

How Canada's largest desert can save the country – and the planet.

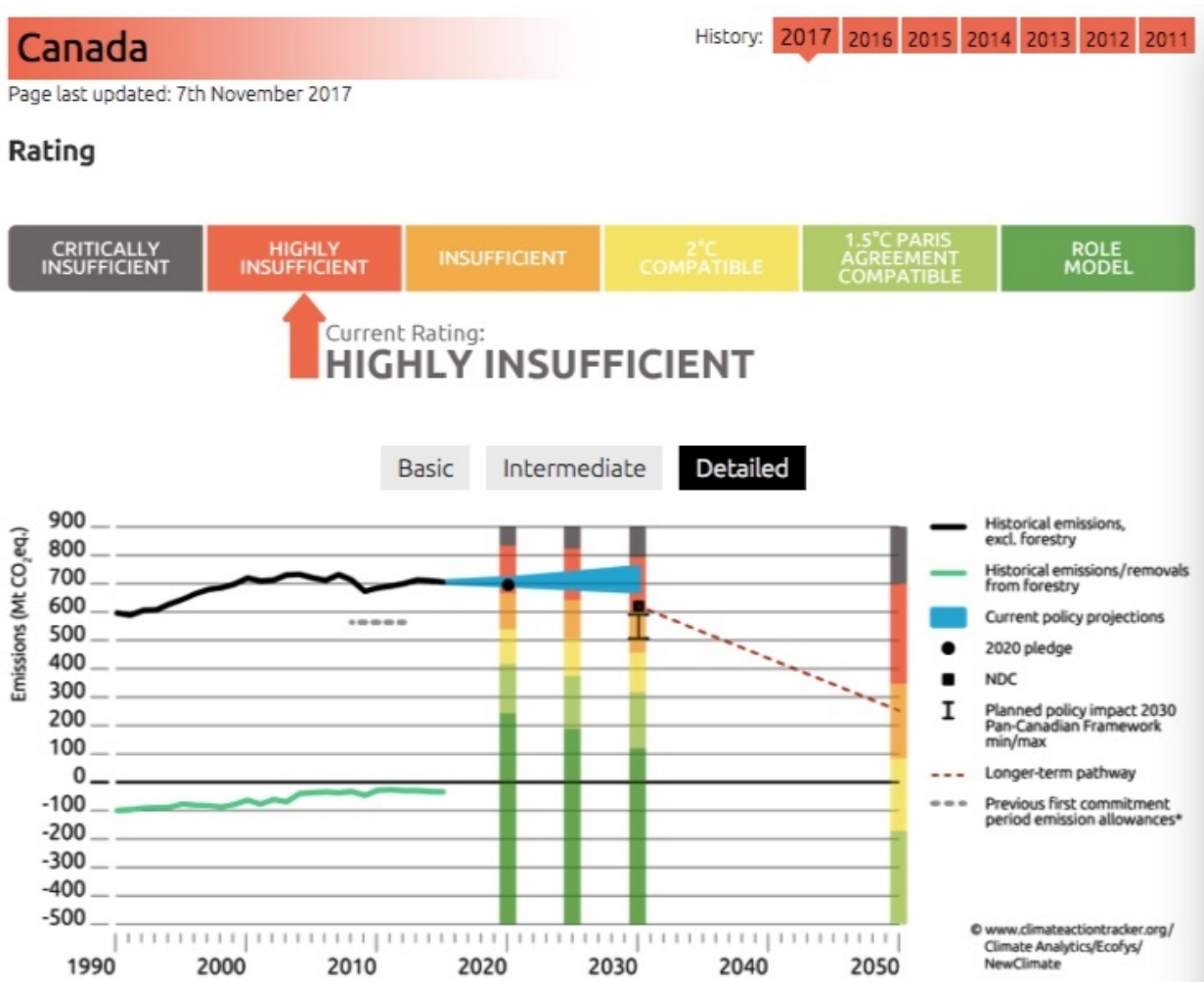
The following is a series of Tweets posted by @ChrisAikman2 to Twitter on April 11, 2018.

1. Canada is facing failure in our emissions reduction targets.

Concurrently, a jurisdictional dispute is threatening the economies of our western provinces.

