

White Paper on divestment drafted by the Campus Infrastructure Committee in response to the Trustees

We are deeply grateful for the care that generations of Trustees have taken to steward Cornell's resources for the long term. This is a grave and precious responsibility. We are submitting a new request to reconsider the 2016 decision on divestment from fossil fuels precisely because we know how seriously the Trustees take the work of stewardship. We believe that this responsibility cannot only be financial. If Cornell's budget comes at the expense of young lives and does grievous injury to the world in which future generations take shape, then the University is taking care of its funds in violation of human welfare here and everywhere. This was not Ezra Cornell's vision. "My greatest care," he said, is how "to do the most good."¹

We make this request now because we know more about global warming than we did when faculty, staff, and students last asked the Trustees to divest from fossil fuels in 2015:

- 1. There is now global agreement that we must keep planetary warming under 2° C above pre-industrial levels in order to avoid catastrophic and irreversible damage to society and the environment.** In December of 2015, a historic environmental accord in Paris brought together virtually all of the nations in the world.² These 195 nations reached a consensus that we must work quickly and seriously to reduce emissions. At the current rate of global warming, the Earth will warm to devastating levels within the next 20 to 30 years.³
- 2. We know that some of the most dire expert predictions are already coming true, and many of these much faster than expected.**⁴ Every region on the planet is now feeling the effects of climate change: the last three years have seen unprecedented storms and droughts, floods and fires, tick- and water-borne illnesses.⁵ We have learned from military leaders that global warming represents a major national security threat,⁶ and from major medical groups that climate change is the "greatest public health challenge of the 21st century."⁷ We know that sea levels continue to rise, just as scientific models predicted, and will make many coastal cities, from Miami to Mumbai, uninhabitable in just a few decades.⁸ We know that climbing temperatures are creating conditions for increasingly devastating droughts across the Middle East and Africa, which will displace millions of people, potentially provoking mass hunger, migration, and a high likelihood of violent conflict.⁹ We know that a million species are now threatened with extinction, and experts predict the extinction rate to rise to a level ten thousand times more rapid than the norm.¹⁰

We have felt all of these effects already in the Finger Lakes region, with our own community members affected by the drought across the area in 2016, flooding in Broome County in 2011 and in Seneca County in 2017, the emergence of toxic algal blooms in Cayuga Lake for the first time in 2017, and a rise in tick-borne illnesses. As the atmosphere continues to warm, all of these conditions will worsen.¹¹

3. **We know, with more certainty than ever, that the cause of these catastrophic events is the steep rise in greenhouse gas emissions—carbon dioxide, methane, and nitrous oxide—caused by human activity.** 97% of peer-reviewed publications and nearly 200 scientific organizations worldwide are in agreement on this point, including NASA, the US National Academy of Sciences, the European Science Foundation, and the 1300 independent experts who have contributed to the UN Intergovernmental Panel on Climate Change.¹²
4. **We also know that it is not too late to make a difference.**¹³ The single most important driver of global warming is greenhouse gas emissions from fossil fuels: coal, gas, and oil. These generate approximately 70% of worldwide carbon dioxide-equivalent emissions.¹⁴ In other words, the energy supply sector contributes more than any other to global warming. There are many ways to reduce these emissions, including efficiency technologies and renewable energy sources. In order to stop the worst effects of global warming, we need to make a rapid shift away from our dependence on coal, oil, and gas.¹⁵ And yet, the world's major energy companies have instead continued to mine, drill, and build new pipelines for fossil fuels.¹⁶ Carbon emissions rose to an all-time high in 2018, rather than dramatically decreasing, as they should have done decades ago.¹⁷

Given the urgent pressure to act wisely now, we urge Cornell to act as a moral leader and divest from oil, coal, and gas. We believe that the fossil fuel industry meets the criteria for divestment outlined by the Trustees in 2016,¹⁸ and we make this case below.

I. **The case for moral reprehensibility**

What persuades us that the actions of fossil fuel companies meet the criterion set forth by the Trustees for **morally reprehensible action** is that these companies have long had knowledge of the consequences of global warming and yet have engaged in a deliberate campaign of climate deception.

Historians of science and investigative journalists have now shown, for example, that Exxon Mobil's own scientists reported in the late 1970s that carbon dioxide emissions were affecting the earth's climate and warned that unless the world shifted to other energy sources "some potentially catastrophic events" would follow, and the process "might not be reversible." Their experts reported "unanimous agreement" about the devastating consequences of petroleum use. An internal memo read: "man has a time window of five to ten years before the need for hard decisions regarding changes in energy strategies might become critical."¹⁹ At first, the company put substantial resources into understanding the climatic effects of fossil fuels. But then Exxon Mobil made an abrupt about-face. Instead of investing resources in a shift to renewable energy, the company hired the very strategists who had deliberately sowed public doubt about the connection between tobacco and cancer. What followed was a well-funded effort to spread uncertainty about the science of climate change.²⁰

