

Disinformation #1: *individualism*



Prof Steven Moore

steven.moore@queensu.ca

“Framing environmental deterioration as the result of poor individual choices:

- littering,*
- leaving the lights on when we leave a room,*
- failing to carpool*

distracts us from identifying and demanding change from the real drivers of environmental decline such as our culture of consumption and the accompanying industrial waste.

It also removes these issues from the political realm to the personal, implying that the solution is in our individual choices rather than in better policies, business practices, and institutions.”

Annie Leonard

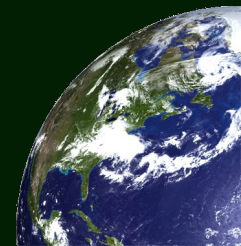


How Coke Killed the Refillable Bottle

The “Beautify America” and “Please Recycle” campaigns were invented by Coca-Cola to download plastic disposable pollution costs to the public.

8:33

<https://www.storyofstuff.org/movies/exposed-how-coke-killed-the-refillable-bottle/>



Blame



Exxon CEO blames public for failure to fix climate change

Exxon Mobil Corp. CEO Darren Woods told editors from Fortune that the world has “waited too long” to begin investing in a broader suite of technologies to slow planetary heating.

<https://thehill.com/policy/energy-environment/4494543-exxon-ceo-blames-public-for-failure-to-fix-climate-change/>



An Inconvenient Truth

Al Gore's video helped raise consciousness, but it targets individuals – drive less, recycle, change lightbulbs, overinflate tires...

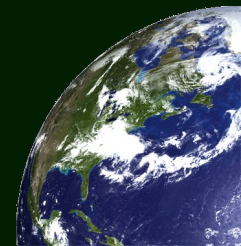
Nothing to do with shifting power from corporations or stopping the growth economy.

If every person in the U.S. did everything the video suggested, emissions would be reduced by:

22 %.

We have to get to 100 % in 6 years.

<https://www.youtube.com/watch?v=m2TbrtCGbhQ>



You are not the problem

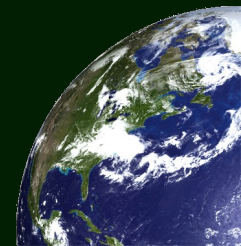
If every person in Kingston:

Recycled everything possible

Re-used everything possible

Cut their household waste to 1% of current

Kingston's waste stream would be reduced by
5%.



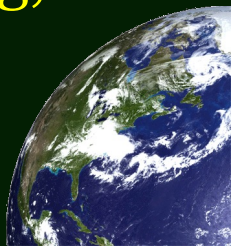
Stupid Design

- CURRENT MODEL -
LINEAR ECONOMY



For every bag of “stuff” you bring into your house...

There are 70 bags of agricultural, mining, manufacturing, energy waste created upstream.



Who Benefits from Individual Blame?

