

REMEMBER: All the energy human beings consume in one year comes to the earth in **two minutes** from the sun!



My name is Elizabeth Woodworth.
I was Head Librarian for the BC Ministry
of Health for 25 years.



I presented an advance copy of our book to COP23, Bonn, in November 2017



DR. PETER D. CARTER

is founder of the Climate Emergency Institute. He served as an expert reviewer for the IPCC's fifth climate change assessment in 2014.



ELIZABETH WOODWORTH

is a writer on climate change science and activism, co-author of *Unprecedented Climate Mobilization*, and co-producer of the COP21 video "A Climate Revolution For All."

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—from the Foreword by **DR. JAMES E. HANSEN**

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Appeals Counsel, International Criminal Court

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—Dr. Andrew Y. Clikson

Earth and Paleoclimate Scientist
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"An indispensable read for the citizens and policy makers who will fight for civilization's endurance and advancement."

—Lawrence Torcello

Associate Professor of Philosophy
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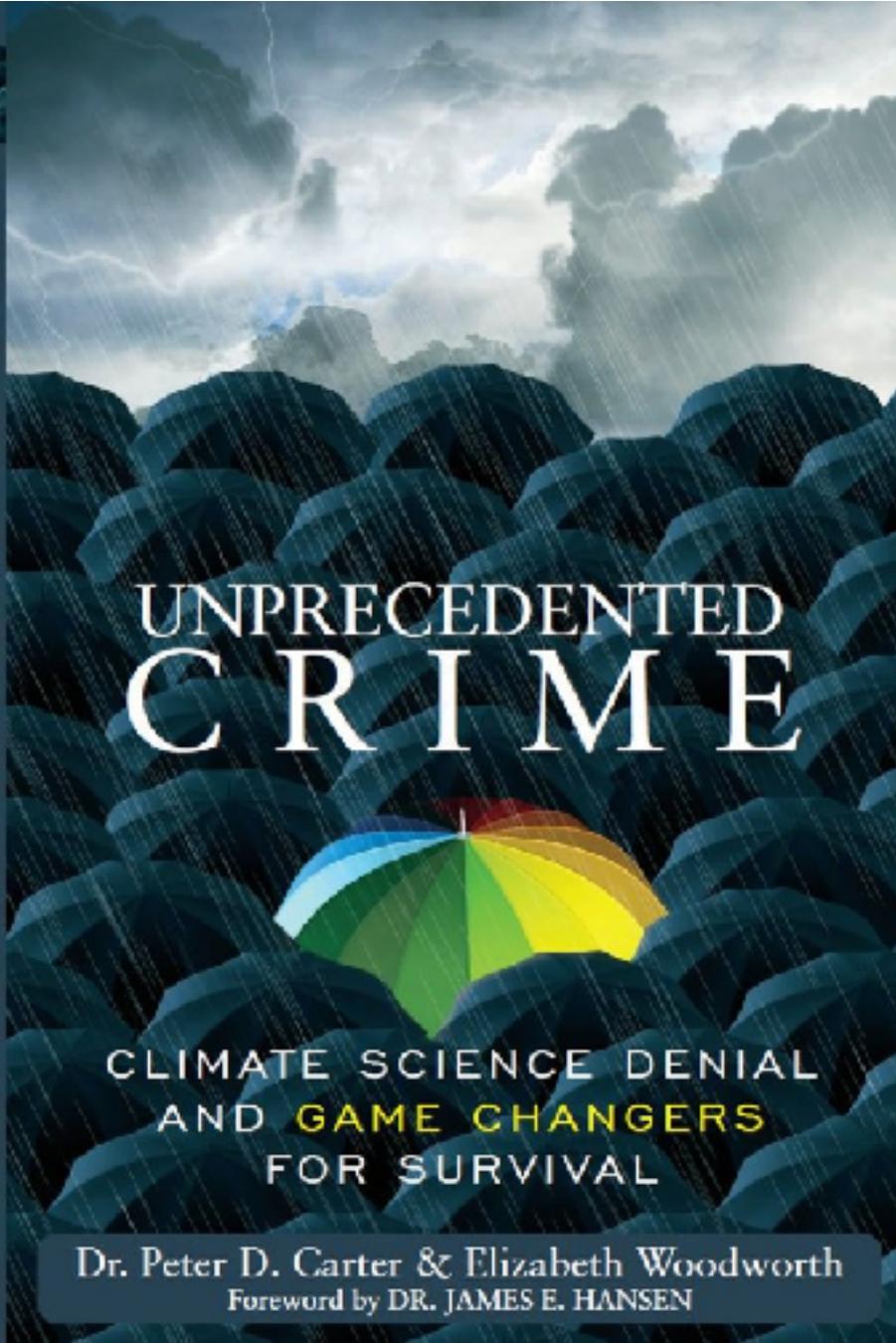
Professor, Sustainability Ethics and Law
Widener University Commonwealth Law School