Exxon Mobil is not the only guilty party. Koch industries were major sponsors of the campaign to sow doubt and stall government action on climate change.²¹ Until recently, British Petroleum misrepresented climate science on its website, and remains associated with groups that deliberately spread misinformation about the environmental impacts of climate change, including the American Petroleum Institute and National Association of Manufacturers.²² ExxonMobil, Royal Dutch Shell, Chevron, BP, and Total have spent over \$1 billion since the Paris Agreement on misleading publicity and lobbying against climate regulation.²³ Chevron is still publicly stating that our knowledge about the impacts of fossil fuel use on the environment is uncertain.²⁴ Shell spends nearly \$50 million every year lobbying against government policies to address climate change.²⁵ Coal companies, including Peabody Energy, also knew about the dangers of fossil fuels and deliberately funded campaigns of denial and misinformation to hide this knowledge.²⁶

With media reporting doubt about the science, the public have not been appropriately alarmed, and politicians have not only failed to take major action to reduce emissions, but have allowed both mining and drilling to expand.²⁷ The case for moral reprehensibility rests on the fact that the major energy companies knew that fossil fuel emissions had potentially catastrophic effects and deliberately proceeded to misinform the public and to press for political support based on false and misleading claims.

II. **The question of injurious impact**

The Trustees are right to ask for evidence of the **injurious impact** of these actions. The exact number of injured people is unknown because it is difficult to isolate the role of fossil fuel use from other factors in any single event, and it is impossible to predict the future with perfect precision. But even cautious estimates are striking. We know that fossil fuels are a major contributor to species extinction, heat waves, storms, floods, fires, desertification, rising sea levels, ocean acidification, pollution, and droughts. Here we focus on four of the worst and most massive injuries: rising rates of hunger, damage and disease from flooding, large-scale displacements of human populations, and a mass extinction of the world's species.

- a. Among the most damaging effects of global warming is rising **hunger**. The number of climate-related disasters has doubled since the early 1990s, often laying waste to crops and driving up food prices.²⁸ Droughts have triggered severe famines across southern Africa.²⁹ In 2019, heat waves destroyed rice fields in Thailand and Indonesia, delayed corn and soybean planting in the United States, ruined sugar cane plantations and oilseed crops in India, and brought record-breaking heat to Europe.³⁰ After rates of world hunger had started to fall, extreme weather triggered by the warming of the oceans and the upper atmosphere has increased the number of chronically hungry people by 15 million people since 2016.³¹ This number is expected to rise rapidly over the next few decades as large areas of arable land turn to desert and as agricultural crop yields falter from heat stress, depleted soils, and crop disease.³²

- b. **Floods** are equally devastating. At least 600 million people live within a few feet of sea level. If we do not lower emissions, Boston, Miami, Houston, New Orleans, Hong Kong, Rio de Janeiro, Osaka, Alexandria, and Mumbai will find themselves mostly or completely under water in this century.³³ As sea levels rise, all coastal residents are at risk of water-borne disease and damage to homes, farms, power plants, navy bases, and fisheries. The World Health Organization estimates that flooding will cause high rates of malnutrition, malaria, cholera, diarrhea. Overall, they say, climate change will cause an additional 250,000 health-related deaths per year between 2030 and 2050,³⁴ which the *New England Journal of Medicine* calls “a conservative estimate.”³⁵
- c. Fossil fuel emissions are already driving a massive **displacement of human populations**—that is, homelessness on a new scale. In 2009, the United Nations High Commissioner for Refugees predicted that climate change would cause an unprecedented rise in the number of refugees worldwide.³⁶ It is estimated that there will be between 25 million and 1.2 billion environmental migrants in the world by the year 2050, driven from their homes by extreme weather events, floods and droughts, soil erosion, food and water shortages, and uninhabitably high temperatures.³⁷ Many warn that global instability will follow, as millions of people struggle to cross borders at the same time and fight over increasingly scarce food and water.³⁸ Researchers argue that climate change has already been a factor in the Syrian civil war,³⁹ and that severe hurricanes have forced people to flee from Guatemala, which has contributed to the border crisis here in the United States.⁴⁰ The U.S. intelligence community considers climate change to be a major threat to national security, “likely to fuel competition for resources, economic distress, and social discontent through 2019 and beyond.”⁴¹
- d. Global warming is contributing to **rapid decreases in biodiversity** worldwide. Approximately one million species of plants and animals are now facing extinction, including more than 40% of insect and amphibian species, and more than a third of all marine mammals—more than at any other point in human history.⁴² Without major changes, the world is heading toward a major extinction event, with accelerating species loss in an unstoppable feedback loop.⁴³ While fossil fuel emissions are only partly responsible for the rates of extinction, scientists cite the warming of the planet as a major factor.⁴⁴ For example, higher temperatures and ocean acidification are causing declines in marine biodiversity, including the bleaching of the Great Barrier Reef, the habitat of 9000 species.⁴⁵ Warming also has a multiplier effect: it can wipe out one heat-sensitive species that others depend on for survival, or benefit invasive species that wreak havoc on others. Often, it creates mismatches in the timing of species interaction: a bird that migrates may now travel too soon to feed on the insects that mature later.⁴⁶ Biodiversity is crucial not only for animals and plants but for human food security and health, including the pollination of crops, the health of fish and soil, and the flora and fauna needed for life-saving medicines.

