

Fossil Fuel Divestment at the University of British Columbia:
A Responsible Investment Proposal



Presented by UBCC350
October 27, 2014



UBCC350 is a group of UBC students, faculty, staff, and alumni committed to advocating for meaningful action on climate change. If you would like to comment on the paper, please send comments to ubcc350@gmail.com.

Our Case in Brief

We call on UBC to immediately forgo further investments in fossil fuel companies, and to divest from all existing fossil fuel holdings within five years.

The rationale for fossil fuel divestment is strong. The science is clear: the evidence is overwhelming that we are hurtling towards a future that is dangerous for humankind. Immediate actions are required to restructure our energy systems away from fossil fuels and toward clean energy. Luckily, research by engineers and economists also shows that such a transition is both technologically feasible and affordable. Responsible investors, including elite universities and large philanthropic foundations, are already responding by divesting fossil fuels from their portfolios.

The most powerful rationale for divestment is moral. Given the magnitude of the risk to humanity posed by climate change, and our shared values of respecting future generations, we believe that it is inconsistent with UBC's core values of sustainability, global citizenship, and innovation to support an industry whose products are driving us toward an unsustainable future.

Divestment can be effective because it can undercut the economic and especially the political power of the fossil fuel industry, whose aggressive lobbying against necessary policy reforms has thwarted meaningful action on climate. Inspired by the anti-apartheid movement, the fossil fuel divestment movement aims to stigmatize the fossil fuel industry and delegitimize its political influence. Divestment create can help create political space for policymakers to adopt meaningful policies to foster a rapid transition to a clean energy future.

Alternative endowment policies are unlikely to be effective. UBC has been effective at investments in on-campus operations to reduce its carbon footprint, but the "carbon shadow" of UBC's investments through the endowment are nine times higher than on-campus emissions. Some argue that UBC should maintain ownership so that it can exercise leverage as a shareholder. However, because the business model of fossil fuel companies relies fundamentally on exploiting carbon reserves that humanity can't afford to burn, working through shareholder channels is inadequate to achieve the transformative changes required. These urgent times demand rapid and significant changes in our energy system, and we believe those changes would be better fostered through the more dramatic action of divestment.

Some are concerned that divestment might reduce the income UBC receives from its endowment, but this need not to be the case. Concern that divesting would hurt the performance of portfolios is not supported by the best available data. Indeed, there are increasing concerns, from the likes of the Governor of the Bank of England and major pension funds, that a "carbon bubble" could pose a significant threat to fossil fuel investments. Just as UBC has undertaken renewal of its facilities and operations as a "living laboratory" for sustainability, we call on our university to apply its expertise and

values with the same vigour to its endowment. UBC should devise a profitable fossil-free portfolio that inspires sustainable investing by other institutions.

Divestment is an act of leadership. We are proud of UBC's commitment to sustainability. The time has come for UBC to take the next step in living up to its ideals..

Overview

We call on UBC to immediately forgo further investments in fossil fuel companies,¹ and to divest from all existing fossil fuel holdings within five years.

The international campaign for fossil fuel divestment was initiated by 350.org, a global climate organization, in 2012. The campaign for fossil fuel divestment at UBC began in earnest in the fall of 2013 when students organized to gather over a thousand signatures to trigger a student referendum. In the January 2014 AMS elections, 77% voted yes on the divestment referendum. The text of the referendum is as follows:

Whereas the University of British Columbia has demonstrated a strong commitment to environmental sustainability, and whereas it is unconscionable to fund our education with investments in fossil fuels that threaten our future on this planet, UBC should immediately forgo further investments in fossil fuel companies, and divest from all existing fossil fuel holdings within five years. Do you call on the Alma Mater Society to make all reasonable efforts to urge UBC to divest from fossil fuels?

The UBC endowment is a collection of investments, money, and assets donated to the university over the last 90 years. Income earned from the endowment helps fund UBC. The UBC Board of Governors establishes policy for the endowment, which is managed by IMANT, an organization reporting through UBC Finance to the UBC Board of Governors. The endowment is worth \$1.2 billion, about 10% of which is directly invested in fossil fuels.

In April 2014, UBC adopted a new Responsible Investment Policy for the endowment.² The policy commits UBC to incorporate principles of environmental, social, and governance (ESG) into investment choices. It also established procedures for proposals to divest from particular sectors. "Responsible Investment Proposals" must receive demonstrated support from at least two of the university's core constituencies (students, staff, faculty, and alumni). Proposals also need to address five substantive criteria:

1. Proven social, political, economic, or environmental rationale.
2. Reasonable evidence that divestment is an effective way to achieve the desired outcome.
3. Absence of alternative policies.

¹ "Fossil fuel companies" are defined for this purpose as the 200 coal, oil, and gas public companies as ranked by carbon content of their fossil fuel reserves. <http://divestinvest.org/wp-content/uploads/2014/09/FFI-TheCarbonUnderground-29-Apr-2014.pdf>

² University of British Columbia, Endowment Responsible Investment Policy version 2.0, <http://treasury.ubc.ca/responsible-investment/ubc-endowment-responsible-investment-policy/>

4. Consistency with the university's legal obligations as trustee.
5. Consistency with its other university relationships.

This brief addresses these five criteria.