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UNPRECEDENTED CRIME
CLIMATE SCIENCE DENIAL AND GAME CHANGERS FOR SURVIVAL



UNPRECEDENTED CRIME

CLIMATE SCIENCE DENIAL
AND **GAME CHANGERS**
FOR SURVIVAL

Dr. Peter D. Carter & Elizabeth Woodworth
Foreword by **DR. JAMES E. HANSEN**



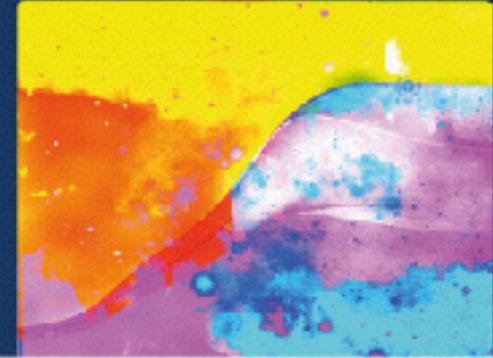


Dr. James Hansen wrote the Foreword.

- Worked at NASA, 1981-2013
- **1988**: Famously warned Congress of the “greenhouse effect” and **the coming climate emergency.**

Global Warming of 1.5°C

An IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas, adaptation pathways, to the extent of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty



Since then, in October 8, 2018

UN WARNS: We have 12 years to limit climate change catastrophe to 1.5°C above pre-industrial temperature

Requires *“rapid, far-reaching and unprecedented changes in all aspects of society”*

Based on: 6,000 scientific references

Written by 91 authors and editors from 40 countries

We are at 1.1 °C now.
Houston Texas flooding, Hurricane Harvey
August 2017



Canada has vast reserves of renewable energy:

Arctic **wind** power

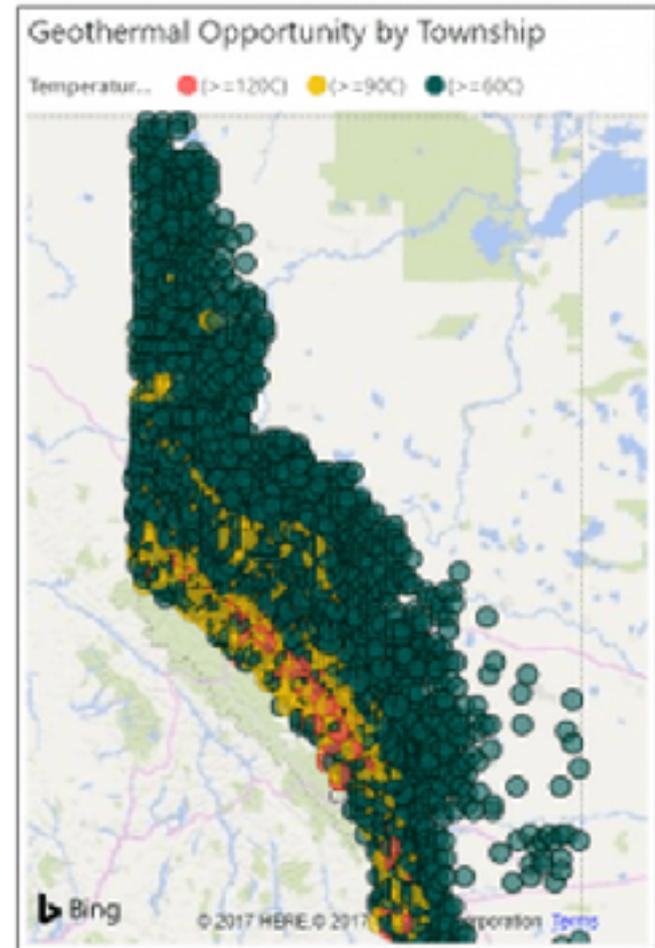
Maritime **tidal** power

Prairie **sun**

Geothermal energy deep inside 60,000 old

Alberta oil wells

Canada has **no major plan** to move from tar sands oil to clean energy



Meanwhile, **unreported by CDN media**, Europe and China are developing:

