

Averting a Climate Crisis:

Investing in a Sustainable Future at Oxford University



Student Submission on Fossil Fuel Divestment

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I. Executive Summary

The Oxford student fossil fuel divestment campaign

The international movement for fossil fuel divestment¹ has become the fastest growing divestment campaign ever. Oxford students brought the campaign to this University in October 2013 and have since won support from OUSU council, 26 student common rooms, academics, and alumni. This student submission is a response to the University-wide consultation on divestment called for by the Socially Responsible Investment Review Committee (SRIRC).

The Climate science

The problem of human-induced climate change is one of the defining challenges of the 21st century. In order to limit global warming to less than 2 degrees, a threshold at which risks of irreversible and dangerous climate change significantly increase, we must remain within a 'carbon budget' for emissions of roughly 1 trillion tonnes. **Current proven reserves of carbon, i.e. coal, oil and gas reserves, amount to 5 times the remaining 2 degree 'carbon budget'**.

The Economic and political challenges of climate change

Despite 20 years of international negotiations on a climate treaty, we are far from an economic or political solution that measures up to the huge challenge of climate change mitigation. The trend is towards a greater dependence on fossil fuels, the source of carbon emissions, rather than a serious effort to develop low-carbon energy alternatives. Meanwhile, fossil fuel companies, rather than acknowledging the need to scale back their investment in existing reserves, are pouring significant capital into finding and developing new ones.

This situation is unsustainable on both environmental and financial grounds. Indeed, in the absence of a coherent strategy for managing the large volume of unreal value locked away in unburnable fossil fuel reserves, we run the risk of exposing financial markets to a '**carbon bubble**'. This bubble is set to burst when governments introduce the required policies to effectively tackle climate change.

Why Oxford needs to act

The investments we make are a statement about the future, about what we imagine or expect that future to be. We therefore need to ensure that the University's investments are consistent with a sustainable, low carbon energy system in the years to come.

¹ Fossil fuel divestment is the act of withdrawing or withholding financial capital from companies that participate in fossil fuel exploration or extraction.

As students, we believe the University of Oxford has an ethical duty to adopt a carbon-sensitive investment policy. It is this action that will encourage the market and policy shifts that will secure the future wellbeing of students and staff as well as young people the world over.

The international fossil fuel divestment movement has already had positive knock-on effects, galvanizing investors, policy-makers, and corporate managers to act. It has also raised the profile of the 'carbon bubble' and 'unburnable carbon' discussion, such that other investors have begun to see the need to shift their investment strategies. Adopting a carbon-sensitive investment policy can also help shift what the wider public and consequently policy makers view as common sense action on climate change.

For these reasons, we believe that, in the absence of a carbon-sensitive investment policy, the University's current investment practices do not accord with its own ethical investment policy. This policy calls on the University to ensure that it 'makes investment decisions responsibly and with integrity' and '[takes] into account social, environmental and political issues in order to maintain its ethical standards.'

Recommendations

This report outlines a four-part carbon-sensitive policy approach that we, as students, believe constitutes meaningful investor action on climate change. In brief, the four elements are to:

- Systematically evaluate carbon risk across the entire investment portfolio;
- Actively manage the carbon risk exposure of its portfolio with the aim of steadily shifting investments away from high-risk, carbon-intensive assets and toward low-carbon opportunities;
- Remove from its portfolio all direct investments in coal and tar sands oil assets as soon as possible;
- Develop a strategy to effectively engage with policy-makers, financial regulators and corporate management, notably by becoming a member of the Institutional Investors' Group on Climate Change (IIGCC).

These four steps are only a start. Oxford University will have to continue to assess what action is most suitable in a rapidly changing investment environment. For now, however, the above outlined investment approach is a strategic way for Oxford to participate in—and help spur—action on a scale that at least begins to measure up to the huge environmental challenge we currently face.

The 'win-win' reasons for a carbon-sensitive investment policy

Carbon-sensitive investment can be a 'win-win' strategy for Oxford University by bolstering its reputation in the eyes of potential future students, staff and academics, by attracting donations from alumni inspired by the University's environmental and ethical stance, and by contributing to making Oxford a hub of research in renewable energies, the foundation of the future low-carbon economy.

Ultimately, though, the University should let itself be guided by the ethical case for how best to invest its endowment. The University endowment represents both materially and symbolically, the endurance of Oxford University across time. By adjusting its investment approach, Oxford will contribute to the urgent action necessary to guarantee the life and health of its members, both present and future.

II. Introduction – The fossil fuel divestment campaign

'It makes no sense to invest in companies that undermine our future'

- Archbishop Desmond Tutu

Global overview

In 2008, 350.org launched a campaign advocating fossil fuel divestment – the act of withdrawing or withholding financial capital from companies that participate in fossil fuel exploration, extraction or transportation.² This has become the fastest growing divestment campaign ever,³ currently involving around 600 student groups spanning four continents,⁴ and additionally being pursued by cities, pension funds, religious organisations and charitable foundations. Twelve higher education institutions have already committed to divest fully or in part, including Stanford, which will withhold direct investment from 100 coal companies.⁵ Conversely, Harvard has rejected calls for divestment, prompting a critical response from faculty members, 129 of whom have signed an open letter urging the University to reconsider its decision.⁶ In the UK, the NUS supports divestment,⁷ adding weight to the 43 active student campaigns. Consideration has also entered mainstream finance.⁸ Blackrock has announced it plans to create, in cooperation with the London FTSE, a “fossil free” tracker fund,⁹ and 70 investors with a total of \$3 trillion worth of assets under management have challenged fossil fuel companies’ valuation of potentially “unburnable” reserves.¹⁰ Prominent global figures have also been vocal in their support for divestment, including the President of the World Bank, Jim Yong Kim,¹¹ Archbishop Desmond Tutu,¹² former Irish President Mary Robinson,¹³ and the editor, the president and the director of the British Medical Journal.¹⁴

2 Defined by OUSU’s previous submission to SRIRC as “those companies which participate in exploration for and/or extraction of fossil fuel reserves”.

3 A. Ansar, B. Caldote & J. Tilbury, ‘Stranded Assets and the Fossil Fuel Divestment Campaign: What does Divestment Mean for Stranded Assets?’ (2013) (<http://www.smithschool.ox.ac.uk/research/stranded-assets/index.html?content=publications>).

4 Fossil Free (<http://campaigns.gofossilfree.org/>).

5 Stanford University News (<http://news.stanford.edu/news/2014/may/divest-coal-trustees-050714.html>).

6 Harvard Faculty for Divestment (<http://www.harvardfacultydivest.com/>).

7 People & Planet (<http://peopleandplanet.org/navid17403>).

8 T. Randall, ‘Oil’s Future Draws Blood and Gore in Investment Portfolios’, *Bloomberg News* (November 18, 2013) (<http://www.bloomberg.com/news/2013-11-18/oil-s-future-draws-blood-and-gore-in-investment-portfolios.html>).

9 P. Clark, ‘FTSE joins Blackrock to help investors avoid fossil fuels’, *Financial Times* (April 28, 2014) (<http://www.ft.com/cms/s/0/14787a44-cef6-11e3-ac8d-00144feabdc0.html>).

10 ‘Investors ask fossil fuel companies to assess how business plans fare in low-carbon future’, *Ceres News* (October 24, 2013) (<http://www.ceres.org/press/press-releases/investors-ask-fossil-fuel-companies-to-assess-how-business-plans-fare-in-low-carbon-future>).

11 Jim Yong Kim (transcript), ‘World Bank Group President Jim Yong Kim Remarks at Davos Press Conference’, *World Bank* (January 23, 2014) (<http://www.worldbank.org/en/news/speech/2014/01/23/world-bank-group-president-jim-yong-kim-remarks-at-davos-press-conference>).

