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August 27, 2017

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Dear Mr. Oh and Ms. Motala,

Response to Aug. 3, 2017 letter to you from UNPRI on Climate Disclosure Review

We respond herein to the United Nations-supported Principles for Responsible Investment Association's (UNPRI) letter dated August 3, 2017. We are deeply concerned that investors, beneficiaries and the public are being misled on climate change issues related to investments, and that markets are being skewed in ways that favor geopolitical trade wars against Canadian corporate interests and against the Canadian public in general. This issue of 'climate disclosure' a crucial issue of economic sovereignty for Canada and our competitive place in energy geopolitics.

About Friends of Science Society

We are a non-profit society made up of earth, atmospheric, solar scientists, Professional Engineers, economists and public policy experts. We do not represent any industry. Our information is evidence-based.

1. **Climate Risk and Disclosure**

Following the release of the Intergovernmental Panel on Climate Change (IPCC) fifth assessment report (AR5) of Sept. 2013, it was evident that for 15 years to the date of publication (2012) there had been no measurable rise in global temperatures (IPCC AR5 Working Group I, Physical Sciences, Chapter 9, Box 9.2. page 769),[1] despite a significant rise in carbon dioxide concentration.

Disturbingly we find that UNPRI signatories like NEI Investments claim that since 2002, they have based their investment and climate risks on IPCC early findings. Throughout UNPRI documents, there is common reference to a goal of maintaining earth's global temperature rise to a 2°Celsius cap through greenhouse gas emissions reductions and the Paris Accord is cited as the tool by which this will be accomplished. According to Ottawa energy policy consultant, Robert Lyman, achieving the aspirational goal of 80 per cent reduction recommended by the IPCC would mean reducing Canadian emissions to 147 megatonnes CO_2 equivalent. **That would be comparable to reducing Canada's per capita emissions and our energy economy to the current levels of Bolivia, Sudan or Iraq.**

The UNPRI refer to the report of the Financial Stability Board Task Force on Climate-related Disclosures (TFCD), a group which includes many high-profile investors in renewables (wind/solar). The chair is Mr. Bloomberg. According to a Washington Times report of 2015, 'green' billionaires have funded the US Sierra Club for hundreds of millions of dollars to demarket coal and push for renewables and carbon taxes.[2] Indeed, in Canada, since 2011, the US Sierra Club, a minority shareholder in TransAlta, has been agitating for coal phase-out. (See Appendix C)

The TFCD chair Michael Bloomberg is quoted on the TFCD website as saying: *"Increasing transparency makes markets more efficient, and economies more stable and resilient."* —Michael R. Bloomberg, Chair

In fact, the experience in Canada is the opposite. Canadian companies, particularly those in the oil sands, have voluntarily complied with GHG reporting in good faith, only to have their reporting used against them in a vicious, global, demarketing program driven by large Environmental Nongovernmental Organizations (ENGOs), that are often funded by large foundations or investors in renewables or who are seeking to establish additional cap and trade systems. (See Oak Foundation screen shots Appendix D). The 2016 CDP report "In the Pipeline" ranks Canadian oil sand majors at the bottom, despite many environmental innovations, Combined-Heat-Power developments and GHG reductions.[3]

Alberta coal-fired power producers also complied with voluntary disclosure; they have been run out of business by an offshore funded campaign of fear about health consequences and costs. In fact, the evidence of numerous peer-reviewed reports show that coal emissions are a minor factor in air quality in Alberta. The Alberta power market is in chaos and NEI Investments and related signatories have influenced the Alberta government to adopt an extremely ambitious renewable energy plan (to adopt

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[1] Flato, G., J. Marotzke, B. Abiodun, P. Braconnot, S.C. Chou, W. Collins, P. Cox, F. Driouech, S. Emori, V. Eyring, C. Forest, P. Gleckler, E. Guilyardi, C. Jakob, V. Kattsov, C. Reason and M. Rummukainen, 2013: Evaluation of Climate Models. 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 [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. http://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter09_FINAL.pdf

[2] http://www.washingtontimes.com/news/2015/jul/20/drew-johnson-sierra-club-has-become-front-group-do/

[3] CDP "In the Pipeline" https://b8f65cb373b1b7b15feb-c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/001/327/original/oil-gas-report-exec-summary-2016.pdf?1479769508

some 5,000 MW of wind/solar, replacing coal with 2/3 generation by renewables. This ratio of ***generation*** by renewables has not been accomplished anywhere in the world.)

2. **Climate Models (Computer simulations) Falsely Attribute Recent Warming to Human GHG emissions; not reported or referred to in UNPRI Materials**

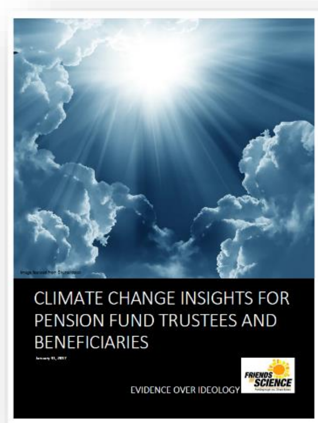
The IPCC AR5 report contains valuable information showing that climate models (models are computer simulations) upon which the UNPRI climate disclosure action is predicated, are falsely representing warming as if it was a result of human-caused greenhouse gas emissions.[4]

Appendix One of this document shows a graph from the IPCC AR5 report and describes how climate simulations/models that remove the human greenhouse gas factor, demonstrate that **natural influences most closely parallel the observed temperatures.** This means that the IPCC shows human greenhouse gas emissions are NOT the main driver of global warming. The appendix also discusses how solar activity more closely parallels changing climate patterns and over longer time scales.

In no part of the UNPRI letter submitted to you, in their annual report or in the TFCD document, do we find any reference to this material or the fact that there are vast uncertainties about causes and ratios of human vs natural influences on climate change. To the contrary, in Canada, the Koskie Minsky report "Climate Change and the Fiduciary Duties of Pension Fund Trustees in Canada"[5] on climate disclosure, released in of Sept. 2015, Canadian pension fund trustees and managers are told in no uncertain terms *"climate change denial is not an option."*

Friends of Science Society issued two reports responding to this position.

http://blog.friendsofscience.org/wp-content/uploads/2017/02/climate-change-risk-clouds-boardroom-competency-final-jan-30-2017.pdf



http://blog.friendsofscience.org/wp-content/uploads/2017/02/climate-change-insights-for-pension-fund-trustees-and-beneficiaries-final-jan-31-2017.pdf

[4] (broadly referred to as carbon dioxide, though other gases are greenhouse gases; together carbon dioxide equivalent or CO2e)
[5] https://kmlaw.ca/wp-content/uploads/2015/10/KM_Climate_Change_Paper_06oct15.pdf

In the TFCD, Bank of England governor Mark Carney is referred to for his Sept. 29, 2015 speech to Lloyds of London,[6] predicting an climate catastrophe and claiming extremes of weather were evidence. A review of Mr. Carney's speech by analyst Steve Kopits[7] resulted in Mr. Kopits calling Mr. Carney's claims a "failure of analysis." Kopits shows several examples of climate and weather data that are in the public domain that dispute Mr. Carney's claims.