What is perhaps most disturbing is the possibility of **runaway feedback loops** that may greatly accelerate global warming and climate destruction. Currently, 25% of the carbon dioxide emitted from burning fossil fuels is taken up by the oceans, lessening the impact on warming. But as warming continues, the melting of ice in the Arctic Oceans and glaciers of Greenland are changing the circulation patterns of the ocean, which may lead to much less uptake of carbon dioxide in the future.⁴⁷ Another possible runaway feedback may come from the melting of the Arctic permafrost. Thanks to global warming, the permafrost is melting much faster than scientists predicted. It contains vast amounts of carbon dioxide, which are released as it melts, accelerating warming trends.⁴⁸ Scientists concluded in November 2019 that we are much closer to several **tipping points** than we had thought before, and that the world is now in a state of “climate emergency.”⁴⁹ Because warming processes are irreversible on time scales of less than several thousand years, it is urgent to take action quickly—before they become unstoppable.

Taken together, the scale of suffering caused by climate change could quickly dwarf that of all past wars, epidemics, and genocides because of its accelerating feedback loops and multiplier effects. In 2018, the Intergovernmental Panel on Climate Change report recommended that if we are going to prevent the worst injuries to human communities worldwide, we must make dramatic cuts in carbon emissions. To achieve a habitable planetary temperature and forestall massive suffering, humans will need to stop all digging and drilling for new sources of fossil fuels.⁵⁰

III. **The responsibility of coal, oil, and gas companies**

Given that the climate crisis is global in scope, and there is a rising demand for energy worldwide, why focus attention on energy companies—why not spread it to all of us, including politicians and consumers? The answer lies in the fact that energy companies are continuing to push for fossil fuel production, even as the evidence mounts for the destructive effects of this path.

Although the world’s largest oil companies have claimed that they are making the shift from fossil fuels to clean energy, a study by Aurora Energy Research showed that the lion’s share of their capital is going to new exploration and production of fossil fuels. British Petroleum, for example, allocated just 2.3% of its investment to clean energy, and Shell invested 1.3%.⁵¹ Exxon Mobil and Chevron have also resisted to the move toward renewable energy.⁵² The companies responsible for most of the world’s fossil fuel emissions are in fact doubling down on plans to increase oil and natural gas production now. Shell and Exxon Mobil have plans to produce 35% more oil by 2030, exactly the reverse of the reduction scientists are urging.⁵³ And they are spending millions of dollars each year lobbying governments to roll back environmental regulations, spreading misinformation about the link between fossil fuels and global warming, and continuing to push for new rights to mine and drill, including in nature preserves and national parks.⁵⁴

It is a comparatively small number of companies that are taking the world down this catastrophic path. Currently, 90 corporations are responsible for two-thirds of all greenhouse gas emissions caused by human activity. Among these, just eight energy companies account for 20 percent of world carbon emissions. British Petroleum, Exxon Mobil, Royal Dutch Shell, and Chevron are on this list.⁵⁵

Given the increasingly dangerous increases that fossil fuel companies are planning, it seems urgent to put pressure on them to stop as soon as possible. So far, ordinary actions have not succeeded in pushing these companies to change course. It is in this context that we respectfully request that Cornell University phase out all of its investments in oil, gas, and coal in as orderly manner as possible.

IV. **The case for divestment**

To be sure, it is not enough to show a strong link between global warming and fossil fuel emissions, or to show that fossil fuel companies have known of the harms they are causing and yet have hid this from the public through a campaign of purposeful misinformation. It is important, as the Trustees argue, to make the case that divesting the Cornell endowment from fossil fuel companies is a meaningful action that does not have other damaging effects.

We offer three arguments in favor of divestment here.

- a. The first argument is **moral**. If we seek to protect ourselves and future generations from unnecessary harm, to promote human flourishing, and to steward precious resources, then we cannot also knowingly support companies that are intentionally speeding unprecedented suffering and the irreversible destruction of civilizations and ecosystems.

Organizations that care for human health have made this case explicitly, including the American Medical Association and the British Medical Association. As the *British Medical Journal* put it: "Those who profess to care for the health of people perhaps have the greatest responsibility to act."⁵⁶

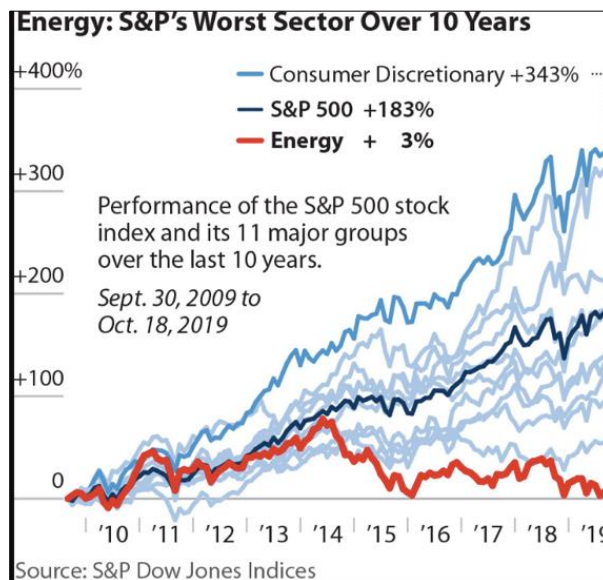
Faith-based institutions have also been strong in their case for divestment from fossil fuels. The Catholic Church has called for divestment, and numerous Protestant churches have divested from coal, oil, and gas, including US Episcopal Church, the Methodist Church, the Uniting Church of Australia, the Church of Sweden, and the Church of England.⁵⁷ The United Church of Christ puts it this way: "As people of faith, we are called to be good stewards of creation, to care for it and heal it, and to live in harmony with it. While we can admit our role in using fossil fuels and work to reduce our carbon footprints as individuals, we must also work collectively to change the system."⁵⁸ Other faith traditions make comparable arguments. "According to Islam's most basic and fundamental teachings, human beings have been uniquely charged with the great responsibility of being Guardians of the