1. Proven Rationale

Fossil fuel divestment is justified because of the urgency and gravity of climate challenge. Alternatives to fossil fuels are technically feasible and economically affordable, and an increasing number of investors are already taking action to manage carbon risk, including divestment. Given the magnitude of the risk to humanity posed by climate change, and our shared values of respecting future generations, divestment is ultimately a *mora* statement.

The Alarming Scientific Reality of Climate Change

There is overwhelming scientific consensus that climate change is happening, and that it is caused primarily by anthropogenic greenhouse gas emissions. The 2013 report of the Intergovernmental Panel on Climate Change concludes that the evidence of global warming “unequivocal,” and that it is “extremely likely,” defined as 95% probability, that the dominant cause is anthropogenic emissions.³ The degree of consensus within the scientific community is indicated by comprehensive reviews of the scientific literature (showing that 97% of peer-reviewed journal articles on climate change agree on anthropogenic global warming),⁴ polls of scientists,⁵ and from the public statements by virtually every scientific society that has issued a report on the topic.⁶

There is scientific consensus that the effects of climate change are already being felt, and they will worsen significantly in the future, much more so if we do not act quickly and dramatically to reduce the emissions of greenhouse gases. The list of already observed impacts is substantial:

- Arctic sea ice has declined dramatically and the rate of decline is accelerating.
- The melting of the Antarctic and Greenland ice sheets is accelerating, and glaciers are also melting rapidly.
- Sea levels are rising, increasing the rate of coastal flooding and risk of storm surges.
- The risk of wildfire has increased in many places.

³ IPCC. (2013). Summary for Policymakers. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Accessed from http://www.climatechange2013.org/images/report/WG1AR5_SPM_FINAL.pdf

⁴ Cook et al. (2013). Quantifying the consensus on anthropogenic global warming in the scientific literature. *Environmental Research Letters*. 8(2): 1-7

⁵ Doran, P. and M. Zimmerman (2009). Examining the scientific consensus on climate change. *Eos, Transactions, American Geophysical Union*. 90 (3): 22-23.

⁶ A list of statements by scientific organizations can be found at <http://climate.nasa.gov/scientific-consensus>. There are now two excellent summaries by leading scientific societies of the science designed for non-experts: The AAAS Climate Science Panel. (2013). What We Know: The Reality, Risks and Responses to Climate Change. Accessed from <http://whatweknow.aaas.org/wp-content/uploads/2014/03/AAAS-What-We-Know.pdf> The US National Academy of Science and The Royal Society. (2014). Climate Change: Evidence and Causes. Accessed from <http://nas-sites.org/americasclimatechoices/events/a-discussion-on-climate-change-evidence-and-causes/>

- The frequency and severity of some types of extreme weather events is increasing. There is strong evidence that heat waves, heavy rainfall events, droughts, and extreme sea levels have all already increased in some regions as a result of climate change.
- The planet's ecological systems have been disrupted. Marine and terrestrial species are moving up in latitude and elevation. Seasonal behaviours are changing. These impacts increase the risk of extinction. In Western North America and especially British Columbia, we've already experienced harsh impacts on our forest ecosystem from the spread of the mountain pine beetle epidemic, which was exacerbated by climate change.⁷
- The oceans, having absorbed 30% of anthropogenic carbon dioxide, are acidifying. Impacts on shellfish and coral reefs have already been detected.⁸
- Crop yields are suffering. According to the IPCC, "negative impacts of climate change on crop yields have been more common than positive impacts (high confidence)."⁹
- Climate change can directly and indirectly affect human health. The IPCC states that, as a result of increased heat waves, altered infectious disease vectors and seasonal distributions of allergenic pollen, "there has been increased heat-related mortality and decreased cold-related mortality in some regions as a result of warming (medium confidence)."¹⁰ The World Health Organization estimates that climate change could already be causing more than 150,000 deaths per year.¹¹

The scientific community is also confident in projecting that without dramatic reductions in our greenhouse gas emissions, temperatures will rise to levels that will significantly exacerbate these impacts. If we remain on the current trajectory, climate models predict a warming of 2.6 to 4.8 °C (in addition to the 0.8 degrees already observed) by the end of this century.¹² As IPCC Working Group II's latest report demonstrates, the impacts of that much warming on the future quality of life are daunting. Here are some of the "highlights":

- "Elevated risks of death, injury, ill-health, or disrupted livelihood in low-lying coastal zones."
- "System risks due to extreme weather events leading to breakdown of infrastructure networks."
- "Risk of food insecurity and the breakdown of food systems linked to warming, drought, flooding, and participation variability and extremes, particularly for poorer populations."

⁷ Kurz, W.A., *et al.* (2008). The Mountain pine beetle and forest carbon feedback to climate change. *Nature*. 452(7190): 987-990

⁸ The AAAS Climate Science Panel. (2013). What We Know: The Reality, Risks and Responses to Climate Change. Accessed from <http://whatweknow.aaas.org/wp-content/uploads/2014/03/AAAS-What-We-Know.pdf>;

The US National Academy of Science and The Royal Society. (2014). Climate Change: Evidence and Causes. Accessed from <http://nas-sites.org/americasclimatechoices/events/a-discussion-on-climate-change-evidence-and-causes/>

⁹ IPCC (2014). Climate Change 2014: Impacts, Adaptation, and Vulnerability. Summary for Policymakers, p. 7. http://ipcc-wg2.gov/AR5/images/uploads/IPCC_WG2AR5_SPM_Approved.pdf