The UNPRI contends that climate risk disclosure and GHG reduction will stop dangerous climate change and keep the world below a 2°C level of warming. In fact, according to Ottawa energy policy consultant, Robert Lyman, if all the signatory countries in the world met their Intended Nationally Determined Contributions (INDCs/NDCs), the world would still overshoot the claimed target by megatonnes of carbon dioxide.[8] Earth, atmospheric and solar scientists agree that humans do not control climate and we cannot accurately predict whether the climate will warm or cool. In geologic time, temperatures on earth have fluctuated between -70°Celsius and >70°Celsius without human intervention of any kind.

Further, as previously indicated, current warming as measured by government temperature indexes is not primarily being driven by greenhouse gases, but rather by natural factors and urban warming. Human activity likely plays a small role but nothing catastrophic and any effects are deemed to be decades or over hundred years hence.

Consequently, many of the claims of the UNPRI and various signatory companies appear to violate the securities laws of continuous disclosure and the Canadian Competition Act, which issued a reminder of these principles on Jan 23, 2017.[9]

The *Competition Act* takes aim at environmental claims that are vague, non specific, incomplete, or irrelevant and that cannot be supported through verifiable test methods.

Before making environmental claims, businesses must make sure that the claims:

- **Aren't misleading or likely to result in misinterpretation**
- **Are accurate and specific:** claims that broadly imply that a product is environmentally beneficial or benign must be accompanied by a statement that provides support.
- **Are substantiated and verifiable:** claims must be tested and all tests must be scientifically sound, conducted in good faith and documented.
- **Are relevant:** claims must be specific to a particular product, and used only in an appropriate context. Claims must also take into consideration all relevant aspects of the product's whole life cycle.
- **Don't imply that the product is endorsed by a third-party organization when it isn't**

[6] http://www.bankofengland.co.uk/publications/Pages/speeches/2015/844.aspx

[7] http://www.prienga.com/blog/2015/10/9/fact-checking-mark-carneys-climate-claims

[8] "The OECD countries – the United States, Canada, most of Europe, Japan, Australia and others – could eliminate 100% of their projected emissions of 14 Gt, and the world would still be over its target by 13 Gt." http://blog.friendsofscience.org/2017/05/10/can-canada-survive-climate-change-policy/

[9] https://www.canada.ca/en/competition-bureau/news/2017/01/not-easy-being-green-businesses-must-back-up-their-words.html?=undefined&wbdisable=true

Another outcome of the IPCC AR5 report of 2013 is the fact that the 'climate sensitivity' (or effect) of carbon dioxide on global warming is much lower than previously reported – meaning that carbon dioxide is **not** the 'knob' that controls climate. This means that greenhouse gas reporting and investment based on the carbon dioxide equivalent (CO_2e) of industry are irrelevant and misleading. In terms of 'climate risk' the claim that use of fossil fuels is the main driver of global warming is not substantiated by evidence. In terms of investments in Canada, this is detrimental to Canadian markets which are largely based in natural resources and fossil fuel energy.

It is our understanding that investors are required to continuously update and disclose any relevant or material change to their markets or objectives. It seems the UNPRI and signatories are still basing their climate risk assumptions on climate science of 2002.

Furthermore, in correspondence with the IPCC, the IPCC has informed us that the 2°C target is a **political** target, not a scientific one.[10]

Canadian industries began the voluntary reporting of greenhouse gas emissions in good faith, only to find that this information was used to demonize and demarket the Alberta oil sands industry, consequently, accepting further climate disclosure frameworks such as those proposed in the TCFD would create even more barriers to competition and may provide open source intelligence with which vulture investors or Carbonbaggers could further manipulate markets and decimate Canada's economy with 'climate risk disclosure' information. We have already seen that other players in the world do not report properly. Indeed, for Canada's vast distances and weather challenges, our emissions are laughably small when compared to those of tiny nations. See Appendix B.

3. **CalPERS CIO Unequivocal – clean-tech an 'L-for-loser' investment; 'raise the price of carbon or lower the cost of alternatives.'**

As reported by the Wall Street Journal, March 25, 2013, Joseph Dear, then Chief Investment Officer for the massive institutional investor CalPERS, stated that clean-tech investments were a 'noble way to lose money' and that unlike the typical recovery 'J" curve of many investments, they featured and "L-for-Lose" flatline.[11]

Mr. Dear's advice to fix the problem, which had resulted in tremendous losses for CalPERS, was to "raise the price of carbon or lower the costs of the alternatives." Indeed, we see daily in the press the claim that wind and solar prices have come down (though this claim excludes the expensive requirements of special transmission lines and integration as well as redundant natural gas or hydro back-up 100% of the time; no decommissioning or reclamation costs are included). Likewise, we see the UNPRI and its signatories pushing governments everywhere to implement carbon taxes.

Carbon taxes force affordable, reliable coal-fired power generation out of the market. This is damaging to industrial competitiveness – especially when the United States – Canada's largest trading partner, has rejected the Paris Agreement.

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[10] http://blog.friendsofscience.org/2015/11/05/a-matter-of-public-interest-on-the-ipcc-does-it-recommend-or-not-recommend-that-is-the-question/
[11] https://www.wsj.com/articles/SB10001424127887324557804578374980641257340

In light of the foregoing, we can only state that there is a lack of due diligence on the part of the UNPRI and it appears that this is a sophisticated attempt to manipulate markets by requiring 'climate disclosure standards' in Canada.

In the past, the Carbon Disclosure Project (a Rockefeller Financial Advisors non-profit) has requested voluntary reporting of GHG footprints. The provided information has been aggregated into a report for the >870 institutional investors, most of them signatories of the UNPRI, who hold ~$100 trillion in assets under management. This good faith reporting turned into a white and black listing of companies based on the size of their carbon footprint, or their refusal to 'voluntarily' report.

Those who reported and ended up as being seen to be 'not clean' because of their carbon footprint (i.e. most Canadian oil, gas and oil sands producers) were then inveigled into investing in wind or solar operations so as to "make" their footprint more 'green and clean' – at the same time enriching the investor group of the UNPRI which are focussed on alleged 'sustainable' investments.

In fact, large scale wind and solar productions are not sustainable as there is not enough raw materials readily available to serve the demand and they are, ironically, intense consumers of fossil fuels for very little return on energy invested. In fact, society cannot continue to survive if reliant on wind and solar, as discussed by Prof. Michael J. Kelly in his recent paper, [12] the following graph extracted from there.