Earth,” said Azha Razee, President of the Islamic Society of North America. “It goes against the mission of the ISNA to invest in fossil fuel companies whose operations and products cause such great harm to humanity and creation.”⁵⁹ Nobel Prize-winner Archbishop Desmond Tutu likened the moral urgency of divestment from fossil fuels to the divestment from South Africa that helped to end the Apartheid system in the 1980s. Tutu urges us to take moral responsibility. “It is a responsibility that begins with God commanding the first human inhabitants of the garden of Eden ‘to till it and keep it.’ To keep it; not to abuse it, not to destroy it.”⁶⁰

Colleges and universities have now begun to join health and religious organizations in substantial numbers, citing our moral responsibility to young people now and future generations as essential to our core mission. The President of University College London described the decision to divest this way: “Universities have a responsibility to lead change for environmental and social sustainability... By doing so, we will play our part in catalysing the broad changes we need to create a sustainable future for people and planet.”⁶¹ Other colleges and universities now pledged to full divestment include the University of California System, Middlebury College, Smith College, University of Copenhagen, University of Edinburgh, University of Gottingen, University of Essex, University of Hawaii, Trinity College, Dublin, Syracuse University, Seattle University, and the University of Maryland.⁶² The University of California system, with an endowment larger than that of Cornell, has announced that they have already completed divestment from fossil fuels.

- b. The second argument concerns the more specific arena of **business ethics**. Companies that purposefully mislead the public about the harmful effects of their products should be held accountable, in part to show other companies that as a society we condemn such deceit. The scale and impact of the fossil fuel companies’ ongoing deception is especially grievous. Their lies not only carry with them tragic consequences—in the many millions of human lives—but they are also deeply dishonorable in themselves, discrediting the hard work of scientists for profit, deliberately deluding governments, and violating the most basic norms of professional conduct. It is important to send the message that other social institutions do not tolerate this reckless level of intentional deception.⁶³
- c. The third argument is **financial**.

According to the Institute for Energy Economics and Financial Analysis (IEEFA), the energy sector, which does not include renewable energy, “finished dead last among sectors in the Standard & Poor’s 500 in 2018, in the wake of years of underperformance. In 1980, seven of the top 10-ranked companies in the Standard



& Poor's index were oil and gas companies. Today, there are none. In 1980, energy companies comprised 28% the S&P 500. Today, it is closer to 4%. The outlook for oil and gas companies is weak, at best."⁶⁴

Most forecasts suggest that the value of fossil fuels is not going rise. Given the huge global movement afoot to reduce dependence on fossil fuels since the Paris Agreement, with hundreds of nations and states committing to reducing their use, the value of fossil fuels may even drop dramatically. In July 2019, for

example, the State of New York enacted new legislation that mandates a reduction in greenhouse gas emissions from fossil fuel use, including transportation, residential, commercial, and industrial use, as well as electricity generation. The target is a 40% reduction within the next 10 years and 85% by 2050.⁶⁵ This mandate will require a massive decrease in the use of fossil fuels.⁶⁶ Moody's downgraded the credit rating of Exxon Mobil in November 2019 from "stable" to "negative."⁶⁷ As entire regions move aggressively away from fossil fuels, oil and gas investments seem increasingly unwise.

The UN-support independent group, Principles for Responsible Investing (PRI), argues that established financial models are not adequate to the task of assessing the financial value of fossil fuels. So much is changing—from the global regulatory context to the development of new technologies to the psychology of investors—that we cannot depend on past experience as a guide to the future of this sector. PRI makes the case that investors need more access to robust academic studies of the factors at work to make smart decisions.⁶⁸ "Markets today lack a strong basis for pricing climate transition risk, and do not seem to have priced in a forceful policy response to climate change within the near-term. According to the PRI's own analysis, only 2 percent of its signatories which include the world's largest investors are 'strategic' in their assessment and reporting of climate risk." Or, as the Governor of the Bank of England puts it: "Changes in climate policies, technologies and physical risks in the transition to a net zero world will prompt reassessments of the value of virtually every asset. The financial system will reward companies that adjust and punish those who don't."⁶⁹

PRI forecasts major changes in the energy system, including a peak in oil in 2026-28, an average 6% decline annually in the value of coal from 2025 to 2040, a peak in natural gas around 2040, and a rapid rise in renewables, including, solar, wind, and hydropower, which are predicted to generate 74% of all power in 2040.⁷⁰ During this global energy transition, fossil fuels could become stranded assets. As the