- Govt renewable energy programs
- 24-7 flow battery storage
- Smart wind & solar power
- grids for global interconnection
- Floating solar farms on lakes (efficient)



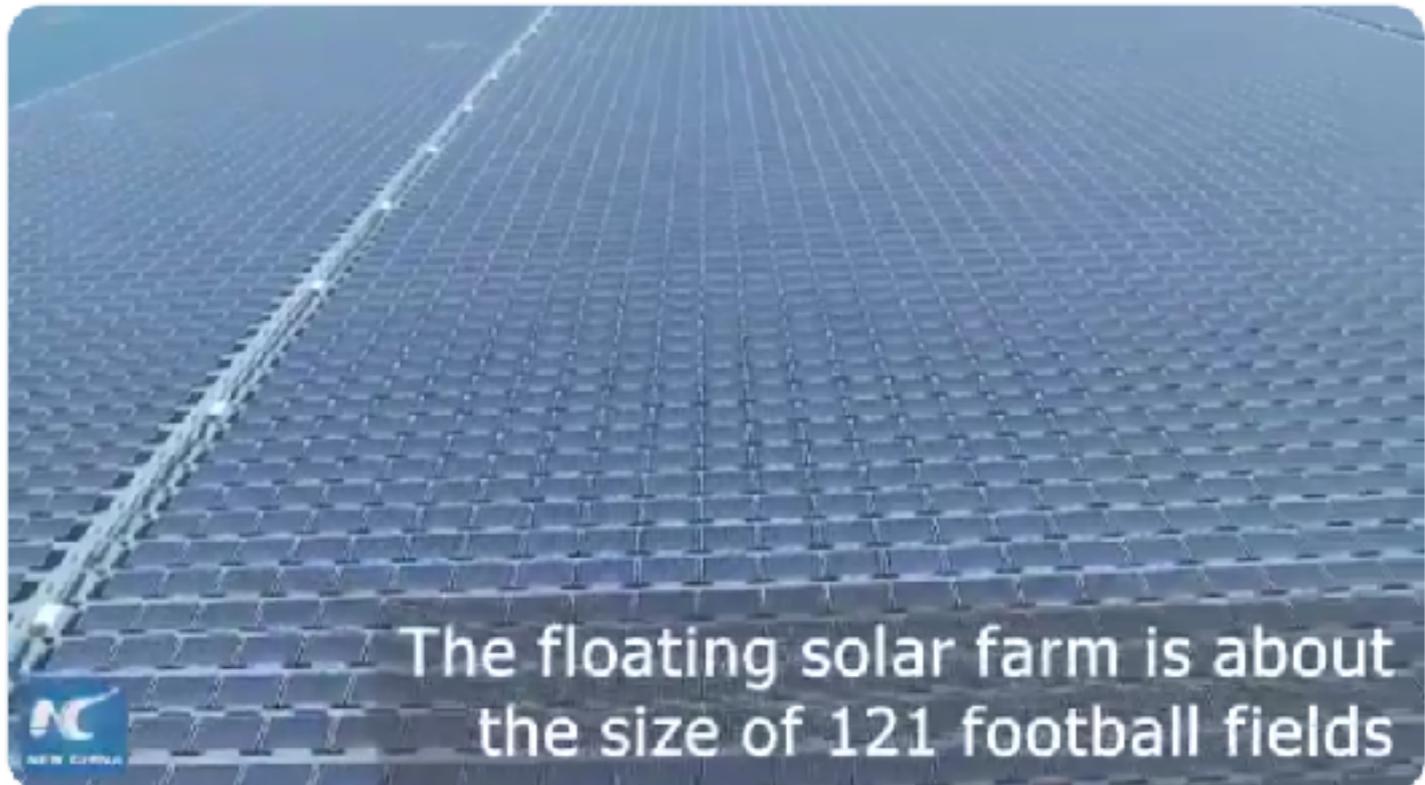


Mike Hudema  @MikeHudema · 2h

China just turned on the world's largest floating #solar farm. Its comprised of over 165,000 #solarpanels and stretches over 121 football fields.