At Oxford

The fossil fuel divestment campaign has gathered huge momentum since its inception in Michaelmas 2013. Coordinated by the OUSU Environment and Ethics campaign, 26 common rooms representing 18 colleges have passed motions supporting university and college level divestment,¹⁵ supplemented by an OUSU council mandate to raise divestment with the University Socially Responsible Investment Review Committee. On May 31, a pro-divestment rally arranged in cooperation with the Oxfordshire Fossil Free campaign drew over 150 participants, and subsequent events including a banner drop and carbon bubble parade have further raised the profile of the campaign.¹⁶ An open letter warning of the dangers of inaction by our University and requesting divestment has been signed by 86 academics and staff,¹⁷ including Lord Professor Robert May, former chief scientific advisor to the UK government and numerous researchers at the forefront of climate science and policy. Such high profile actions have attracted wide media coverage, notably featuring in the *Ecologist*,¹⁸ *Times Higher Education*,¹⁹ and twice in the *Guardian*.²⁰ Further attention is expected with the recent launch of an alumni petition, which has already attracted 242 signatories,²¹ and the growing number of signatories, 1774 so far, to a general petition.²²

12 D. Carrington, 'Desmond Tutu calls for anti-apartheid style boycott of fossil fuel industry', *The Guardian* (April 10, 2014) (<http://www.theguardian.com/environment/2014/apr/10/desmond-tutu-anti-apartheid-style-boycott-fossil-fuel-industry>).

13 'Former Irish President, Climate Justice Advocate Mary Robinson Urges Divestment of Fossil Fuel Firms', *Democracy Now!* (October 29, 2013) (http://www.democracynow.org/2013/10/29/former_irish_president_climate_justice_advocate).

14 F. Godlee ed., 'Climate change and human survival', *British Medical Journal* (2014) (<http://www.bmj.com/content/348/bmj.g2351>).

15 Wordpress: Oxford University Fossil Free (<http://oxfordunifossilfree.wordpress.com/our-supporters-2/our-supporters/>).

16 Youtube: Oxford University Fossil Free (<https://www.youtube.com/watch?v=P-cPFjMxLqo>).

17 Wordpress: Oxford University Fossil Free (<http://oxfordunifossilfree.wordpress.com/our-supporters-2/our-supporters/>).

18 'Oxford University 'must divest from fossil fuels'', *The Ecologist* (June 1, 2014) (http://www.theecologist.org/News/news_round_up/2419639/oxford_university_must_divest_from_fossil_fuels.html).

19 I. López Ruiz, 'Oxford academics call for fossil fuel divestment', *Times Higher Education* (June 2, 2014) (<http://www.timeshighereducation.co.uk/news/oxford-academics-call-for-fossil-fuel-divestment/2013707.article>).

20 F. Harvey, 'Students call on universities to reduce investments in fossil fuels', *The Guardian* (February 14, 2014) (<http://www.theguardian.com/environment/2014/feb/14/students-universities-reduced-investments-fossil-fuels>), J. Vidal, 'Oxford University urged to purge its £3.3bn fund of fossil fuel investments', *The Guardian* (June 2, 2014) (<http://www.theguardian.com/environment/2014/jun/02/oxford-university-fund-fossil-fuel-climate-crisis>).

21 Fossil Free (<http://campaigns.gofossilfree.org/petitions/oxford-university-alumni-call-for-divestment>).

22 Fossil Free (<http://campaigns.gofossilfree.org/petitions/fossil-free-oxford>).

Outline of Student Submission

This student submission is framed in response to the Socially Responsible Investment Review Committee's (SRIRC) launch of an official university-wide consultation on fossil fuel divestment. The submission divides into five main parts. A first section reviews the climate science, thereby emphasising the urgent need to tackle climate change. Second, the submission reviews the political and economic obstacles that currently stand in the way of effective climate change mitigation efforts. Third, it makes the ethical case for why the University of Oxford should adopt a carbon-sensitive investment policy. Fourth, it outlines a four-part recommendation for how the university can progressively move from high-carbon investments to low-carbon alternatives. Finally, in a concluding section, the submission highlights in what ways, beyond the ethical and financial arguments, the University stands to gain from adopting a forward-looking investment approach.

III. The Climate science – 26 years to 2 degrees

‘There are a few issues in every generation and every era that are different and, in my view, climate change is one of them. It belongs to a small but important class of things upon which we must act.’

- Professor M. Oppenheimer (lead author of the IPCC Fourth Assessment Report), speaking during a Linacre College consultative discussion on divestment

The problem of human-induced climate change will be one of the defining challenges of the 21st century. Without significant and timely action to reduce global carbon dioxide emissions, we face serious and irreversible changes to the chemical composition of our atmosphere. The science makes it crystal clear that the time to act is now.

The Earth is warming and humans are to blame

The evidence that the planet is warming is indisputable. The last three decades have broken records for atmospheric temperatures at the Earth’s surface with each decade being warmer than any since 1850.²³ The climate system has gained energy at the rate of four Hiroshima atomic bombs every second during the last 15 years.²⁴ Arctic summer sea-ice coverage has collapsed. In September 2012, sea-ice extent marked the minimum ever recorded.²⁵

The ‘smoking gun’ of human influence creating these changes is clear.²⁶ Human emissions have driven atmospheric carbon dioxide concentrations to levels above and beyond anything that the Earth has experienced in the last 800,000 years.²⁷ When not accounting for human emissions, climate models fail to reproduce the observations of the 20th century, showing the dominant causal effect of human influence on the climate change over the last century.

The impacts on our planet and our way of life

Our knowledge of the world that we will face if we continue down the same climate trajectory we are currently following is becoming ever-more concrete. The overwhelmingly

23 ‘Summary for Policymakers, Climate Change 2013: The Physical Science Basis’, IPCC (2013).

24 D. Nuccitelli et al., ‘Comment on “Ocean heat content and Earth’s radiation imbalance. II. Relation to climate shifts”’, *Physics Letters A* (2012).

25 ‘Arctic sea ice extent settles at record seasonal minimum’, *National Snow and Ice Data Centre* (September 19, 2012) (<http://nsidc.org/arcticseaicenews/2012/09/arctic-sea-ice-extent-settles-at-record-seasonal-minimum/>).

26 J. Cook et al., ‘Quantifying the consensus on anthropogenic global warming in the scientific literature’, *Environmental Research Letters*, Vol. 8, Number 2 (2013).

27 Masson-Delmotte et al., ‘Information from Paleoclimate Archives, Climate Change 2013: The Physical Science Basis’ (2013).

negative consequences of climate change will affect us all, but the least well-off parts of society—both the global south and elements of society within the developed nations—will be the most severely impacted.²⁸

Impacts of climate change will include:²⁹

- More frequent and more intense heat waves, leading to a growing number of heat-induced deaths;³⁰
- An increase in extreme rainfall events resulting in a far higher risk of serious flooding;³¹
- Increased stress on already scarce water resources in certain parts of the world as glaciers continue to melt, altering runoff patterns and river flows;
- Irreversible changes to and loss of ecosystems, such as is already the case in warm-water coral reefs;
- Rising sea levels, which will result in a growing population of climate refugees, forced to abandon flooded coastal areas;
- Exacerbated threats to food security as crop yields come under increased climate-related stress, leading to starvation around the world;³²
- A decline of up to 50% in fish in certain parts of the due to migration caused by warming waters;
- Violent conflict, which has been shown to be exacerbated by climate change and is predicted to increase in a warmer future.

Climate change is often thought of as a distant phenomenon that affects people far away and far in the future. The reality, however, is that people are already being affected by climate change right now and in very serious ways. We do not have a choice about whether or not to ‘prioritise’ climate change mitigation as its current and future impacts will undermine livelihoods and economic wellbeing the world over.

Respecting our ‘carbon budget’ to avoid dangerous climate change

The impacts of a warmer world described above are driven, above all else, by carbon dioxide emissions from the burning of fossil fuels. Once released, carbon dioxide remains in the atmosphere for a very long time. The natural processes that will eventually remove this carbon from the air (namely uptake of carbon dioxide into the deep oceans) act on a timescale

28 ‘World Development Report 2010’, *World Bank* (<http://go.worldbank.org/CHZJNP7X30>).

29 ‘Summary for Policymakers, Climate Change 2014: Impacts, Adaptation and Vulnerability’, IPCC (2014).

30 F. Otto et al., ‘Reconciling two approaches to attribution of the 2010 Russian heat wave’, *Geophysical Research Letters* (2012).