Rockefeller Brothers Foundation says: “At least 60 percent of all known fossil fuel reserves have to remain unburned if the world has any chance of meeting the 1.5-degree target set at the Paris Climate Summit in 2015, meaning these assets are likely to become stranded and lose value over time.”⁷¹

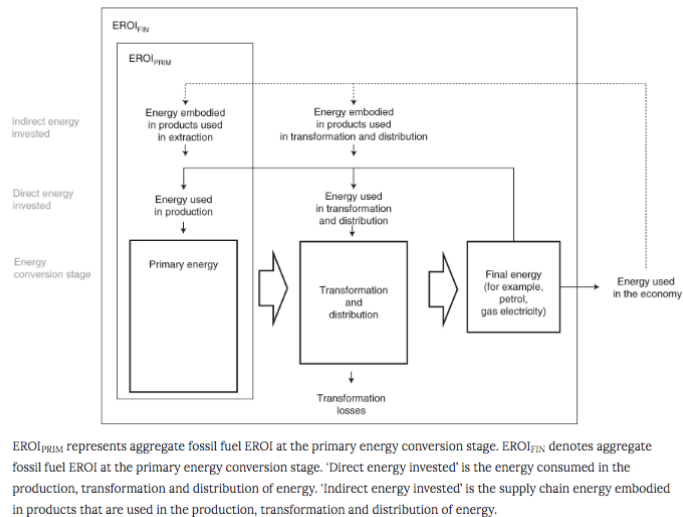
Several experts have made the case that conventional financial models misconstrue the specific conditions of the fossil fuel industry.⁷² For example, most modellers today calculate returns on fossil fuel investment at the energy source, where return ratios are high (25:1 or better), whereas estimating returns at the “energy carrier” stage—when it enters the economy as electricity, gas, or

petrol—yields a better basis for comparison with renewables, and a poorer outlook for the value of fossil fuel assets. Also, as sources of fossil fuels become harder to reach, they “require more energy to extract and, hence, are coming at an increasing ‘energy cost.’”⁷³

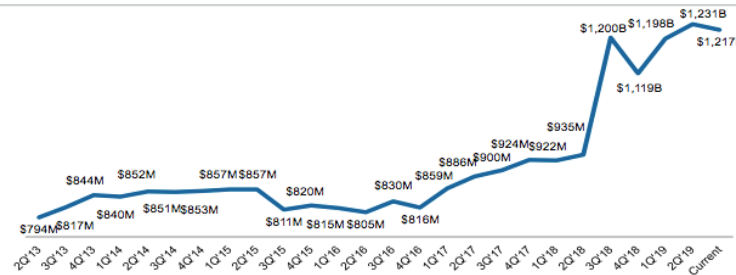
To add to the complexity of assessing fossil fuel values, it is often not clear to investors who is best placed to assess climate risks—individual fund managers, energy sector analysts, or climate specialists—and the sources of information they consult and the methods they use can lead to widely conflicting views.⁷⁴ North American investors are also lagging behind European and Australasian counterparts when it comes to understanding the potential impact of climate change: “to the extent that they consider climate risk at all, [they] are in many cases only now beginning, tentatively, the ascent of a steep learning curve.”⁷⁵

Meanwhile, fossil-free portfolios have been performing well. According to the Rockefeller Brothers Foundation: “more and more institutions are deciding to divest, and asset managers are increasingly willing to offer fossil fuel-free funds. We’re confident that sound portfolios can be created without exposure to fossil fuels, and our investment performance since 2014 supports that belief.”⁷⁶ The growth in the value of the Rockefeller endowment looks like this:

From: Estimation of global final-stage energy-return-on-investment for fossil fuels with comparison to renewable energy sources



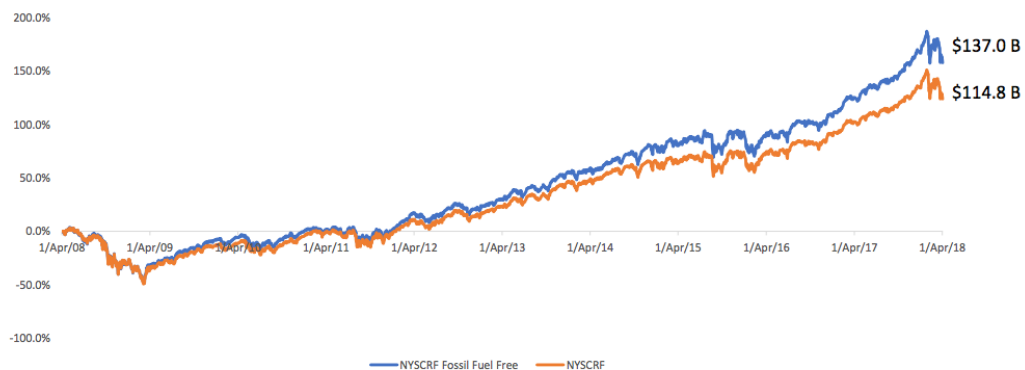
GROWTH IN VALUE



Comparing the recent performance of fossil-free portfolios to those that include fossil fuels, a study by Corporate Knights shows that the New York State Common Retirement Fund “would be an estimated \$22.2 billion richer had it decided to divest its fossil fuel stocks eleven years ago. A fossil fuel free version of the NYSCRF would have left each of its 1,122,626 members and retirees an additional \$19,820 richer at the end of the period of analysis”⁷⁷:

d.

