Look Before You Leap into "Climate Emergency" Mode

Ideology = Green NO Deal

5/13/19 Friends of Science Society

CONTENTS

LOOK BEFORE YOU LEAP INTO "CLIMATE EMERGENCY" MODE

EXECUTIVE SUMMARY

The Leap.org and a group called **"THE PACT FOR A GREEN NEW DEAL"** are calling for a sweeping government program like the Roosevelt "New Deal" of the 1930's, following the collapse of the stock market and banking system in the US. The economic destruction at that time was exacerbated by a decade long drought across the North American plains that wiped out most farmers.

They claim there is a *climate crisis*; an emergency, to justify such action. Some of their ideas are downright totalitarian, with one ENGO supporter, Dogwood, proposing the expropriation of the Oshawa GM plant to convert it to electric vehicle manufacturing. **"THE PACT FOR A GREEN NEW DEAL"** proponents call for an imposed push for 100% renewable power nationwide by diverting the alleged subsidies to fossil fuel companies, none of which are real. Oil is Canada's economic mainstay. Our current economic stagnation is due to foreign funded environmental groups blocking pipeline access to markets.

Ottawa energy policy consultant, Robert Lyman, wrote a detailed paper for the Global Warming Policy Foundation[1] last year, showing how it **might** be possible to decarbonize the world's economy in perhaps 50 to 70 years or more, assuming that the technological and economic trends worked out. The counter argument is that, with extremely optimistic assumptions about the rate of scientific discovery and technology dissemination, it might take place sooner (i.e. maybe in 40 years).

The present call for a complete termination of fossil fuel use is qualitatively different. It basically says that we don't have time to wait for things like scientific discoveries, technology demonstration and commercialization, and freedom of choice. Instead, it calls for governments to force the end of use of fuels and energy services for which there are no economic or technologically proven alternatives. There are three main objections to this:

- It is impossible.
- It is hopelessly expensive (and no, we can't just "soak the rich" to pay for it)
- it requires imposition of totalitarian regimes everywhere in the world to take away people's choices.

In other words, it is so far beyond the pale of possibility and reason as to be not even remotely worth considering.

This report deconstructs central claims of the **"THE PACT FOR A GREEN NEW DEAL."**

[1] https://www.thegwpf.org/energy-policy-needs-to-transition-to-reality/

LOOK BEFORE YOU LEAP INTO "CLIMATE EMERGENCY" MODE

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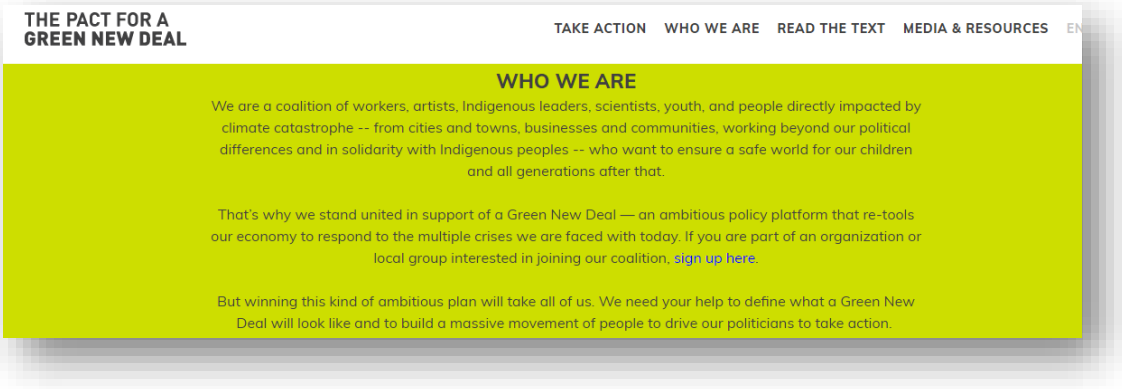
CHALLENGING "THE PACT" WITH FACTS



Screenshot from: https://greennewdealcanada.ca/?org=dogwood

Canadian environmental activists, many of them part of the foreign-funded Tar Sands Campaign, musicians, influencers and community organizers are actively promoting **"THE PACT FOR A GREEN NEW DEAL"** which is modelled on the US proposed "Green New Deal."

In short, the proponents are demanding a government-driven take-over of industry, employment and energy, similar to that of the 1930's Great Depression era "New Deal" of President Franklin D. Roosevelt. For those unfamiliar with history, the 1920's was a time of industrial boom and great stock speculation in the US. Many of the regulations about the

stock market, banking and credit that we have today did not exist. Feverish stock speculation led to a collapse of the stock market in 1929, plunged the US into an economic depression. Some 11,000 banks collapsed, and millions of citizens lost their savings. US unemployment skyrocketed to 30% nation-wide; in some place like Toledo, Ohio, unemployment was 80%; in Lowell, Massachusetts, 90%.

Similarly, the Canadian economy was also hit hard. 'Hobos' criss-crossed the US and Canada by the hundreds 'riding the rails' by hitching a ride on boxcars. They were men without work, travelling to farms and villages, often willing to work for just a meal or a place to sleep.

At the same time, in the 1930's, farmers faced a sudden change in weather patterns as a massive drought and heat waves, with temperatures unmatched till today, swept the Great Plains of North America. The wide scale plowing of the virgin prairie land over the previous 20 years undoubtedly contributed to drought conditions, changing regional precipitation. Dust storms moved through, taking most of the topsoil away, as plowed fields were unprotected. Massive prairie fires burned without containment.

http://activehistory.ca/2016/11/dusting-off-the-history-of-drought-on-the-

In the face of economic collapse, agricultural disaster, food shortages, and societal breakdown, Roosevelt implemented "The New Deal" – basically using government powers

to create make-work projects to employ everyone from agricultural and construction workers to singers and actors. A large part of that was devoted to building dams in Tennessee to provide for the wide-scale electrification of rural society.

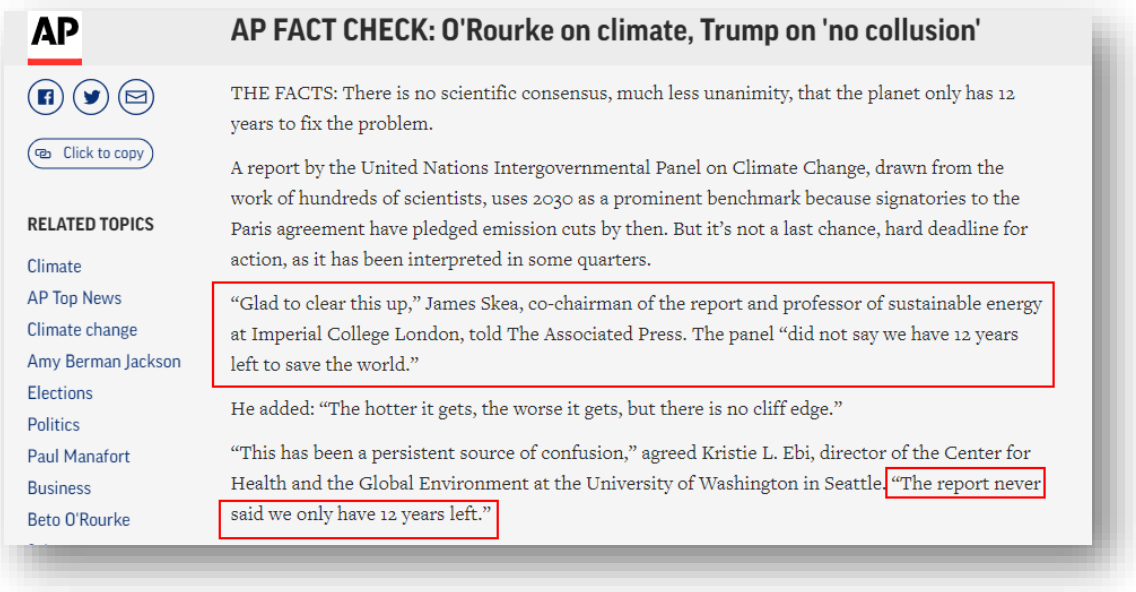
Today, unemployment rate in Canada is 5.7%.[2] In the United States it is 3.6%.[3] These are not employment conditions that would warrant massive government intervention.

Today, the unifying 'crisis' claimed by these **"THE PACT FOR A GREEN NEW DEAL"** activists is *climate change* – and they propose that a million 'green' jobs can be created by mass government control, taking over industry and energy, shutting down fossil fuels, and rapidly shifting to 100% renewable energy generation and all electric vehicles.

Doable? Desirable? Let us examine the facts.

CLIMATE CHANGES – NO CAUSE FOR ALARM

GOOD NEWS! WE HAVE MORE THAN 12 YEARS.



AP

AP FACT CHECK: O'Rourke on climate, Trump on 'no collusion'

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THE FACTS: There is no scientific consensus, much less unanimity, that the planet only has 12 years to fix the problem.

A report by the United Nations Intergovernmental Panel on Climate Change, drawn from the work of hundreds of scientists, uses 2030 as a prominent benchmark because signatories to the Paris agreement have pledged emission cuts by then. But it's not a last chance, hard deadline for action, as it has been interpreted in some quarters.

"Glad to clear this up," James Skea, co-chairman of the report and professor of sustainable energy at Imperial College London, told The Associated Press. The panel "did not say we have 12 years left to save the world."

He added: "The hotter it gets, the worse it gets, but there is no cliff edge."

"This has been a persistent source of confusion," agreed Kristie L. Ebi, director of the Center for Health and the Global Environment at the University of Washington in Seattle. "The report never said we only have 12 years left."