31 Topically, and directly relevant to the University, Oxford researchers recently demonstrated that human-induced climate change increased by roughly 25% the risk of the extreme rainfall over the 2013/14 winter in the South of England, which caused widespread flooding in Oxfordshire.

32 Maize, rice and wheat yields are expected to face losses of up to 25% before 2050.

of centuries. In effect, a certain fraction of newly emitted carbon dioxide will remain in the atmosphere forever.³³

Research pioneered by Oxford academics demonstrates that, because of this permanent residence of carbon dioxide emissions in the atmosphere, there is a simple linear relationship between the amount of carbon dioxide we emit over all time and the ultimate global temperature change.³⁴

From this work, we know that in order to have a good chance to limit global warming to less than 2 degree, a threshold at which risks of irreversible and dangerous climate change significantly increase, **we must remain within a ‘carbon budget’ for emissions over all time of roughly 1 trillion tonnes.**

Since the industrial revolution, we have already released over half a trillion tonnes of carbon. If we continue with current global emission trends, we will have exceeded our ‘carbon budget’ by 2040, a mere 26 years away.³⁵ However, **current proven reserves of carbon, i.e. coal, oil and gas reserves, amount to 5 times the remaining 2 degree ‘carbon budget’**, vastly more than we can ever afford to put into the atmosphere without creating massively damaging climate change.³⁶

The science makes the scale of the challenge very clear. In order to limit global warming to less than two degrees, none of this vast amount of carbon beyond the remaining carbon budget must ever enter the air.

33 Cias et al., ‘Carbon and Other Biogeochemical Cycles, Climate Change 2013: The Physical Science Basis’ (2013).

34 M. Allen et al., ‘Warming caused by cumulative carbon emissions towards the trillionth tonne’, *Nature* (2009).

35 TrillionthTonne.org (<http://www.trillionthtonne.org>).

36 Carbon Tracker, ‘Unburnable Carbon’ (<http://www.carbontracker.org/site/wp-content/uploads/2014/05/Unburnable-Carbon-Full-rev2-1.pdf>).

IV. The Economics and politics of climate change mitigation

Despite 20 years of international negotiations on a climate treaty, the global emissions curve has not been dented in the slightest. Instead, the rate of emissions growth has accelerated ever faster. The science demands a new political and economic approach to stimulate the huge change needed over coming years if we are to prevent catastrophic and irreversible climate change.

A carbon intensive economy

Both domestically and globally, capital investment and innovation in the energy sector remain hugely weighted towards ensuring the further exploration and extraction of fossil fuels, thereby overshadowing and crowding out any serious effort to develop renewables.

Despite some efforts in recent years to rebrand as greener ‘energy’ providers,³⁷ fossil fuel companies continue to invest all but a minute fraction of their capital in exploration and extraction of coal, oil and gas. Between 2007 and 2011, the oil industry alone invested \$2090bn in capital expenditures to find and produce more oil, of which \$190bn went to producing dirtier tar sands oil. By comparison, these same companies invested a token \$4bn in developing renewables over the same period.³⁸

More generally, the global clean energy investment landscape is far from encouraging. The International Energy Agency (IEA) estimated in 2012 that, in order to limit global warming to 2 degrees Celsius, ‘[...] investments in low-carbon energy technologies will need to at least double, reaching \$500bn annually by 2020 and then double again to \$1t by 2030.’³⁹

The lack of adequate investment in renewables is further exacerbated by the logic currently governing capital flows through global financial markets. Rather than supplying additional capital for investment in renewables, financial markets continue to channel money into fossil fuel companies in hopes of reaping high short-term yields.

This dynamic, moreover, exposes financial markets themselves to long-term ‘carbon’ risk. As stated above, scientists have established that there is five times more carbon in known fossil fuel reserves than is safe to burn if we are to stay below the 2 degrees global warming target. Building on these findings, the Carbon Tracker Initiative argues in its seminal ‘Unburnable Carbon’ report that **up to 80% of known fossil fuel assets will inevitably become ‘stranded’** if governments introduce the necessary regulation to rein in carbon emissions and

37 F. Pearce, ‘Greenwash: BP and the myth of a world 'Beyond Petroleum'', *The Guardian* (November 20, 2008) (<http://www.theguardian.com/environment/2008/nov/20/fossilfuels-energy>).

38 S. Mui, ‘Oil Companies Invest in Fossil Fuels Fifty Times More Than In Alternatives’, *The Energy Collective* (December 14, 2011) (<http://theenergycollective.com/simonmui/72414/oil-companies-investments-dirty-fuels-outpacing-clean-fuels-fifty-times>).

39 ‘Energy Technologies Perspective 2012’, International Energy Agency.

thereby address climate change. The threat of a ‘**carbon bubble**’ is particularly acute in the UK where ‘approximately one third of the total value of the FTSE 100 [is] represented by resource and mining companies,’ which means that, ‘London’s role as a global financial centre is at stake if these assets become unburnable en route to a low carbon economy.’⁴⁰

This situation requires a change in prevailing strategies for evaluating risk such that ‘fossil fuel risk is re-priced by the capital markets,’ thereby both helping to gradually deflate the carbon bubble and creating new incentives for investing in renewables.⁴¹

Carbon-fuelled politics

The economic hurdles to climate change mitigation are closely linked to the political challenge of creating a policy environment where economic incentives mirror environmental imperatives. At present, the political mood is such that government action is either too timid or else moving in entirely the wrong direction.

Indeed, in many instances, existing policy regimes exacerbate our collective dependence on fossil fuels. The IEA estimates that fossil fuel consumption subsidies worldwide amounted to \$409bn in 2010, up from \$300bn in 2009.⁴² The UK government spends £12bn on energy subsidies each year, and the vast majority of this sum goes to supporting energy from fossil fuels.⁴³ Meanwhile, the lack of carbon emissions regulations, effective carbon pricing and green investment initiatives means there is little appetite for a shift to renewables.

Where there are efforts to introduce much needed policies to curb carbon emissions, these are met with powerful resistance from the fossil fuel companies themselves, further eroding the political will to act on climate change.⁴⁴ Political consensus regarding the need to act is, moreover, far from universal. Many politicians have shifted from a position of outright climate change denialism to one of ‘luke-warmism’ or policy scepticism, arguing that climate change may be a problem, but it is by no means a political priority.⁴⁵

40 ‘Unburnable Carbon’, 2.

41 Ibid., 16.

42 ‘World Energy Outlook, Energy Subsidies’, IEA

(<http://www.iea.org/publications/worldenergyoutlook/resources/energysubsidies/>).

43 Environmental Audit Committee, UK Parliament (2013)

(<http://www.publications.parliament.uk/pa/cm201314/cmselect/cmenvaud/61/6103.htm>)

44 ‘The dark money in climate change’, *The Washington Post* (December 27, 2013)

(<http://www.washingtonpost.com/blogs/plum-line/wp/2013/12/27/a-dark-money-challenge-on-climate-change/>).

S. Mui (<http://theenergycollective.com/simonmui/72414/oil-companies-investments-dirty-fuels-outpacing-clean-fuels-fifty-times>). ‘How Companies Hide Behind Trade Organizations to Influence Climate Policy’, *EcoWatch* (January 16, 2014) (<http://ecowatch.com/2014/01/16/companies-hide-behind-trade-organizations-influence-policy/>). *OpenSecrets.org*

(<http://www.opensecrets.org/industries/indus.php?ind=E01>). R. Manne, ‘How Vested Interests Defeated Climate Science’, *The Monthly* (August, 2012)

(<https://www.themonthly.com.au/issue/2012/august/1344299325/robert-manne/dark-victory>).

45 Recent example of this attitude from Australian PM Tony Abbott and Canadian counterpart Stephen Harper (<http://uk.reuters.com/article/2014/06/09/climatechange-canada-australia-idUKL2N0OQ17U20140609>).