Mining

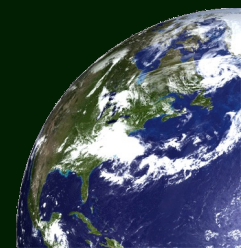
Oil and gas

Processed foods

Manufactured products

Marketing and Advertising

Complicit Politicians



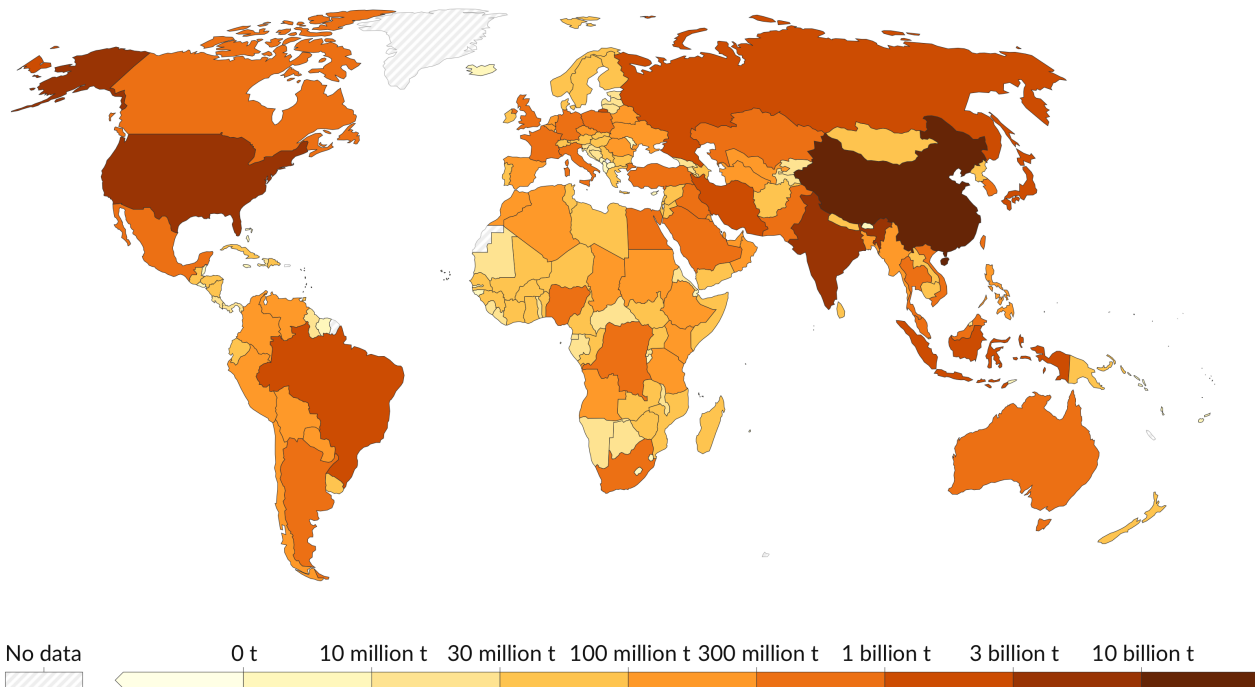
Disinformation #2: *whataboutism*

other countries or states produce more greenhouse gas emissions and thus bear a greater responsibility for taking action.

Greenhouse gas emissions, 2021

Greenhouse gas emissions include carbon dioxide, methane and nitrous oxide from all sources, including land-use change. They are measured in tonnes of carbon dioxide-equivalents over a 100-year timescale.

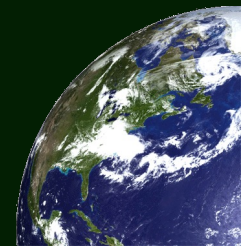
Our World
in Data



Data source: Jones et al. (2023)