We have the solutions, let's implement them. #GreenNewDeal

#ActOnClimate #climate #energy #tech #go100re

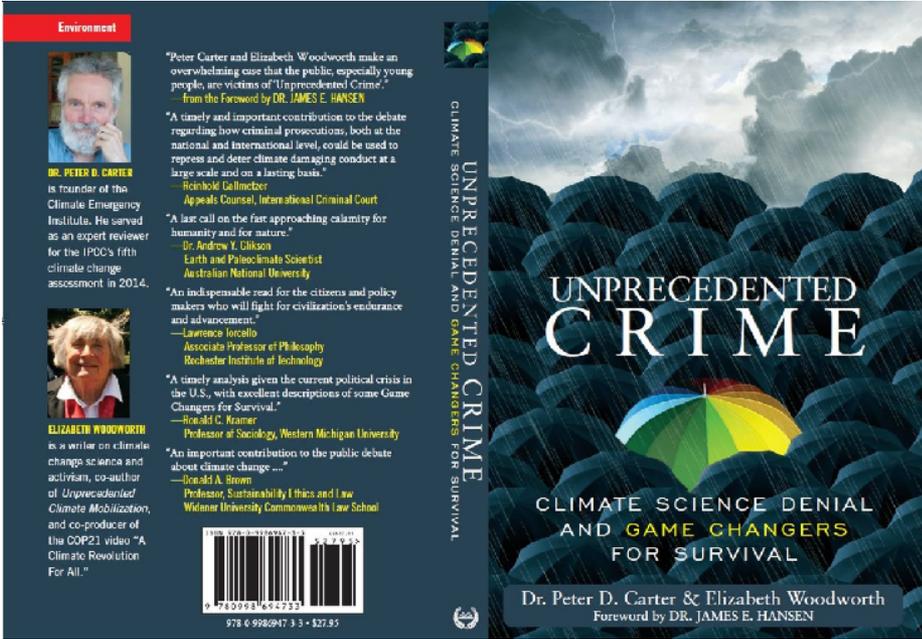


The floating solar farm is about the size of 121 football fields



Why are Canada and the US building pipelines instead?

“Unprecedented Crime” exposes the forces behind the scenes



Environment



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CLIMATE SCIENCE DENIAL AND GAME CHANGERS FOR SURVIVAL
UNPRECEDENTED CRIME



Dr. Peter D. Carter & Elizabeth Woodworth
Foreword by DR. JAMES E. HANSEN

This book views this 30-year climate crisis as a *crime* – with many participants

Seen as a crime, new solutions can emerge to replace “business-as-usual”

Most* of this book is about these (often unreported) solutions*

2015, 2016, 2017 AND 2018
UNPRECEDENTED EXTREME WEATHER
EMERGENCIES
AROUND THE WORLD

Chile declares a state of emergency as wildfires scorch 50,000 hectares threatening towns, factories, vineyards. Near Santiago, January 2017
REUTERS/Javier Torres/AtonChile



Portugal, JUNE 2017: Strong winds and 40 °C heat spread this wildfire out of control for many hours



Portugal, JUNE 2017: People fleeing the fires were trapped and killed inside their cars



Even in **Greenland**, a large wild grass-fire burned for two weeks in late July 2017, only 40 miles from the ice sheet. The soot turned the ice sheet black, causing faster melt.



Credit: NASA

The Paradise Camp Fire, California,
November 2018, consumed 150,000
acres and 16,838 buildings

San Francisco Chronicle

INSIDE CALIFORNIA'S WORST WILDFIRE

The unprecedented devastation of the Camp Fire

Nov. 13, 2018 6:00 a.m.

**WHY IS THIS
EXTREME WEATHER
UNPRECEDENTED CRIME?**

All National Governments Have Been Informed of the Climate Science Consensus Since 1990

- The Intergovernmental Panel on Climate Change (IPCC) produced its First Assessment in 1990 - then others in 1996, 2001, 2007, 2014, and 2018
- All govts scrutinize the science reports line-by-line and ******must agree on the final report before the Assessments are published.******

IPCC Assessments are:

- understated
- endorsed by all national governments
- virtually unassailable in their findings
- *consistent in finding that *human-sourced* greenhouse gas emissions cause global warming*



**Governments have known since 1990 that
business-as-usual would cause
a devastating future of 4° C:**

(IPCC Working Group 1, *Summary for Policy Makers*, 1990, p. xi.)