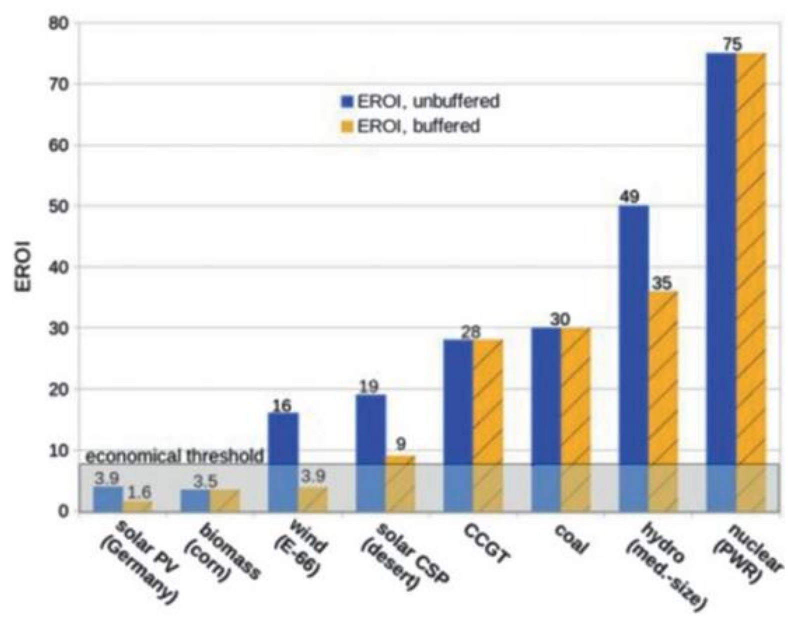

Figure 2. The energy return on energy invested for various forms of energy generation with the threshold for supporting a modern economy indicated across the bottom.[23] The advantages of fossil fuels and nuclear energy are very clear. Reprinted from Ref. 23, with permission from Elsevier.

[12] https://www.cambridge.org/core/journals/mrs-energy-and-sustainability/article/lessons-from-technology-development-for-energy-and-sustainability/2D40F35844FEFEC37FDC62499DDBD4DC/core-reader

4. Canada is Unique – the Carbonbagger's Jewel

Canada is rich in natural resources – forests, minerals, oil, gas and coal. A vast nation with a national mosaic and no unifying vision is easy to exploit.

Our forests represent potential 'carbon sinks' which can be used as offsets for carbon trading. Indeed, both the Great Bear Rainforest, ostensibly created to protect the rare white Kermode "spirit" bear and financed in significant measure by the taxpaying public,[13] is now a carbon instrument as well as physical barrier to west coast tidewater[14] for any pipelines from Alberta. Likewise, the Darkwoods project of Nature Conservancy of Canada is another carbon instrument.[15] Oddly, this federally registered charity can make money off this carbon dioxide sink that technically belongs to all Canadians. This project's website states that carbon offsets are 'permanent' and guaranteed for 100 years.[16]

Yet, if either are hit with a wildfire, Canadians, in a global carbon market, could be facing billions of dollars in carbon liabilities! The wildfires in BC of this summer would have amounted to some $12 billion by now in carbon liabilities alone.[17]

Likewise, due to our vast distances and long, cold winters with short, dark days, Canada will always have substantial emissions debt for carbon trading, not to mention that our resource industries which are energy intensive.

A Carbonbaggers dream. **But we Canadians will not benefit from this.**

Few countries in the world have the oil and gas reserves that we have – so in the realm of geopolitics, many of the parties associated with the UNPRI – we believe – have geopolitical objectives outside of 'saving the planet' on faulty science.

As described by the late Prof. Dr. Istvan Marko, arrangements like the COPO-21 Paris Agreement are actually trade deals, a means of requiring an emitter, an offending developing nation, to accept the generous contribution of wind or solar farms which drive the industrial interests of countries in the West.[18] This appears to be a form of circular self-dealing, financed by carbon trading.

Marko was also quick to call out the misleading statements of the World Meteorological Organization on the 'hottest year ever' statement, saying: *"The World Meteorological Organization - another emanation of the United Nations and which is also, like the IPCC, an intergovernmental forum - declares 2016 the year the warmest of history. Knowing that 2016 is supposedly hotter by 0.02°C than 2015 and that the error on this value is 0.1°C - we see the absurdity of this statement. For those who don't understand, this means that*

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[13] http://www.hewlett.org/newsroom/deal-struck-to-preserve-canadian-rainforest/
[14] https://www.offsetters.ca/project-services/offset-projects/by-country/great-bear-forest-carbon-project
[15] http://www.natureconservancy.ca/en/where-we-work/british-columbia/featured-projects/darkwoods/dw_carbon.html?referrer=https://www.google.com/
[16] **Permanence** – A carbon project must show that the carbon being stored will stay stored for a long time. In the case of a forest carbon project, the longer the forest can be guaranteed to remain intact, the better.
The Darkwoods Forest Carbon Project fulfills this criteria by guaranteeing its credits for 100 years.
http://www.natureconservancy.ca/en/where-we-work/british-columbia/featured-projects/darkwoods/carbon-faqs.html
[17] Correspondence with wildfire experts.
[18] http://blog.friendsofscience.org/2017/06/09/the-cop21-agreement-just-the-facts-please/

the variation in temperature (due to the margin of error) can be of + 0.12°C (global warming) or -0.08°C (cooling). In short, we can't say anything and WMO has simply lost its mind." [19]

Excerpt of Baker McKenzie power point explaining to investors how to use the UN CER system.

And indeed, the make up of the UNPRI should be cause for concern on conflict of interest. The UN's own retirement fund was one of the founding members, yet the UN also runs the UNEP, UNFI, UN Framework Convention on Climate Change and the Intergovernmental Panel on Climate Change, thus suggesting vested interests which now direct the bulk of world's investment capital through 'climate' pledges and UNPRI Principle 6 which includes the demand to – 'comply or explain.'

Many of these irregularities appear to parallel issues related to Enron.[20]

Example: Yieldcos[21] have become an instrument to protect renewables investors from retroactive cuts to subsidizes and FIT payments, which suggests that the businesses were not viable to begin with, without large subsidies, and should create concerns about how an 'empty' yieldco can guarantee returns – unless it is reliant on pressure from the UNPRI signatories to campaign in their respective

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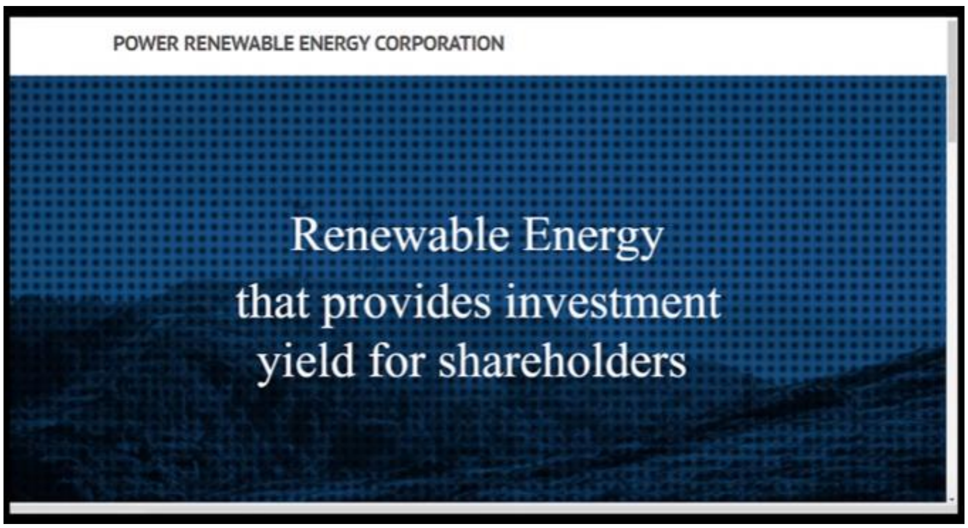
[19] https://public.wmo.int/en/media/press-release/wmo-confirms-2016-hottest-year-record-about-11°c-above-pre-industrial-era (personal correspondence)
[20] http://www.nytimes.com/2006/01/18/business/worldbusiness/breakdown-of-the-charges-against-enrons-top-officers.html
[21] https://www.pv-tech.org/news/solar_yield_co_launched_to_protect_eu_pv_investors

countries to change policies to support renewables. This is contrary to competitive market principles, and democracy.

