy alternatives becomes available.

In exploring and arriving at consensus around these predicates, the Committee developed the following Principles to be applied to the fossil fuel industry with the expectation they will remain relevant over time.

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[27] Green patents are awarded for innovations in environmental management; water-related adaptation technologies; biodiversity protection and ecosystem health; climate change mitigation technologies related to energy generation, transmission, or distribution; transportation; buildings; waste-water treatment or waste management; and production or processing of goods. Green patent classification is constructed and developed by the European Patent Office using an algorithm developed by the Organization for Economic Cooperation and Development (OECD). See OECD, "Green Patents," https://www.oecd.org/env/indicators-modelling-outlooks/green-patents.htm [https://perma.cc/VU37-842S] (last accessed March 4, 2021).

[28] Lauren Cohen, Umit G. Gurun and Quoc H. Nguyen, "The ESG-Innovation Disconnect: Evidence from Green Patenting," National Bureau of Economic Research Working Paper No. 27990 (October2020). For example, ExxonMobil and Royal Dutch Shell ranked eleventh and eighteenth respectively on a list of U.S. public companies holding green patents. *Id.* at 26.

V. Principles

We set forth in this section the Principles we recommend that Yale apply to its investments in fossil fuel producers. Consistent with the principles outlined in *The Ethical Investor*, the goal of our recommendations is to respond in a calibrated way to the grave social injury caused by fossil fuels. The Principles articulated below attempt to strike a balance between two competing objectives. The first is to recognize and respond to the fact that the continued use of fossil fuels, by contributing to climate change, poses grave social injury in the form of an urgent, existential threat to human life. The second is to acknowledge the reality that society must persist in using some fossil fuels for the immediate future in order to function, and supply will meet that demand. The challenge is to develop rational Principles that remain relevant as the world's energy technologies, industries and infrastructure evolve.

These Principles seek to identify the activities, behaviors, and characteristics that would make a fossil fuel producer a proper target for divestment in light of the climate crisis. Our goal is to identify those cases in which: (a) fossil fuel producers exhibit activities, behaviors, or characteristics such that their activities cause grave social injury; and (b) the available responses by investors, government, industry, or otherwise are unlikely to remedy this grave social injury, and, therefore, the university should divest.

> ***Principle No. 1: Fossil fuel producers should neither explore for, produce or supply fossil fuels, nor engage in methods of extraction, that result in high GHG emissions relative to energy supplied, if there are feasible alternatives that result in significantly lower GHG emissions.***

This Principle addresses the most material and obvious behavior that a fossil fuel producer engages in and what distinguishes this industry from all others – namely, what energy product it is supplying to meet energy demand, and where and how it is extracting and developing that product. This Principle includes the fossil fuel industry's Scope 3 emissions. If the fossil fuel producer is engaging in highly GHG-intensive methods of extraction (e.g., due to the type of oilfield or extraction process), supplying energy products that emit significant GHGs when used, or exploring new regions that result in the foregoing, it will be important to understand whether there are feasible alternatives to such sources, methods, and products that emit significantly less GHGs. If so, then that fossil fuel producer should not be eligible for investment.

For clarification, the term "feasible" as used in this Principle means economically and technologically accessible. It does not mean the alternative must be ubiquitous, nor on the other hand must the producer pursue it at all costs. Furthermore, a feasible substitute need not have zero climate impact; however, it should have significantly less climate impact than a current fossil fuel source, extraction method or product. This will require a judgment by the university based on the information available to it at the time.

As a current example, coal produces the most carbon dioxide (CO_2) per unit of energy of all fossil fuels.[29] It accounts for 60 percent of power plant carbon emissions in the United States.[30] Yet it produces 20 percent of U.S. electricity[31] and is used for the production of many important products, including concrete and steel.[32] The Committee believes there are reasonably available lower-carbon alternatives to thermal coal used for electricity generation, such as natural gas and renewables combined with energy storage, and that there are reasonably available alternatives to metallurgical coal, which is primarily used for steelmaking.[33] Given the particular damage that coal causes to the environment, as well as the availability of substitute forms of energy, it is reasonable to expect that the application of this Principle would lead Yale toward divestment from coal companies.