Many foreseen effects of 4 °C are already happening now, at 1.1 °C:

- the **inundation of coastal cities**;
- increasing **risks for food production** potentially leading to higher malnutrition rates;
- many dry regions becoming dryer and wet regions wetter;
- unprecedented **heat waves** in many regions, especially in the tropics;
- substantially exacerbated **water scarcity** in many regions;
- increased frequency of **high-intensity tropical cyclones**;
- irreversible **loss of biodiversity**, including **coral reef systems**.

Yet governments *choose to continue to*

- approve **pipelines**
- grant enormous **fossil fuel subsidies**
- support **business-as-usual** energy policies



**SCIENCE BETRAYED:
THE CRIME OF CLIMATE SCIENCE DENIAL**



Definitions

Disinformation is “false information *deliberately* and often covertly spread in order to influence public opinion or obscure the truth.”

A crime against humanity is “a *deliberate* act, typically as part of a systematic campaign that causes human suffering or death on a large scale.”

Does Climate Change “cause human suffering or death on a large scale?”

An independent 2012 DARA report commissioned by 20 countries

- linked **400,000 deaths** worldwide to climate change each year
- projected deaths to increase to over **600,000** per year by 2030



We regard the **willful, methodical blocking of vital survival information** as an unprecedented crime against life on the planet

Has blocking climate survival information been a willful, methodical act?

**YOU
DECIDE**



The American Petroleum Institute's 1998 (leaked) Disinformation Campaign wrote:

“Victory Will Be Achieved When”

- media and average citizens understand that **climate science is uncertain**
- media gives **equal coverage** to climate science and viewpoints that challenge it
- **those promoting Kyoto “appear to be out of touch with reality”**

The Union of Concerned Scientists' 2016 report on Climate Deception

- **none of 8 major fossil fuel companies “has made a clean break from **disinformation on climate science** and **policy**”**
- **the companies were ArchCoal, BP, Chevron, ConocoPhillips, Consol Energy, ExxonMobil, Peabody, and Shell**

STATE CRIME AGAINST THE GLOBAL PUBLIC TRUST



The Kyoto Protocol (1997) commits industrialized countries to set targets that will reduce greenhouse gas emissions:

carbon dioxide

methane

nitrous oxide

sulfur hexafluoride

hydrofluorocarbons (HFCs)

How are they performing?