¹⁰ IPCC (2014). The Fifth Assessment Report on the Impacts of Climate Change. Chapter 8: Human Health. Accessed from <http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-chapter8.pdf>

¹¹ McMichael, A.J. *et al.* (2003) Climate Change and Human Health, Risks and Responses. Accessed from <http://www.who.int/globalchange/publications/climchange.pdf>

¹² IPCC. (2013). Summary for Policymakers. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Accessed from http://www.climatechange2013.org/images/report/WG1AR5_SPM_FINAL.pdf

- “A large fraction of both terrestrial and freshwater species faces increased extinction risk.”
- “Climate change can indirectly increase risks of violent conflicts in the form of civil war and inter-group violence by amplifying well-documented drivers of these conflicts such as poverty and economic shocks.”¹³
- Climate change exacerbates global injustice by causing disproportionate harms to residents of developing countries, who also have contributed the least to the problem. Greater sea level increases are anticipated near the equator, where hundreds of millions of people live in crowded low-lying coast cities. Similarly, anticipated temperature increases will have more severe impacts on public health in already-hot countries. The global poor also are more vulnerable to the effects of climate change by virtue of insecure housing, inadequate sanitation, and already compromised health status. Finally, developing countries simply do not have financial capacity to adapt to climate change by reinforcing infrastructure or relocating populations.¹⁴

The Harsh Reality of the Global Carbon Budget

The growing scientific evidence about the impacts of climate change is alarming. There is also general agreement among experts about what needs to be done to avoid dangerous climate change. The international community has agreed, in the 2009 Copenhagen Accord, on the goal of staying within 2°C of warming. The concept of a “carbon budget” has emerged over the past five years to characterize the amount of additional greenhouse gases humanity can afford to release and remain within a certain temperature threshold for warming.¹⁵ The concept has been embraced by leading international organizations such as the International Energy Agency,¹⁶ and by the IPCC in its Fifth Assessment Report.¹⁷

There is widespread consensus that the majority of carbon in global energy reserves needs to remain in the ground in order for humanity to have a reasonable probability of staying within the 2°C threshold. While there are differences in estimates depending on, among other things, the time frame, the metric used, the temperature target, and the probability of reaching that target, humanity can only “afford to burn” 30-39% of the remaining carbon reserves on the planet.¹⁸ In other words, 61-70% of the world’s fossil fuel reserves are “unburnable” if we want to avoid dangerous climate change. This carbon budget concept has direct implications for the long term financial viability of the fossil fuel industry. We return to this issue in Section 4 below.

¹³ IPCC (2014). Climate Change 2014: Impacts, Adaptation, and Vulnerability. Summary for Policymakers, http://ipcc-wg2.gov/AR5/images/uploads/IPCC_WG2AR5_SPM_Approved.pdf

¹⁴ World Bank. (2013). Turn Down the Heat: Climate Extremes, Regional Impacts, and the Case for Resilience

¹⁵ Zickfeld *et al.* (2009). Setting cumulative emissions targets to reduce the risk of dangerous climate change. *Proceedings of the National Academy of Science*. 106(38): 16129-16134.

¹⁶ International Energy Agency. (2012). World Energy Outlook, Chapter 8.

<http://www.worldenergyoutlook.org/publications/weo-2012/>

¹⁷ IPCC Working Group 1. (2013). Summary for Policymakers. Accessed from http://www.climatechange2013.org/images/report/WG1AR5_FrontCover.pdf

¹⁸ The IPCC and IEA estimates are compared by Carbon Tracker Initiative: Carbon Tracker Initiative. (2011). Things to look out for when using carbon budgets. Accessed from <http://www.carbontracker.org/wp-content/uploads/2013/11/Carbon-budget-checklist-FINAL.pdf>

A Clean Energy Future is Feasible and Affordable

In addition to the growing and alarming consensus on climate science and the harsh constraints of a global carbon budget, there is also an emerging consensus that a transformation to a clean energy system is both technologically feasible and economically affordable. Because the current energy system has been constructed upon prices that ignore the costs of climate damage, it is likely that a clean energy system will be somewhat more expensive than the unreasonably subsidized status quo. But virtually every estimate of the costs of a clean energy future suggests that the costs of mitigating climate change are not only a good investment, given the projected costs of the impacts of climate change, but also quite modest in magnitude. According to Yale University economist William Nordhaus, reduction of greenhouse gas mitigation designed to reach the 2°C target temperature “would take between 1 and 2 percent of world income on an annual basis.”¹⁹ The most recent IPCC report estimates that actions designed to meet the 2 degree target would reduce annual consumption by a scant 0.06% from now until the end of the century.²⁰

A research group studying the California energy system concluded that through a combination of energy efficiency improvements, decarbonization of electricity generation, and electrification of energy services, California could reduce its carbon emissions 80% by 2050. The study concluded that the cost of the transition in 2050 would amount to \$1200 per capita or 1.3% of gross state product.²¹

Stanford's Mark Jacobson has produced extensive research on the feasibility of a clean energy future. His global analysis (with Mark Delucchi) concluded that it would be feasible to deliver the new energy required to fuel population and economic growth by the year 2030 exclusively with a combination of wind, water, and solar energy. All global energy services could be produced by wind, water, and solar in 2050. Their analysis concludes: “Barriers to the plan are primarily social and political, not technological or economic. The energy cost in a [wind, water, and solar] world should be similar to that today.”²² Jacobson has also produced a clean energy conversion scenario for New York State, which shows the state could move to wind, water, and solar completely by 2030, and electricity costs would actually be cheaper than under a fossil fuel future.²³ More recently, Jacobson has teamed up with others to produce roadmaps for each of the 50 states.²⁴

¹⁹ Nordhaus, W. (2013). *The Climate Casino: Risk, Uncertainty, and Economics for a Warming World*. Yale University Press. p. 181.