Similarly, adherence to this Principle may lead Yale to divest from a fossil fuel producer heavily engaged in exploration designed to increase future extraction of highly GHG-intensive fossil fuels, or a company that utilizes highly GHG-intensive processes for oil and gas extraction, such as producing oil from tar sands.

On the other hand, this Principle alone might not lead Yale to divest from a natural gas producer as such. At present, the main use of natural gas is as a substitute for more GHG intensive fuels such as coal, and at least in the short term, natural gas can be more a complement than a substitute for many green technologies. The ability to use natural gas alongside wind and solar power (to address intermittency) may increase rather than decrease the adoption of the latter technologies.

Another example of a fossil fuel producer that can satisfy this Principle is one that is shifting its business strategy to developing renewables.[34] While we should be wary of "greenwashing", companies that show a genuine commitment to making such a transition would be viewed as eligible for investment under this Principle absent other evidence of grave social injury.

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[29] U.S. Energy Information Administration, "FAQ: How much carbon dioxide is produced when different fuels are burned?" (June 17, 2020), https://www.eia.gov/tools/faqs/faq.php?id=73&t=11. As of 2018, coal-fired electricity generation accounted for 30 percent of global CO_2 emissions. International Energy Agency, *Global Energy & CO2 Status Report 2019* (Paris, 2019), available at https://www.iea.org/reports/global-energy-co2-status-report-2019/emissions.

[30] U.S. Energy Information Administration, "How much of U.S. carbon dioxide emissions are associated with electricity generation?" (Dec. 1, 2020), https://www.eia.gov/tools/faqs/faq.php?id=77&t=11.

[31] U.S. Energy Information Administration, "What is U.S. electricity generation by energy source?" (March 5, 2021), https://www.eia.gov/tools/faqs/faq.php?id=427&t=3.

[32] See World Coal Association, "COAL & STEEL," https://www.worldcoal.org/coal-facts/coal-steel/ (last accessed March 16, 2021).

[33] Some alternatives to using coal in steelmaking are to use electrolysis powered by low-carbon electricity for recycled steel and hydrogen produced from low-carbon sources for virgin steel.

[34] One example of a fossil fuel producer that has successfully transitioned is Dong, or Danish Oil and Natural Gas, now Ørsted. Dong used to emit one-third of the country's CO2emissions. In 2009, 85 percent of Ørsted's power and heat production was black and 15 percent was green. By 2018, Ørsted's green energy output was 75 percent of total output and the company had reduced its CO2 emissions intensity per kilowatt hour by 72 percent. Eric Reguly, "A Tale of Transformation: The Danish Company That Went from Black to Green Energy," Corporate Knights (April 16, 2019), https://www.corporateknights.com/channels/climate-and-carbon/black-green-energy-15554049/.

The Committee expects that application of this Principle will be dynamic due to technological innovation as well as changes in industry and market practices. At the same time, the university should not use this flexibility, including the absence of an explicit divestment deadline, as an excuse to delay divestment from a fossil fuel company or an entire category of fossil fuel companies in compliance with this Principle. The university should anticipate the worldwide transition to clean energy. We believe that divestment does not have to wait until the economy has fully completed that transition if divestment is warranted.

Principle No. 2: Fossil fuel producers should operate in a manner consistent with best industry practices to reduce GHG emissions.

Assuming that a fossil fuel producer can satisfy Principle No. 1, Principle No. 2 addresses the secondary behaviors and activities relating to its operations. Criteria can include the type of energy used to power its operations, as well as the detection and mitigation of fugitive emissions. Failing to reduce carbon footprint alone does not constitute "grave social injury" warranting divestment; otherwise, this would bring into scope a broad swath of companies. However, fossil fuel companies play a unique role in the problem of climate change. Given the environmental impact of their products, they should not operate other than in accordance with best industry practices to mitigate GHG emissions. If a company has an especially weak record as it relates to mitigating climate impact, that company should not be eligible for investment.

Adherence to this Principle might lead Yale to divest from an oil producer that engages in routine venting or flaring, or a natural gas producer whose practices do not meet appropriate standards for detecting and preventing methane leaks, or whose leakage rate along the supply chain regularly exceeds best industry standards.[35]

Principle No. 3: Fossil fuel producers should not undermine but support sensible government regulation and industry self-regulation addressing climate change.