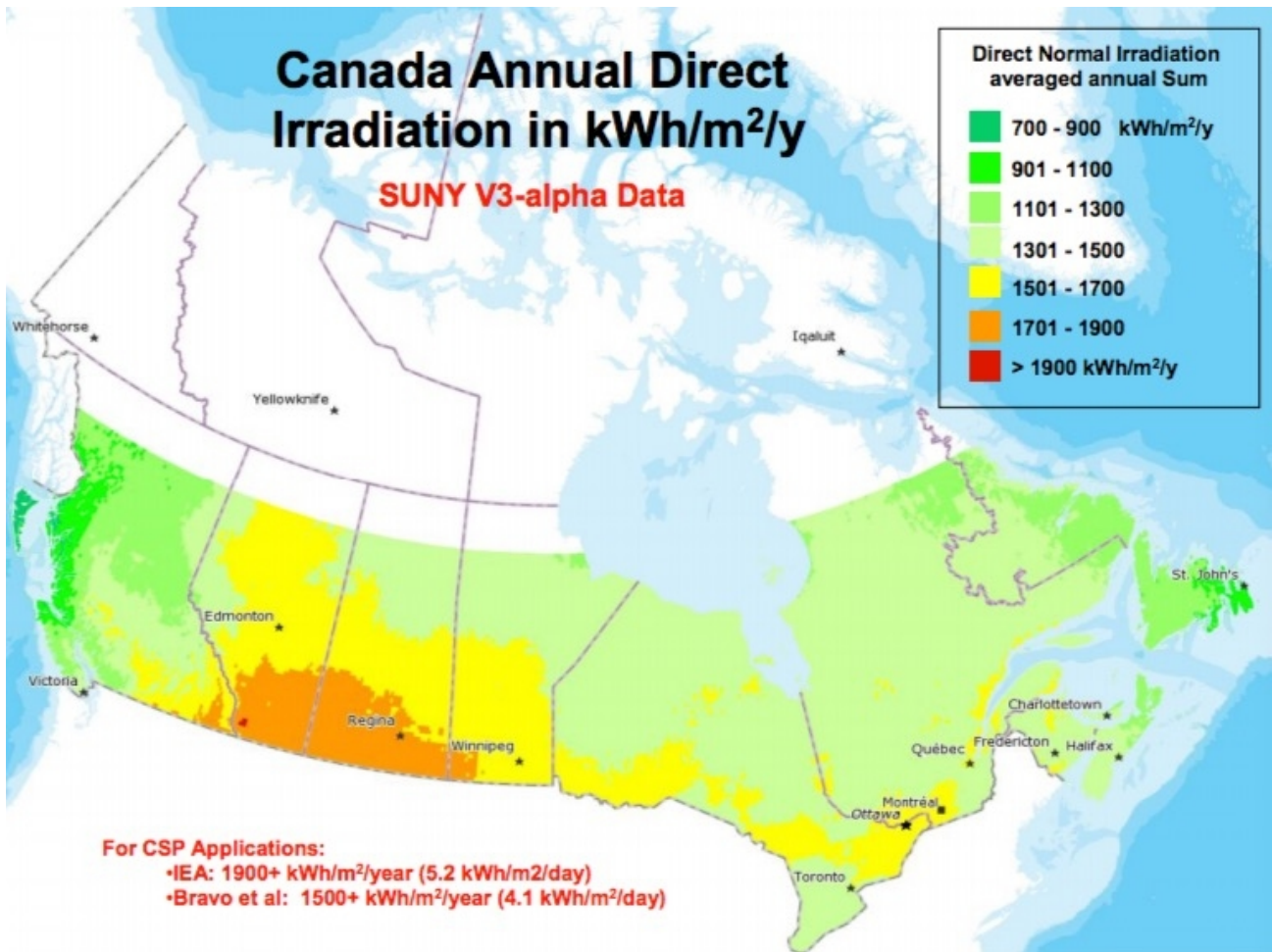
@JustinTrudeau and @ec_minister, this thread offers a simple solution, which will allow us to surpass our climate goals.

(<http://climateactiontracker.org/countries/canada.html>)



2. All of southern Alberta, Saskatchewan & part of Manitoba offer the best potential for solar energy in Canada. The most uniform month-by-month solar irradiation is located around Suffield & Medicine Hat, AB which have only minor peaking during summer.