Such prevaricating attitudes—often accompanied by strenuous efforts to misinform the public⁴⁶—are profoundly unrealistic and irresponsible given the huge scale of the climate change mitigation challenge we currently face. They moreover enable fossil fuel companies to make the cynical argument that their assets will not become stranded in the foreseeable future because, in their estimation, governments simply will not take the bold action needed. Both Shell and ExxonMobil reached this conclusion in statements recently released in response to shareholder pressure. As noted in the ExxonMobil report:

ExxonMobil believes that although there is always the possibility that government action may impact the company, the scenario where governments restrict hydrocarbon production in a way to reduce [greenhouse gas] emissions 80 percent during the Outlook period is highly unlikely. [...] We do not anticipate society being able to supplant traditional carbon-based forms of energy with other energy forms, such as renewables, to the extent needed to meet this carbon budget during the Outlook period.⁴⁷

This statement and others like it constitute a bet against a sustainable, low-carbon future. They paint a bleak picture in which dangerous climate change is inevitable. They also show that political and corporate leaders are perfectly aware of what would need to happen to avoid dangerous climate change; they, however, refuse to accept their responsibility to act.

Getting out of the politico-economic stalemate

Despite the overall negative prognosis, recent shifts in political and market attitudes are beginning to point in a more promising direction.

There is a growing awareness among investors of the need to address the green energy finance gap.⁴⁸ Shareholders in fossil fuel companies have also expressed scepticism at the rush to explore and extract ‘unconventional’ fuels, such as shale gas, tar sands or arctic oil, compelling some companies to scale back related activities.⁴⁹

Within the financial sector, analysis of the risk associated with the ‘carbon bubble’ is rapidly entering the mainstream. HSBC, Standard & Poor’s, Mercer, Deutsche Bank, the OECD, KPMG, and McKinsey, among others, have published scenario reports investigating the potential risks of ‘stranded’ fossil fuel assets to global financial markets.⁵⁰ Leading financial

46 A. Fisher, ‘A Predictable Reaction to Climate Action’, *CitizenVox* (June 10, 2014) (<http://www.citizenvox.org/2014/06/10/a-predictable-reaction-to-climate-action/>).

47 ‘Energy and Carbon: Managing the Risks’, *ExxonMobile* (<http://cdn.exxonmobil.com/~media/Files/Other/2014/Report%20-%20Energy%20and%20Carbon%20-%20Managing%20the%20Risks.pdf>).

48 ‘Investing in the Clean Trillion’, *Ceres* (<http://www.ceres.org/resources/reports/investing-in-the-clean-trillion-closing-the-clean-energy-investment-gap/view>).

49 N. Ahmed, ‘The inevitable demise of the fossil fuel empire’, *The Guardian* (June 10, 2014) (<http://www.theguardian.com/environment/earth-insight/2014/jun/10/inevitable-demise-fossil-fuel-empire>).

50 For a review see: Caldecott et al., ‘Stranded Assets and Scenarios: Discussion Paper’ (2014).

commentators, including Martin Wolf of the FT, are calling attention to these risks.⁵¹ The world's largest fund manager, Blackrock, has responded to the growing concern by creating, in partnership with the UK's main index provider (FTSE), a fossil free market index.⁵² Asset management firm Impax published a 2013 White Paper in which it considers a range of fossil fuel free investment strategies, all of which outperformed the average portfolio in 2008-2013. The Norwegian sovereign wealth fund, the largest such fund in the world, has meanwhile halved its coal holdings and is actively considering divesting from all fossil fuels.⁵³

On the policy front, new carbon emissions regulations in China and the US could also herald a change in global policy norms, while putting billions worth of investments in coal at risks of becoming 'stranded'.⁵⁴

All of these positive trends nevertheless remain extremely fragile and continue to be dwarfed by the volume of resources invested in perpetuating our dependence on fossil fuels. For instance, analysts argue that the new US regulations on coal fired power plants are far too modest to put us on track for a sustainable energy future and yet risk being watered down further as the Obama administration comes under intense political pressure from coal companies.⁵⁵ In financial circles, meanwhile, many investors are either unaware of the risk associated with the 'carbon bubble' or else do not rate it as a priority issue.

There is thus an urgent need to build on existing momentum and ensure that positive shifts in policy and finance, instead of losing steam, rise in prominence to the point where they are widely embraced as the common sense action needed to secure a sustainable future. In the process of making this change happen, investors and political leaders may also discover a silver lining in climate change mitigation efforts. Indeed, while some claim that climate change mitigation is bad for the economy, a growing body of literature shows the exact opposite, highlighting gains to be made in terms of reduced operating costs and a boom in green jobs.⁵⁶

51 Martin Wolf (<http://www.ft.com/cms/s/0/5a2356a4-f58e-11e3-afd3-00144feabdc0.html>), Robert Litterman (<http://ensia.com/voices/the-other-reason-for-divestment/>), David Blood and Al Gore (<http://online.wsj.com/news/articles/SB10001424052970203430404577092682864215896>).

52 'FTSE joins Blackrock to help investors avoid fossil fuels' (<http://www.ft.com/cms/s/0/14787a44-cef6-11e3-ac8d-00144feabdc0.html#axzz30fygBidy>)

53 'Norway's \$800bn 'oil fund' halves coal production holdings', *Environmental Finance* ([http://www.environmental-finance.com/content/news/norway%E2%80%99s-\\$800bn-%E2%80%98oil-fund%E2%80%99-halves-coal-production-holdings.html](http://www.environmental-finance.com/content/news/norway%E2%80%99s-$800bn-%E2%80%98oil-fund%E2%80%99-halves-coal-production-holdings.html)). 'Norway spurs rethink on fossil fuel companies', *Financial Times* (<http://www.ft.com/cms/s/0/4b1c89dc-a313-11e3-ba21-00144feab7de.html#axzz30f>).

54 CTI, 'The Great Coal Cap: China's energy policies and the financial implications for thermal coal' (2014). Caldecott et al., 'Stranded Down-Under? Environmental-related factors changing China's demand for coal and what it means for Australian coal assets' (2014).

55 E. Porter, 'A Paltry Start in Curbing Global Warming', *The New York Times* (June 3, 2014) (<http://www.nytimes.com/2014/06/04/business/economy/a-paltry-start-in-curbing-global-warming.html>). 'A Predictable Reaction to Climate Action' (<http://www.citizenvox.org/2014/06/10/a-predictable-reaction-to-climate-action/>).

56 See for example: (<http://www.worldbank.org/en/news/feature/2013/06/25/growing-green-europe-and-central-asia>), (<http://www.theguardian.com/environment/2014/apr/13/averting-climate-change-catastrophe-is-affordable-says-ipcc-report-un>).

V. Why the University of Oxford needs to act – The case for carbon-sensitive investment

'We need an apartheid-style boycott to save the planet.'

- Archbishop Desmond Tutu, prominent South African anti-apartheid campaigner

'Smart investors can see that investing in companies that rely solely or heavily on constantly replenishing reserves of fossil fuels is becoming a very risky decision.'

- Professor Lord Stern (lead author of the Stern Review on the Economics of Climate Change, current President of the Royal Academy)

As students, we believe the University of Oxford has an ethical duty to adopt a carbon-sensitive investment policy in order to help spur the growing consensus regarding the need to address climate-related financial risk. It is this action that will encourage the market and policy shifts that will secure the future wellbeing of students and staff as well as young people the world over.

Fortunately, the highly sophisticated recent analysis addressing the economics of climate change mitigation shows what a strategic, carbon-sensitive investor approach requires. To reiterate, there is a need for investments currently being channelled through capital markets to move away from more carbon intensive and high-risk fossil fuel assets towards renewable energy assets or other low carbon opportunities. The latter class of assets will be the foundation of our sustainable energy future. In order to help ensure this transition occurs, organizations like CTI, the Oxford Smith School, and Ceres, among others, recommend that investors take a range of actions both in managing their own investment portfolios and in shaping the wider market and policy landscape within which they operate. These include, for instance, shareholder engagement, requests for financial market risk assessment frameworks, support for government climate policy, and management of portfolio carbon risk exposure.⁵⁷

The international fossil fuel divestment movement has already had positive knock-on effects, galvanizing investors, policy-makers, and corporate managers to act. It has also raised the profile of the 'carbon bubble' and 'stranded assets' discussion, such that other investors have begun to see the need to change their investment strategies.⁵⁸ Oxford can take this a step

57 Carbon Tracker Initiative (<http://www.carbontracker.org/site/carbonbubble>). Oxford Smith School (<http://www.smithschool.ox.ac.uk/research/stranded-assets/Stranded%20Down%20Under%20Report.pdf>). Ceres (<http://www.ceres.org/resources/reports/investing-in-the-clean-trillion-closing-the-clean-energy-investment-gap/view>)

58 See for example Robert Litterman, 'The Other Reason For Divestment' (2013) (<http://ensia.com/voices/the-other-reason-for-divestment/>) (<http://www.cnn.com/id/101669392>). John Wilson (Cornerstone Capital Group), 'A Statement on Climate Change' (2014) (http://cornerstonecapinc.com/?p=2742&preview=true&utm_source=Cornerstone+Capital+Inc.+-

further by being among the first Universities not only to divest its endowments from the most carbon-intensive, high-risk fossil fuel assets, but also to adopt a holistic policy of financial stewardship that addresses carbon risk management through engagement with key financial, corporate and public policy actors.⁵⁹ We lay out this investment approach in our recommendations below.