The broad consensus that climate change cannot be solved without collective action, including and especially through government intervention, requires that fossil fuel companies, at a minimum, refrain from working against government solutions to climate change. Where there are collective action problems such as this one, *The Ethical Investor* expects institutional investors to urge company management to seek necessary action from the government. Thus, any fossil fuel company that actively works against effective government solutions, such as a carbon tax, is causing grave social injury. This can be manifested in lobbying against effective regulation and policy as well as membership in trade associations that do the same. Which types

[35] Drilling and extracting natural gas and transporting it in pipelines can result in the leakage of methane, which is the main component of natural gas. Because methane is thirty-five times stronger than carbon dioxide at trapping heat, gas burned to generate electricity loses its climate benefits relative to coal when leakage along the supply chain exceeds certain limits. Union of Concerned Scientists, *Environmental Impacts of Natural Gas* (June 19, 2014), https://www.ucsusa.org/resources/environmental-impacts-natural-gas#:~:text=The%20drilling%20and%20extraction%20of,over%2020%20years%20%5B3%5D. Technology to curb methane leaks is widely available. See International Energy Agency, *Methane Emissions from Oil and Gas,* https://www.iea.org/reports/methane-emissions-from-oil-and-gas (last accessed March 16, 2021).

of lobbying and political activities rise to the level of grave social injury will require a judgment based on the information available to the university.

<u>Principle No. 4</u>: Fossil fuel companies should not undermine but support accurate climate science and accurate public communication about fossil fuel products, climate science, and climate change.

Inaccurate or misleading information about climate science, climate change, and fossil fuel products makes it more difficult to overcome the collective action problems described in this Report. Funding or propagating such information, or engaging in deceptive communications, is a particularly harmful form of corporate behavior from Yale's perspective, because this conflicts fundamentally with Yale's academic mission and its commitment to excellence and honesty in research and all intellectual pursuits. There is evidence that some actors in the fossil fuel industry have acted egregiously in the past, and this has perhaps done the most damage, by stymying the public will to act. To the extent any fossil fuel producers continue to engage in these practices, this constitutes grave social injury.

<u>Principle No. 5</u>: Fossil fuel producers should be transparent with Yale and Yale's Investment Managers about their compliance with Principles Nos. 1 through 4.

To be eligible for investment, a fossil fuel producer must be transparent about its activities enabling Yale and its managers to determine whether that company is in compliance with the foregoing Principles. This includes disclosure about the GHG intensity of its products, its exploration activities, its extraction practices, its management of fugitive emissions, and its engagement in political activities, among other information. Publicly-traded companies will be evaluated based on publicly available information. Private companies may be subject to a different approach that takes into account the possibility of transparency vis-à-vis their investors without public disclosure. In applying this Principle, the university should guard carefully against greenwashing. For example, it should not be sufficient for a large fossil fuel company to make insignificant investments in green technology for public relations purposes. The purpose of this Principle is to shift the burden of proof to the fossil fuel company in which Yale is invested and not allow a lack of information to be the cause of continued investment in a company whose practices constitute grave social injury.

VI. Conclusion

In one sense, all of humanity is complicit in grave social injury insofar as we contribute to climate change. Thus, it behooves Yale and all of us at Yale to do what we can to live in a sustainable manner. In a world where all consumers of fossil fuel products shifted to cleaner sources of energy, demand for fossil fuels would decline and, therefore, so would supply. For that reason, the mitigation of GHG emissions is a shared responsibility of all.

That said, fossil fuel producers have a special role and responsibility in the battle against climate change. To the extent they extract or supply fossil fuel products that are more GHG intensive than feasible alternatives, or do so in a manner that creates more GHG emissions than

best industry practice, or if they use their power and influence so as to confound government action or public understanding, this Committee believes they commit grave social injury warranting divestment under *The Ethical Investor*. Some might argue that staying invested in any fossil fuel producer is unethical; however, if the ultimate goal is the *mitigation of GHG emissions*, complete divestment of the fossil fuel industry by all environmentally-conscious investors may end up being a Pyrrhic victory, because less ethical producers would fill the void and contribute to more GHG emissions. Over the course of the necessary transition to a net zero world state, our hope is that these Principles will guide the university in how to engage with fossil fuel producers over that period of time, including, depending on the circumstances, decisions about whether to divest.