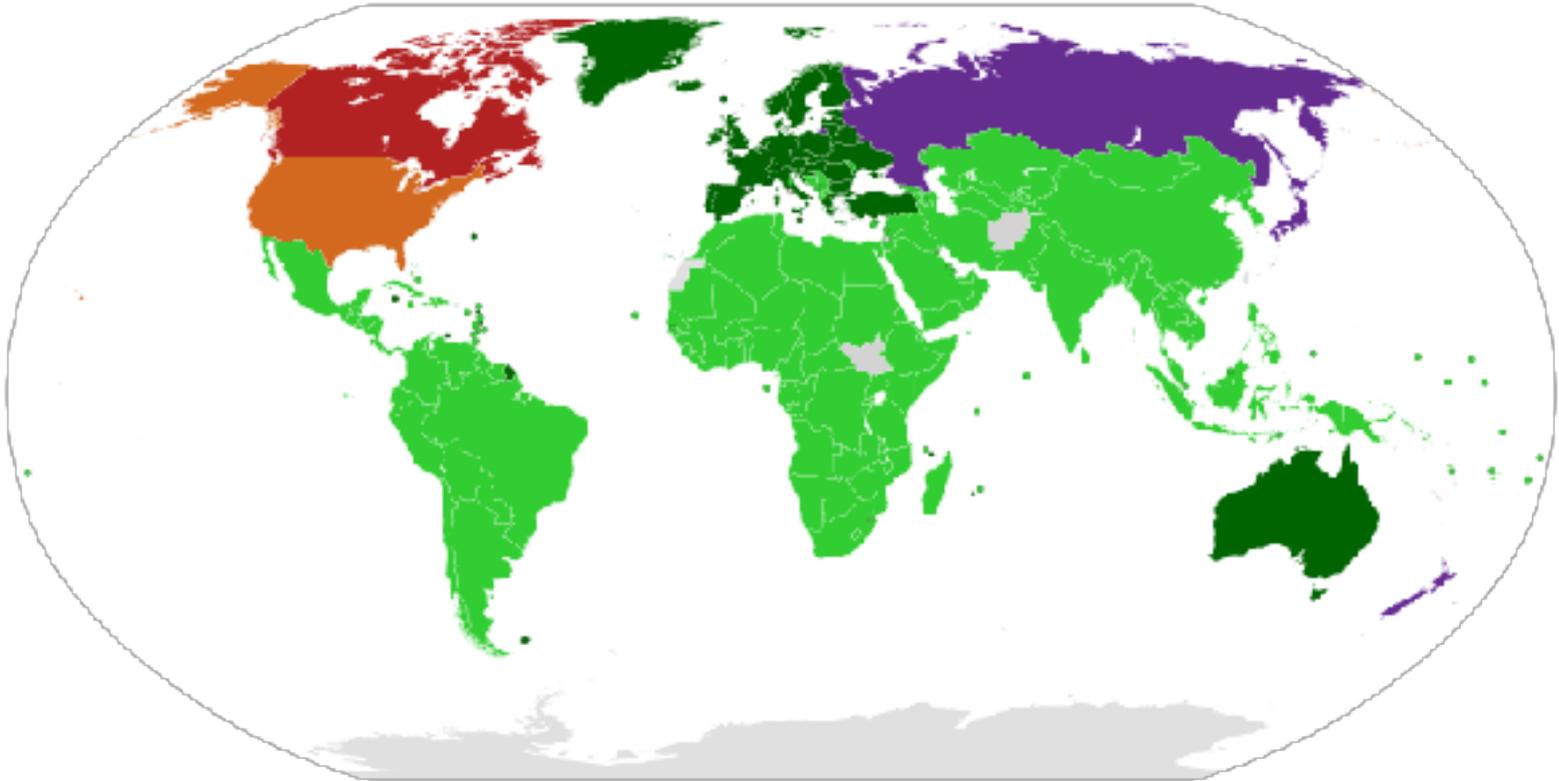
State Blocking of Climate Action, Bali, 2007

- at Bali, the Bush Administration insisted on no specific CO2 reduction targets
- Sociology Prof. Ronald Kramer views failure to regulate GHG emissions as **“state-corporate criminality.”**

The Copenhagen Conference Failure, 2009

- Greenpeace UK said: “The City of Copenhagen is a crime scene tonight, with the guilty men and women fleeing to the airport. There are no targets for carbon cuts and no agreement on a legally binding treaty.”
- Professor of Criminology Rob White called this “the fusion of state and corporate interests to the detriment of the majority.”

At the Doha 2012 summit, Kyoto barely survived because Canada, Russia, New Zealand, and Japan had opted out (the US had never ratified it), with the remaining countries accounting for only 15% of GHG emissions.



Govt. failure to reduce CO2 emissions
+
Massive govt. fossil fuel subsidies

- have promoted climate disruption worldwide
- have caused water shortages, strife, migration and death

As government policies, they may qualify as crimes against humanity

MEDIA COLLUSION



“The news must be comprehensive and proportional to the significance of events.”

Kovach and Rosenstiel,
*The Elements of
Journalism (2014)*

- *Media Matters* tracks the **combined annual minutes of climate coverage by US networks** ABC, NBC, CBS, and Fox News networks



- In 2015, the year of the Paris climate summit, it was **2 hours, 26 minutes**

The Anti-Climate US Election “Commission” 2016



- 2016 US Presidential debates were held during record temperatures in 34 states
- 64% of Americans were worried about global warming
- In 6 hours of Clinton/Trump debate, **NOT ONE question was asked on climate change**
- The US Commission on Presidential debates is *not an official commission*
- It is a private organization run by the Republicans and Democrats, **funded by corporations**, and exempt from federal tax

Media Fails to Report Major Game-Changer Hailed by Ban-Ki moon

- 2015: Momentous founding of *The Subnational Global Climate Leadership* (SGCL) to keep warming below 2° Celsius up to 2050
- *signed or endorsed by 205 jurisdictions from 43 countries on six continents*
- represents more than **1.2 billion people** and **\$28.8 trillion in GDP** –16% of the global population and 39% of the global economy
- the SGCL ***has not been reported once*** in the US or Canadian mainstream media