A related example, in Alberta, a 2012 Morrison Park survey of investors revealed there was no interest in wind and solar as power prices were too low.[22] By 2015 the newly elected Alberta government, with the enthusiastic backing of the NEI Investors group, was foisting wind and solar on the Alberta electorate. The Power Renewable Corporation was claiming that investors would get yields for shareholders (they are establishing the Jenner wind farm in Alberta), but it is hard to see how this can be the case if power prices are so low that no wind investors were interested in Alberta's market in 2012. To compensate and make it attractive, the Alberta government overturned federal legislation to move to a complete coal phase-out by 2030 (instead of letting modern, low emissions coal-fired power plants run until 2060 as per federal legislation) *and* moved to a capacity model where power generators are paid for their capacity, not the actual generation.



These market disruptions appear to be a direct result of UNPRI signatories meddling in public policy – and to the detriment of the general public.

Coal phase-out is costing Albertans billions of dollars. The tab is still running.

[22] http://albertamsa.ca/uploads/pdf/Archive/2012/Investor%20Perspectives%20Report%20to%20MSA%20-%2017%20Augus.pdf

Table 2 – Summary of Key Impacts (First 2 Metrics) (2032)

(Run) Scenario			Emissions		Costs (2017-2032 Only) *		
Retirement Schedule	2030 Renewables Target	Pace of Renewables (MW/Yr)	Cumulative Mt	ΔMt from Pre-CLP	Δ$B from Pre-CLP (RECs + Trx)	Δ$/ΔMt	$/MWh
(1) Federal Regs	Pre-CLP 720 MW	FEOC (60)	815	-	-	-	-
(13) Moderate	Swap for Gas	FEOC (60)	704	111.1	$0.00	$0.00	$0.00
(14) Moderate	4,200 MW	Linked	677	137.6	$9.34	$67.88	$5.89
(19) Moderate	7,200 MW	Leading (600)	642	172.8	$20.09	$116.26	$12.60
(4) Cliff	4,200 MW	Linked	756	58.5	$5.19	$88.82	$3.28
(5) Cliff	4,200 MW	Leading (350)	733	81.3	$11.23	$138.16	$7.07
(12) Cliff	7,200 MW	Leading (600)	703	111.4	$20.38	$182.87	$12.76

** This table includes cumulative REC Payments and Transmission costs up to 2032, but* ***does not include any Coal Compensation Costs****, which could change by scenario, nor post-2032 REC residual payments of between $1-2 B/year, , then tapering linearly to $0 by 2050.*
 # The FEOC (Fair, Efficient, Openly Competitive) designation indicates that investments in capacity are added at a pace determined strictly by competitive market forces without the benefit of out-of-market incentives payments.

Even the most efficient combination of policy choices that meaningfully reduces emissions increases the cumulative delivered cost of electricity to the customer by $3.3-$5.9 Billion by 2030, plus $1 Billion/year for eight years, then tapering out to $0 by 2050 for Renewable Energy Credits (REC) payments alone, (disregarding costs of advancing transmission expenditures. Adding 7,200 MW of renewables would likely double the cost of REC payments, further advance transmission builds and reduce the system's resiliency to potential reliability threats.

Climate Leadership Plan Multi-Client Study – Summary Report 7

Source: EDC Associates – "Multi-Client Study of Potential Impacts on the AB Electricity Market of Policy Implementation Choices for the Climate Leadership Plan"
http://www.edcassociates.com/files/ClimateLeadership/EDCA_Abbreviated_Multi-Client_GHG_Study(11.7.2016).pdf

5. A Coercive Pledge Based on Faulty Science

No one can accurately predict how the climate will change. The natural forces that melted the 2 to 7 miles of ice that once covered Canada are far greater in power than anything humans can do. Yet, the UNPRI had delegates sign this pledge in 2014:

SIGNING A PLEDGE FOR ACTION

Underpinning the PRI's climate work and its support for the Paris Agreement, the PRI signed **L'Appel de Paris (the Paris Pledge for Action)**, an opportunity for non-state actors to welcome the Paris Agreement on climate change and commit to implement it. By joining the pledge, businesses, cities, civil society groups, investors, regions, trade unions and other signatories promised to ensure that the ambition set out by the Paris Agreement is met or exceeded to limit global temperature rise to less than 2 degrees Celsius.

> "We realise that dangerous climate change threatens our ability and the ability of future generations to live and thrive in a peaceful and prosperous world […] and that taking strong action to reduce emissions can not only reduce the risks of climate change but also deliver better growth and sustainable development."

Possible Self-Dealing

According to the UNPRI Annual Report of 2016[23] their signatories have forayed into lobbying the corporate sector to comply with the UNPRI's false and misleading stand on climate change and to lobby civil society and government. NEI Investments is noted as one of the more active parties in Canada.

> **...ON CORPORATE CLIMATE LOBBYING**
>
> The PRI brought together a worldwide group of more than 60 investors, representing over US$3.8 trillion, who have signed a **statement outlining investor expectations** that company lobbying on climate change related policy and regulation must be in line with the universally accepted goal of limiting global temperature rises to two degrees Celsius. They are explicitly calling for improvements in practice and transparency from investee companies on aspects such as their governance processes for climate policy engagement and their membership of or support for all third-party organisations that lobby on climate change.
>
> The PRI is continuing to coordinate **a working group of 22 investors** engaging companies in Australia, Canada and the USA on their climate-related lobbying activities, in particular where the company's public position is inconsistent with the positions of trade associations it belongs to. We are working with the **Institutional Investors Group on Climate Change (IIGCC)** on their parallel initiative in Europe. The statement and working group also bolster existing efforts underway including the UN's Caring for Climate programme on **responsible corporate engagement in climate policy**.
>
> **READ MORE**

On Sept. 1, 2015, the law firm Koskie Minsky issued a report entitled: "Climate Change and the Fiduciary Duties of Pension Fund Trustees in Canada."[24] This report was funded through a research fund of the federally registered charity West Coast Environmental Law. Perhaps with that legal opinion in hand, on Sept. 8, 2015, NEI Investments sent a collaborative letter to Premier Rachel Notley of Alberta, with some 120 signatory institutional investors and pension funds, advocating for certain climate policies.[25] Some of the signatories are also funders of West Coast Environmental Law, which provided the funding for the apparent legal opinion on the appropriateness of pension funds directly influencing government policy. This may be construed as a form of self-dealing. Subsequently, a document entitled "Transitioning to a low-carbon economy" was issued by NEI Investments in January 2016, wherein they claim to have significantly influenced the Alberta and Canadian governments.[26]

We see this as unusual interference in the due process of democracy and open competitive markets. The electorate are not able to wave a few trillion dollars in assets-under-management so as to influence government. Many of the policies recommended by NEI and their collaborators and then implemented by the Alberta government, specifically the carbon tax, are not what the electorate want.