Statement of the Yale Corporation Committee on Investor Responsibility

In the last year, the Yale Corporation Committee on Investor Responsibility (CCIR) has considered and discussed with the Advisory Committee on Investor Responsibility (ACIR) the proposal of some Yale students to divest from a number of publicly-traded fossil fuel-producing companies based on their holdings of carbon reserves in the ground. The student group "Fossil Free Yale," citing principles of *The Ethical Investor* (John Simon, et. al., Yale University Press, 1972), has urged the University to take steps to divest should engagement with targeted companies fail to result in fuller greenhouse gas emissions (GHG) reporting by them,[1] or if the companies' reports do not show improvement in the ratio of total GHG emissions per unit of energy produced. The Yale College Council also released the results of a referendum it held last November indicating substantial support among undergraduates for divestment of "fossil fuel companies contributing the most to climate change and associated social harms."

CCIR agrees that climate change is a grave threat to human welfare. We believe, however, that the actions Fossil Free Yale proposes Yale take as an institutional investor – divestment or shareholder engagement as a precondition to divestment – are neither the right means of addressing this serious threat nor would they be effective. Yale will have its greatest impact in meeting the climate challenge through its core mission: research, scholarship and education conducted by its faculty and students. Yale should undertake special efforts to increase holistic understanding of the problem and ways individuals and institutions can work effectively on solutions of all kinds, including effective governmental policies and technological innovation. Yale should continue to be a leader in sustainability and sound environmental practices, while helping students, faculty and staff behave in environmentally responsible ways. As an investor, Yale should emphasize that companies, as a matter of sound business practices, should take into account the effects of climate change and anticipate possible regulatory responses with actions that recognize the externalities produced by the combustion of fossil fuels. The Chief Investment Officer is communicating this position to Yale's external investment managers. And as an ethical investor, Yale should support well-constructed shareholder resolutions that call for company disclosures that address climate change issues, as we state below in policy guidance for ACIR.

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[1] The emissions data sought are based on the accounting framework developed by the Greenhouse Gas Protocol, specifically a reporting organization's Scope 1, Scope 2 and Scope 3 emissions. More detailed guidance can be found at http://www.ghgprotocol.org/, but the three categories are generally described as follows, according to the Greenhouse Gas Protocol FAQs (http://www.ghgprotocol.org/files/ghgp/public/FAQ.pdf):

Scope 1 --direct emissions from owned or controlled sources.
Scope 2 --indirect emissions from the generation of purchased energy.
Scope 3 --all indirect emissions (not included in Scope 2) that occur in the value chain of the reporting company, including both upstream and downstream. The 15 categories covered include purchased goods and services; capital goods; fuel- and energy-related activities (not included in scope 1 or scope 2); upstream transportation and distribution; waste generated in operations; business travel; employee commuting; upstream leased assets; downstream transportation and distribution; processing of sold products; use of sold products; end-of-life treatment of sold products; downstream leased assets; franchises; investments.

The Yale Corporation set *The Ethical Investor* as its policy guidepost for the University's approach to investor responsibility over 40 years ago, and the principles contained in it remain relevant and constructive in the many moral debates that could affect the manner in which the University invests its endowment. A premise of *The Ethical Investor* is that Yale's endowment supports the functioning and success of the university as an academic enterprise, and that an institution like Yale must prioritize its commitment to teaching and scholarly work. Taking into account non-economic factors is not a decision to be made lightly, and a decision to divest or refrain from certain investments should be taken only when justified by the presence of grave social injury[2] and broad moral consensus concerning that injury, and after carefully confirming it to be a measure of last resort that will not undermine Yale's most central mission.

Under principles of *The Ethical Investor*, in order to justify taking action against a company, Yale's policy requires that the targeted company be causing social injury, and, in the case of divestment, grave social injury, through its actions. The buildup of atmospheric GHG through fossil fuel use is caused by the *combustion* of fossil fuels, not by holding reserves of carbon in the ground for possible future extraction, or even by bringing fuel to market. The fossil fuel extractive industry is involved in combustion mainly as supplier, but carbon dioxide (CO2) emissions are produced by the energy industry and power companies, companies involved in transportation, and many if not most other industrial and commercial firms, as well as individuals and households. Targeting a segment of the fossil fuel extractive industry (the supply side) for potential divestment largely on account of emissions by other actors downstream from them, while ignoring the direct contribution by individuals, businesses, government agencies, non-profit and other organizations that emit CO2 by burning fossil fuels (the demand side), in our view is misdirected.[3] And it does nothing to improve public or private policies that are capable of addressing the problem, either in the United States or globally, including by incentivizing the substitution or development of technologies and behaviors that may ameliorate GHG buildup.