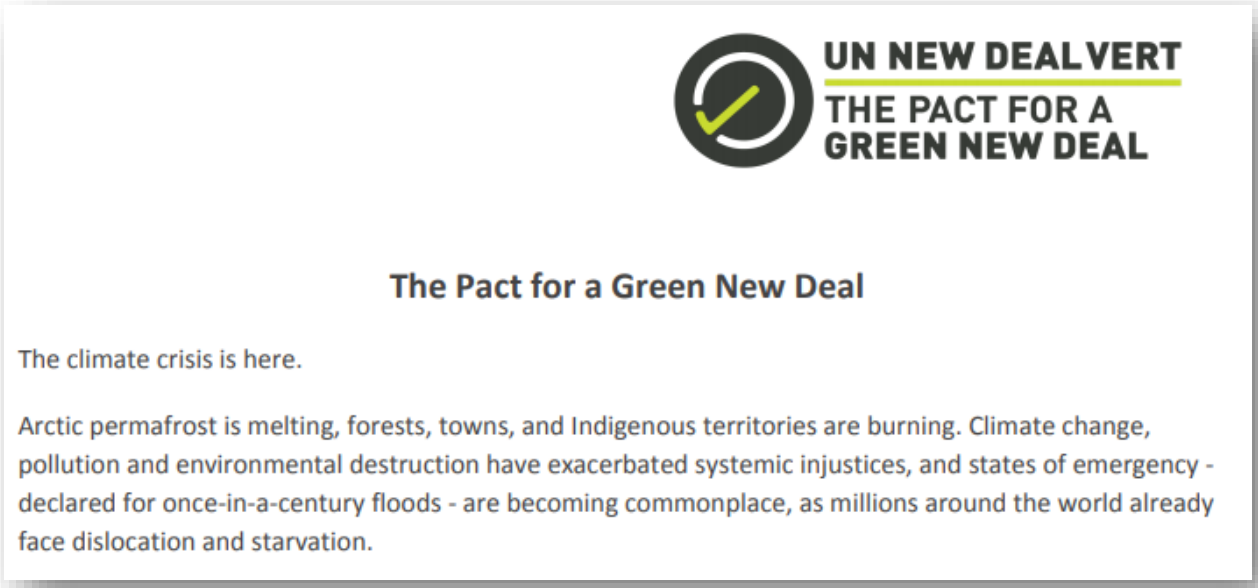
In October of 2018, the Intergovernmental Panel on Climate Change (IPCC) released the Special Report (SR15) on the implications of a 0.5°C rise in global temperatures for society and the economy. Newspapers and activists were quick to misread the IPCC's suggestion as

[2] https://tradingeconomics.com/canada/unemployment-rate
[3] https://tradingeconomics.com/united-states/unemployment-rate

an apocalyptic catastrophe, but that's not what the report said. In SR1.5 Summary for Policy Makers (SPM), the words "calamity", "catastrophe" or "dangerous" never appear. Here is the **link**. You can search the PDF and will not find these words. The IPCC SR1.5 report says, *"By 2100, global mean sea level rise is projected to be around 0.1 metre lower with global warming of 1.5°C compared to 2°C."* It contains vague statements of increasing risk at 2 C over 1.5 C above pre-industrial temperatures but doesn't quantity any harm.

Likewise, the earlier 2013 IPCC AR5 Synthesis report never mentions "calamity", and it mentions "catastrophe" only in purchasing "catastrophe bonds." There is no cost benefit analysis of carbon dioxide (CO_2) emissions. The report only qualitatively suggests increasing risk of heat wave with global warming, and increasing risk of floods, but there is no economic or social analysis to suggest a calamity. As noted above, historic records do not support these predictions; CO_2 was very low in those earlier times, clearly not a cause.

But **"THE PACT FOR A GREEN NEW DEAL"** opens with a bold statement that *"The climate crisis is here."*

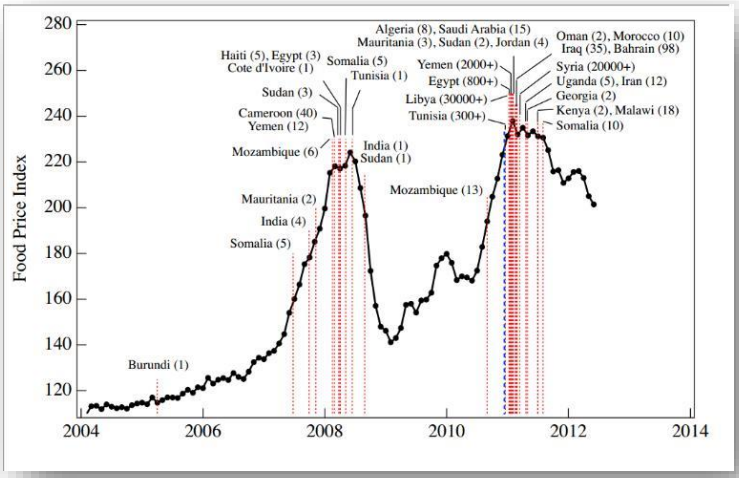


In fact, refuting "The Pact's" examples of current day climate *catastrophes* - the Arctic permafrost has melted in the past. In the 1930's the Arctic was 4.6°C warmer than it is today.[4] In the 1950's some 3.4 million acres of forest went up in flames in northern British Columbia and Alberta in the Chinchaga firestorm – the smoke pall from which was seen around the world.[5] The claims "The Pact" makes that 'once-in-a-century floods' are

[4] https://rd.springer.com/article/10.1007%2Fs00704-018-02763-y
[5] https://www.uap.ualberta.ca/titles/194-9781772120035-chinchaga-firestorm

commonplace is a misreading of this term; 1 in a 100-year floods can happen in consecutive years.[6] Calgary's eight worst floods were before 1933, two of them with larger flows than that of 2013.[7] **All of these occurred before human-causation is said to have affected climate change and when CO_2 levels were low.** Today we have fewer droughts, fewer wildfires – and about half of today's wildfires are caused by humans through arson, negligence or human-wildland interface (i.e. power lines sparking fires). Recent flooding is due to increasing snowpack and early melt[8] when the ground it still too frozen to absorb or channel some of the water to wetlands. Storm intensity is not increasing, but urban centres have changed local hydrology through paving over much of the land, causing major runoffs and pooling; aging infrastructure built for smaller populations can't handle the volume.[9] That's not climate change. That's an engineering problem.

Migration and civil unrest are driven by food prices, mostly the corn ethanol food-to-fuel policies that have moved 6 megatonnes of corn off world markets, driving up human and animal food costs dramatically in developing nations. NECSI tracked food prices and could predict where the next civil unrest would occur.[10]



Shall we LEAP into emergency mode on misinformation and misinterpretation?

Read our rebuttal to the IPCC SR15: "Faulty Premises=Poor Public Policy" https://blog.friendsofscience.org/wp-content/uploads/2018/10/Faulty-Premises-Poor-Public-Policy-on-Climate-Oct-30-2018-FINAL.pdf

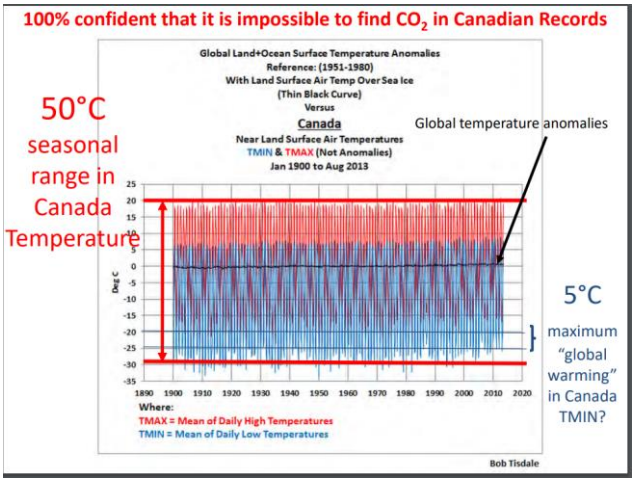
Read our rebuttal "Climate Change Your Mind" to the federal government's climate report: https://blog.friendsofscience.org/2019/05/01/climate-change-your-mind-rebutting-canadian-governments-climate-report/

[6] https://water.usgs.gov/edu/100yearflood-basic.html The term refers to annual exceedance probability (AEP) which has nothing to do with *when* another such flood will occur.
[7] https://www.theweathernetwork.com/news/articles/calgary-floods-it-could-happen-again/8295
[8] https://youtu.be/lztpZdu4Nns
[9] https://www.slideshare.net/RobertMuir3/storm-intensity-not-increasing-factual-review-of-engineering-datasets
[10] https://necsi.edu/economics

Majorville Medicine Wheel http://www.geocities.ws/donperry44111/majorville.html

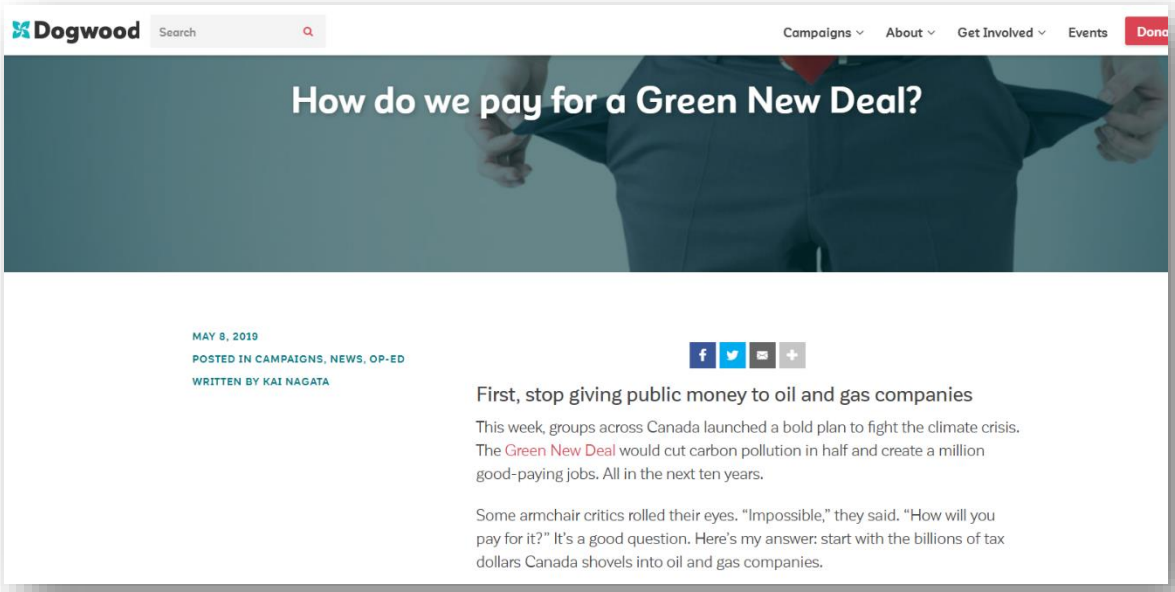
Indigenous people around the world have a sacred relationship with the sun, the stars, the water and the land. Ancient 'time machines' like medicine wheels indicate that Plains First Nations people were sophisticated observers of astronomical activity. Some researchers have theorized that such carefully laid out patterns were intended to track certain stars – an indicator of changing seasons. This was crucial information for nomadic people, surviving on the open plains.

So, it is today, we see that the sun drives climate change. Despite a rise in CO_2 there is no equivalent rise in temperature in the ~100-year record.



https://youtu.be/KazGXAqgkds

GREEN NEW DEAL PROPONENTS SAY FOSSIL FUEL SUBSIDIES WILL PAY THE WAY



Dogwood claims that: *"Trans Mountain is a drop in the bucket. Last week, the International Monetary Fund put out new estimates for fossil fuel subsidies worldwide. IMF economists calculate that Canada pumps a shocking $58 billion per year into propping up coal, oil and gas companies."*[11]

But is that true? Or are other unrelated costs being applied 'as if' subsidies. Let's review.