These policies furthermore led to a rapid drop in investor confidence in Alberta – particularly coal phase-out – because the Alberta government overturned federal legislation to satisfy the wishes of the NEI Investment group.

We cite these incidents to show that:

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[23] https://annualreport.unpri.org/PRI_AR-2016.pdf

[24] https://kmlaw.ca/wp-content/uploads/2015/10/KM_Climate_Change_Paper_06oct15.pdf

[25] https://www.neiinvestments.com/documents/PublicPolicyAndStandards/2015/Premier%20of%20Alberta%20Collaborative%20Investor%20Letter.pdf

[26] https://www.neiinvestments.com/documents/Marketing/Transitioning%20to%20a%20Low-carbon%20Energy%20System.pdf

a) The UNPRI's stance on climate change is not founded on scientific evidence or fact
b) The UNPRI is exerting undue influence on the Canadian economy and skewing markets
c) Signatories to the UNPRI are, in our opinion, far over-reaching their appropriate place as investors and have become activists skewing competitive markets.
d) Some of these parties have significant vested interests in wind and solar or other renewable energy investments, meaning this appears to be a conflict of interest.
e) It is contrary to the public benefit to have such offshore parties, many of which pay little or no taxes,[27] encouraging governments to establish energy policies that may require endless payments by taxpayers for energy systems that will impoverish them for decades.
f) These energy policy changes may provide many layers of profits for said investors through a myriad of mutual funds or other market tools.

The institutional investor will also benefit from 20 to 40-year subsidy contracts for the wind/solar production, along with all the incremental benefits of these other investments. Many of these companies may be situated overseas, though the project is implemented in Canada, meaning profits will not be suitably taxed here.

To create agreement in the public to accept these onerous costs and unreliable wind/solar farms, there are reports that some renewables investors have funded environmental charities to 'beat the drum' over a 'climate crisis' – which virtually no scientist supports. Indeed, the Financial Stability Board Task Force on Climate-related Financial Disclosures (TCFD) is largely made up of renewables investors.

This appears to be a replay of the Enron fiasco but with somewhat more finesse.

Almost two decades before President Barack Obama made "cap-and-trade" for carbon dioxide emissions a household term, an obscure company called Enron — a natural-gas pipeline company that had become a big-time trader in energy commodities — had figured out how to make millions in a cap-and-trade program for sulphur dioxide emissions, thanks to changes in the U.S. government's Clean Air Act. To the delight of shareholders, Enron's stock price rose rapidly as it became the major trader in the U.S. government's $20-billion a year emissions commodity market.

Enron Chairman Kenneth Lay, keen to engineer an encore, saw his opportunity when Bill Clinton and Al Gore were inaugurated as president and vice-president in 1993. To capitalize on Al Gore's interest in global warming, Enron immediately embarked on a massive lobbying effort to develop a trading system for carbon dioxide, working both the Clinton administration and Congress. Political contributions and Enron-funded analyses flowed freely, all geared to demonstrating a looming global catastrophe if carbon dioxide emissions weren't curbed. An Enron-funded study that dismissed the notion that calamity could come of global warming, meanwhile, was quietly buried.

***To magnify the leverage of their political lobbying, Enron also worked the environmental groups**. Between 1994 and 1996, the Enron Foundation donated $1-million to the Nature Conservancy and its Climate Change Project, a leading force for global warming reform, while Lay and other individuals*

[27] https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2240449

associated with Enron donated $1.5-million to environmental groups seeking international controls on carbon dioxide.[28]

6. **Reporting as Open Intelligence for our Competitors – Relinquishing our Economic Sovereignty**

Historically, Canadian energy industries have cooperated with stringent efforts to effectively reduce emissions of noxious pollutants (i.e. NOx, Sox, mercury, PM2.5). Canada has been very successful at this as a nation.

However, by reporting our greenhouse gas emissions to the CDP,[29] and thus ultimately the UNPRI investors, the Canadian oil sands has become a target for a geopolitical trade war against our industry, conventional investors have fled. These high value shares are now subject to vulture investors.

The International Energy Agency (2016) reports that demand for oil, gas, oil sands and coal will be rising and there is no forecast transition to a 'low-carbon society' in any near term – without the invention of suitable energy generation technology to match the usefulness of fossil fuels. That does not appear imminent.

- In 2014, the shares of primary energy supply by energy source were: oil, 31.3%; coal, 28.8%; natural gas, 21.0 %; biofuels and waste, 10.3%; nuclear, 4.8%; hydro, 2.4%; and "other", including all renewables energy sources, 1.4%. (*Message: Fossil fuels now account for 81% of the world's energy supply and renewables just over one per cent. That situation will not change soon, easily or cheaply.*)[30]

The UNPRI signatories agree to abide by the principles of the UNPRI, **but private funds are not required to do so.** It has been reported in the press, for instance, that a billionaire 'green' investor is part owner of private funds buying up coal reserves.[31]

In the past two years, we have seen an exodus of capital from oil and gas and coal in Canada, much of which appears to be due to activists from offshore, and the UNPRI, and most of it premised on the oil sands *'treating the atmosphere as an open sewer'* as stated by Al Gore, whose Generation Investment Management is dedicated to 'sustainable' investments, who touts wind and solar,[32] and **whose Generation Foundation is an integral participant on UNPRI proposals on climate-risk disclosure.**

Further, it seems Generation and others are attempting to create a new 'long-termism' form of accounting which, in light of the many recent bankruptcies of major renewable firms like Abengoa, may

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[28] https://ep.probeinternational.org/2009/05/30/enrons-other-secret/

[29] https://b8f65cb373b1b7b15feb-c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/001/327/original/oil-gas-report-exec-summary-2016.pdf?1479769508

[30] http://blog.friendsofscience.org/2016/11/14/facts-and-fallacies-on-world-fossil-fuel-use-vs-renewables/

[31] http://www.powerlineblog.com/archives/2014/04/the-epic-hypocrisy-of-tom-steyer.php

[32] In Al Gore's "Inconvenient Sequel" he asks audiences to demand that their cities go 100% renewable, even though this is presently a technically infeasible proposition. As we have shown herein, basic society cannot be sustained on wind/solar as they demand more energy than they produce. Numerous technical assessments by power generation experts show there is no empirical or historical evidence to support the notion of a 100% renewable power grid at this time, with presently known technology. i.e. *FINAdvice: Development and Integration of Renewable Energy: Lessons Learned from Germany* http://acadeuro.b.uib.no/files/2014/11/PoserH-etal-Finadvice_lessons_learned_from_germany.pdf *Burden of Proof* http://www.sciencedirect.com/science/article/pii/S1364032117304495

unfortunately end up keeping the truth from investors until it is far too late, or that unviable companies may be bundled like the junk bonds were prior to the mortgage crisis. In our report: **"Undue Influence – Markets Skewed"**[33] we question this unusual push for a revision to present quarterly reporting system.