²⁰ IPCC WGIII. (2014). Summary for Policymakers, http://report.mitigation2014.org/spm/ipcc_wg3_ar5_summary-for-policymakers_approved.pdf. p. 18.

²¹ Williams, J.H., et al. (2012). The Technology Path to Deep Greenhouse Gas Emission Cuts by 2050: The Pivotal Role of Electricity. *Science*. 335: 53-59

²² Jacobson M.Z., Delucchi, M.A. (2010). Providing all global energy with wind, water, and solar power, Part I: Technologies, energy resources, quantities and areas of infrastructure, and materials. *Energy Policy*. 39(3): 1154-1169

²³ Jacobson, M.Z. (2013). Examining the feasibility of converting New York State's all-purpose energy infrastructure to one using wind, water, and sunlight. *Energy Policy*. 57: 585–601

²⁴ The Solutions Project. (n.d.). The Solutions Project: 50 States, 50 Plans, 100% Renewable Energy Benefits. Accessed from <http://thesolutionsproject.org/>

Investors are Responding

Since its inception just over two year ago, the movement to divest from fossil fuels has spread rapidly. Fifteen universities or colleges have committed to divestment. Last spring, Stanford University was the first major research university to act on divestment, pledging to remove coal from its \$19 billion endowment. This fall, the University of Glasgow and Australian National University also committed to divest. 32 cities and counties have divested, included Seattle and San Francisco, as have 51 religious institutions.²⁵ Perhaps the most consequential divestment action was a group of wealthy individuals and philanthropic foundations representing \$50 billion in assets.²⁶ The most prominent foundation in the group is the Rockefeller Brothers Fund, a legacy of oil giant Standard Oil, whose successor companies include ExxonMobil, Chevron, and Sunoco.²⁷

We believe UBC has an enormous opportunity to demonstrate global leadership on sustainability by being the first Canadian university to commit to divestment.

Divestment is a Moral Statement

Given the magnitude of the risk to humanity posed by climate change, and our shared values of respecting future generations, the call for divestment is essentially a moral statement. Implicit in UBC's responsible investment policy's call for a "proven social, political, economic, or environmental rationale," is a system of values, a moral code. UBC should not continue to profit from investments that contribute significantly to environmental harm and social injustice. In a very concrete way, it seems to us wrong to fund our student's education, an investment in their future, through profits from companies that harm their future prospects. Similarly, it is wrong for a university committed to global citizenship to profit from companies whose core enterprise will exacerbate global disparities in health and well-being.

2. Effectiveness

Among experts and advocates for a safe climate, there is widespread consensus that placing an economy-wide price on carbon is by far the best approach to reducing greenhouse gas emissions, so that economic transactions incorporate the full costs to society.²⁸ To this point, however, the political process is failing us. The US Congress' failure to pass cap and trade legislation in 2009 to 2010 effectively took carbon pricing off the table in both the US and Canada. Although prior to 2011, Canadian Prime Minister Harper's own government had committed to a national cap and trade program, the Prime Minister and his Ministers now routinely equate emissions trading to a "job-killing carbon tax" or a "tax on everything." Although

²⁵ A list of divestment actions can be found at <http://gofossilfree.org/commitments/>

²⁶ <http://divestinvest.org/>

²⁷ Vauhina Vera. 2014. "The Rockefeller Brothers Found Gives Up on Oil." *The New Yorker* September 20.

<http://www.newyorker.com/business/currency/rockefellers-give-oil>; John Schwartz. 2014. "Rockefellers, Heirs to an Oil Fortune, Will Divest Charity of Fossil Fuels." September 21. http://www.nytimes.com/2014/09/22/us/heirs-to-an-oil-fortune-join-the-divestment-drive.html?_r=0

²⁸ There is an immense literature on the topic, but one exemplar of an academic economist position is Nordhaus, W. (2013). *The Climate Casino: Risk, Uncertainty, and Economics for a Warming World*. Yale University Press. The foundational advocacy manifesto for the divestment movement contains the same argument: McKibben, B. (2012). *Global Warming's Terrifying New Math*. Rolling Stone. July 19.

<http://www.rollingstone.com/politics/news/global-warmings-terrifying-new-math-20120719>

some subnational jurisdictions, including California, British Columbia, and Quebec, have embraced carbon pricing, it has been states and provinces with the least carbon-intensive economies that have shown leadership, while more emissions-intensive neighbours have declined to follow their lead.²⁹ Despite the best efforts of climate activists, legislative initiatives have stalled, in no small part due to opposition and obfuscation by the fossil fuel industry.³⁰ In the wake of this political stalemate, the fossil fuel divestment movement has emerged to press for action. Citizens are taking responsibility for their own institutions, pressuring universities and other institutional investors to live up to their principles and stop profiting from climate destruction. Divestment campaigns have emerged at hundreds of universities and other institutions around the world.