There are five main sources for the alleged "subsidies."[12]

The first, and probably largest, is the **IMF's loading onto the backs of fossil fuel producers the alleged environmental costs of global warming**. In other words, they inflate the social cost of carbon and say that because this is not added on to the price of fossil fuels, it is a "subsidy";

The second in size is their claim that the **"western world" spends billions of dollars fighting wars in the Middle East** and that this is all due to the west's desire to control the price of oil (complete, unadulterated nonsense);

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[11] https://dogwoodbc.ca/news/green-new-deal-public-money-oil-companies/?utm_source=twitter&utm_medium=social-organic

[12] https://www.forbes.com/sites/timworstall/2015/05/19/imf-report-on-5-3-trillion-in-energy-subsidies-careful-its-not-quite-what-you-think/#174df57b4bfa

The third in size is the claim that the **failure of the governments of OPEC countries to impose large consumer taxes on their own citizens' consumption** of oil products is a "subsidy" to the oil industry;

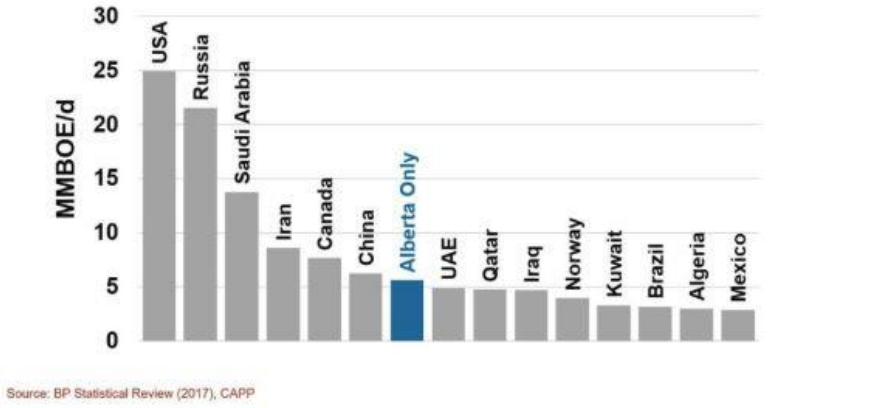
The fourth is the use of **tax incentive for upstream oil industry investment that <u>are the same</u> as the tax incentives for investment provided to many resources and manufacturing** industry investments;

The fifth, and smallest, is the **use of favourable royalties** and other tax incentives to producers.

The studies of so-called subsidies never discuss the amount of taxes and royalties paid by oil and gas producers to governments or the revenues received by governments from excise and sales taxes imposed on fuel products. **In 2018, for example, the combined <u>revenues to governments</u> from excise, sales, transit and carbon taxes on gasoline and diesel fuel products in Canada exceeded $24 billion. We are suffering tremendous losses.**[13] [14]

Alberta alone is the 7th largest producer of oil in the world and the economic driver of Canada – when market access is not blocked by foreign-funded Tar Sands Campaign protestors and tanker bans. Obviously, we are in a Green Trade War.

Figure 1: World's Largest Oil and Gas Producers by Region
Top 15 Ranked by Production

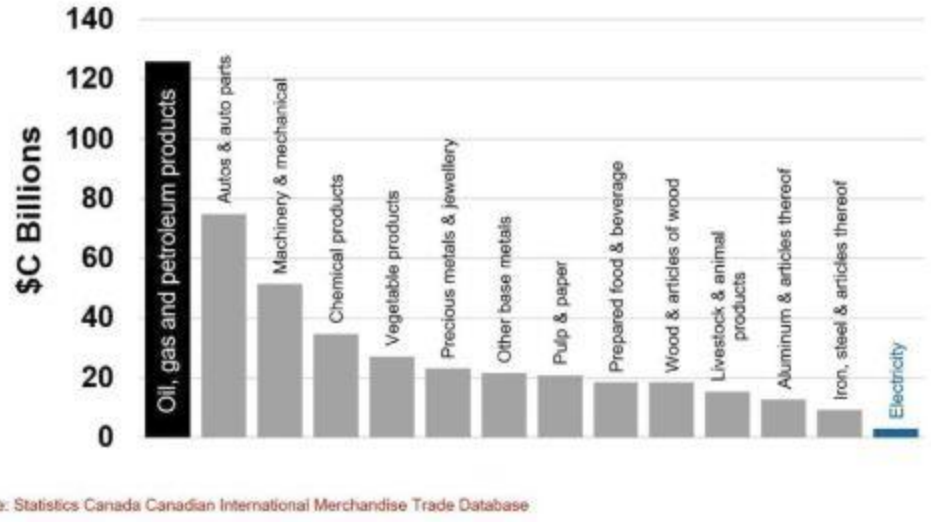


Source: BP Statistical Review (2017), CAPP

[13] https://business.financialpost.com/opinion/a-report-reveals-the-massive-fortune-canadians-just-lost-thanks-to-pipeline-shortages

[14] https://www.fraserinstitute.org/sites/default/files/investment-in-canadian-and-us-oil-and-gas-sector.pdf
https://www.fraserinstitute.org/sites/default/files/cost-of-pipeline-constraints-in-canada-2019.pdf

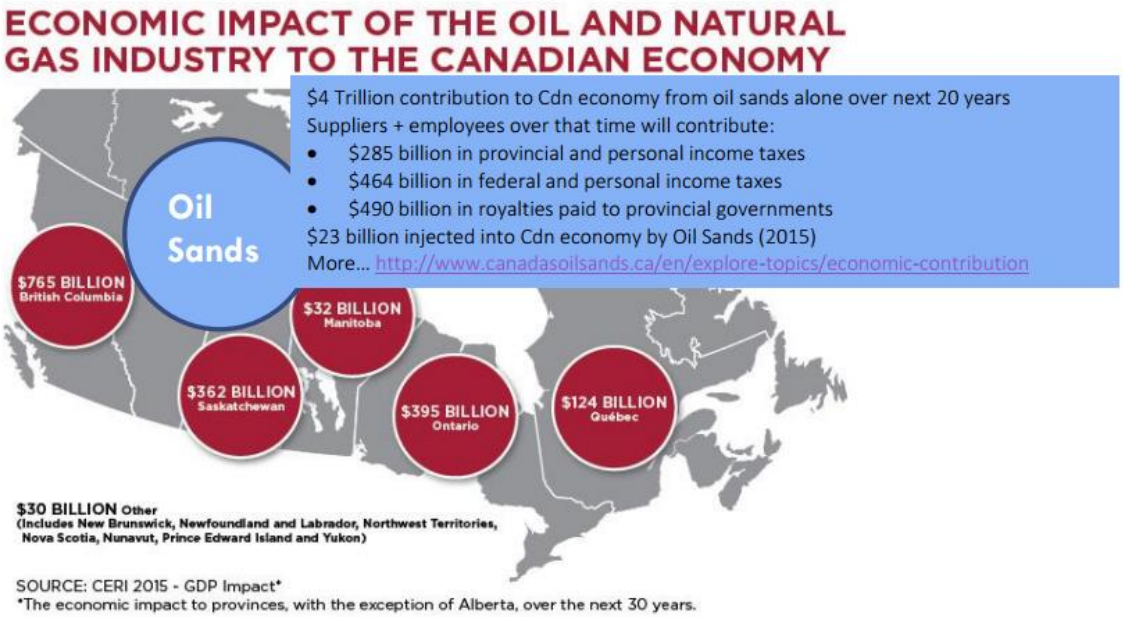
Figure 2: Value of Canadian International Merchandise Exports (2018)
Select Set of Goods Classified by Harmonized System Codes

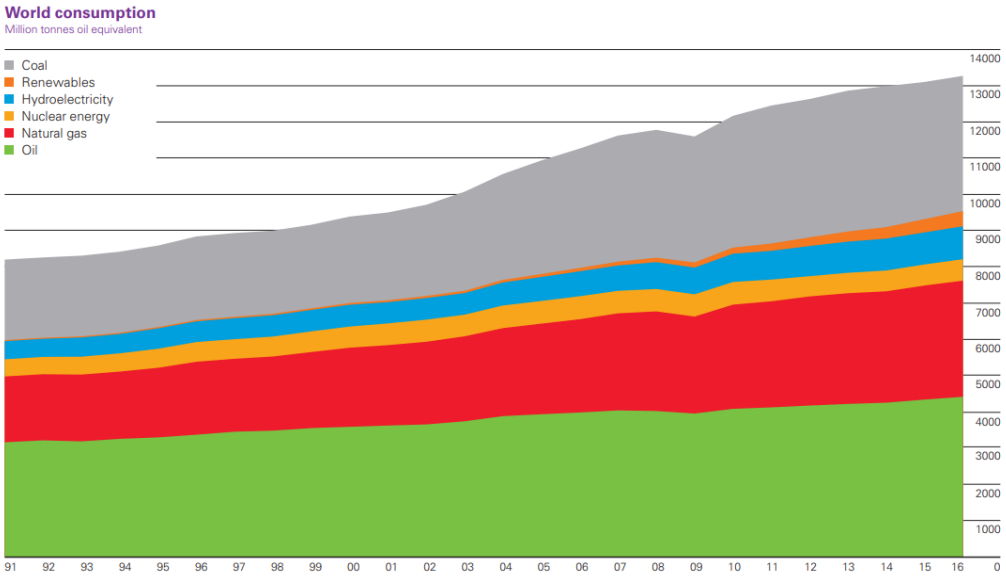


Source: Statistics Canada Canadian International Merchandise Trade Database

Source: *https://business.financialpost.com/commodities/energy/rest-of-canada-thinks-it-can-live-without-alberta-oil-jason-kenney-needs-to-prove-them-wrong*

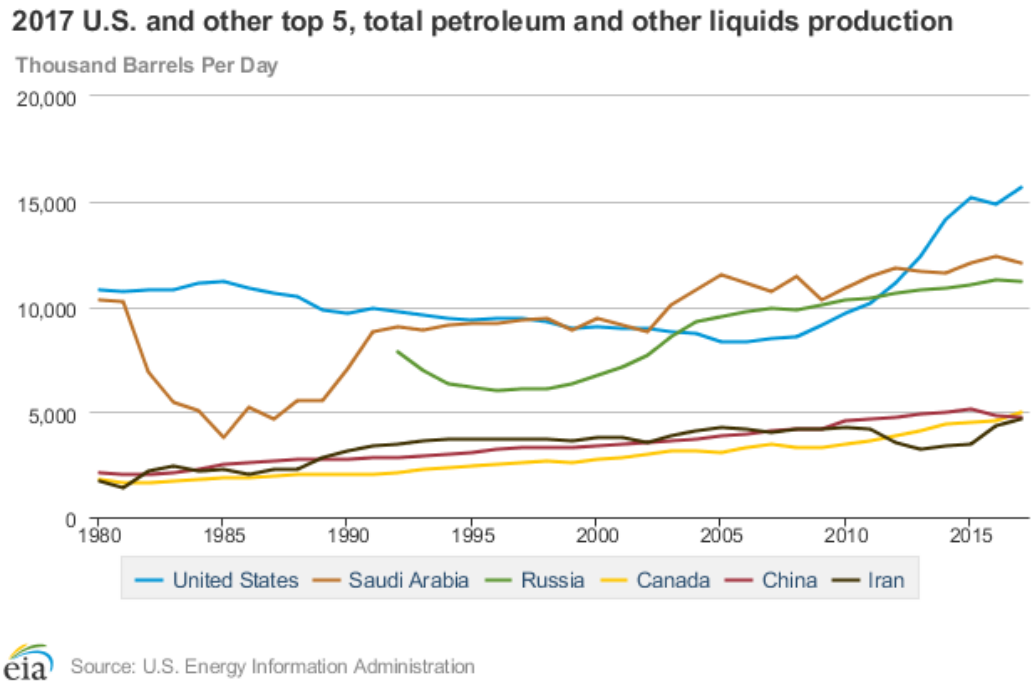
Clearly the Canadian government does NOT subsidize oil by $58 billion – instead the government, every province and every person benefit from the broad reaching economic impacts of employment – locally in each province within the supply chain; and for fly-in workers from out of province.