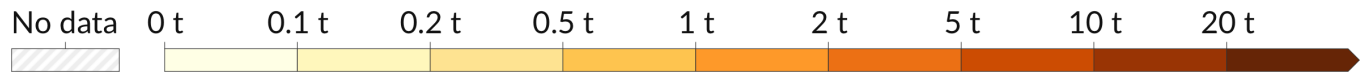
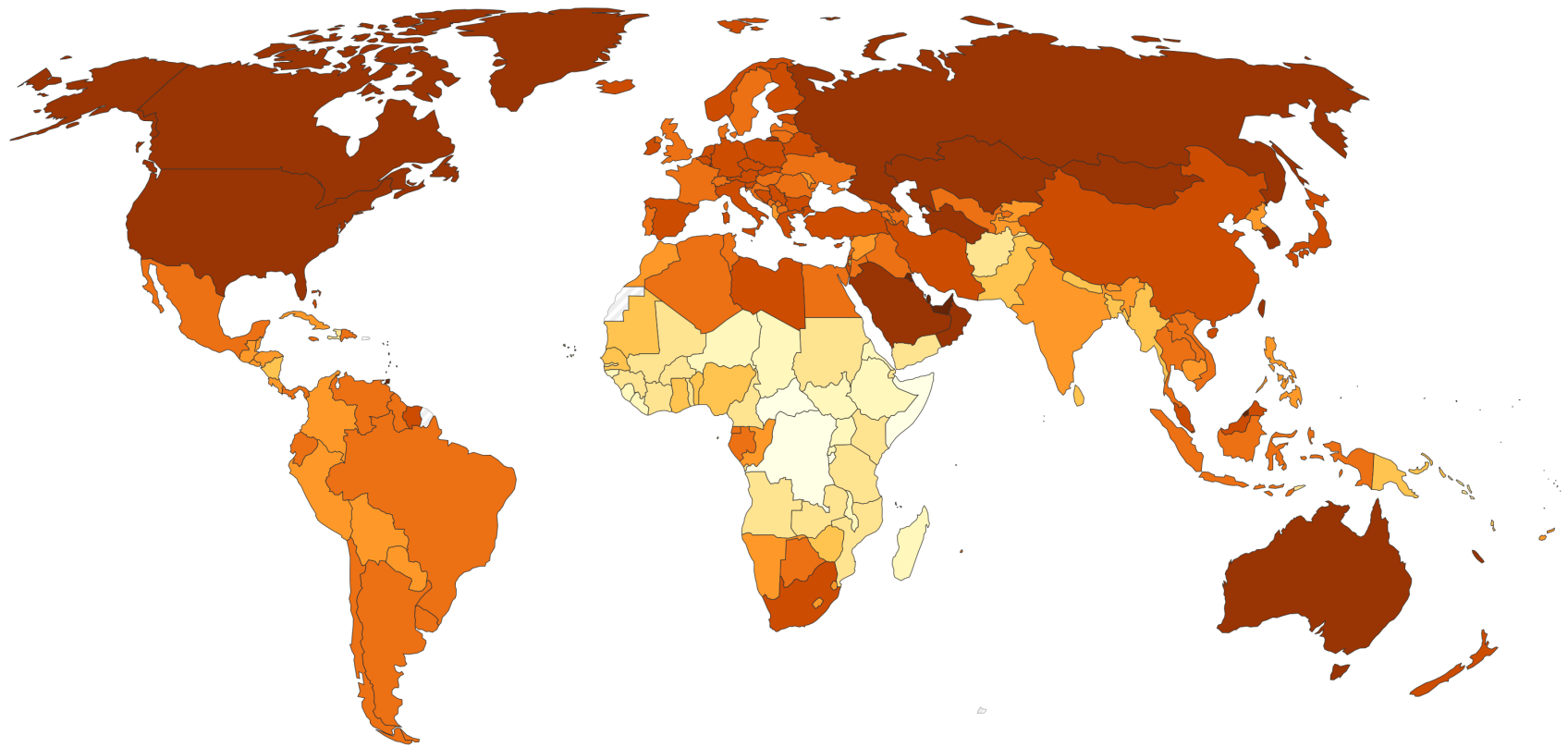
Note: Land-use change emissions can be negative.

OurWorldInData.org/co2-and-greenhouse-gas-emissions | CC BY



Per capita CO₂ emissions, 2022

Carbon dioxide (CO₂) emissions from fossil fuels and industry. Land-use change is not included.



Data source: Global Carbon Budget (2023); Population based on various sources (2023)
OurWorldInData.org/co2-and-greenhouse-gas-emissions | CC BY



Accessory

Even if Canada was among the best in the world, we are still an accessory:

CRIMINAL CODE OF CANADA

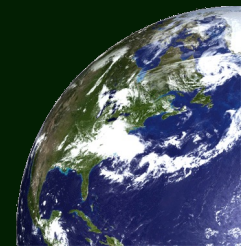
ALPHABETICAL LISTING

NUMERICAL LISTING

CATEGORICAL LISTING

section 23 Accessory after the fact

23. (1) An accessory after the fact to an offence is one who, knowing that a person has been a party to the offence, receives, comforts or assists that person for the purpose of enabling that person to escape.



Parties to an Offence

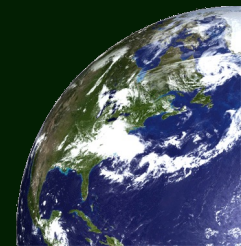
Section 21 and 22 of the *Criminal Code*

21(1) Everyone is party to an offence who

(a) actually commits it;

(b) does or omits to do anything for the purpose of aiding any person to commit it; or

(c) abets any person in committing it.

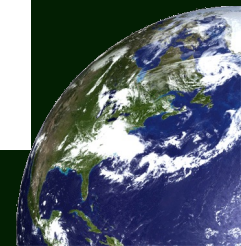


Disinformation #3: *free rider*

others will actively take advantage of those who lead on climate change mitigation.