It appears that being on the 'green and clean' list of the UNPRI/CDP may improve your share value, even though this relies on a purely fictional claim that 'clean' products are not based on fossil fuels. In fact, everything in the made world except for woven baskets and hand-turned wood products are made with fossil fuels. To suggest otherwise is a deceptive market practise.

In Closing

We have laid out many serious irregularities related to claims by the UNPRI which, in our opinion, violate numerous aspects of Canadian conventions in law, free and open trade, competitive market operation and investor disclosure. We ask you to reject the requests of the UNPRI regarding climate risk disclosure and to investigate the matters presented.

Sincerely,

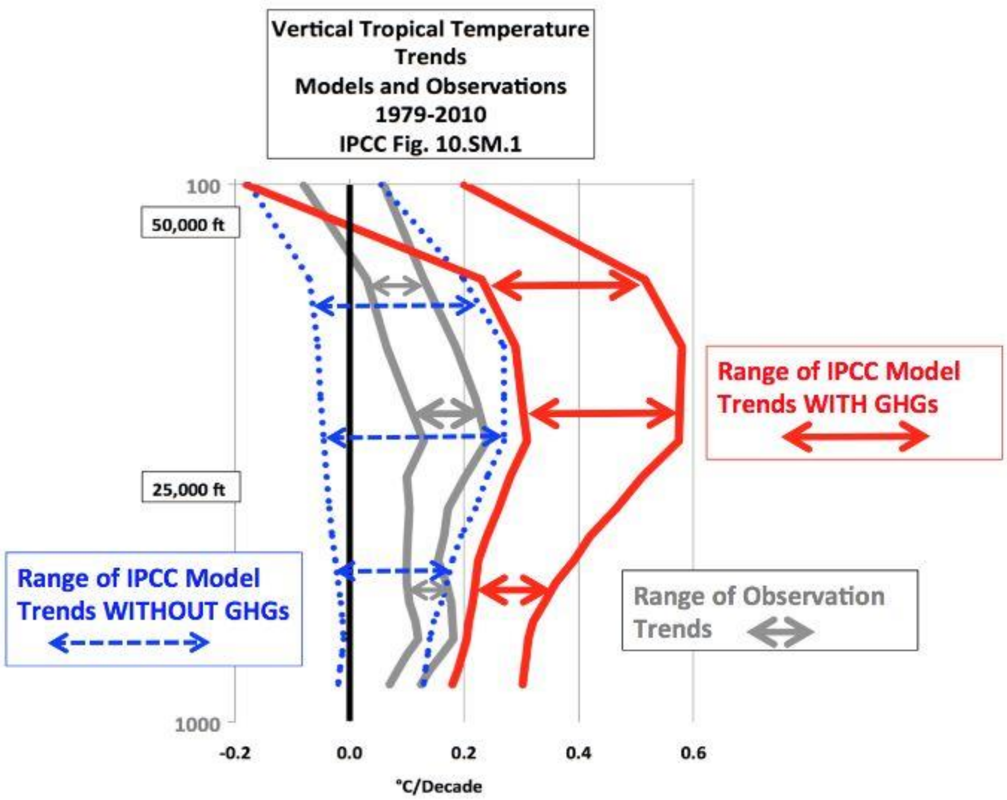
Ken Gregory, B.Ap.Sc.
President
FRIENDS OF SCIENCE SOCIETY

[33] https://friendsofsciencecalgary.files.wordpress.com/2016/04/undue-influence-markets-skewed-april-5-2016-final-ic-bl.pdf

APPENDIX A

Climate Science and Economic Impact of GHG Emissions.

The IPCC estimates the sensitivity of global temperatures to changes in greenhouse gas (GHG) concentrations from climate models. Modelers adjust the simulations of surface temperatures to roughly match surface measurements, so comparing model to surface global average temperatures would not be a valid test of the models. However, the IPCC published a chart that compares modeled air temperature trends at various levels in the atmosphere, with and without GHG, to measurements. A simplified version is shown below: [34] [35]



The vertical scale is altitude in feet, and air pressure in mbars. The grey curves show the range of measurements in °C/decade. The graph shows that the models without GHGs, the blue lines, match the measurements, but the range of model trends with GHGs are much greater than the measurements. The models show that If the warming was caused by GHGs, the warming rate in most of the atmosphere below 50,000 feet would be much greater than what has actually happened. The warming is much better explained without GHGs. The models are wrong because;

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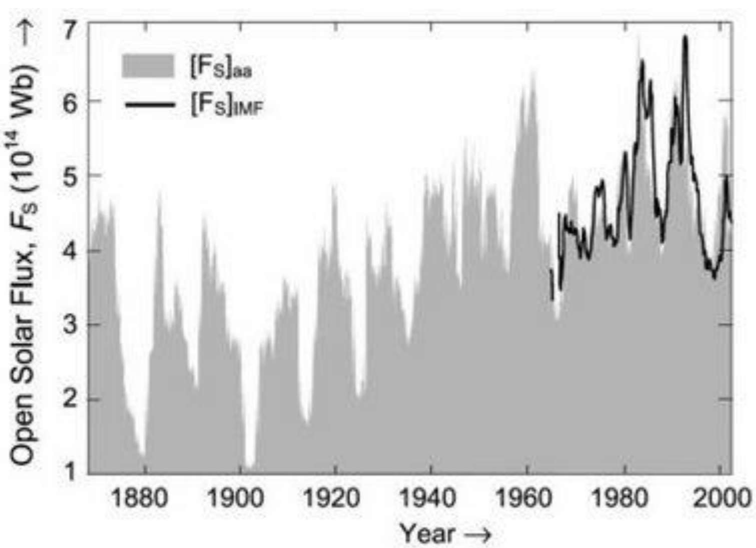
[34] Original chart on page 6: http://www.ipcc.ch/pdf/assessment-report/ar5/wg1/supplementary/WG1AR5_Ch10SM_FINAL.pdf

[35] Simplified chart above from John Christy's UN Senate testimony, page 9: https://science.house.gov/sites/republicans.science.house.gov/files/documents/HHRG-115-SY-WState-JChristy-20170329.pdf

- Natural warming is falsely attributed to GHG;
- Urban warming contamination of the surface land record is falsely attributed to GHG;
- Models assume upper atmosphere water vapor will decline with warming and warming causes less clouds, both of which are likely incorrect.

The climate models give an average transient climate response (TCR) of 1.8 °C for a doubling of CO_2 concentration at the time when CO_2 is doubled, which is expected to take about 125 years. Estimates of TCR based on measurements without considering natural warming and urban warming is only 1.2 °C, which falls to about 0.85 °C when natural and urban warming are considered.

Solar-driven ocean oscillations and other solar effects have a large impact on climate as evidenced by strong correlations of solar and climate proxies over centennial and millennium time scales. The solar activity as measured by solar magnetic flux has increased during most of the 20th century to a maximum at 1992 resulting in a peak temperature response delayed about 10 years later in 2002. A graph of the solar activity is shown below:



The economic impact of climate change and GHG emissions as estimated by the US Government is based on the average of three models. All of them assume the warming results from the models, which are shown to be running too hot. Two of the models do not include benefits of warming or of CO_2 fertilization. One of them assumes sea level rise far greater than the models and is unsupported by the technical literature.