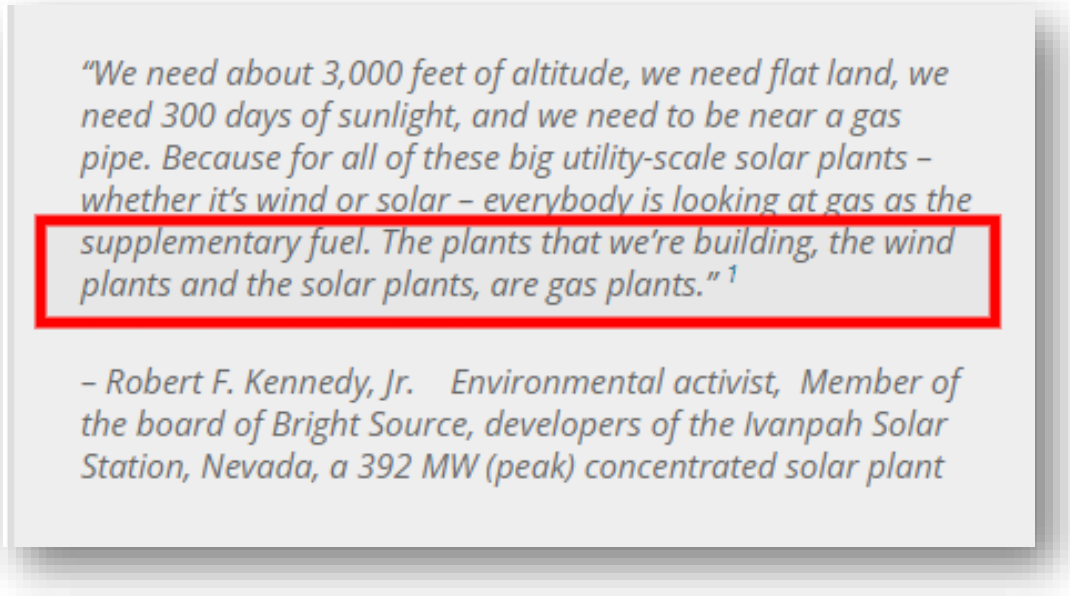


World primary energy consumption grew by 1.0% in 2016, well below the 10-year average of 1.8% and the third consecutive year at or below 1%. As was the case in 2015, growth was below average in all regions except Europe & Eurasia. All fuels except oil and nuclear power grew at below-average rates. Oil provided the largest increment to energy consumption at 77 million tonnes of oil equivalent (mtoe), followed by natural gas (57 mtoe) and renewable power (53 mtoe).

As shown above, obviously oil, natural gas and coal are growing strongly in demand worldwide. As shown below, Canada is a competitor in the top six on the world stage – it is only climate activism and pipeline *Blockadia*, funded by foreign sources, that is keeping our product from market and stagnating our economy. That should not require a Green New Deal – it just requires housecleaning.



HOW WOULD YOU BUILD 100% RENEWABLE SOCIETY WITHOUT FOSSIL FUELS?



Many people are misinformed about renewables – wind, solar, geothermal, and tidal. They have been told and believe that wind and solar are 'free' because there is no input cost to the sunlight or wind. However, as with any energy source, it is not the element that determines the cost – it is the retrieval, capturing and conversion of that energy to a useful form.

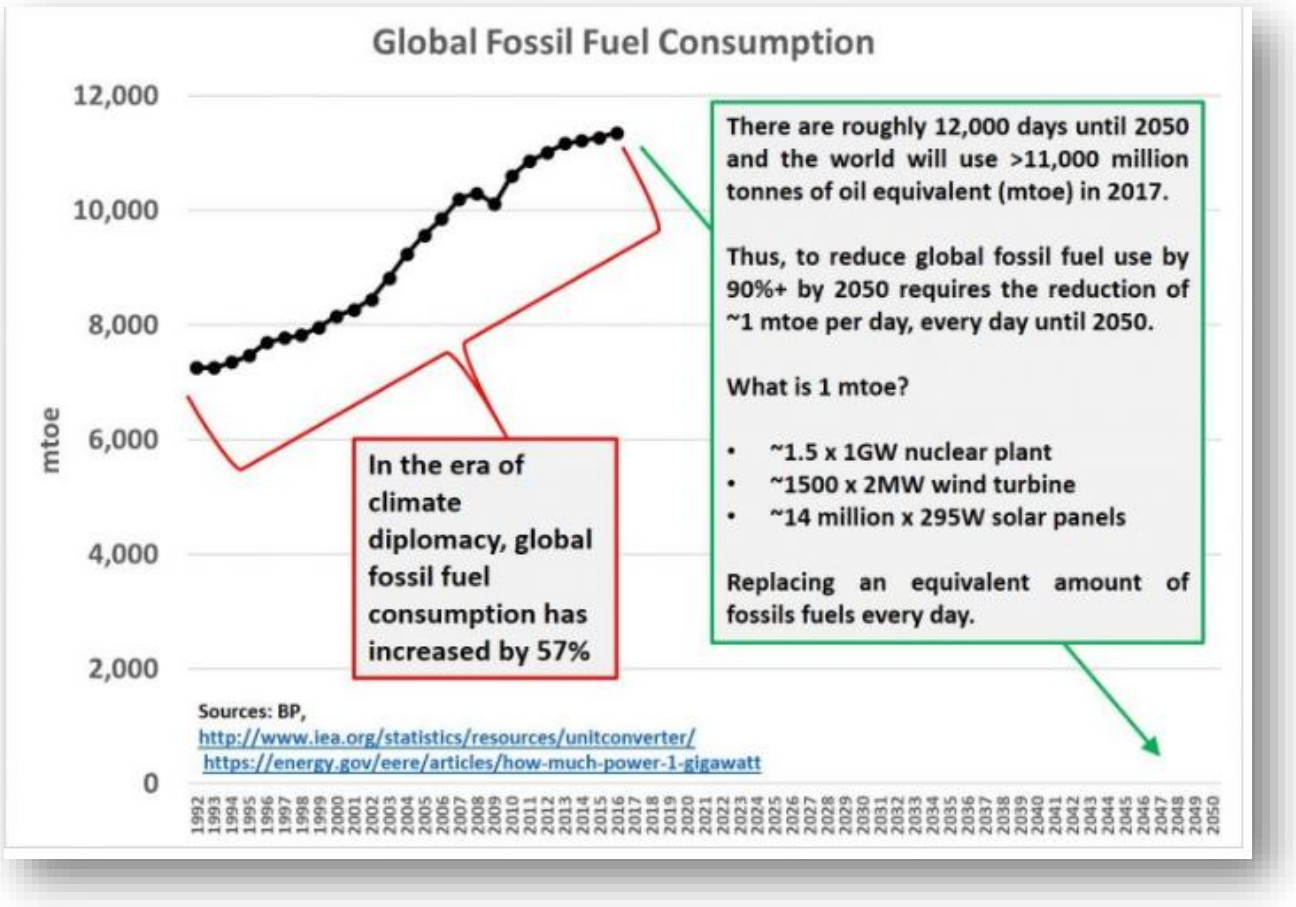
Wind and solar are erratic and rely on Mother Nature. But the power grid must have precision power supply 'on demand' (dispatchable) at all times. Consequently, when you build a wind or solar farm, you must have or build equivalent conventional power. If you are building a power plant like the Shepard Energy Center in Calgary, Alberta, that will cost you $1.4 billion. If your wind farm is in Pincher Creek, 213 km south of Calgary, then you must build a $2.2 billion high voltage transmission line. Depending on how much wind and solar you add, anything over a small percentage also requires additional multi-million- or billion-dollar upgrades to the Information Technology that operates the power grid.

However, the amount of power you get in return is nominal and inconsistent. Wind and solar farms DO produce Renewable Energy Certificates and they do have many forms of subsidies, flow-through shares, tax advantages and so on – which are extremely valuable to investors. However, you the citizen pay this freight for little power generation in return. Furthermore, you are usually locked into a 20-40-year contract to keep paying…'for

nothing.' It's certainly not free. See our report: "In the Dark on Renewables" for more information.[15] See our report on Subsidies to Wind and Solar.[16]

"THE PACT FOR A GREEN NEW DEAL" calls for cutting our emissions in half within 11 years. As shown below, this is very unlikely as there is no known replacement fuels for oil, natural gas and coal.

No wind turbine and no solar panel can be made from wind and solar power; large scale batteries with longer life than a few minutes remain a 'Holy Grail'.[17]



Source: Roger Pielke, Jr.

[15] https://blog.friendsofscience.org/wp-content/uploads/2018/11/In-the-Dark-on-Renewables-FINAL-Nov-18-2018.pdf
[16] http://blog.friendsofscience.org/2017/11/05/subsidies-to-solar-and-wind-energy-in-canada-an-inventory/
[17] http://euanmearns.com/the-holy-grail-of-battery-storage/

HOUSING RETROFITS

Ottawa energy policy consultant, Robert Lyman:

One of the central parts of the energy proposals in the Green New Deal is that all (i.e. 100 per cent) of the housing stock in the United States would be retrofitted to reduce GHG emissions to zero in the next eleven years. The Leap in Canada supports the same objective here.

I was reminded of this in reading a recent article written by Michael Kelly, a professor at the University of Cambridge, in which he described a 2019 U.K. government report stating that "the 29 million existing homes in the U.K. must be made low-carbon, low-energy and resilient to climate change". Professor Kelly's article can be read here:

https://www.thegwpf.com/decarbonisation-and-the-command-economy/#_ftn2

In it, he described his experience in advising on a pilot program launched by the UK government in 2008. That program, called, "Retrofit for the Future" committed 150,000 pounds (Canadian $262,000 at today's exchange rates) to retrofit each of 100 houses in the housing association (i.e. social housing) sector. The target for the program was to reduce per house GHG emissions by 80%, largely by installing full wall insulation, underfloor insulation, the newest high-efficiency appliances, and other measures. The efficiency improvement goal was not attained (some units reached 60 per cent GHG emissions reduction), even at that elevated cost.