Portfolio Statistics	April 1 2008 to March 30 2018	April 1 2008 to March 30 2018
	NYSCRF Fossil Fuel Free Portfolio	NYSCRF Portfolio
Total Return	157.7%	123.8%
Mean Return (Annualized)	17.3%	15.1%
Standard Deviation (Annualized)	19.8%	20.1%
Downside Risk (Annualized)	14.1%	14.4%
VaR 95% (ex-post)	-1.75%	-1.77%
Sharpe Ratio	0.60	0.51
Tracking Error (Annualized)	2.7%	



So far, it is not clear how divesting from fossil fuels affects university endowments. In October 2019, the University of California’s chief investment officer explained that it made sense for the system to divest from fossil fuels because they are not financially sound. “Clean energy” is where there is “money to be made.”⁷⁸

Preliminary studies suggest that larger endowments are not hurt by divestment, while smaller ones are.⁷⁹ One analysis shows that divestment from fossil fuels “does not significantly impair the financial performance of investment portfolios.”⁸⁰ Another study shows that organizations do well when they not only divest from fossil fuels but also invest in clean energy, which keeps their portfolios diversified.⁸¹

Whatever the general outlook, it seems likely that Cornell could profit from the “first mover advantage.” Being the first of the Ivies to divest will mean drawing global attention as a leader in sustainability. This status could bring economic as well as reputational benefits, including donations and investments. There is evidence, too, that increasingly, prospective students weigh colleges’ commitments to sustainability as part of their decisions. According to the *Princeton Review*, “a solid majority (64%) of the 11,900 teens and parents that the company polled for its 2019 *College Hopes & Worries Survey* said that having information about a college’s commitment to the environment would affect their decision to apply to or attend the school.”⁸² Cornell did not rank in the top 50 on the Princeton Review’s list of green colleges in 2019.

V. The difference divestment makes

All of these arguments might be persuasive, and yet one might still make the case that divestment makes no material difference. Perhaps it merely makes stocks in fossil fuels cheaper, which is an invitation to other investors to snap up the opportunity to buy.

But the story is more complex than the stock price alone. There is evidence that divestment can make a **material difference**. One study shows that announcements of plans to divest from fossil fuel companies by “powerful and legitimate stakeholders” do have a meaningful effect, influencing share prices.⁸³ As major investors like Norway’s Sovereign Wealth Fund, the University of California, and the nation of Ireland divest, they send a message to the market as a whole that trusted institutions are moving away from fossil fuels,⁸⁴ no longer accepting the misleading claims of energy companies. One of the key supports for businesses to succeed is social acceptability.⁸⁵ As long as fossil fuel companies seem like respectable businesses, they can draw consumers, government favor and support, and the benefits of high reputations. Divestment sends the message that these are disreputable companies, no longer acceptable to the mainstream investor.⁸⁶ And this matters. As Shell stated in 2018, the movement to divest “could have a material adverse effect on the price of our securities and our ability to access equity capital markets.”⁸⁷

With over \$6 trillion of funds worldwide committed to divestment, and fossil-free portfolios now outperforming the stock market by almost 2% each year for five years, divesting from oil, gas, and coal has the potential to be triply effective: it sends a clear moral message to businesses pursuing a destructive course, strengthens the global movement for constructive change through this perilous climate crisis, and makes smart financial sense.⁸⁸

VI. **The companies in question contribute to harm so grave that it is inconsistent with the goals and principles of the University.**

The denial of scientific knowledge and the destruction of present and future human flourishing strike at the very heart of Cornell's great mission. Two goals guide every aspect of our work here at Cornell: first, "to educate the next generation of global citizens"; and second, "to discover, preserve and disseminate knowledge."⁸⁹ Investments in oil, coal, and gas companies powerfully undercut these cherished goals and principles.

a. Educating the next generation of global citizens

Every day, as classrooms hum with activity, and young brains buzz with new ideas, Cornell commits itself to developing the skills and knowledge that current and future generations will need to lead full, meaningful, and productive lives. Since its founding, Cornell has been especially committed to training a wide range of talented students to become wise and knowledgeable leaders. For over a century, we have succeeded admirably in this effort. Cornell graduates figure among the world's best judges, entrepreneurs, CEOs, diplomats, teachers, philanthropists, philosophers, politicians, writers, and architects. Today, this work is more urgent than ever. As Martha Pollack put it in her 2019 State of the University Address, the challenges the world faces now "require the kind of education and knowledge that we strive for at Cornell—one that will do the greatest good not just for each individual student, but for the communities and societies they will live in, lead, and serve."⁹⁰

Our support for fossil fuel companies directly contravenes this mission. We are investing our most passionate energies in the generations to come, and yet at the same time we are investing our endowment in companies that are knowingly and recklessly profiting off those same generations. With one hand, we educate young people to the highest standards in the world so that they will fulfill their dreams; with the other, we wrest their dreams from them, supporting a path of destruction that researchers know leads to widespread conditions of food shortages, catastrophic flooding, devastating species loss, and global violence. As the President of Unity College argues, "It is ethically indefensible that an institution dedicated to the proposition of the renewal of civilization would simultaneously invest in its destruction."⁹¹

b. Discovering, preserving and disseminating knowledge

The second of our most precious missions is the discovery of new knowledge. Cornell is renowned worldwide for our rigorous and cutting-edge research, which includes Nobel-Prize winning science, energy innovations, knowledge of social impacts, and works of creative art.