<https://innotechalberta.ca/Portals/0/documents/DNI.pdf>



3. Canadian Forces Base Suffield is the largest Canadian Forces base, & the largest military training base in the Commonwealth. It was initiated for chemical warfare testing in WWII. Its principal use now is for British Army training exercises.

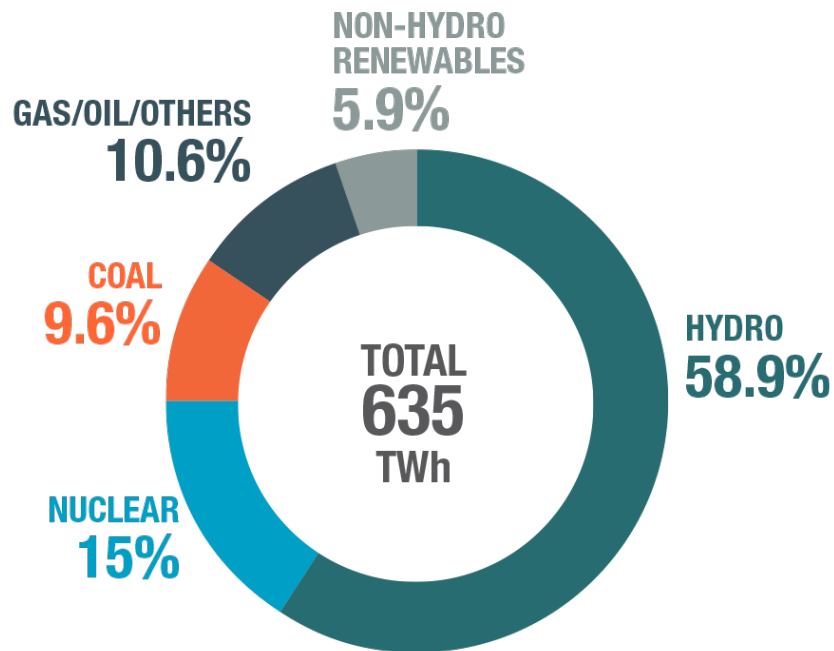
https://en.wikipedia.org/wiki/British_Army_Training_Unit_Suffield



4. CFB Suffield is basically uninhabited semi-desert non-agricultural land. If covered with solarPV panels, it is capable of generating about 680 Twh (terawatt-hours) of electricity per year. For comparison, Canada generated 379 Twh of hydroelectricity in 2014, & produced 635 Twh total electricity in 2015.

<http://www.nrcan.gc.ca/energy/renewable-electricity/7295#key>

GENERATION BY SOURCE, 2015



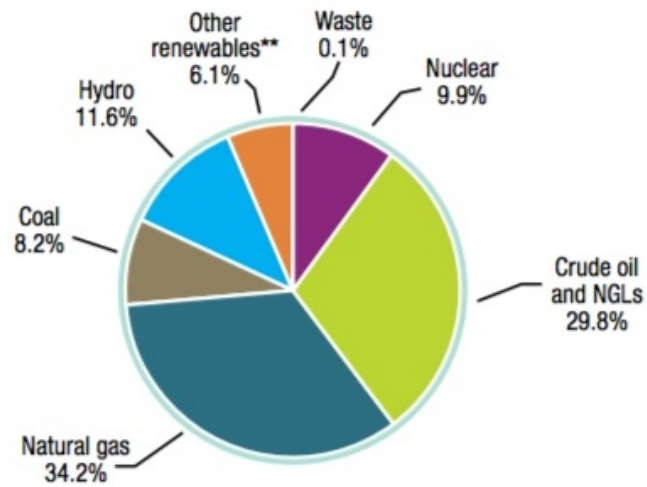
5. Of Canada's 635 Twh of electricity generated in 2015, net exports were 64 Twh, leaving 571 Twh of electrical consumption within Canada. With this one single solarPV development on DND land at Suffield, Canada could double it's electrical generation within a few years.