The City of Cambridge subsequently considered a proposal to retrofit the city's 49,000 homes and 5500 other buildings at a cost of 700,000 to one billion pounds (Canadian $1.2 billion to $1.7 billion) to halve the CO2 emissions. The City declined. If that proposal were to be extended to all 29 million existing homes in the U.K., the cost of retrofitting would be about 4.3 trillion pounds (Canadian $7.5 trillion).

If the typical U.K. household energy bill of 2,000 pounds per year (Canadian $3,500) were halved, the saving would be 29 billion pounds (Canadian $51 billion) per year, and the payback time would be 150 years.

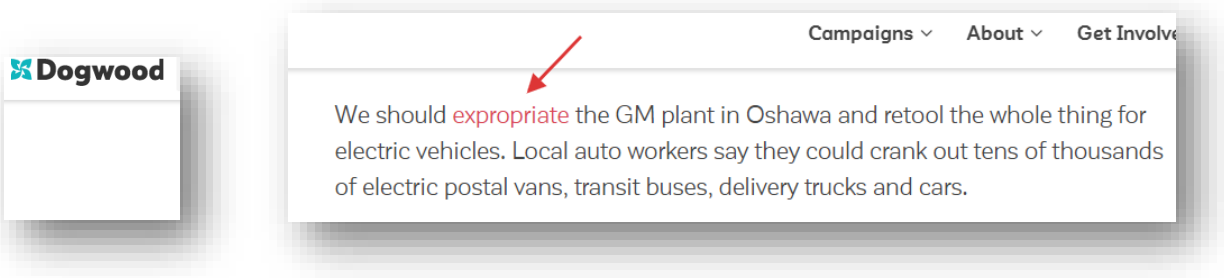
Proponents of expensive emissions reduction measures often claim that, if they were ordered to be done in the entire economy, the resulting economies of scale would reduce costs to a more manageable level. However, in the U.K., private lenders would not agree to finance a home improvement unless the payback period were about 3-4 years, rising to perhaps 7-8 years on infrastructure investments in the home. There is no way that the payback period could be reduced to that level, especially in eleven years.

If private lenders would not touch such uneconomic investments, would governments? There are about 14 million housing units in Canada. If the cost of major housing retrofit here were the same as in the U.K., **the cost to halve GHG emissions would be $3.6 trillion.**

How much is $3.6 trillion ($3,600,000,000,000)? If you were given a guaranteed annual income of $100,000 per year from such a fund, you would have to live 36,000 years to spend it, even if you received no interest. It costs about $6 million per kilometer to build a highway in Canada, and the distance from Halifax to Vancouver is just under 6,000 km. You could build a highway that crossed Canada 100,000 times for $3.6 trillion. It costs about $2 billion to build a new hospital in Canada; you could build 1800 of them for $3.6 trillion. If you laid $3.6 trillion U.S. one-dollar bills on their edge in a row, they would stretch around the earth at the equator 10 times.

Which political party will commit to that?

EXPROPRIATE TO BUILD ELECTRIC VEHICLES?



Local auto workers are not engineers. Even if the alleged workers referred to in this quote could crank out electric vehicles, where could you plug them in without crashing the local or regional power grid; and who would pay the trillions of dollars in costs to upgrade transmission and distribution lines, transformers and hubs, to meet this demand?

REUSE AND RECYCLE EXISTING CARS+INFRASTRUCTURE. BEST SUITED TO CANADA.

By 2040, the government of Canada proposes that all new vehicles will be zero emissions (thus- electric)[18] and **"THE PACT FOR THE GREEN NEW DEAL"** want to **expropriate the GM plant in Oshawa to 'make it so.'**

[18] https://driving.ca/auto-news/news/new-federal-ev-incentives-offer-up-to-5000-back-on-27-models-and-trims

First of all, this seems to be a dangerous intention to breach the rule of law when there is no national need to take property owned by a legal entity and its shareholders; how is *expropriation* their first order of business? Secondly, whatever happened to 're-use, recycle'? The lifecycle of existing cars is 20-40 years. How is it environmentally friendly or good for the climate to send perfectly good, operational vehicles off the road and require the complete retooling of automotive production plants and parts supply chains, for a form of vehicle that is unsuited to Canada and has no operational support network. Thirdly, electric vehicles have significant performance issues in the Canadian climate. **And lastly, Canadians will run out of sufficient power generation long before we reach that goal – leaving us literally 'in the dark.'**

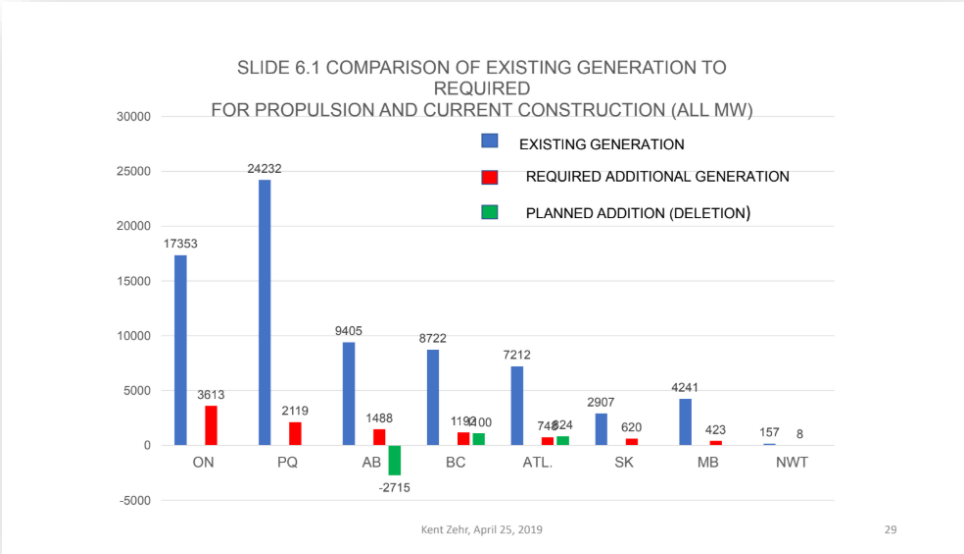
When no one does any due diligence on these idealistic notions, we can go down a path of unintended self-destruction with very dire consequences.

In an assessment of power generation capacity in Canada versus equivalent energy demand by an electric car fleet, Kent Zehr finds that:

1. There is insufficient electrical generation to serve electric vehicle needs, as proposed, by 2040.
2. There are no new electrical generation projects in the planning process – the development and implementation time for such projects being decades.[19]
3. There is no assessment of the trillions of dollars in costs for upgrading the transmission, distribution and IT structure of the grid, not to mention the requirement to run additional power lines to smaller communities – including the need to acquire land rights for transmission towers – one of the most comment "Not-In-My-Backyard" NIMBY forms of development.
4. At perfect efficiency, impossible, **more than 10,000 megawatts of additional electrical generation capacity are required** for Canada to be 100% electric passenger cars by 2040.
5. At the present time, there are two large power projects being built in Canada, Site C in BC and Muskrat Falls in NL. Combined, they have a capacity of 1,924 megawatts, if they meet their design capacity.
6. The existing projects have taken or will take more than five (5) years to reach production.

[19] Example: Site C dam in BC was first considered in hearings in 1980-81 and turned down. After the Clean Energy Act of 2010, it began to move forward; in 2012 it was mandated under CEAA, 2014 received environmental approval from federal and provincial authorities Site clearing began in 2016 – since then it has been stalled and started several times with court action from various environmental groups or First Nations. The original cost was estimated at $6.6 billion; estimates now predict $11 to $12 billion. This does not include transmission lines to hubs. (Summarized from Wikipedia)

7. Mr. Zehr's full analysis is here. [20]



There are other considerations about electric vehicles that are potentially life threatening for Canadians. Conventional cars and trucks (Internal Combustion Engine – ICE) use the waste heat from the engine for heating the passenger cabin. Electric vehicles use battery power to heat the passenger cabin. This is a very 'inconvenient truth about EVs.' [21]In a cold climate like Canada's, this drastically reduces the battery life. Furthermore, if a person goes off the road in winter, they will not be able to start and stop the car to warm the passenger cabin – at least not for long.

Massive infrastructure upgrades would be required outside the core of major cities.

Alas, there is not just one simple answer to the question of what effect EVs will have in Canada.

For people who go from home to work or to the kids' school or the grocery store, and who can plug their vehicles in a lot, range is not much of an issue. For urban fleets that can be parked and charged at night, range may also not be much of an issue. But unless a province like Alberta is going to put hundreds (thousands?) of charging stations in K-Country, Lake Louise, Sunshine, and Nakiska, day-trips to the mountains for hiking and skiing in private vehicles will be out of the question unless you can afford a top-of-the-line EV (and that's only a maybe).

[20] https://blog.friendsofscience.org/2019/05/13/electric-vehicle-considerations-for-canada/
[21] https://driving.ca/tesla/auto-news/news/314908

Whereas the cheapest ICE car will get you to Lake Louise and back with no problem, the cheapest EVs don't even come close. How many hundreds of cars head west out of Calgary on Saturdays and Sundays for a weekend in the wilderness recreation parks nearby. What would mean for charging stations (and wires) in national parks (Will transmission lines in national parks will go over well with the public or with wildlife concerns?). Do we build 2000 charging stations at the Lake Louise ski area and have them sit idle for eight months a year, or prohibit people from using private vehicles? There is no possibility with the technology on the horizon that people who haul camping trailers, boats, or work trailers will be able to do so with EVs unless they have oodles of money for extremely expensive EVs (again, that's still a maybe). Unless there is a major technological breakthrough, many Canadians' lifestyles will be severely negatively affected by forced adoption of EVs.