Fossil fuel companies have actively worked against this mission, undermining the passionate pursuit of truth we hold precious here. Organizations funded by fossil fuel interests have circulated knowing deceptions and unsubstantiated attacks on science and even on individual scientists, which have led to threats to their lives, families, and careers. The American Natural Gas Alliance, for example, paid for a campaign that smeared Cornell Professor Robert Warren Howarth with misleading Google ads after he published a study of the damaging effects of natural gas.⁹² Energy in Depth, which calls itself “a research, education and public outreach campaign focused on getting the facts out about the promise and potential of responsibly developing America’s onshore energy resource base—especially abundant sources of oil and natural gas,” attacks research scientists at Cornell who are investigating the damaging effects of fossil fuels.⁹³ Fourteen oil and gas companies, including Shell, Occidental Petroleum, BP, Chevron, and Halliburton, have funded this group.⁹⁴

The misinformation campaign about climate hits Cornell especially hard. This university is a world leader in research on the environment, with no fewer than 569 researchers from 90 departments and programs at Cornell currently affiliated with the Atkinson Center for Sustainability.⁹⁵ Cornell researchers are developing new knowledge about climate and exciting solutions for the climate crisis that range from energy storage to sustainable architecture to economic development.

Cornell is frequently featured in national and international news for the knowledge of climate pioneered here. It is the Cornell Lab of Ornithology that discovered that billions of birds have disappeared from North America since 1970.⁹⁶ It is the Cornell Institute for Climate Smart Solutions that developed ‘Climate Change in your County,’ a tool that can help farmers and community leaders plan for the future.⁹⁷ Cornell Earth and Atmospheric Sciences Professor Natalie Mahowald testified about the scientific consensus on climate change before the House Science, Space and Technology Committee in 2019⁹⁸; Robert Howarth was one of 50 people in the running for *Time*’s Person of the Year in 2011 for his research on methane and climate change; and chemist Geoffrey Coates has developed new polymers that are more sustainable than conventional plastics.⁹⁹

As long as we invest in fossil fuels, it is as if one side of Cornell is working against the other. At the same time that Cornellians have spent thousands of hours in research labs and classrooms developing our understanding of the climate crisis, energy interests have put their money into discrediting this hard-won academic knowledge. The more our research is discredited, the harder we need to work to counter the attacks, and the more difficult the solutions we will need to develop to save lives, protect crops, and nurture biodiversity. In this sense, fossil fuel interests weigh down Cornell’s world-class research program.

Nor should we ignore the financial benefits brought to the University by our cutting-edge research on climate change. In the latest report of the research office, Cornell expended a total of over one billion dollars in organized research.¹⁰⁰ The Atkinson Center awards seed grants to scholars here who then leverage that funding to attract larger grants, with a return on investment of more than \$7 for every \$1 that the Atkinson Center funds.¹⁰¹ To give a small sense of the vast array of externally funded projects on climate at Cornell under way now: an international research network expanding the boundaries of the field of computational sustainability recently won funding from the National Science Foundation for \$7.4 million,¹⁰² and the U.S. Department of Agriculture and the NSF have awarded a \$2.4 million grant to an interdisciplinary team of Cornell researchers studying the impacts of converting farmland to renewable energy production.¹⁰³

To be sure, one could argue that Cornell should not use its investment portfolio in ways that might disturb current and potential funders to the University. Money from fossil fuels may themselves further our mission. In 2016, Cornell Earth and Atmospheric Science Professor Larry Brown warned that divestment would damage “the many research and academic programs at Cornell that are funded by the oil, gas and petrochemical industry, and the career prospects of Cornell students that are interested in working in those industries.”¹⁰⁴ His conclusion was that divestment “undermines the most precious asset a university has in addressing any controversial issue: its reputation as an unbiased source of scientific knowledge.”¹⁰⁵ But the opposite argument is compelling: as long as researchers depend on money from oil and gas interests, they are not free to produce unbiased science. And since fossil fuel companies have been engaged in campaigns to intimidate and discredit our colleagues, they endanger scientific neutrality more than divestment ever could.

In short, since we invest so much world-class talent and energy in building a sustainable world, we should not at the same time invest our funds in companies that knowingly contradict that goal.

c. Core values: public engagement and care for the natural environment

President Pollack launched an initiative this past year to meet with members of the community to identify our shared values. Beyond our “bedrock” academic mission, the Cornell community sets store by two values—public engagement and care for the natural environment—that are profoundly compromised by continued investments in fossil fuels.¹⁰⁶

i. Changing Lives through Public Engagement

From the beginning of this great university, Cornell has valued “engagement in our community, our state, and the broader world,

learning about their needs and strengths, and applying the knowledge we create for the benefit of society.”¹⁰⁷ Cornellians work every day to improve human health and well-being, to strengthen communities, to preserve civilizations, species, and languages, and to reduce violence. Major energy companies today are undermining all of these goals.

ii. Respect for the Natural Environment

A value that was repeatedly articulated to President Pollack during her conversations with students, staff, faculty, and alumni was our shared respect for the environment. “We value our role in advancing solutions for a sustainable future and we recognize the close relationship between people and the Earth, acting in ways to live and work sustainably.”¹⁰⁸ It would be difficult to identify a greater threat to this core value than a continued legitimization of companies that are responsible for the imminent extinction of a million species, the dramatic drop in numbers of mammals and birds, severe droughts and floods, and the destruction of large numbers of habitats, including the acidification of the oceans.