Influencing debate in the financial sector would not be the only positive consequence of Oxford taking action. A report published by Oxford's Smith School finds that divestment from carbon-intensive fuels could harm share prices of coal companies, hence effectively contributing to the phase-out of coal.⁶⁰ It also argues that the international fossil fuel divestment movement may help shift what the wider public, and consequently policy makers, view as common sense action on climate change. We've witnessed a similar shift in norms regarding tobacco. Today, most of us would be surprised to see someone light up in a crowded restaurant whereas less than a decade ago that would have been commonplace.⁶¹ The analogy of course is far from perfect, but we need to see the same shift in attitude such that tackling climate change stops being the biggest collective action failure humanity has ever faced and instead becomes the obvious top priority for us all.

Oxford scholars and students are doing their utmost to raise the profile of climate change as a leading global concern. Oxford academics are at the forefront of research into the environmental and economic implications of climate change. They work as policy advisors, industry consultants, and (through volunteer efforts) help author IPCC reports. Students involved in the divestment campaign meanwhile have convened in college common rooms, arranged speaker events, organized marches and rallies in town, helped circulate petitions, and attended numerous meetings and consultative discussions. The University of Oxford can further amplify the voices of its staff and students by showing leadership in tackling climate change.

For the reasons we have indicated, we believe that adopting a carbon-sensitive investment policy is a necessary, appropriate and effective means of responding to the overwhelming scientific consensus regarding the urgent need to tackle climate change. In the absence of a carbon-sensitive investment policy, the University's current investment practices do not accord with its own ethical investment policy, which states that:

+Distribution+Lists&utm_campaign=f3f51d60eb-Climate+Change+6_2_2014&utm_medium=email&utm_term=0_e49598ded0-f3f51d60eb-71334849).

59 'Inside Stanford's Coal Divestment Decision', *Institutional Investor* (May 28, 2014) (<http://www.institutionalinvestor.com/blogarticle/3345908/Investors/Inside-Stanfords-Coal-Divestment-Decision.html#.U5rU-o1dWrx>).

60 'Stranded assets and the fossil fuel divestment campaign: what does divestment mean for the valuation of fossil fuel assets?', *Oxford Smith School* (2013) (<http://www.smithschool.ox.ac.uk/research/stranded-assets/SAP-divestment-report-final.pdf>).

61 For more on how the anti-tobacco divestment campaign of the 1990s helped delegitimise the tobacco industry, see here (<http://tobaccocontrol.bmj.com/content/15/3/231.abstract>).

‘The University of Oxford is committed to ensuring that it makes investment decisions responsibly and with integrity. The University's Policy is to ensure that its investment decisions (including those taken on its behalf) take into account social, environmental and political issues in order to maintain its ethical standards.’⁶²

To paraphrase the financial activist Brett Scott, the investments we make are a statement about the future, about what we imagine or expect that future to be. We therefore need to ensure that the University’s investments are consistent with a sustainable, low carbon energy system in the years to come.

62 ‘University Policy on Socially Responsible Investment’
(<http://www.admin.ox.ac.uk/councilsec/governance/committees/srirc/universitypolicyonsri/>).

VI. Recommendations – From high-carbon investments to low-carbon opportunities

As the Oxford student divestment campaign, we call on the Oxford Socially Responsible Investment Review Committee (SRIRC) to recommend that Council adopt a carbon-sensitive investment policy. This policy should provide a holistic framework that ensures a progressive transfer of investments from high-carbon assets toward low carbon investment opportunities. As such, it should adhere to the following recommendations and, where appropriate, mandate Oxford University Endowment Management (OUEM) to:

1. Systematically evaluate climate risk across the entire investment portfolio.

Institutional investors are increasingly using new techniques and available data to analyse the environmental performance and associated financial risk of their portfolio companies, notably by measuring the carbon emissions resulting from companies' production processes.⁶³

While this analysis is important, Oxford should also take it a step further as, in the case of fossil fuel companies, 'It is not the scale of operational emissions that is the strategic challenge, but the emissions associated with their products which are currently locked into their reserves.'⁶⁴ By evaluating risks not only in terms of carbon emissions but also in terms of total carbon in reserves, Oxford will have a far more realistic measure of the actual long-term viability of its coal, oil, and gas investments.

2. Actively manage the carbon risk exposure of its portfolio with the aim of steadily shifting investments away from high-risk, carbon-intensive assets and toward low-carbon opportunities.

The range of options available to investors looking for low-carbon alternatives is rapidly evolving as the number of low-carbon investment funds multiplies along with the various techniques for hedging carbon risks.⁶⁵ These are exciting developments and ones with which the entire financial sector needs to become familiar.

In order to manage the carbon risk of its own portfolio, OUEM will likely need to equip its investment professionals with knowledge to identify low-carbon opportunities, apply this expertise across asset classes and adopt the appropriate long-term investment horizon.

63 'Mainstream investors look to sustainability to unlock value', *Trucost* (<http://www.trucost.com/blog/108/mainstream-investors-look-to-sustainability-to-unlock-value>). 'Trucost and FactSet sign distribution agreement to end era of 'real financial risk from environment, but no data to monitor it'', *Trucost* (August 16, 2011) (<http://www.trucost.com/news-2011/127/trucost-and-factset-sign-distribution-agreement-to-end-era-of-real-financial-risk-from-environment-but-no-data-to-monitor-it>). 'Environment Agency Pension Fund', *The Guardian* (<http://www.theguardian.com/sustainable-business/environment-agency-pension-fund-responsible-investment>).

64 'Unburnable Carbon', 3. See also 'Just 90 companies caused two-thirds of man-made global warming emissions', *The Guardian* (<http://www.theguardian.com/environment/2013/nov/20/90-companies-man-made-global-warming-emissions-climate-change>).

65 For a small sample, see (<http://ensia.com/voices/the-other-reason-for-divestment/>), (<http://www.eiris.org/asset-managers/climate-change/>).

It will also need to ensure investment intermediaries in its own supply-chain are routinely taking climate risk and low-carbon opportunities into account. This engagement will ensure that Oxford's endowment, much of which is invested through pooled vehicles, can effectively be redirected to where the greatest future financial returns and environmental savings are to be made. It will also mean that the forward-looking action taken by Oxford University has a positive ripple effect throughout the wider UK financial sector.

Finally, OUEM can help ensure sustained gains are made by regularly formulating and reviewing targets for reducing carbon risk exposure. Progress in achieving these goals should be reported in the annual University Financial Statement.

3. Remove from its portfolio all direct investments in coal and tar sands oil assets as soon as possible.

This action should apply to all investments in companies with 10% or more of their probable or proven reserves in coal or tar sands oil extraction.⁶⁶ The decision to prioritize coal and tar sands oil is consistent with expert warnings about the high financial and environmental risk associated with these capital- and carbon-intensive fossil fuel assets.⁶⁷

In order to achieve this divestment goal, OUEM should compile a list of publicly traded companies that do not satisfy the 10% criterion. It should also recommend to its external investment managers that they avoid investments in these listed companies as well.⁶⁸

4. Develop a strategy to effectively engage with policy-makers, financial regulators and corporate management, notably by becoming a member of the Institutional Investors' Group on Climate Change (IIGCC).