Typical weekend traffic to the mountains from Calgary.
https://www.rmoutlook.com/article/lake-louise-braces-for-busy-long-weekend-20160728

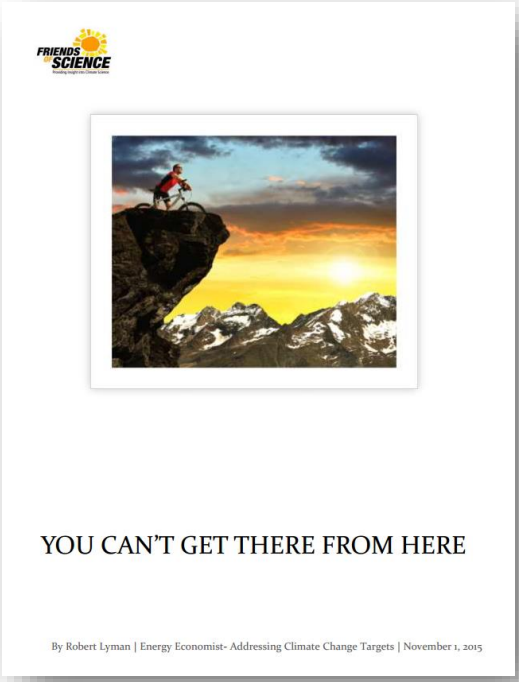
There is not just one simple answer for transmission lines - 'wires', either. If a set of transmission or distribution wires (and transformers) already exists in an area and they are not too heavily loaded and the rate of EV uptake is gradual, we can add EVs, at least initially, without too much effort. If there are 'wires' but they are already heavily loaded, we will have to upgrade them. If there are no wires (many remote communities in Canada are served by small diesel generators and tiny distribution systems), then we have to build lots and lots and lots and lots of 'wires.' What we would do about charging stations along the Trans Canada Highway, let alone along remote roads in the vast, sparsely populated areas of this country? Right now, we can

Beauty spots like Peyto Lake would challenge the range of most EVs.
https://www.travelalberta.com/ca/listings/peyto-lake-1483/

load a fuel tanker, and have it drop fuel off at gas stations along the roads; you can't do that with electricity, of course.

Helpful backgrounder on EVs from Newfoundland and Labrador government.[22]

Then, of course, **THE PACT FOR A GREEN NEW DEAL** proclaims that we're supposed to power all of this with unreliable wind and pathetic-capacity-factor solar. To get to 100% renewables our transmission and distribution system would have to be roughly three to six times BIGGER than they are now because the fluctuations in output are so wild that you have to way over-build for peak times, find places to store all the excess, and then deliver it back over days, weeks, and even months of short supply.



To get some perspective on what that means, Alberta's wind capacity factor for February 4 was 0.08%; for February 4 and 5 it was 0.5%; and for February 9 to 15 it was 6.2%. **Guaranteeing a 10% capacity factor for wind using battery storage would have cost $63.8 billion.** Alberta has some of the best wind resources in Canada. That's not enough.

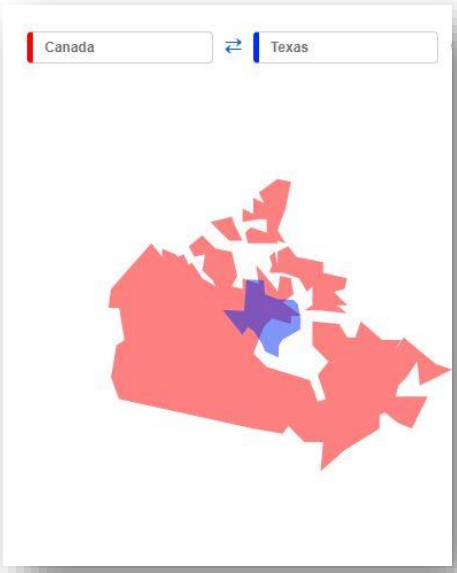
Authors of **THE PACT FOR A GREEN NEW DEAL** assume that trucks and postal vans can also be turned out by the thousands – but as Robert Lyman, Ottawa energy policy analyst discusses in this report, when it comes to transportation, it's not so simple.

"You Can't Get there from Here."[23]

[22] https://www.exec.gov.nl.ca/exec/occ/publications/electric_veh_report.pdf
[23] https://friendsofscience.org/assets/documents/You_cant_get_there_from_here_Lyman.pdf

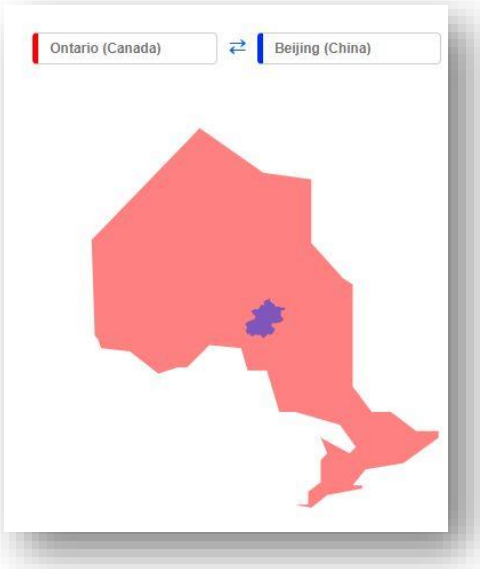
EMISSIONS REDUCTION EFFORTS A FUTILE FOLLY

Texas compared to Canada – Source: Map Fight



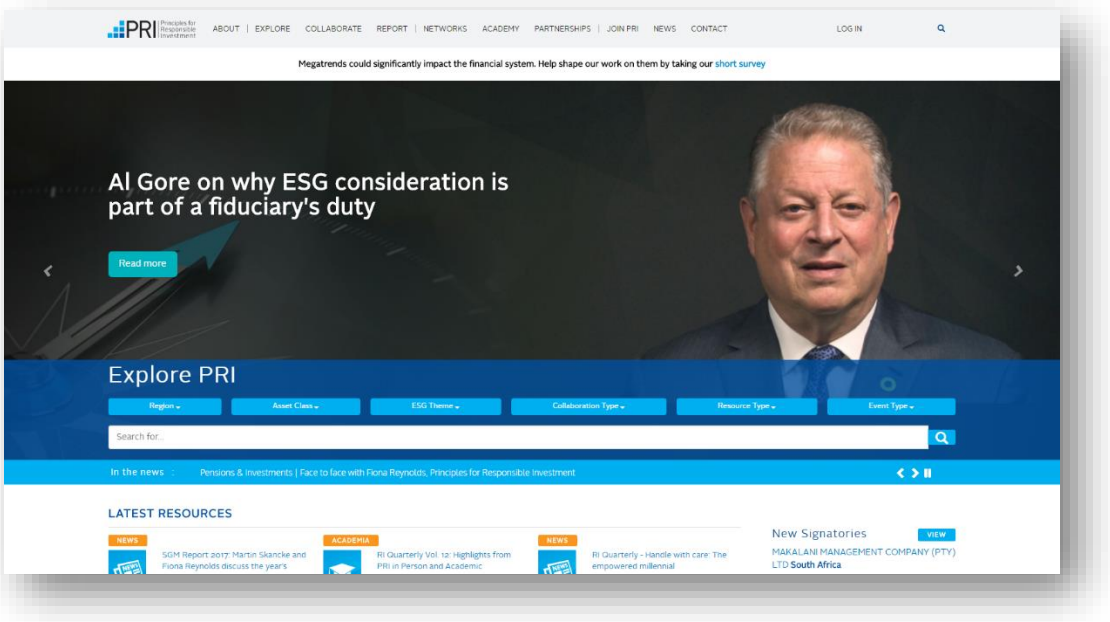
https://blog.friendsofscience.org/2019/05/05/futile-folly-canadas-climate-policy-goals-in-the-global-context/

We are told that measures such as those proposed by proponents of **THE PACT FOR A GREEN NEW DEAL** will 'stop climate change' – but this is absurd. Canada's emissions are only slightly greater than those of Texas.



The annual GHG emissions of the China's city of Peking are about the same as that of the entire province of Ontario.

So why are governments and ENGOs pushing costly, perhaps disastrous schemes like these, when the evidence shows the costs are absurd, the benefits to the environment very small (in the face of huge emitters), and the outcomes potentially disastrous. Having Canada sit in the dark without electrical power is not an option.



Green billionaires are pushing their own make-work to make-them-money projects via funding to environmental non-governmental organizations (ENGOs) to drive the appearance of 'grassroots' demand for policies, like EV's, so that they can make more money at your expense.

The plan is called "Design to Win"[24] and it's been in operation since 2005 via ClimateWorks, and several years prior through diverse billionaire foundations.

In the past, markets were driven largely by a combination of business/industry innovation and consumer demand. Now hundreds of ENGOs are driving the climate catastrophe narrative and have rewarding self-dealing consulting contracts with government and often with industry to push the Kyoto-Enron model that was so richly rewarding to Enron before its spectacular collapse.[25]

EVs are a good example of this method of market creation.

In Canada, one of the ClimateWorks partners, the foreign Oak Foundation, has been funding diverse ENGOs since about 2006. One of those ENGOs is Equiterre. As described by Counterpunch, the goal of the Tar Sands Campaign, which is a small section of the "Design

[24] http://www.climateworks.org/wp-content/uploads/2015/02/design_to_win_final_8_31_07.pdf
[25] https://ep.probeinternational.org/2009/05/30/enrons-other-secret/

to Win" plan, was to move people into positions of influence in government.[26] This has occurred. Minister McKenna's "Climate Action Advisory Council" pushing EVs consists of two people, one of whom, was formerly with Equiterre.[27] Neither person is a Professional Engineer.

ClimateWorks has committed a section of its budget and mandate to electric vehicles. As William Kay writes, Europe has long passed the 'point of no return' on climate alarmism in as it *electroglides* to an EV future.[28] This might make sense for densely populated Europe, which imports billions of dollars of oil every year. It makes no sense for Canada.

New Venture Fund	to support the Moving Beyond Oil Fund	Board	9/9/2015	12	685,000	-
Green Tech Action Fund	to support lobbying activities for state- and federal-level clean energy legislation in the U.S.	Board	11/12/2015	12	910,000	-
Securing America's Future Energy Foundation	for the ongoing development of The Fuse, an online energy security hub	Board	11/12/2015	12	100,000	-
International Council on Clean Transportation	to address the issue of vehicle compliance enforcement globally	Discretionary	11/12/2015	12	500,000	500,000
Securing America's Future Energy Foundation	to accelerate state-level electric vehicle policy and conduct research into autonomous transportation and new mobility	Board	11/12/2015	12	650,000	-
Energy Foundation	to build support for heavy-and light-duty vehicle standards in the United States	Discretionary	12/10/2015	6	425,000	425,000
Carnegie Endowment for International Peace	for continued support of the Global Oils Initiative and the Oil-Climate Index	Discretionary	3/18/2016	12	250,000	250,000
Regents of the University of California, Davis	for work on plug-in electric vehicle and zero-emission vehicle policies globally	Discretionary	3/18/2016	12	300,000	300,000
Natural Resources Defense Council, Inc.	to support the acceleration of electric vehicle, renewable energy, and grid integration policies in China and the United States	Discretionary	3/18/2016	12	200,000	200,000

Excerpt of ClimateWorks document.[29]

As researcher Matthew Nisbet reports, these green billionaires are set on the ultimate goal of establishing global cap and trade systems that will ***'prompt a sea change in the global economy.'*** **They appear to be doing this without sanction from the electorate or government.**