VII. Stewardship for the future

Cornell University’s reputation rests on our ongoing academic excellence and our public service mission. Both of these prompt scholars and students across the university to dedicate our energies to understanding climate change and to developing wise solutions. In every college in this magnificent institution, we see a far-reaching commitment to sustainability. We rank first in the Ivy League for sustainability overall; we are the number one Ivy League Institution for overall carbon reduction; and we have some of the most aggressive carbon reduction goals among research universities.¹⁰⁹ From the Atkinson Center for Sustainability and the Cornell Institute for Climate Smart Solutions to Cornell Cooperative Extension and Climate Change AI, Cornell researchers lead the world when it comes to climate change and sustainability. Our students are passionate about understanding and responding to the dangers of global warming. In its first year, 400 undergraduates signed up to major in the new cross-college Environment and Sustainability major.

In this context, it is surprising that Cornell is lagging behind other colleges and universities as these begin to divest from fossil fuels in significant numbers. Our peers are sending the message that the catastrophic disregard for scientific knowledge and human welfare is not acceptable to institutions entrusted with the sacred task of advancing knowledge for the public good. Cornell could make history as the first Ivy League university to divest. We certainly do not want to be the last.

Responses to counter-arguments

Members of the Cornell community raise excellent questions about divestment. Here we respond to several common concerns and objections:

1. *Divestment politicizes the endowment, which is divisive.*

Our common future is at stake. Given the devastating effects of climate change on future generations, it is a mistake to understand climate change as a narrow or partisan issue. While it is true that this issue was politicized for a period, both parties have a long history of fighting environmental threats. George H. W. Bush was in fact the first US President to call for action on global warming.¹¹⁰ Today, young members of both parties are concerned about climate change,¹¹¹ and majorities of citizens favor action to prevent the earth from dangerously warming.¹¹²

2. *Divestment distracts attention from the other important work we could be doing as a campus to make Cornell sustainable.*

In this moment of “climate emergency,” it is crucial to do as much as we can to reduce carbon emissions and slow the pace of warming before feedback loops become unstoppable. Divestment is one strategy among many others that we need to make the large changes that are necessary to preserve human communities and nonhuman life worldwide. We expect Cornell to continue to invest our best energies and commitments in carbon neutrality with or without divestment.

3. *How much money does Cornell have invested in fossil fuels?*

The specific details of Cornell’s investments are not public knowledge. If it is a small amount, it should be easy to divest and will still send a powerful public moral message that we do not tolerate this deceptive and dangerous business. If the amounts invested are substantial, then it seems the more urgent to move this money to less dangerous and better performing investments.

4. *Divestment harms our reputation as a neutral and impartial institution.*

It is precisely for the sake of scientific truth and the general public good that we seek divestment. Oil, gas, and coal companies have launched multiple campaigns to intimidate and discredit scientists, deliberately endangering both scientific neutrality as well as human communities worldwide.¹¹³

5. *How can we demand accountability from fossil fuel companies as long as we ourselves continue to drive cars, fly, heat our houses with natural gas, and eat meat?*

Existing institutions and infrastructures have fostered our dependence on fossil fuels, and it is difficult for any of us to extract ourselves completely. Change at the

institutional level will make individual environmental action more likely. For example, ordinary households will find it financially easier to shift to sustainable energy if fossil fuels are not subsidized to make them cheaper than renewables.¹¹⁴

6. *Divestment insults and alienates alumni/ae who work in the fossil fuel industry.*

Investment in fossil fuels is alienating members of our community, too, including our current and future students who are deeply concerned for their future. According to the *Princeton Review*, “a solid majority (64%) of the 11,900 teens and parents that the company polled for its 2019 *College Hopes & Worries Survey* said that having information about a college's commitment to the environment would affect their decision to apply to or attend the school.”¹¹⁵

7. *Divestment is a slippery slope. If we start divesting from all companies culpable of immoral action, we will have nowhere left to invest the endowment.*

The current “climate emergency” is no ordinary case. It is threatening human civilization as we know it. As warming begins to hit irreversible tipping points, millions if not billions of human lives will be lost to hunger, disease, drought, and floods. We have made the case that the fossil fuel industry meets the stringent criteria for divestment set forth by the Trustees.

8. *How does divestment work?*

Universities typically commit to divesting over a period of time, such as 5 years. Full divestment means taking away funds that are directly owned or commingled that include fossil fuel public equities and corporate bonds; it means freezing all new investments in fossil fuel companies, and it means putting an end to all fossil fuels sponsorships, which are relationships that help to create a ‘social licence to operate.’¹¹⁶ The Trustees could use this list of the [top 200 fossil fuel companies](#) by reserves or they could decide to divest from all fossil fuel companies.

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