Given the extraordinary size of the fossil fuel industry and the nature of global capital markets, many argue that the divestment movement is largely symbolic. Divestment by a single investor, acting alone, cannot be expected to make a significant dent in addressing climate change. The very structure of the climate problem makes it a challenge to demonstrate that any particular action by an individual entity can be effective. The climate crisis is a global “tragedy of the commons,” created by millions of individuals and organizations around the world, all acting in their short term economic interests. Emissions reduction by any individual, or even any country, cannot solve this immense collective action problem. To insist that any individual action or organization must be demonstrably effective accepts a logic that dooms the planet to dangerous climate change. If we continue to be guided by short term economic interests, humanity will simply be incapable of rising to the challenge.

In fact, the symbolism of the demand for divestment is what gives it power and makes it effective. The divestment movement is inspired by the anti-Apartheid movement of the 1980s. The impact of the anti-Apartheid investment campaign was less on the value of shares of companies doing business in South Africa than on how it altered the climate for economic and political relations with the racist South African regime.³¹ The divestment campaign, which also began at universities and religious institutions, had the effect of stigmatizing firms doing business in South Africa, which ultimately hurt the brands and credibility of these firms in the marketplace and, just as importantly, created the political space for legislative changes like the U.S. Anti-Apartheid Act of 1986, which imposed economic sanctions on South Africa.³²

²⁹ Harrison, Kathryn. (2013). “Federal and Climate Policy Innovation: A Critical Reassessment.” *Canadian Public Policy* 39 (August Supplement): S95-S108.

³⁰ Brulle, R.J. (2013). Institutionalizing delay: foundation funding and the creation of U.S. climate change counter-movement organizations. *Climatic Change* 1-14; Union of Concerned Scientists (2012). A Climate of Corporate Control: How Corporations Have Influenced the U.S. Dialogue on Climate Science and Policy. http://www.ucsusa.org/assets/documents/scientific_integrity/a-climate-of-corporate-control-report.pdf

³¹ Ansar, A. et al (2013). Stranded assets and the fossil fuel divestment campaign: what does divestment mean for the valuation of fossil fuel assets? Stranded Assets Program, University of Oxford.

<http://www.smithschool.ox.ac.uk/research/stranded-assets/SAP-divestment-report-final.pdf>

³² Ibid.

Harvard University, in initially rejecting demands that it divest from corporations doing business in apartheid South Africa:

- "I reject the suggestion that a policy against divestment will perpetuate injustice, since I see no realistic possibility that having universities sell their stock in American companies will make a noticeable contribution to ending apartheid."
- "Is divestment a more effective way of inducing companies to withdraw than voting in favor of corporate resolutions to withdraw? There is no evidence to indicate that this is so."
- "Harvard decided on this course of action in the conviction that... voting and communicating views are appropriate forms of behavior for a university while efforts to exert pressure through boycotts and divestment are not."
- "We oppose divestment under normal circumstances not merely—or even primarily—because it costs the University money, but because it is an ineffective means of pursuing ethical ends." *

"Harvard did adopt a policy of selective divestment, and by the end of the '80s was almost completely out of South Africa." **

The theory of change underlying the fossil fuel divestment movement is based on similar logic, that divestment can have both economic and political impacts. An influential report from Oxford University's Stranded Asset Program argues: "The outcome of the stigmatisation process, which the fossil fuel divestment campaign has now triggered, poses the most far-reaching threat to fossil fuel companies and the vast energy value chain. Any direct impacts pale in comparison."³³ In a period of less than two years, the divestment movement has launched an international debate about the viability of fossil fuel investments and the economic future of fossil fuel companies. If the divestment movement becomes large enough, it could eventually have an economic impact on fossil fuel companies, particularly their ability to borrow capital.

Even if divestment has no immediate economic impact, the political change it fosters is likely to be far more effective. The political resistance to climate action has been fueled to a large degree by the aggressive lobbying of the fossil fuel industry, which has included deliberate and tragically successful efforts to mislead the public about the scientific consensus on climate change, and to delay and obstruct adoption of effective climate policies.³⁴ In rejecting investments in these companies on moral grounds, the divestment movement also delegitimizes the political influence of the fossil fuel industry and its stubborn resistance to change. Just as divestment can prompt movement of investments toward a cleaner energy economy, so too can it create political space for policymakers to adopt meaningful policies to foster a rapid transition to a clean energy future.

*<http://www.thecrimson.com/article/1984/10/2/the-problem-of-divestment-pfollowing-is/>

**http://www.harvardsquarelibrary.org/mandela/20_conflicted_relationship.html

³³ *Ibid*, p. 13.

³⁴ Brulle, R.J. (2013). Institutionalizing delay: foundation funding and the creation of U.S. climate change counter-movement organizations. *Climatic Change* 1-14; Union of Concerned Scientists (2012). A Climate of Corporate Control: How Corporations Have Influenced the U.S. Dialogue on Climate Science and Policy. http://www.ucsusa.org/assets/documents/scientific_integrity/a-climate-of-corporate-control-report.pdf

At the end of the day, as discussed above, the decision to divest is a moral one, an opportunity to do what we can to address a shared problem with the resources we have at our disposal. People are often unwilling to act unless they are sure others are willing to do the same. To that end, divestment is, more than anything else, a signal to each other that we recognize the scope of the problem and we are willing to start taking actions to address it. As part of a rising global movement on divestment, UBC can show leadership by divesting, and inspire others to follow suit.