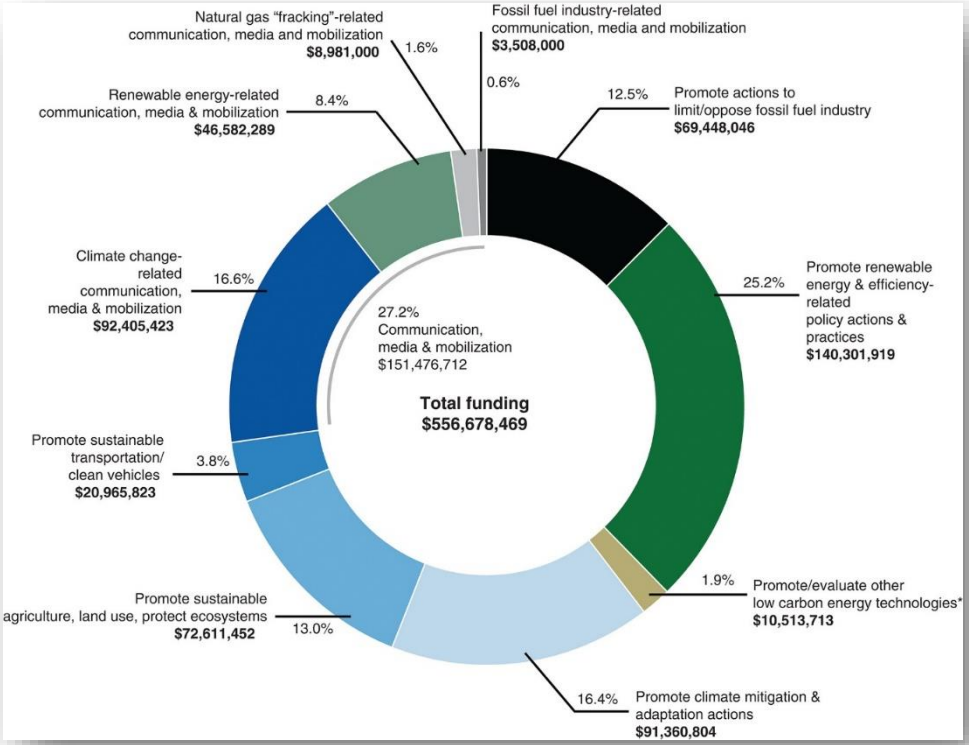
As detailed in the ClimateWorks Wikileaks document, they have vested interests in renewables (which generate tradeable Renewable Energy Certificates)

[26] https://www.counterpunch.org/2013/10/16/how-tides-canada-controls-the-secret-north-american-tar-sands-coalition/
[27] https://www.canada.ca/en/environment-climate-change/services/climate-change/advisory-council-climate-action.html
[28] https://blog.friendsofscience.org/2019/05/13/europe-electroglides-have-passed-climate-alarmisms-point-of-no-return/
[29] **ClimateWorks Foundation - WikiLeaks** https://wikileaks.org/podesta-emails/fileid/57594/16165 *Nisbet* https://onlinelibrary.wiley.com/doi/abs/10.1002/wcc.524

and push carbon pricing, carbon markets and anti-oil rhetoric via their funded ENGOs.

According to Nisbet's earlier work in ClimateShift, the ClimateWorks billionaires were advised that we have the technology to replace fossil fuels, **but that is not the case.** As we have recently seen, Bill Gates has been outspoken about the waste of money and effort on renewables and batteries.

ClimateWorks and their partners have spent millions, perhaps billions of dollars worldwide on pushing climate change initiatives. Nisbet reports they have been the principle funders of academics and non-profit journalism. Many of the ENGOs that ClimateWorks funded are charities, which are thus co-funded and subsidized by taxpayers through donations.



Nisbet: https://onlinelibrary.wiley.com/doi/abs/10.1002/wcc.524

ENGOs like to hype the 'climate catastrophe' angle in order to get more donations from a gullible and well-intentioned public.

It is a useful exercise to contemplate whether fear of climate change would be top-of-mind for governments and the public if it had not been promoted by hundreds of millions of dollars over the past two decades.

MARKETS ARE FLAT – CLIMATE CHANGE ARTICIFICALLY CREATES NEW MARKETS + SUBSIDIZED JOBS

In 2013, Joseph Dear, then CIO of CalPERS, one of the largest institutional investors in the world, told the Wall Street Journal that their clean-tech investments were an 'L for Lose' investment. Unlike the typical "J" curve of investments, where there might be a dip, followed by recovery and climb in value, their clean-tech investments had been flat. He told WSJ that either one had to raise the price of carbon or lower the cost of alternatives.

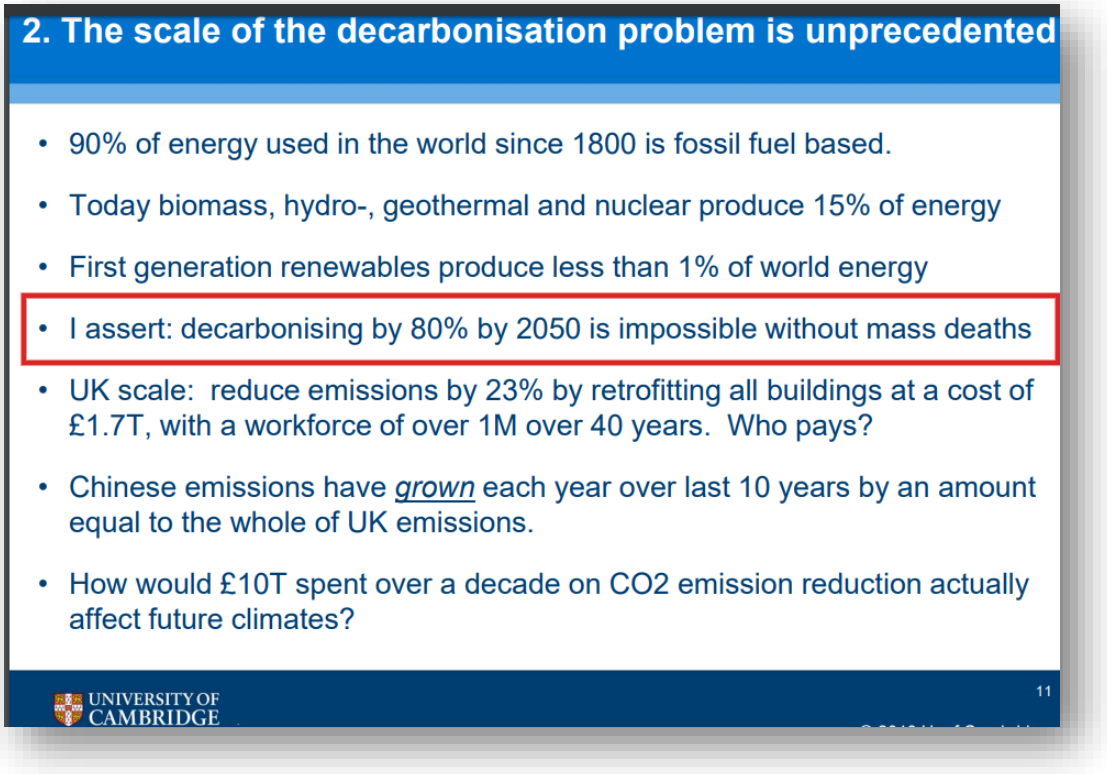
Indeed, we see that there is a push to raise the price of carbon with the IPCC report of October 2018 potentially pushing for $800/tonne carbon price – perhaps as high as $27,000![30] And wind/solar promoters constantly push the claim that prices of wind and solar have come down – that's true – **but the backend cost of necessary infrastructure are still in the billions of dollars – hidden from taxpayers when implemented, but it shows up on your power bill.**

It appears that taxpayers and policymakers are being misled on the costs of implementing new technologies like clean-tech and EVs. Frankly, we can't afford to prop up these wealthy ideologues. We must be "Grounded in Reality."[31]

We have been told by Minister McKenna that there is a $30 trillion opportunity in clean-tech, but in Robert Lyman's report "The Clean Growth Hallucination" it is clear this is not true.[32] The public are told there is a revolution in energy and that we can go 100% renewables in 11 years – but experts like Prof. Michael J. Kelly state that rapid decarbonization, as advocated by child activist Greta Thunberg, and quoted by **"THE PACT FOR A GREEN NEW DEAL,"** would result in mass deaths.

[30] https://www.bloomberg.com/news/articles/2018-10-10/how-much-does-carbon-need-to-cost-somewhere-from-20-to-27-000
[31] http://blog.friendsofscience.org/wp-content/uploads/2017/05/grounded-in-reality-may-03-2017-final.pdf
[32] https://blog.friendsofscience.org/2018/09/19/the-clean-growth-hallucination/

Why would we take the advice of a child over that of an experienced, qualified Professor of Engineering? Why would we take the advice of a child who has suffered from serious depression and mental health issues, along with Asperger's, and whose mother says Greta is to be able to 'see CO_2' and who is being exploited by green billionaires,[33] [34] over practical cost-benefit and implementation analysis?



Source: *https://www.rbkc.gov.uk/pdf/Prof%20Mike%20Kelly%20-%20FENand%20ER.pdf*

Green billionaires and institutional investors have been hoping that long-term wind and solar contracts would prop up unfunded pension fund liabilities with guaranteed long-term contracts[35] – a form of hidden taxation. Governments have played along because carbon taxes offer them a lucrative cash grab. Indeed, the alarming future scope of carbon taxes shows carbon taxes will outstrip income taxes as a source of government revenues.[36]

[33] https://quillette.com/2019/04/23/self-harm-versus-the-greater-good-greta-thunberg-and-child-activism/
[34] http://www.wrongkindofgreen.org/2019/02/03/the-manufacturing-of-greta-thunberg-for-consent-the-house-is-on-fire-the-90-trillion-dollar-rescue/
[35] https://www.sacbee.com/news/politics-government/politics-columns-blogs/dan-walters/article90368532.html
[36] https://blog.friendsofscience.org/2018/09/29/the-alarming-scope-of-future-of-carbon-taxes-in-canada/

UNSUSTAINABLE

The tragic irony of the world of renewables and clean tech is that **everything is made from oil, natural gas and coal.** Making more wind and solar devices or more EVs will require a huge amount of fossil fuels to create the necessary infrastructure and to maintain it. That will increase, not reduce, fossil fuel use – for less energy return on energy invested. There will not be a reduction in fossil fuel energy to any significant degree, and the **economic burden on consumers will not be sustainable.**

THE PACT FOR A GREEN NEW DEAL calls for fair employment for all and inclusion, while it rejects the work of the oil, gas and coal industry and fails to address the risks of building a 'house of cards' of employment based on subsidies to renewables and electric vehicles.

A case in point is Germany. According to FinAdvice "Lessons Learned," Germany created >300,000 jobs in the wind industry but based on the subsidies and cost of the ***Energiewende*** each of those jobs has been subsidized at a rate of 35,000 Euro/year, or $52,000 Cdn.[37] This is not sustainable.