By joining IIGCC, the University of Oxford will be empowered to collaborate with other institutional investors across Europe in order to promote public policies, financial regulatory practices, and corporate governance approaches that are consistent with the imperatives of responding to climate change.⁶⁹ Similar groups, such as the US-based Ceres, are at the forefront of ensuring that institutional investors are able to fulfil their responsibilities to act in the best interests both of the planet and of their own long-term financial health.⁷⁰

Joining IIGCC does not, of course, prevent Oxford from pursuing additional strategies to actively engage with policymakers, business and financial regulators. Oxford could, for example, become a Carbon Disclosure Project (CDP) signatory, thereby joining an investor network which has taken a leading role in requesting companies to account for and be

66 The 10% threshold is in keeping with the standard set for tar sands oil by the highly performing Alliance Trust Sustainable Future Funds (<http://www.alliancetrustinvestments.com/sri-hub/archive/posts/51638/51642/Sustainable-Funds-new-position-on-sale-gas>).

67 Carbon Tracker (<http://www.carbontracker.org/site/carbon-supply-cost-curves-evaluating-financial-risk-to-oil-capital-expenditures>), (<http://www.carbontracker.org/site/coal-cap-china>).

68 This action is in keeping with OUEM's strategy for managing investments in cluster munitions (http://www.admin.ox.ac.uk/councilsec/governance/committees/srirc/report_march_2010/), it is also in keeping with Stanford's coal divestment strategy (<http://news.stanford.edu/news/2014/may/divest-coal-trustees-050714.html>).

69 Institutional Investors Group on Climate Change (<http://www.iigcc.org/>).

70 Ceres (<http://www.ceres.org/>).

transparent about environmental risk.⁷¹ Oxford could also actively engage portfolio companies, either on its own or with other investors, to discourage them from pursuing capital-intensive exploratory ventures to access unconventional fuels, such as arctic oil.⁷² The university can further engage companies that have historically opposed government climate change mitigation efforts by, for instance, calling on these companies to report on meetings held with government representatives, either directly or through lobbyists.

Whatever specific engagement approach Oxford decides to pursue, it is our hope that the University will demonstrate a keen awareness of what broader policy, regulatory and corporate practices are required for effective climate change mitigation, thereby engaging in ways that actively promote its ethical and financial interests.

The concept of fossil fuel divestment⁷³ is a necessary and forceful reminder of the scale of the problem we currently face, namely that 80% of known fossil fuel reserves must remain underground if we are to avoid dangerous climate change. As students, we support divestment; however, we recognize that the present state of our carbon-intensive economies and the nascent carbon risk-monitoring infrastructure within financial markets are such that many institutional investors will find it challenging to pursue full divestment. Rather than abandon the effort, this situation should be a further reminder of the need to act. There is much to be gained from investors taking what bold steps they can in order to help reshape financial practice, thereby paving the way for a sustainable, low-carbon financial future.

We believe that, by adopting the above four recommendations as part of a holistic investment strategy, the University of Oxford will be acting as a leader in the field of climate change mitigation efforts. It will set a powerful ethical standard for other investors to follow. It will also show prudence in its own financial decision-making, bringing its investment practice in line with the most forward looking approaches to financial risk assessment and the most up-to-date legal interpretations of fiduciary duty.⁷⁴ For all of these reasons, we call on the university to adopt our four recommendations, each of which is a key piece in the overall framework.

71 CDP (<https://www.cdp.net/en-US/WhatWeDo/Pages/investors.aspx>).

72 This action has proved effective in recent years, see ‘The inevitable demise of the fossil fuel empire’ (<http://www.theguardian.com/environment/earth-insight/2014/jun/10/inevitable-demise-fossil-fuel-empire>).

73 By fossil fuel divestment we mean divestment from the top 200 (listed by size of reserves) publicly traded companies involved in the exploration or extraction of coal, oil or gas.

74 We would like to call attention here to the 2012 Kay Review and the soon to be published Law Commission review, which both question traditional approaches to financial risk assessment. They call on fund trustees to consider ‘longer term factors which might impact on company performance, including questions of sustainability or environmental and social impact’

(http://lawcommission.justice.gov.uk/docs/cp215_fiduciary_duties_summary_web.pdf).

VII. Conclusions – The ‘win-wins’ from a carbon-sensitive investment policy

This student submission outlines why the University of Oxford should take an ethical stand on climate change by adopting a carbon-sensitive investment policy. The submission reviews the warnings of climate scientists, which on their own should put a fire behind anyone with the power to help tackle climate change. It then looks at what economic and political challenges are standing in the way of a low-carbon energy future. It follows by indicating why Oxford has an ethical duty to help spur existing positive trends in the financial sector, which are leading to a growing readiness amongst investors to begin channelling money away from high-carbon assets and towards alternative low-carbon opportunities. These trends, moreover, have the potential to influence corporate managers and government policy-makers to ensure they adopt realistic climate change mitigation strategies.

In a final section, this report outlines a four-part carbon-sensitive policy approach that we, as students, believe constitutes meaningful investor action on climate change. In brief, the four elements are to:

- Systematically evaluate carbon risk across the entire investment portfolio;
- Actively manage the carbon risk exposure of its portfolio with the aim of steadily shifting investments away from high-risk, carbon-intensive assets and toward low-carbon opportunities;
- Remove from its portfolio all direct investments in coal and tar sands oil assets as soon as possible;
- Develop a strategy to effectively engage with policy-makers, financial regulators and corporate management, notably by becoming a member of the Institutional Investors’ Group on Climate Change (IIGCC).

These four steps are only a start. Oxford University will have to continue to assess what action is most suitable in a rapidly changing investment environment. For now, though, we believe the above outlined investment approach is a strategic way for Oxford to participate in—and help galvanize—action on a scale that at least begins to measure up to the huge environmental challenge we currently face.

It is worth noting before concluding that there are additional win-win reasons why Oxford should adopt a carbon-sensitive investment policy. These have not been mentioned as yet but are nevertheless worth University members taking into account as they relate to the overall wellbeing of the University.

Reputational risk – reputational reward

Given the growth of the fossil fuel divestment campaign in universities and communities around the world, a failure to act would expose the University of Oxford to eventual reputational damage as public opinion begins to favour strong action on climate change. Harvard President Drew Faust has had to contend with considerable negative publicity as a

result of Harvard's decision not to engage in a meaningful way with the issues raised by the student fossil fuel divestment campaign, which is also backed by alumni and faculty.⁷⁵

Conversely, Stanford University has benefited from positive press coverage and public praise as a result of its decision to divest from coal, a first step in an ongoing review of its investment policy.⁷⁶ The success at Stanford has proved an inspiration for students and faculty alike, helped foster a sense of a strong University community, and broadcast a positive image of the University both within the US and internationally.

We would like to see the University of Oxford benefit in the same way Stanford has, bolstering its reputation both at home and abroad by taking a firm ethical stand on climate change. This may prove a winning strategy for Oxford to burnish its image in the eyes of potential future students and faculty alike, as well as to help attract donations from alumni who are inspired by the University's environmental and ethical commitments.

Oxford – a renewable energy research hub

Adopting a carbon-sensitive investment policy would not only further demonstrate Oxford's dedication to supporting the research of its faculty members; it would also strengthen the University's standing as a hub for research and investment in low-carbon energy alternatives as well as increase the likelihood that the green technologies it develops make it to market.

Low-carbon technologies are a particularly strategic area to be working in. Over coming years, development of renewable energies will require hundreds of billions worth of investments per year.⁷⁷ The University is already at the cutting edge of scientific research in a range of low-carbon energy alternatives, notably photovoltaic technologies.⁷⁸ It should see a continued focus on renewables—both in the way it invests its endowment and in its research emphasis—as an opportunity to attract new governmental and industry actors to sponsor a burgeoning field of green-energy research. Oxford can also look for fresh ways of engaging with its current industry partners to maximize their contributions to the development of renewable energy technologies as well.

75 S. Annear, '“Distinguished” Harvard Alumni Stage Protest During Reunion Ceremony', *Boston Daily* (May 30, 2014) (<http://www.bostonmagazine.com/news/blog/2014/05/30/distinguished-harvard-alumni-stage-protest-reunion-ceremony/>). S. Goldberg, 'Harvard faculty members urge university to divest from fossil fuels', *The Guardian* (April 10, 2014) (<http://www.theguardian.com/environment/2014/apr/10/harvard-faculty-letter-divest-fossil-fuels-oil>).