3. Absence of Alternative, Cost-Effective Policies

We are proud of the University of British Columbia for its demonstrated leadership on sustainability. UBC's actions to date and ongoing future commitments with respect to the environmental footprint of its own operations are exemplary. By being the first Canadian university to adopt a sustainability policy, adhering to its 2007 Kyoto emission reduction targets, and adopting ambitious future greenhouse gas reduction targets, UBC has shown initiative and innovation in promoting a more environmentally-conscious institution.³⁵

But there is more to be done if UBC is to fulfill its commitment to sustainability. UBC's commitments to aggressively cut our on-campus greenhouse gas emissions are laudable, but the "embodied emissions" in the endowment are an order of magnitude larger than on campus emissions. It is hypocritical for UBC to fund reductions in our immediate carbon footprint through profits from investments that ultimately contribute a much greater carbon footprint.

The UBC endowment has a value of \$1.2 billion.³⁶ It is challenging to determine what fraction of the endowment is invested in fossil fuel companies because securities within many pooled funds are often obscured. UBC's endowment directly reports investments in fossil fuel companies of about \$8 million but a much larger fraction of the campus endowment is in fossil fuel companies that are part of larger pooled funds. By examining the annual reports issued by investment funds receiving UBC financial capital, we estimate is that at least 10% of the campus endowment is invested in fossil fuel companies.³⁷

UBC researchers Justin Ritchie and Hadi Dowlatabadi of the Institute for Resources, Environment and Sustainability have developed an innovative methodology to measure the "carbon shadow" of investments. By applying their Shadow Impact Calculator (SIC), which is built on economic input-output life cycle assessments (EIO-LCA), they've calculated an estimate for the overall annual amount of carbon emissions needed to support the financial valuation for various investments. Applying this methodology to the UBC endowment, Ritchie and Dowlatabadi estimate that the "endowment's carbon shadow was more than nine times the

³⁵ UBC Sustainability. (n.d.). *Our Story*. Accessed from <http://sustain.ubc.ca/our-commitment/our-story>

³⁶ Ouileet, P., Burgess, I., Mackenzie, S. (2014). Report to the University of British Columbia Board of Governors: Endowment Status as of January 31st, 2014. Accessed from http://bog2.sites.olt.ubc.ca/files/2014/03/3.24_2014.04_Endowment-Status-Report.pdf

³⁷ Justin Ritchie, Presentation to Why UBC Should Divest From Fossil Fuels, November 5, 2013. http://www.ubcc350.org/ubc_endowment_divestment_presentation_jr The UBC IMANT 2013 Annual Report states that 12% of UBC's endowment public equities are invested in the energy sector and 5% in utilities. IMANT report available at: http://www.ubcimant.ca/assets/pdf/ubcimant_annual_report_2013.pdf. After correcting the valuation of UBC's public equity holdings in these two sectors by proportion of companies that receive their revenues from oil, gas and coal and when the valuation of UBC's private equity sector investments in oil & gas are considered, we estimate that investments in oil, gas and coal amount to approximately 10% of UBC's overall endowment value.

university's scope 1 and 2 emissions."³⁸ The next step for UBC's sustainability initiative should be to divest its endowment of fossil fuels.

Some would prefer that UBC maintain ownership of fossil fuel stocks and exercise leverage as a shareholder. While shareholder activism is preferable to no action at all, it is an insufficient response to the climate crisis for three reasons. First, because the business model of fossil fuel companies is so reliant on carbon reserves humanity can't afford to burn, working through shareholder channels cannot achieve the transformative effect required. Second, the fact that most of UBC's equity holdings are in pooled funds makes the exercise of shareholder influence both more challenging and less significant. In contrast, divestment from these funds by UBC and other institutional investors will create incentives for creation of fossil-free financial instruments. Finally, and most importantly, these are urgent times that demand rapid and significant changes in our energy system. We believe those changes would be better fostered through the more rapid and dramatic action of divestment.

UBC's endowment managers are concerned about the management fees associated with creating a fossil fuel-free fund. There are a growing number of fossil-free funds in the US market, but there are currently no such Canadian funds (about half of the endowment is invested in Canada). We call on the university to embrace divestment as an investment opportunity rather than cost. UBC considers its operational improvements to have not only financial, but also educational and research value, as we view the campus holistically as a "living laboratory" with hopes that our innovative sustainability measures will spread beyond the school's gates to the world outside. We call on the university to apply its expertise and values with the same vigour to its endowment. UBC should devise a profitable fossil-free portfolio that inspires sustainable investing by other institutions.

Even if UBC chooses not to design its own fossil fuel portfolio, the management costs of divestment need not be significant. Financial markets around the world are already responding to the rapidly growing divestment movement, and will continue to do so. We anticipate the emergence of fossil free investment instruments designed for Canadian markets in 2015. If UBC were to commit to divestment, it would send an additional strong signal to financial markets that there is rapidly growing demand for such instruments. The five-year phase in time of our call for full divestment is in part designed to take advantage of these emerging changes in financial markets.

4. Consistency with the University's Legal Obligations as Trustee

The UBC Responsible Investment Policy states its fiduciary responsibility means that "All stakeholders expect UBC to provide investment returns over the long term to fulfil their intentions."³⁹ There is a concern in some quarters that fossil fuel divestment will hurt the performance of the UBC endowment. But that is not likely to be the case. An increasing number of studies have examined the impact of divestment on endowments and other financial holdings, and show a surprisingly degree of consensus that *the impact of fossil fuel divestment on returns is negligible and in some case marginally positive*.