<https://www.nrcan.gc.ca/energy/facts/electricity/20068>

6. We cannot reduce our CO2 emissions without decarbonizing energy for transportation and building heating. Doubling electrical generation with solarPV makes it easy to do that.

https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/energy/pdf/EnergyFactBook_2016_17_En.pdf

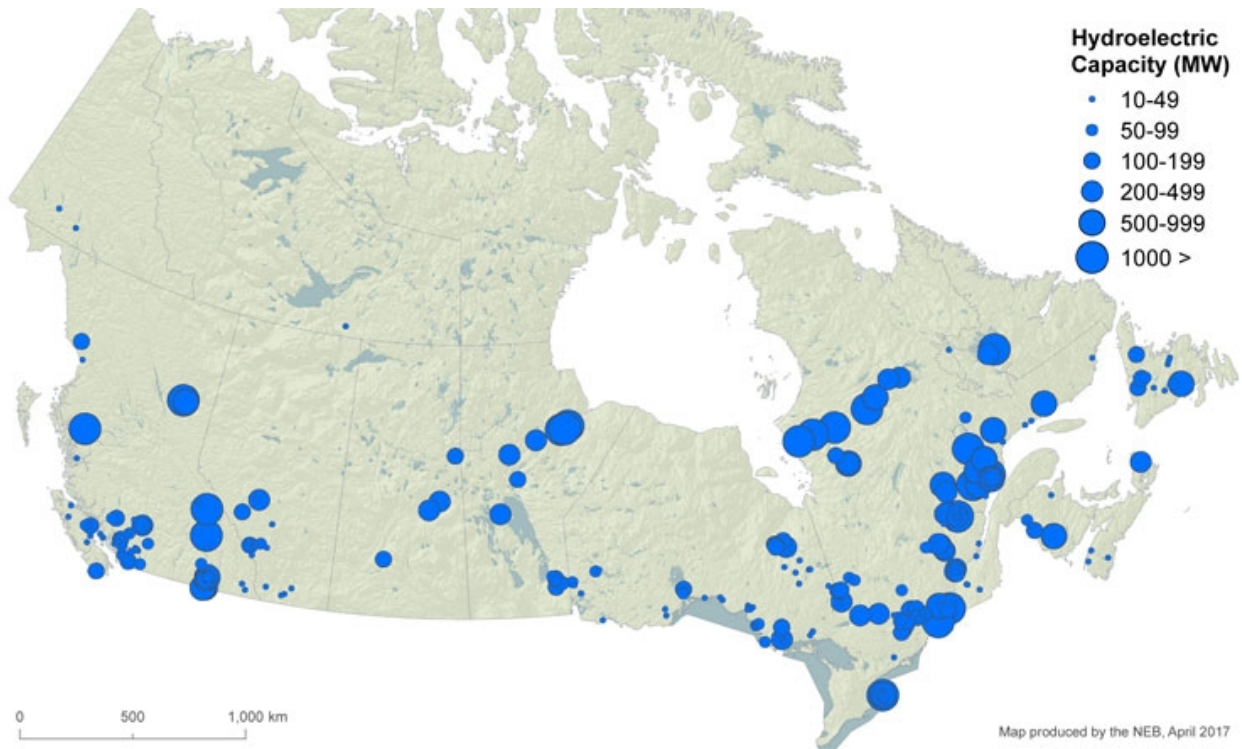
Total primary energy supply*, by source, 2014



Renewable energy sources made up 17.7% of Canada's TPES in 2014.

7. Of course, solarPV in Canada need not, & should not, be located on one single site. It should be widely distributed, and grid-linked to hydro generation stations across Canada for load balancing.

https://www.neb-one.gc.ca/nrg/sttstc/lctrct/rprt/2017cnddptnrnwblpwr/hdr-eng.html?_ga=2.111111111.111111111.111111111.111111111



8. We have a timely opportunity to transition rapidly to sustainable energy. The urgency has never been greater.



The article, 'World Scientists' Warning to Humanity: A Second Notice' has been co-signed by 20,000 scientists around the world.

<https://www.ecowatch.com/warning-to-humanity-scientists-2544973158.html>

9. This one block of semi-desert Crown land, smaller than the oil sands patch, could double Canada's electrical power production & breeze us on the way to our climate targets.



So - let's put our solutions out there. For my part, I hope to have solar panels on my home turf within a few years. My neighbour just installed hers.

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