This data is excerpted from [Banking on Climate Change: Fossil Fuel Finance Report Card 2017](#). Source: Rystad Energy AS, courtesy of [Oil Change International](#). Reserves data as of the end of 2016.

Rank	Company	Reserves (in millions of barrels)
1	Suncor Energy	10,935.35
2	Canadian Natural Resources (CNRL)	6,867.53
3	Cenovus Energy	5,613.97
4	ConocoPhillips	5,520.38
5	ExxonMobil	4,844.35
6	Shell	3,670.18
7	PetroChina	3,225.71
8	Athabasca Oil Corporation	3,162.50
9	MEG Energy	2,973.10
10	OSUM	2,776.40



Who is taking advantage?



#1 Suncor Energy reports 76% surge in fourth-quarter profit

<https://financialpost.com/commodities/energy/oil-gas/suncor-energy-profit-surges-fourth-quarter>

#2 Canadian Natural Resources beats Q4 profit

<https://www.reuters.com/business/energy/canadian-natural-resources-beats-fourth-quarter-profit-estimates-2024-02-29/>

#3 Canada's Cenovus Energy reported a more than seven-fold jump in quarterly profits

<https://www.reuters.com/business/energy/cenovus-profit-up-seven-fold-crude-price-rally-triples-dividend-2022-04-27/>

#9 MEG Energy - Record funds from operating activities - double 2021

<https://www.newswire.ca/news-releases/meg-energy-announces-record-first-quarter-operational-and-financial-results-and-updated-capital-allocation-strategy-885167606.html>

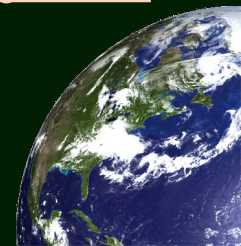


Exploitation: Oil Giants Set Record Profits in 2021

- Chevron called 2021 one of its “**most successful years ever.**”
- Shell CEO Ben Van Beurden called 2021 a “momentous year.”
- Coterra CEO Tom Jordan called the high gas prices “good.”
- Equinor CEO Anders Opedal bragged to investors about “capturing value from high prices.”
- Pioneer Natural Resources called 2021 one of the best years for shareholder returns in the shale industry in the past decade.
- Marathon Oil called doubling down on share buybacks the “clear thing for us to do.”

Big Oil continued the trend in 2022 with nearly \$80 billion in shareholder returns announced.

https://www.commondreams.org/news/2022/03/15/biggest-oil-giants-made-eye-popping-205-billion-profits-2021-report?vgo_ee=FyRRi97oes4s4tPlsoaKp%2FJhPr2WiatAucvL6cjGork%3D



<https://skepticalscience.com/argument.php>



Home Arguments Software Resources Comments The Consensus Project Translations About Support

Search...

MOST USED Climate Myths
and what the science really says...

- Climate's changed before
- It's the sun
- It's not bad
- There is no consensus
- It's cooling
- Models are unreliable
- Temp record is unreliable
- Animals and plants can adapt
- It hasn't warmed since 1998
- Antarctica is gaining ice
- View All Arguments...

Global Warming & Climate Change Myths

Here is a summary of global warming and climate change myths, sorted by recent popularity vs what science says. Click the response for a more detailed response. You can also view them sorted by taxonomy, by popularity, in a print-friendly version, with short URLs or with fixed numbers you can use for permanent references.

Climate Myth	vs	What the Science Says
1 "Climate's changed before"		Climate reacts to whatever forces it to change at the time; humans are now the dominant forcing.
2 "It's the sun"		In the last 35 years of global warming, sun and climate have been going in opposite directions
3 "It's not bad"		Negative impacts of global warming on agriculture, health & environment far outweigh any positives.
4 "There is no consensus"		97% of climate experts agree humans are causing global warming.
5 "It's cooling"		All the indicators show that global warming is still happening.
6 "Models are unreliable"		Models successfully reproduce temperatures since 1900 globally, by land, in the air and the ocean.
7 "Temp record is unreliable"		The warming trend is the same in rural and urban areas, measured by thermometers and satellites.
8 "Animals and plants can adapt"		Global warming will cause mass extinctions of species that cannot adapt on short time scales.
9 "It hasn't warmed since 1998"		Every part of the Earth's climate system has continued warming since 1998, with 2015 shattering temperature records.
10 "Antarctica is gaining ice"		Satellites measure Antarctica losing land ice at an accelerating rate.