³⁸ Ritchie, J, Dowlatabadi, H. (2014). "Understanding the shadow impacts of investment and divestment decisions: Adapting economic input-output models to calculate biophysical factors of financial returns." *Ecological Economics* 106: 132-140.

³⁹ <http://treasury.ubc.ca/responsible-investment/ubc-endowment-responsible-investment-policy/>

The most comprehensive analysis to date is an August 2014 report by Bloomberg New Energy Finance. This study performed so-called “back tests” where they separate fossil fuel stocks out from a well-known financial index, and then compare the fossil free index with the standard index. When Bloomberg did this for the S&P 500 for the past decade, it found that the fossil free index “performed on par” with the standard index. Bloomberg encourages investors to look at divestment as “an opportunity to create new investment opportunities, and to convince holders of trillions of dollars of capital that alternatives to fossil fuels are equally worthy investments.”⁴⁰

MSCI performed the same sort of analysis on their standard global index (MSCI ACWI IMI) from 2007-2013, and found that the fossil free index *out-performed* the returns on the standard index by 1.2%. When it extended the test back to 10 years, the fossil free index performed negligibly less well (-0.16%). The report attributes the difference to the high oil prices in the early part of the mid-2000s. MSCI states that “Fossil fuel divestment has the potential to reduce overall portfolio risk because of Energy Sector volatility.”⁴¹

Given how heavily weighted Canadian financial markets are to the oil industry, there is concern that divestment might be particularly challenging or problematic in Canada. The Aperio Group separately analyzed the difference in returns of a fossil free index from indices in financial markets in Canada, the US, Australia, and globally. In all four comparisons, the difference in returns is was very small but in all four, the fossil free indices outperformed the standard indices. In Canada, the margin was highest: the fossil free index outperformed the standard index by between 0.85 to 1.04%. The report concludes: “The data does not support the skeptics’ view that screening negatively affects an index tracking portfolio’s return.”⁴²

This carbon budget concept described in Section 1 – that if humanity is to have a reasonable chance of maintaining a safe climate, the vast majority of fossil fuel reserves are “unburnable” -- has direct implications for the long-term financial viability of the fossil fuel industry. Fossil fuels reserves are included in today’s valuation of fossil fuel companies, and the idea that we cannot afford to burn most of them is a major risk to the long term profitability of the industry and, thus, a major financial risk to its investors. This risk of stranded assets, often referred to as the “carbon bubble,” is gaining attention from investors and the financial community around the world.⁴³ None other than the former governor of the Bank of Canada, and now governor Bank of

⁴⁰ Bloomberg New Energy Finance. (2014). *Fossil Fuel Divestment: A \$5 Trillion Challenge*. August.

<http://about.bnef.com/white-papers/fossil-fuel-divestment-5-trillion-challenge/>

⁴¹ MSCI ESG Research. (2013). *Responding to the Call for Fossil-fuel Free Portfolios*. December.

http://www.msci.com/resources/factsheets/MSCI_ESG_Research_FAQ_on_Fossil-Free_Investing.pdf

⁴² Aperio Group. (2014). *Building a Carbon-Free Equity Portfolio*.

http://www.aperiogroup.com/system/files/documents/aperio_group_-_building_a_carbon-free_equity_portfolio.pdf.

A study by S&P Capital IQ found that divesting 10 years ago would have increased the endowments returns, compared to remaining invested in fossil fuels. IMPAX Asset Management. (2013). *Beyond Fossil Fuels: The Investment Case for Fossil Fuel Divestment*. Accessed from

https://s3.amazonaws.com/s3.350.org/images/Impax-0130704_white_paper_fossil_fuel_divestment_uk_final.pdf

⁴³ Carbon Tracker Initiative and the Grantham Research Institute (London School of Economics) (2013). *Unburnable Carbon 2013: Wasted capital and stranded assets*. <http://carbontracker.live.kiln.it/Unburnable-Carbon-2-Web-Version.pdf>; HSBC Global Research (2013). *Oil & Carbon Revisited: Value at Risk from “Unburnable” Reserves*. <http://gofossilfree.org/files/2013/02/HSBCOilJan13.pdf>; HSBC Global Research (2013). *Coal and Carbon - Stranded Assets: Assessing the Risk*.

<https://www.research.hsbc.com/midas/Res/RDV?p=pdf&key=dXwE9bC8qs&n=333473.PDF>; Bloomberg New Energy Finance (2013). *Bloomberg Carbon Risk Valuation Tool*.

England, Mark Carney stated in October that "The vast majority of [fossil fuel] reserves are unburnable."⁴⁴

Given the accumulation of evidence that divestment should not affect returns, the burden of proof should be on those who claim divestment would damage returns. In combination with emerging concerns about the financial risks of standard fossil fuel assets, the best available data indicate that divestment is consistent with UBC's fiduciary duty.

We reiterate that the decision to divest is, fundamentally, a moral one. We would hope that our University would be willing to accept what appears to be a relatively small risk in order to align our investments with our values. Given the risks of stranded fossil fuel assets and the accumulating evidence that there is unlikely to be a penalty on returns, the case for divestment is even more formidable.