76 'Ex Goldman risk chief: Stanford coal cut a "tipping point"', *CNBC* (<http://www.cnn.com/id/101669392>). 'Why Divestment Can Be Successful', *The New York Times* (http://www.nytimes.com/2014/05/14/opinion/why-divestment-can-be-successful.html?_r=0).

77 G. Turner, 'Global Renewable Energy Market Outlook 2013', *Bloomberg* (<http://bnef.com/InsightDownload/7526/pdf/>).

78 Photovoltaic and Optoelectronic Device Group, University of Oxford (<https://www2.physics.ox.ac.uk/research/photovoltaic-and-optoelectronic-device-group>).

Complimenting Oxford's other environmental sustainability efforts

It is extremely important for large institutions like the University of Oxford to actively seek ways to decrease their institutional carbon footprint. Oxford has been making progress towards its goal of reducing greenhouse gas emissions to 33% below its 2005/06 baseline by 2020/21.⁷⁹ By also adopting a carbon-sensitive investment policy, Oxford would be working in the same spirit of improving its green impact while also engaging at a strategic level to help bring about the systemic shifts we need in policy, finance and capital investment in order to effectively tackle climate change.

The above win-win reasons for Oxford to adjust its investment policy are important to take into account. At the end of the day, however, the University should let itself be guided by the ethical case for how best to invest its endowment. The university and college endowments represent, both materially and symbolically, the endurance of Oxford University across time. Yet the university sends mixed messages to its constituency by its continued presence in carbon-intensive assets that are known to threaten the wellbeing of future generations of students and faculty. University members may well ask what a choice not to take an ethical investment stance on climate change means for the University's commitment to a socially responsible investment policy. By adjusting its investment approach, Oxford would contribute to the urgent action necessary to guarantee the life and health of its members, both present and future.

⁷⁹ Environmental Sustainability Report (2011/12), University of Oxford (http://www.admin.ox.ac.uk/media/global/wwwadminoxacuk/localsites/estatesdirectorate/documents/environment/sustainability_report_2013.pdf).

APPENDIX 1 – 'Fossil Free Oxford University' petition

To: Oxford University's Vice-Chancellor Andrew Hamilton,

We call on Oxford University to:

- Screen for and exclude the fossil fuel industry from OU's investment portfolio
- Immediately freeze any new investment in fossil fuel companies
- Divest from the fossil fuel industry and shift funds to positive, ethical investments within 5 years

Why is this important?

Climate change, caused by emissions of greenhouse gases from burning oil, gas and coal, threatens the lives and livelihoods of billions of people around the world. Extreme weather events — the floods, droughts, melting icecaps and wildfires we've seen in recent years — make it clear that climate change is no longer a future threat: it's a clear and present danger. Those worst affected, and often least responsible for causing climate change, are the poor and vulnerable in both developed and developing countries.

We now know that at least two-thirds of fossil fuel companies' reserves will have to remain underground if the world is to meet existing internationally agreed targets to avoid the threshold for "dangerous" climate change. Experts warn this 'carbon bubble' could lead to stranded assets worth trillions and plunge the world into another financial crisis if left unaddressed.

And yet, despite University of Oxford's public commitments to tackling climate change both through its estates and its world-leading climate research, there are strong and pervasive links between our institution and the fossil fuel industry. University of Oxford has the largest endowment of any UK university invested in numerous fossil fuel companies.

If it is wrong to wreck the climate, then it is wrong to profit from that wreckage.

It's time for University of Oxford to realise how incompatible these investments are with a safe climate future, and to take meaningful action to go Fossil Free.

SIGNED BY: 1774 (23 June, 2014)

APPENDIX 2 – 'Oxford Alumni for Fossil Fuel Divestment' petition

To: Dear Vice Chancellor Hamilton and Fellows of Oxford University,

As alumni and donors, we call on the University of Oxford to show leadership on climate change and divest its endowment from the top 200 companies involved in the exploration, ownership or extraction of fossil fuels.

Why is this important?

This year the UK experienced the wettest winter since records began, with thousands evacuated from their homes. It followed record breaking heatwaves across Australia, extreme cold temperatures in North America and the strongest tropical cyclone on record in the Philippines. We know that failure to take meaningful action to curb emissions will dramatically increase the severity and frequency of these events.

In the face of this tremendous challenge, we need integrity and leadership from prestigious institutions like the University of Oxford.

Oxford scholars are at the forefront of research on the impacts of climate change, and were lead authors of the latest Intergovernmental Panel on Climate Change (IPCC) report - the global authority on climate science. The report made clear that 80% of known fossil fuel reserves must remain unburned to stay below the critical threshold of two degrees of global warming.

Fossil fuel companies continue to disregard this scientific consensus. They are committed to burning 100% of their reserves, are actively exploring for more in ever more extreme environments, and are lobbying extensively to block meaningful action on climate change.

For the University to invest in the fossil fuel industry is inconsistent with its own policy to “ensure that its investment decisions (including those taken on its behalf) take into account social, environmental and political issues in order to maintain its ethical standards”.

The University divested from South Africa in 1985 and arms manufactures associated with cluster munitions in 2012 to take a moral stand. In the case of climate change, the need for moral leadership cannot be overstated. Supporters of fossil fuel divestment already include high profile figures such as former Irish President Mary Robinson and South African campaigner Desmond Tutu, who has called for an 'apartheid-style boycott to save the planet.' The University of Oxford can add its voice to theirs, sending a powerful message about the need for immediate action on climate change.

The ethical argument aside, leading actors in the financial sector acknowledge that fossil fuel investments are increasingly risky, given that known reserves will become ‘unburnable’ in a carbon constrained world. This work is being championed by Oxford Smith School’s own ‘Stranded Assets’ programme, and has attracted the attention of mainstream financial firms and asset managers, including HSBC, Price Waterhouse Cooper, Blackrock, and the London FTSE.

By divesting from fossil fuels, Oxford University can support its scholars, show leadership, and adopt the best investment practice, both from an ethical and financial perspective. As

Oxford alumni and donors, we urge our alma mater to take action on climate change and divest from fossil fuels.

SIGNED BY: 245 (23 June, 2014)

APPENDIX 3 – 'Oxford Academics for Fossil Fuel Divestment' open letter

Dear Vice Chancellor Hamilton,

As Oxford academics and staff concerned about climate change, we call on our university to divest its endowment from the top 200 companies involved in the exploration, ownership or extraction of fossil fuels.

We believe Oxford should do this for three main reasons:

- (I) To demonstrate support for its own scholars;
- (II) To show leadership in a time of unprecedented transition;
- (III) To honour its fiduciary duties.

I. Oxford scholars are global leaders in calling for an end to our collective dependence on fossil fuels. The University of Oxford should support them.

Oxford academics are among the lead contributors to the most recent Inter-governmental Panel on Climate Change (IPCC) reports. These reports warn that 80% of the reserves fossil fuel companies currently oversee must remain underground to avoid dangerous climate tipping points. They also show that the tools required to limit global warming to 2°C are available and affordable but that international efforts must be significantly enhanced.

Oxford academics are also at the forefront of research into the economic consequences of climate change, highlighting, for instance, the financial implications of 'stranded' fossil fuel assets. Former Oxford scholars, now working outside the university, have pioneered similar research into the "carbon bubble." This analysis is now driving global debate about the systemic financial risks associated with the future collapse of overvalued fossil fuel assets, which will occur when governments regulate to stave off catastrophic climate change.

Fossil fuel companies, meanwhile, are failing to heed the advice of Oxford academics, and that of so many others. Instead, they are actively exploring for new fossil fuel reserves; they are refusing to accept the concept of 'stranded' assets; and they are lobbying government not to regulate carbon emissions. In short, they are behaving irresponsibly and threatening our future.

Oxford scholars demonstrate the environmental and economic imperative to end our dependence on fossil fuels. By divesting, the University can amplify the voice of its academics and signal to policy makers the need to act now on climate change.