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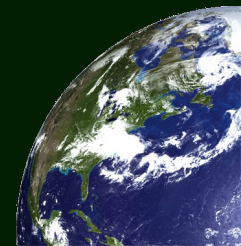
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the consensus project **TREND CALCULATOR**
PRUDENT PATH **Lessons from Predictions**
OA not OK **CLIMATE MYTHS FROM POLITICIANS**
Interactive History of Climate Science **MISINFORMATION BY SOURCE**



Winner of the 2011 Australian Museum Eureka Prize Advancement of climate change knowledge



Climate Science CROWD SOURCING



Federal Clean Electricity Regulations 1

January 1, 2035

Only units that export more energy than they use in a given calendar year would be subject to the CER's performance standard for that year.

30 tonnes of CO₂ per Gigawatt hour of electricity generated (“30 t/GWh”) as measured on an annual average basis.

The best performing natural gas plants in Canada currently emit in the range of 350 to 420 t/GWh, and conventional coal units emit about 1,000 t/GWh.

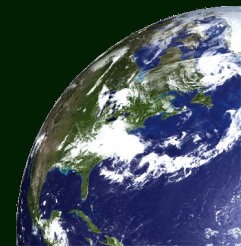


Federal Clean Electricity Regulations 2

Allow the use of fossil fuels, barring coal, on a limited basis, such as for meeting additional generation requirements during periods of peak power demand.

For a maximum of seven years (or December 31, 2039, whichever is first), a unit using CCS may create an annual average of 40 t/GWh if it can demonstrate that the unit is capable of operating at 30 t/GWh.

20-year End of Prescribed Life provision (20 years after commissioning) also helps minimize stranded assets



Hysteria out of Alberta



“Tell the Feds Campaign”

Alberta Government’s \$8 million propaganda campaign against renewable energy. – 350.org

Globe & Mail

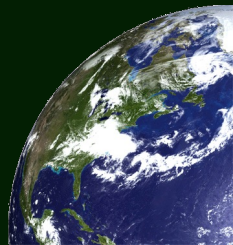
Alberta’s new ‘Tell the Feds’ ads are a naked ploy to unyieldingly serve Big Oil

Globe & Mail

\$8M Alberta advertising campaign against federal net-zero rules rolls out in 4 provinces

Calgary Herald

Alberta needs to stop false advertising and support real solutions



Contrary to the Facts

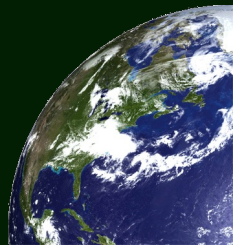


Conservation Council of New Brunswick Ad Campaign Counters Alberta Government's Misinformation on Clean Electricity Regulations

A clean transition is, and has been for at least a decade, good for the economy — even in earlier stages of its development

<https://www.corporateknights.com/energy/renewables-driving-economic-growth-despite-fossil-fuel-subsidies/>

<https://environmentaldefence.ca/2024/02/29/the-truth-behind-the-numbers-what-is-premier-smith-hiding/>

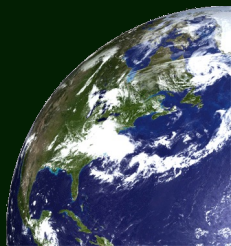


Premier Smith



Premier Smith is refusing to release the report she used to develop her assertions.

“This will cost Alberta hundreds of thousands of jobs.”



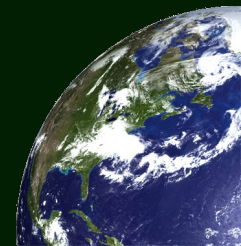
Renewables Create More Jobs

Blue Green Canada report:

...the oil and gas sector is a relatively low job-creating industry compared to investments in renewables.

For every \$1 million invested, oil and gas creates 2 jobs.

Clean energy (wind, solar, hydro, and biomass) creates 15.




Workers in Clean Energy

Overall, the energy sector employed more than 65 million people in 2019, roughly 2% of the entire global work force

The majority of energy workers are now employed in clean energy jobs

A new report by the International Energy Agency found more than half of the 65 million workers in the global energy sector are employed by clean energy companies..