"Investment decisions need to reflect the clear scientific evidence, and fiduciary responsibility needs to grasp the intergenerational reality: namely that unchecked climate change has the potential to impact and eventually devastate the lives, livelihoods and savings of many, now and well into the future." *

UN Climate Chief Christiana Figueres

"Be the first mover. Use smart due diligence. Rethink what fiduciary responsibility means in this changing world. It's simple self-interest. Every company, investor, and bank that screens new and existing investments for climate risk is simply being pragmatic." **

World Bank Head Jim Yong Kim

5. Consistency with Other University Relationships

The Responsible Investment Policy states that divestment proposals must be consistent with UBC's "public nature and of its ultimate accountability to the people of British Columbia." Fossil fuel divestment by UBC is consistent with the Government of BC's aspiration to be a leader in the global fight against climate change, and also is in the long term interests of the people of British Columbia.

Since 2007, the Government of BC has sought to demonstrate leadership on climate change. Our carbon tax is drawing attention world-wide as model policy instrument in the fight against climate change.⁴⁵ BC's legislated greenhouse gas reductions (33% below 2007 levels by 2020

http://about.bnef.com/content/uploads/sites/4/2013/12/BNEF_WP_2013-11-25_Carbon-Risk-Valuation-Tool.pdf; Standard and Poor's Rating Services. (2013). What a Carbon-Constrained Future Could Mean for Oil Companies' Creditworthiness." March. http://www.longfinance.net/images/reports/pdf/sp_carbonoil_2013.pdf

*<http://www.rtcc.org/2014/01/16/fund-managers-who-ignore-climate-risks-breaching-fiduciary-duty/#sthash.GMw6f1IX.dpuf>

** <http://www.rtcc.org/2014/01/27/world-bank-chief-backs-fossil-fuel-divestment-drive/>

⁴⁴ Jessica Shankleman. (2014). "Mark Carney: most fossil fuel reserves can't be burned." *The Guardian* October 13. <http://www.theguardian.com/environment/2014/oct/13/mark-carney-fossil-fuel-reserves-burned-carbon-bubble>

⁴⁵ Statement by OECD Director General, Angel Gurría. 2013. <http://www.oecd.org/about/secretary-general/the-climate-challenge-achieving-zero-emissions.htm>. Harrison, Kathryn. 2012. *The Political Economy of British Columbia's Carbon Tax*. OECD Environment Directorate. [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ENV/WKP\(2013\)10&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ENV/WKP(2013)10&docLanguage=En);

and 80% by 2050) are appropriately ambitious. Development of the province's natural gas industry has put pressure on our ability to achieve the required reductions, but the Government of BC remains committed to doing so. These commitments have been reiterated recently by the Government. The October 2014 Speech from the Throne, when promising the new LNG policy framework, states: "The framework will define how we will develop this resource responsibly, in a way that protects our environment, and continues to lead the global fight against climate change."⁴⁶ In introducing new environmental legislation to limit the climate impacts of LNG, Environment Minister Mary Polak again affirmed that the province will meet its greenhouse gas emissions targets.⁴⁷

6. Fossil Fuel Divestment at UBC: Opportunity for Leadership and Moral Imperative

UBC's vision reads as follows: "As one of the world's leading universities, the University of British Columbia creates an exceptional learning environment that fosters global citizenship, advances a civil and sustainable society, and supports outstanding research to serve the people of British Columbia, Canada and the world." UBC deserves great credit for recognizing its leadership role, and in expressing that through its sustainability commitments. But it is wrong for UBC to continue to profit from its investments in an industry whose core product inevitably and significantly perpetuates dangerous climate change. Supporting such a destructive industry is inconsistent with UBC's core values of sustainability, leadership, and innovation. As President Gupta said in his installation speech: "Each generation has a responsibility to take the world as we find it and do our utmost to make it better."⁴⁸ UBC cannot live up to that promise when it is invested in an industry that poses a direct threat to the well-being of future generations, including our own students. If it is wrong to wreck the planet, then it is wrong to profit from doing so.

UBC has the opportunity to demonstrate its leadership and innovation by divesting from fossil fuels. Anthropogenic climate change is creating a tumultuous future for our planet and its people; divestment fosters social change and helps prompt the political actions necessary to combat dangerous climate change. By being the first Canadian university to divest from fossil fuels, we can fulfil our aspirations for global leadership on sustainability. By demonstrating the success of a fossil free portfolio, we can inspire other institutions to follow suit, and contribute to the social and political change necessary to avoid dangerous climate change.

Given UBC's commitments and the gravity and urgency of the climate crisis, fossil fuel divestment is the next logical step for UBC's Sustainability Initiative. And it's the right thing to do.

Elgie, Stewart and Jessica McClay. (2013.) The B.C. Carbon Tax After Five Years: Results – An Environmental Success Story. Ottawa, Ontario: Sustainable Prosperity. <http://www.sustainableprosperity.ca/dl1026&display>

⁴⁶ Government of British Columbia. 2014. Speech from the Throne. October 6.

<http://engage.gov.bc.ca/thronespeech/transcript/>

⁴⁷ <http://www.theglobeandmail.com/news/british-columbia/bc-liberals-pull-plug-on-key-part-of-climate-change-strategy/article21250599/>

⁴⁸ Installation Address of Professor Arvind Gupta as Thirteenth President and Vice-Chancellor of the University of British Columbia, September 12, 2014. <http://www.ubc.ca/newpresident/ubc-president-installation-address.pdf>