The omission of the benefits of CO_2 fertilization is serious. A paper published in April 2016 shows a widespread increase of growing-season leaf area, with the CO_2 fertilization effect explaining 70%, and warming explaining 8%, of the observed greening trend. The greening added over the past 33 years is equivalent to 2/3 of the area of the mainland USA.

The FUND model estimates that CO_2 fertilization add a global social benefit of $10/tCO2 emitted. The monetary benefit to crop production from 1961 to 2011 was $US 4.0 trillion ($2017).

The FUND model estimates that at a 3% discount rate, using evidence based climate sensitivity the global net social benefit of CO_2 is about $US 17/t$CO_2$, indicating that fossil fuel use should be encouraged. The benefits of CO_2 emissions greatly exceed the costs.

According to the FUND model, the country that benefits the most by CO_2 emissions is Canada. Using the model's default parameters, Canada benefits by about $100 billion per year by 2100.

APPENDIX B

	GDP US$ per Citizen	Mt CO_2 Emissions	Mt CO_2 per Citizen
Gibraltar	$63,080	3,600,000	122.75
Virgin Islands	$36,833	9,400,000	91.31
United Arab Emirates	$112,560	245,000,000	41.33
Qatar	$148,121	92,000,000	40.74
Trinidad and Tobago	$35,699	48,000,000	39.33
Kuwait	$106,291	107,000,000	37.77
Singapore	$84,214	216,000,000	37.36
Saint Pierre and Miquelon	$38,481	200,000	35.75
Montenegro	$16,460	18,000,000	27.93
Bahrain	$48,132	37,000,000	26.83
Saudi Arabia	$61,470	594,000,000	21.09
Cook Islands	$25,544	200,000	20.93
Nauru	$15,723	200,000	20.85
Oman	$51,591	69,000,000	20.56
Brunei	$77,253	8,400,000	19.24
Luxembourg	$100,877	11,000,000	18.89
Australia	$51,712	385,000,000	16.74
Montserrat	$8,312	88,010	16.71
United States	$57,285	5,402,000,000	16.67
Canada	**$47,338**	**564,000,000**	**15.95**
Faroe Islands	$36,289	800,000	15.86
Falkland Islands	$56,124	45,570	15.55
Seychelles	$27,987	1,400,000	15.02

Source data: CIA Factbook

APPENDIX C

SHARE
SHAREHOLDER ASSOCIATION *for* RESEARCH & EDUCATION

ABOUT | SERVICES | ISSUES | PUBLICATIONS | GET INVOLVED

Report on Risk of Coal as Fossil Fuel

RESOLVED that shareholders of TransAlta Corporation ("TransAlta") request the board of directors to prepare a report to shareholders no later than November 30, 2011 (at reasonable costs and omitting proprietary information) to transition off of existing coal-fired generation facilities to cleaner sources of energy – including renewable energy, natural gas (acquired via environmentally responsible methods) and demand side management energy efficiency programs – by December 31, 2015.

AGM DATE
04/28/2011

YEAR
2011

COMPANY
TransAlta Corporation

FILER
The Sierra Club

RESULTS
Withdrawn

Supporting Statement

The Board of Directors should include in its strategic planning process the risk that coal as a fossil fuel presents to TransAlta. TransAlta Corporation's 2010 Renewal Annual Information Form for the Year Ended December 31, 2009 ("2010 Renewal Form"), identified the following TransAlta coal-fired facilities operating, under construction or under development, as of January 31, 2010:

Sundance (2,126 MW Capacity)
Keephills (812 MW Capacity)
Sheerness (780 MW Capacity)
Wabamun (279 MW Capacity)
Genesee 3 (450 MW Capacity)
Keephills 3 (450 MW Capacity)
Centralia (United States) (1,376 MW Capacity)

The Sundance, Keephills, and Wabamun, coal-fired facilities are owned by TransAlta and located approximately 70 kilometres west of Edmonton, Alberta. The Sheerness coalfired facility is joined [sic] owned by Trans Alta [sic] Cogeneration, L.P., an Ontario limited partnership, and ATCO Power (2000) Ltd. The Genesee coal-fired facility is jointly owned by TransAlta and Capital Power. TransAlta owns the coal-fired facility in Centralia, Washington.

The State of Washington and the Washington State public interest community are pursuing separate initiatives to transition the Centralia coal plant off of coal by 2025 and 2015 respectively. In addition, Canada is proposing performance standards for end-of-life (45-year old) coal plants [1] that would require significant reductions in greenhouse gas emissions.

As noted in TransAlta's 2010 Renewal Form [sic] (p. 26), in November 2009, the US EPA upheld its finding that CO2 is a pollutant and subject to regulation under the US Clean Air Act. In the US, coal pollution has been linked to four of the top five causes of death.[2]

TransAlta has partnered with the Governments of Canada and Alberta and other corporations in "Project Pioneer", a nearly billion dollar project to carry out a carbon capture and storage initiative. Conversion of existing coal-fired plants to natural gas or other clean energy sources represents a known and proven response to reducing climate change gas emissions, such as CO2, in contrast to an unproven technology.

TransAlta should be a leader in CO2 reduction, not carbon capture. By providing a coal-fired facility conversion plan, TransAlta would meet a key performance measure of the TransAlta 2009 Annual Report to make sustaining capital expenditures more predictable in line with TransAlta's longrange plans.

The Sierra Club urges shareholders to vote for this proposal.

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[1] Environment Canada: "Backgrounder: Key Elements of Proposed Regulatory Approach", Date Modified: 2010-08-20
[2] Physicians for Social Responsibility: Coal's Assault on Human Health, Alan H. Lockwood et al., November 2009

APPENDIX D

OAK FOUNDATION

ABOUT US PROGRAMMES HOW TO APPLY SEARCH GRANT DATABASE

This database includes all grants beginning in 2005.

PROGRAMME YEAR AWARDED COUNTRY

- Any - - Any - canada

KEYWORDS

Search

Detailed view

Download result

Organisation	Programme	Country	Year Awarded	Amount
Right Livelihood Award Foundation	Environment	Canada	2015	USD 100,000
University of Calgary	Special Interest	Canada	2014	USD 940,203
DeSmog Canada	Environment	Canada	2013	USD 217,960
Dogwood Initiative	Environment	Canada	2013	USD 229,128
Tides Foundation	Environment	Canada	2013	USD 198,985
Tides Canada Foundation	Environment	Canada	2013	USD 59,512
New Venture Fund	Environment	Canada	2012	USD 1,000,000
Equiterre	Environment	Canada	2012	USD 304,290
RAVEN (Respecting Aboriginal Values & Environmental Needs)	Environment	Canada	2012	USD 50,906
Tides Canada Foundation	Environment	Canada	2012	USD 301,993
Tides Canada Foundation	Environment	Canada	2012	USD 25,000
Global Campaign for Climate Action	Environment	Canada	2012	USD 75,000
Pembina Institute	Environment	Canada	2012	USD 404,533
Ecology Action Center	Environment	Canada	2012	USD 99,999
Global Campaign for Climate Action	Environment	Canada	2012	USD 525,000
University of British Columbia	Environment	Canada	2011	USD 79,775
Living Oceans Society	Environment	Canada	2011	USD 104,641
International Institute for Child Rights and Development (CRED-PRO IICRD-Victoria Univ.)	Child Abuse	Canada	2011	USD 253,768