As in the Great Depression, the dot.com boom, the sub-prime mortgage collapse and other unsustainable markets based on speculation, it is likely we will face an imminent market dip due to collapse of renewables – if not today, in the near future, as predicted by the CEO of Iberdrola.[38] [39]

Sadly, despite fairness, equity and inclusion being the themes of **THE PACT FOR A GREEN NEW DEAL**, just the opposite will be the outcome. Carbon taxes will impose heat or eat poverty on the poorest and on farm producers. Rebates will not make up the overall untenable burden of cumulative carbon taxes on everything. The impact will be especially harsh in a vast, cold country like Canada.


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** January 23, 2017 — OTTAWA, ON — Competition Bureau

[37] http://nlvow.nl/wp-content/uploads/2014/08/germany_lessonslearned_final_071014.pdf
[38] https://www.powerengineeringint.com/articles/2018/02/iberdrola-chief-says-global-renewable-sector-facing-enron-style-endgame.html
[39] https://energypost.eu/iea-renewables-growth-worldwide-is-stalling/

It is clear that many activist ENGOs have been funded by organizations with vested interests to act as proxies to change public policy. These are deceptive market tactics causing market manipulation. This type of greenwashing is contrary to Competition Bureau guidelines and laws.

Governments are complicit – swayed by rent seeking carbon taxes to fund green crony capitalist endeavors, promoted by ENGOs that are funded by green billionaires and transnational corporations. They are also driven by the astonishing financial and *boots-on-the-ground* cause-oriented followers of ENGOs.

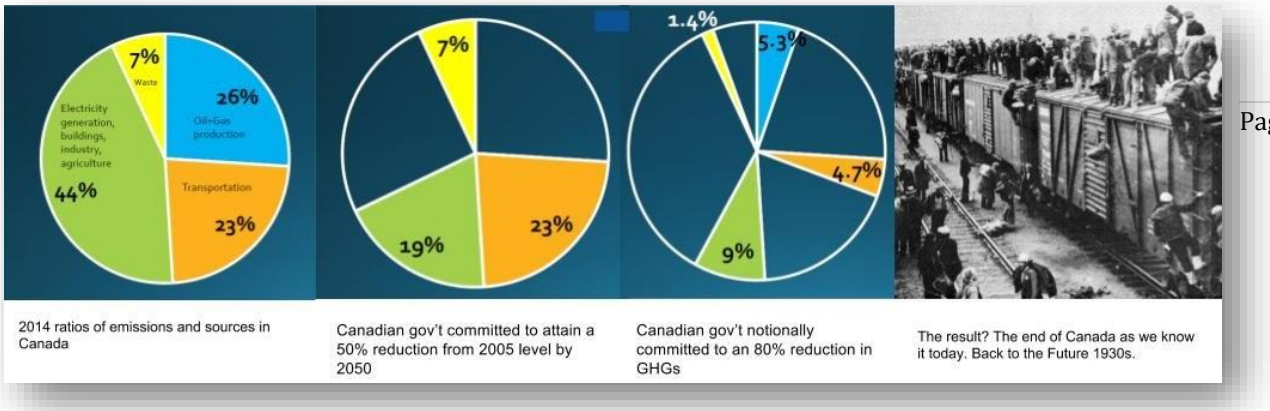
When we review the top 40 ENGOs in Canada, most of which have been foreign funded by the ClimateWorks partners, the financial power imbalance is shocking.

- The top 40 ENGOs received about $11.2 billion over the period 2000 to 2018.
- The "EnviroLaw" organizations received about $167 million over that same period.
- The combined revenues of the ENGOs and their EnviroLaw counterparts was almost $11.4 billion over the period.
- The total revenues received by all four main federal political parties over the period was about $631 million.
- The total revenues received by the major political parties at the federal government level and the provinces of Ontario, Quebec, British Columbia and Alberta over the period were $1.5 billion.
- The total revenues received by the market oriented ("conservative") institutes over the period was $412 million.
- The revenues received by the ENGOs and their EnviroLaw counterparts over the period was over 18 times the revenues received by all federal political parties, and over 27 times the revenues received by the market-oriented institutes.
- Both Ducks Unlimited Canada and the Nature Conservancy Canada annually receive higher revenues than all the major federal political parties; a large portion of the funding to these organizations is from the federal government.
- The revenue received by the Tides organization alone is more than the combined revenues of Canada's two largest federal political parties, the Liberal Party of Canada and the Conservative Party of Canada over the period.
- The David Suzuki Foundation's average annual revenues exceed the annual revenues of the federal New Democratic Party.
- Eight ENGOs have annual revenues that exceed those of the governing Liberal Party of Canada.

Source: "Money Matters" – see also our related series of reports:

https://blog.friendsofscience.org/2019/05/07/environmental-charities-a-compilation-of-reports-on-their-finances-power-and-implications-for-canada/

IN SUMMARY – CANADA IS AT RISK



2014 ratios of emissions and sources in Canada

Canadian gov't committed to attain a 50% reduction from 2005 level by 2050

Canadian gov't notionally committed to an 80% reduction in GHGs

The result? The end of Canada as we know it today. Back to the Future 1930s.

Canada has championed the Paris Agreement, even pushing for the lower 1.5°C target. As shown above, it is impossible to reach such targets without the complete shut down of all major industries in Canada. Whatever we do is futile folly in the face of emissions elsewhere.

Table 4

Country	2007 Mt	2016 Mt	2017 Mt	Increase 2006-2016 (Mt)
China	7213	9114	9233	2020
India	1366	2251	2344	978
Saudi Arabia	393	591	595	202
Iran	491	599	634	143
South Korea	545	665	680	135
Indonesia	387	486	512	125
Vietnam	79	195	196	117
Brazil	351	462	467	116
UAE	186	272	267	81
Qatar	54	104	115	61

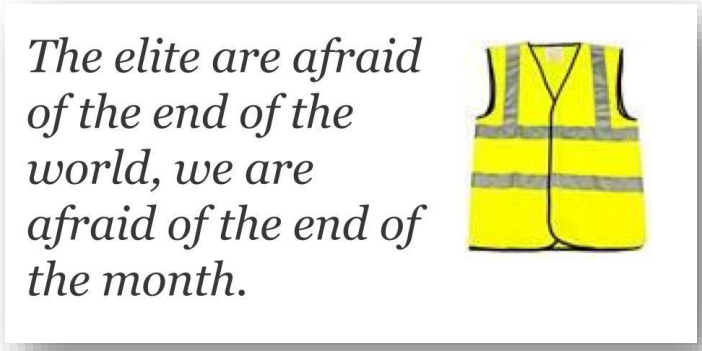
Points to note:

- The emissions growth in China and India alone from 2007 to 2016, at 2,998 Mt, exceeded the net growth in global emissions increases during that period. **In other words, the emissions growth in two countries offset the emissions reductions in the rest of the world.**
- The emissions growth in the ten fastest-growing emitters combined totaled 3,978 Mt.

Source: https://blog.friendsofscience.org/2018/11/17/the-composition-of-global-emissions/

Unfortunately, Canadian climate and energy policies are being driven by activists funded by green billionaires with vested interests, not the electorate.

Around the world, people are sending a clear message to their governments – these demands are unsustainable.



There is no climate emergency, no need to 'expropriate' GM's Oshawa plant in order to make EVs. **There is an economic emergency.**

As Robert Lyman asked at his presentation to Friends of Science Society in 2017 – *"Can Canada Survive Climate Change Policy?"*[40] More and more the answer is clear. No.

Parody of the Greenpeace stunt with a serious message pertinent to Canadians today.

[40] http://blog.friendsofscience.org/2017/05/10/can-canada-survive-climate-change-policy/

A few years ago, we thought the LEAP Manifesto needed a closer LOOK and a rebuttal. Thus, was born the "LookB4ULEAP Manifesto". https://lookb4uleap.tumblr.com/

LOOK BEFORE YOU LEAP

February 2016

MANIFESTO

1. We start from the premise that **Canada is a great country facing a world in crisis** – no matter what our past sorrows or successes, only **by working together as one people, can we heal wounds and face the challenges ahead.**
2. **Thanks to our industrious and inventive people, we survive in this extreme climate in comfort** – we feed the world with farm goods, house the world with our lumber and minerals, power the world with our oil, gas and coal, enhance the world with our hi-tech, aerospace, geo-sciences and bio-tech innovations, and so we can afford to be the third most generous, charitable nation in the world. As well, we welcome Foreign Workers whose earnings send some $24 billion dollars back home annually, directly to family members who need this help. Little or none of it is lost in the pockets of corrupt intermediaries.
3. **We honor and respect our scientists, engineers, policy-makers and monitoring agencies who, together have reduced Canada's emissions and set high standards for environmental quality in air, land and water.** We have a vast, modern, industrialized nation. We are distant from world markets and feature a sparse population, widely spread out, meaning transportation emissions are a given – yet, per capita GDP, our GHG emissions are less than those of the tiny Pacific Islands. **To have a healthy environment, we need a strong economy.**
4. Some people claim we could live in a country fueled 100% by renewables, they say that we should 'leap' into that. We say to them – **look before you LEAP.** Take the advice of power generation engineers and experts. Think common sense. **"If it sounds too good to be true, it is."**
5. **Canada is the country most nations would love to be** We do have current and historic challenges. However, through thoughtful policy, born out of respectful dialogue and careful consideration of public concern, and by applying the evidence-based Scientific Method, we will address and resolve these one by one.
6. **All countries have sovereign equality under the UN Charter** (Article 2.1)—we should guard our own rights carefully; the UN is not accountable to us or elected by us. The UN is an external body made up of a majority countries that do not share our democratic, economic or social-cultural values.
7. **Canada is rich in resources, making us a target in international trade wars,** often fronted or disguised as environmental issues (not applied anywhere else!)
8. Careful assessment in advance can reduce or eliminate unpleasant or disastrous unintended consequences. Take time to do things right the first time.
9. Climate change science is filled with uncertainties that are reported by the IPCC. Environmental groups and news media hype a catastrophic scenario, not supported by the evidence. Climate change is a largely natural process that is affected by humans. Carbon dioxide is a nominal factor in warming; it is necessary for life itself. Pollution and poverty are more important issues to address.
10. Look at the evidence over the ideology. **Haste makes waste. Look before you leap.**

FRIENDS OF SCIENCE

Providing Insight into Climate Science

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Toll-free Telephone: 1-888-789-9597 Web: friendsofscience.org E-mail: contact[at]friendsofscience[dot]org

About

Friends of Science Society is an independent group of earth, atmospheric and solar scientists, engineers, and citizens who are celebrating its 16th year of offering climate science insights. After a thorough review of a broad spectrum of literature on climate change, Friends of Science Society has concluded that the sun is the main driver of climate change, not carbon dioxide (CO2).

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