<https://www.corporateknights.com/energy/the-majority-of-energy-workers-are-now-working-in-clean-energy-jobs/>



Canada's Employment August 2023

Trade	2,841,000
Health care and social assistance	2,313,000
Manufacturing	1,585,000
Accommodation and food services	1,311,000
Public administration	1,119,000
Construction	1,219,000
Professional, scientific and technical	1,220,008
Education services	999,000
Administrative and support	851,066
Transportation and warehousing	824,000
Finance and insurance	836,306
Information and culture	363,668
Arts, entertainment and recreation	355,719
Clean Energy (2017)	298,000
Real estate, rental, and leasing	295,175
Oil and Gas Support for Extraction	57,965
Oil and Gas Extraction	54,470



Statistics Canada. Table 14-10-0202-01 Employment by industry, annual <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410020201>

Statistics Canada. Table 14-10-0201-02 Employment by industry, monthly, unadjusted for seasonality, energy

Statistics Canada. Table 36-10-0489-01 Labour statistics consistent with the System of National Accounts (SNA), by job category and industry <http://cleanenergycanada.org/report/missing-the-bigger-picture/>



What Kind of Jobs?



BUSINESS & OPERATIONS SUPPORT

(e.g. admin assistants,
accountants, communications,
safety and HR professionals)



ENGINEERS

(e.g. chemical, civil,
computer, electrical,
environmental,
mechanical & pipeline)



FIELD WORKERS

(e.g. rig workers,
pipeline transportation,
seismic labourers, swampers)



GEOSCIENCES PROFESSIONALS

(e.g. geologists
& geophysicists)



MARINE & NAUTICAL SERVICES

(e.g. marine officers
& crew, offshore
specialists)



SCIENTISTS & ENVIRONMENTAL ADVISORS

(e.g. biologists,
chemists & environmental
consultants)



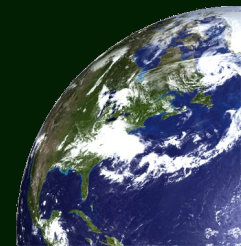
OPERATORS

(e.g. plant operators,
directional driller,
drilling operator,
heavy equipment
operator)



TRADESPEOPLE

(e.g. carpenters,
construction workers,
electricians, machinists,
pipefitters & welders)



Renewables – Safer Jobs

Global death rate of per trillion kWhr

Coal	100,000 deaths
Oil	36,000 deaths
Natural Gas	4,000 deaths
Solar	440 deaths
Wind	150 deaths

<http://www.forbes.com/sites/jamesconca/2012/06/10/energys-deathprint-a-price-always-paid/#18ef75c349d2>



Canada's Fossil Fuel Industry

From the year 2000 onwards, its share in the total economy averaged about 5% of Canadian and 21% of Albertan GDP.

Its share of jobs was 0.4% and 2.9% in Canada and Alberta, respectively.

<https://www150.statcan.gc.ca/n1/pub/45-28-0001/2020001/article/00045-eng.htm>

Canada GDP = 2.4t in 2022

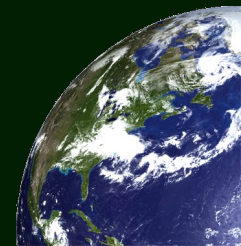
<https://tradingeconomics.com/canada/gdp>

5% of Canada's GDP of \$2.4t = 120b

- \$4.8b in subsidies = 4.8%

Clean energy 3 %

<http://cleanenergycanada.org/report/missing-the-bigger-picture/>



Alberta Political Donors 2020

1. Encana: \$409,829.77 oil and gas
2. Cenovus: \$283,198 integrated oil
3. Suncor: \$276,660.50 second biggest oil and gas company
4. PCL Construction: \$269,475 construction company
5. TransCanada: \$255,212.45 Keystone pipeline
6. Telus: \$237,387.50 sole-source government contracts
7. ATCO Group: \$235,961.50 energy and construction
8. Enbridge: \$235,586.25 largest oil and gas company in the province
9. Qualico: \$221,588.75 construction company
10. TransAlta: \$219,932.5 electricity power generator