II. The University of Oxford has a responsibility to show leadership in tackling one of the greatest challenges we as a society currently face.

Climate change is an emergency and opinion leaders are rising to the challenge, calling for immediate change. A major focus is divestment from fossil fuels. Anti-apartheid campaigner Desmond Tutu, former Irish president Mary Robinson, World Bank president Jim Yong Kim, the British Medical Journal, the UNFCCC's executive secretary Christiana Figueres and Lord Stern all agree. In the words of Tutu, "It makes no sense to invest in companies that undermine our future."

The University of Oxford has its own reputation as a leading institution, both in the UK and globally. This reputation predates fossil fuel companies, and it will outlast them. To help secure that future, though, Oxford can make a powerful statement by divesting its endowment from fossil fuels. This action would, moreover, accord with the University's own commitment to ensuring "it makes investment decisions responsibly and with integrity" by "[taking] into account social, environmental and political issues in order to maintain its ethical standards."

III. Oxford University has a fiduciary duty to divest from fossil fuels.

As Oxford academics and staff, we support the university Council and Oxford University Endowment Manager (OUem) in their efforts to fulfil their fiduciary duties. We nevertheless encourage them to consider how climate change risks challenge standard interpretations of what these duties entail.

Fiduciary duty is an ambiguous legal concept. It is generally thought to mean the responsibility of a trustee, investment manager or other financial intermediary to ensure maximum short-term returns on investments. The Kay Report and the Law Commission review both question this "short-termism." They instead call on fund trustees to consider "longer term factors which might impact on company performance, including questions of sustainability or environmental and social impact."

As already noted, concern over the long-term financial viability of fossil fuel investments is spreading rapidly. This thinking is, moreover, moving into the financial mainstream. The Norwegian sovereign wealth fund, the largest such fund in the world, is considering divesting from fossil fuels, HSBC has published reports warning against the future risks of fossil fuel investments, and Blackrock has responded by creating fossil free asset portfolios.

Given these growing concerns over long-term environmental sustainability and financial stability, we encourage the university to fulfil its fiduciary duties by divesting its endowment from fossil fuels.

In conclusion:

By divesting from fossil fuels, Oxford University can support its scholars, show leadership, and adopt the best investment practice, both from an ethical and financial perspective. As Oxford academics and staff, we therefore urge our university to take action on climate change and divest from fossil fuels

SIGNED BY: 89 (23 June, 2014)

APPENDIX 4 – Reporting from *The Guardian*

Oxford University urged to purge its £3.3bn fund of fossil fuel investments

14 colleges demand university shouldn't invest in companies that are fuelling the climate crisis

Students and dons at 14 Oxford colleges have urged the university to purge its £3.3bn endowment fund of all investments in fossil fuel companies. The move follows 64 Oxford professors and other senior academics signing an open letter and a petition by over 800 students, staff and alumni.

The University of Oxford is believed to have the largest investments in fossil fuel companies of any UK university. It is now consulting business, academics and others on whether it should follow some US universities which have committed to sell off their fossil fuel investments. The results of the Oxford consultation will be considered by the university's socially responsible investment review committee in July and a formal recommendation made to the university council later this year.

In their open letter, academics argue that Oxford has a "responsibility to show leadership in tackling one of the greatest challenges we as a society currently face." Signatories to the letter include Lord Robert May, former chief scientific adviser to the UK government, Lesley Gray, professor of atmospheric physics, and Gordon Clark, current director of Oxford University's Smith School of Enterprise and the Environment.

"We at Oxford like to claim the mantle of intellectual leadership," said Henry Shue, professor of politics and international relations. "Here is our opportunity to display genuine leadership when it counts."

"We can only burn 20% of the carbon in the proven fossil fuel reserves. We'll have reached that limit in 16 years at present rates of consumption. Now we have a carbon bubble, of unreal value. It is too risky to own shares in this bubble. It has to burst, and will burst if we are sane and want to avoid dangerous climate change," said Brenda Boardman, emeritus Oxford fellow at the Environmental Change Institute.

According to student pressure group People and Planet, 46 UK universities are now being pressed by their staff, students and alumni to divest themselves of about £5.2bn in fossil fuel investments. Edinburgh and Glasgow universities are expected to make a decision later this year.

The moves by UK universities follow an escalating global campaign to push universities to sell off their holdings in fossil fuels. Earlier this year 129 Harvard professors accused the world's richest university of a "failure of leadership" on climate change and called on it to purge its nearly \$33bn (£20bn) endowment of all holdings in fossil fuel companies. Nine US colleges have so far committed to selling off their stocks.

The UN and the World Bank have both endorsed divestment as a way of fighting climate change.

"Continuing to invest in companies fuelling the climate crisis is not only morally bankrupt

but also financially imprudent and Oxford should heed the warnings of its own respected academics. Ultimately, ignoring the growing student-led Fossil Free campaign will put the university on the wrong side of history and damage its hard-earned reputation and its £3.3bn endowment," said James Farndon, Fossil Free campaign co-ordinator, at People & Planet.

Source: <http://www.theguardian.com/environment/2014/jun/02/oxford-university-fund-fossil-fuel-climate-crisis>

APPENDIX 5: Reporting from the *BBC*

Oxford university academics support fossil fuel divestment

Fifty-nine University of Oxford academics have signed an open letter urging the institution not to invest in fossil fuel companies.

They are supporting the student-led Fossil Free campaign, which held a protest march in Oxford on Saturday.

About 150 students and residents gathered by the Radcliffe Camera and proceeded through the city centre, ending with a rally at Bonn Square.

The university is undertaking a consultation on fossil fuel divestment.

'Informed debate'

In the letter, the academics urge the university to "take action on climate change" by "ridding its £3.8bn endowment of investments in fossil fuel companies".

They want the money pulled out of oil, coal and gas firms and re-invested in more ethically and financially sustainable companies.

They argue that Oxford university has a "responsibility to show leadership in tackling one of the greatest challenges we as a society currently face".

Signatories to the letter include Lord Professor Robert May, former chief scientific adviser to the UK government, Lesley Gray, Professor of Atmospheric Physics and Professor Gordon Clark, current director of the Oxford Smith School of Enterprise and the Environment and former chair of the University's Socially Responsible Investment Review Committee.

Twelve US universities, including Stanford, and 26 cities, have already committed to the cause.

Oxford University said the issue was "complex and multifaceted" and required "the collection of evidence and opinions, and time for reflection and informed debate".

"Fossil fuel divestment is a broad issue involving many different university departments and activities, and that any engagement on this issue will need to consider a range of stakeholders across the whole of the university."

The consultation is set to conclude on 23 June and the review will be held on 2 July, with findings published on the university website.

Source: <http://www.bbc.co.uk/news/uk-england-hampshire-27655081>

APPENDIX 6 – Links to further reporting about the Fossil Free Future Campaign at Oxford

<http://350.org/59-oxford-academics-urge-university-to-divest-from-fossil-fuels>

<http://oxfordstudent.com/2014/06/05/oxford-dons-call-on-uni-to-dump-fossil-fuels/>

<http://oxfordjournal.co.uk/dozens-march-against-universitys-fossil-fuel-investments/>

<http://www.timeshighereducation.co.uk/news/oxford-academics-call-for-fossil-fuel-divestment/2013707.article>

[\[cio.com/channel/ASSET_ALLOCATION/Oxford_Endowment_Under_Pressure_to_Dump_Fossil_Fuel_Investments.html\]\(http://www.ai-cio.com/channel/ASSET_ALLOCATION/Oxford_Endowment_Under_Pressure_to_Dump_Fossil_Fuel_Investments.html\)*](http://www.ai-</i></p></div><div data-bbox=)*

http://www.oxfordmail.co.uk/archive/2014/06/02/11249273.Oxford_city_centre_march_against_fossil_fuels_held/

<http://www.cherwell.org/news/topstories/2014/05/31/students-and-residents-unite-in-fossil-fuel-divestment-rally>

<http://www.inquisitr.com/1277342/oxford-university-urged-to-get-out-of-fossil-fuel-business/>

http://www.theecologist.org/News/news_round_up/2419639/oxford_university_must_divest_from_fossil_fuels.html