OAK FOUNDATION

ABOUT US PROGRAMMES HOW TO APPLY SEARCH GRANT DATABASE

1 2 3 4 next › last »

XML

Oak Foundation commits its resources to address issues of global social and environmental concern

Home »

Programme Environment
Year <Any>
Country canada
Keywords
Apply

Organisation	Programme	Country	Year	Amount
DeSmog Canada	Environment	Canada	2013	USD 217,960
West Coast Environmental Law Association	Environment	Canada	2013	USD 146,142
Dogwood Initiative	Environment	Canada	2013	USD 229,128
Tides Foundation	Environment	Canada	2013	USD 198,985
Tides Canada Foundation	Environment	Canada	2013	USD 59,512
Global Campaign for Climate Action	Environment	Canada	2012	USD 525,000
Global Campaign for Climate Action	Environment	Canada	2012	USD 75,000
New Venture Fund	Environment	Canada	2012	USD 1,000,000
Pembina Institute	Environment	Canada	2012	USD 404,533
Equiterre	Environment	Canada	2012	USD 304,290
Ecology Action Center	Environment	Canada	2012	USD 99,999
RAVEN (Respecting Aboriginal Values & Environmental Needs)	Environment	Canada	2012	USD 50,906
Tides Canada Foundation	Environment	Canada	2012	USD 25,000
Tides Canada Foundation	Environment	Canada	2012	USD 301,993
Living Oceans Society	Environment	Canada	2011	USD 104,641
University of British Columbia	Environment	Canada	2011	USD 79,775
Global Campaign for Climate Action	Environment	Canada	2010	USD 73,746
Global Campaign for Climate Action	Environment	Canada	2010	USD 1,000,000
Climate Action Network Canada - Reséau action climat Canada	Environment	Canada	2010	USD 47,897
Environmental Defence Canada	Environment	Canada	2010	USD 426,857

1 2 3 next › last »

Home »

Programme Environment ▼ **Year** <Any> ▼ **Country** canada

Keywords

Apply

Organisation	Programme	Country	Year	Amount
Tides Canada Foundation	Environment	Canada	2010	USD 50,000
West Coast Environmental Law	Environment	Canada	2010	USD 97,131
Pembina Institute	Environment	Canada	2010	USD 484,106
Greenpeace Canada	Environment	Canada	2010	USD 424,373
World Wildlife Fund Canada Foundation	Environment	Canada	2010	USD 300,000
Global Campaign for Climate Action	Environment	Canada	2009	USD 2,500,000
Tides Foundation	Environment	Canada	2009	USD 700,000
Pew Charitable Trusts	Environment	Canada	2009	USD 300,000
World Wildlife Fund Canada Foundation	Environment	Canada	2008	USD 200,702
Climate Action Network Canada - Reséau action climat Canada	Environment	Canada	2008	USD 299,461
Ecology Action Center	Environment	Canada	2008	USD 280,584
Equiterre	Environment	Canada	2008	USD 376,861
Living Oceans Society	Environment	Canada	2008	USD 485,057
Ecotrust Canada	Environment	Canada	2008	USD 442,044
Greenpeace Canada	Environment	Canada	2007	USD 436,675
Environment Northeast	Environment	Canada	2007	USD 200,004
University of British Columbia	Environment	Canada	2007	USD 300,000
Pembina Institute	Environment	Canada	2006	USD 51,458
Equiterre	Environment	Canada	2006	USD 263,408
Ecotrust Canada	Environment	Canada	2006	USD 129,556

« first ‹ previous 1 2 3 next › last »

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Home »

Programme: Environment | Year: <Any> | Country: canada

Keywords

Apply

Organisation	Programme	Country	Year	Amount
Pollution Probe Foundation The	Environment	Canada	2006	USD 86,780
New Brunswick Lung Association	Environment	Canada	2006	USD 86,397
Ecology Action Center	Environment	Canada	2006	USD 87,877
Ontario Sustainable Energy Association	Environment	Canada	2006	USD 98,239
Tides Canada Foundation	Environment	Canada	2006	USD 440,587
National Environmental Trust	Environment	Canada	2006	USD 75,000
Pembina Institute	Environment	Canada	2005	USD 269,971
Tides Canada Foundation	Environment	Canada	2005	USD 208,181
Sierra Club of Canada Foundation	Environment	Canada	2005	USD 217,893
Environment Northeast	Environment	Canada	2005	USD 138,090
Canadian Parks and Wilderness Society - BC Chapter	Environment	Canada	2005	USD 156,043
Ecotrust Canada	Environment	Canada	2005	USD 293,479
Living Oceans Society	Environment	Canada	2005	USD 200,000
University of British Columbia	Environment	Canada	2005	USD 242,000

« first ‹ previous 1 2 3

Carbon trading to reduce global CO^2emissions

If the world's current greenhouse gas (GHG) emissions and growth trends continue, the planet could warm by between 4°C and 6°C by 2100. Scientists agree that this could have devastating impacts: the inundation of coastal cities, massive crop failures, droughts and heat waves.

Market mechanisms that encourage fewer GHG emissions are proving successful at reducing global warming pollution. For example, a "cap and trade" system imposes a cap, or limit, on the total carbon dioxide emissions a region or country can produce each year. Permits allowing for the production of GHG emissions can be traded within the system, so that those who find it easy to reduce their emissions can sell excess permits to those who find it more difficult or expensive to cut back. In this way, global warming pollution is reduced while economic growth is generated. This rewards industries or sectors that pollute less, and penalises those that pollute more.

Oak Foundation has supported the work of many groups in North America and Europe to establish two cap and trade systems, which have seen varying degrees of success. The European Trading System (ETS), the cornerstone of the EU's efforts to combat climate change, regulates emissions from power plants, energy-intensive industries and commercial airlines – altogether amounting to about 45 per cent of Europe's GHG emissions. However, the system is currently selling too many permits, so emissions are not falling fast enough, and the price of each tonne of pollution is too low. There are efforts underway to reform this – if successful, the ETS will reduce European emissions to about 20 per cent below 2005 levels by 2020.

In 2009 the US Northeastern States passed the Regional Greenhouse Gas Initiative (RGGI). Unlike the ETS, the RGGI only regulates emissions from the power sector. Sales of permits have generated USD 1.35 billion; this money has been reinvested in renewable energy, in energy efficiency and in helping low-income consumers pay their energy bills. The RGGI has also been successful in terms of reducing GHG emissions – overall, emissions fell from 188 million tonnes of global warming pollution in 2005 to 92 million tonnes in 2012. On top of this, RGGI has helped the region move away from coal and oil to natural gas and renewable energy and to focus on increasing the efficiency of buildings and transportation.

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