The University's past decisions to divest from certain oil companies doing business in Sudan, and from certain companies doing business in South Africa, were based on a well-identified set of injurious actors[4]. In contrast, the injury from GHG emissions is complex and the number of contributing actors spans the economy. Effective mechanisms to control the injury necessarily must include those who use fossil fuels as well as those who produce fossil fuels, and on a global scale. Of course, the burning of fossil fuels over the centuries has

[2] As defined in *The Ethical Investor*, "social injury" means "the injurious impact which the activities of a company are found to have on consumers, employees, or other persons, particularly including activities which violate, or frustrate the enforcement of, rules of domestic or international law intended to protect individuals against deprivation of health, safety, or basic freedoms …."

[3] As described in more detail in Footnote 1 above, Scope 3 emissions attempt to capture all emissions in the company's "value chain" that occur from sources that are neither owned nor controlled by the company. Calculating Scope 3 emissions is extremely burdensome on companies, which would have to investigate, assess and monitor emissions from sources they neither own nor control, both up and down the value chain. The methodology and guidance for Scope 3 is very subjective, so when combined with the logistical challenges of measuring these indirect emissions, self-reported Scope 3 data are of questionable value for comparing the emissions of companies to identify "bad" actors.

[4] These companies were identified as providing substantial assistance to governments engaged in extreme injurious conduct (i.e., genocide and apartheid) that violated basic international human rights and freedoms.

enabled the development of economies and the betterment of human welfare around the world. And at least until alternative energy technologies and infrastructures can be developed and implemented, fossil fuels will remain essential to some degree. How one determines the net socially injurious impact of fossil fuel combustion by particular companies, and how one goes about identifying the companies responsible for the incremental emissions that cause injury (and thus who should be held accountable) are questions fraught with difficulty. We do not believe it a wise use of University resources to try to engage with an impracticably large number of companies, or to do so based on metrics that are not reliable for making the ethical judgment our policy deems necessary to justify consideration for divestment.

Yale's policy guide, *The Ethical Investor,* recognizes that there are some types of social injuries more appropriately corrected by government action, as opposed to company or industry-wide action. CCIR believes that the formidable problem of climate change, which rightly deserves the attention and involvement of all, is heavily dependent on government policy interventions, both nationally and internationally. The solution to this problem cannot be identified with a specific set of companies or even companies alone. Sensible and sound governmental policies are essential to reduce the threat of climate change.[5] Yale in exercising its voice as a shareholder should support such policies, and should vote proxies on shareholder resolutions that will demonstrate Yale's support of company behaviors that are consistent with the reality of climate change and the need for a multi-faceted coordinated response from all sectors of the government and the economy. Thus, CCIR has adopted the following policy guideline for implementation by ACIR:

CCIR Proxy Voting Guideline on Climate Change

> *Yale will generally support reasonable and well-constructed shareholder resolutions seeking company disclosure of greenhouse gas emissions, analyses of the impact of climate change on a company's business activities, strategies designed to reduce the company's long-term impact on the global climate, and company support of sound and effective governmental policies on climate change.*

CCIR invites ACIR to further consult with CCIR should it have questions about the positions presented in those shareholder resolutions on which it may be voting proxies.

CCIR appreciates the involvement by Yale students on this issue of paramount importance for all of us. The considerable devotion of students and members of ACIR to become educated and to educate others, and to engage members of this Committee on the matter of climate change and the role of institutional investors has contributed significantly to our deliberations and we offer our sincere thanks. We encourage continued dialogue between the students and the ACIR as the new guidance is implemented.

[5] Some governmental policies, to be effective, will necessarily require better metrics than currently exist for measuring emissions "generated" by each actor. Valuable work is continuing in this area, including here at Yale; however, this problem cannot be the responsibility of the Investments Office, which must focus on its core function of maximizing stable, long-term returns for the benefit of the Yale's students and programs.