Crisis Call from Pope Francis Suppressed by US/CDN Media

- September 2016: Pope Francis cried out to protect “those least responsible for climate change, *a sin against God*”
- reported by only *one* US newspaper, *The Washington Times*
- a willful *media blocking of public knowledge* that would change business-as-usual

Media silent April 9, 2019 when valve turner Ken Ward was allowed to present necessity defense

Published on Tuesday, April 09, 2019 by Common Dreams

Judge Rules Valve Turner Ken Ward Must Be Allowed to Present 'Necessity Defense' for Climate Action

"I am very heartened that the Appeals Court recognized the validity of a necessity defense, in light of abundant evidence that the climate crisis is at a tipping point."

by Jake Johnson, staff writer



5 Comments



March 27, 2018: US/Cdn Media Silent When Boston Judge Forgave Civil Disobedience

- Reported immediately by Britain's *Independent*
- In the USA, only by *Vice News* (March 31st), and *The New Yorker* (April 3)

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Anti-pipeline campaigners found not guilty by judge because 'protest against climate change crisis' was legal 'necessity'



BUT CDM/USA headlines screamed when MP's Elizabeth May and Kennedy Stewart were

- **arrested** March 23, 2018 for same action on Burnaby Mountain
- **charged** with criminal contempt of court May 14, facing possible jail time

This contrast is all about government-and-media supported business interests.



The Oil-Backed Canadian Media

- How often do we hear the words “heat pump” on the Canadian media?
(Check Google News)
- Has the Canadian media ever reported the amazing geothermal potential in 60,000 existing oil & gas wells in Alberta?
- How often do we hear about advanced battery storage solving solar and wind intermittency?

This corporate media silence is one side of the war over the future of civilization.

The other side is science-backed youth protests/marches against “business-as-usual” failure to deliver renewables.

Canadian **corporate media** and **the CBC** are dependent on oil advertising:

The *CBC National News* is partly financed by **Alberta's Trans Mountain Pipeline ads**



UNREPORTED by MSM

In 2018 David Suzuki revealed:

Justin Trudeau no longer answers his emails about the climate crisis.

(*National Observer*, March 5, 2018)



CORPORATE AND BANK CRIME





The banks are complicit.

From 2014 to 2016:

- the **major banks** poured **\$105 billion** into Arctic oil, the tar sands, and ultra-deep offshore oil
- 37 large banks provided **\$57.92 billion** for toxic coal mining and **\$74.71 billion** for coal power

Banks have made ethical choices:

April 2017: U.S. Bancorp (3,100 branches) announced it had **pulled all its investments in pipelines** and switched to wind and solar

JP Morgan committed to **100% renewable financing** by 2020

****Neither was reported by the media****

HOT TOPICS[Julian Assange](#) · [WikiLeaks](#) · [Sudan](#) · [Israel & Palestine](#) · [Immigration](#) · [Climate Change](#) · [WI](#)

Report: Amazon, Netflix, IBM, Chevron Paid No Federal Taxes in 2018 Despite Billions in Profits

HEADLINE APR 12, 2019

The Institute on Taxation and Economic Policy has found that the number of large U.S. companies who paid nothing in federal taxes has doubled in recent years. The institute named over 60 companies who did not pay federal taxes in 2018 despite many making billions in profits. The companies include Amazon, Netflix, General Motors, IBM, Chevron, Eli Lilly, Delta, Occidental Petroleum, Honeywell, Prudential, Halliburton, Whirlpool and Goodyear.

Current US Lawsuits Against Big Oil for Climate Impacts

- 1. NEW: King County vs 5 fossil fuel companies**
- 2. San Mateo County, Marin County and Imperial Beach vs 37 fossil fuel companies**
- 3. San Francisco and Oakland vs 5 fossil fuel companies**
- 4. Santa Cruz and Santa Cruz County vs 29 fossil fuel companies**
- 5. New York City vs 5 fossil fuel companies**
- 6. City of Richmond vs 29 fossil fuel companies**
- 7. City of Boulder, Boulder County and San Miguel County vs Exxon and Suncor**
- 8. State judicial actions by youth in Alaska, Colorado, Florida, Maine, Massachusetts, New Mexico, North Carolina, Oregon, and Washington**

**PART II: GAME CHANGERS FOR
SURVIVAL
CHAPTER 7: ENERGY SUBSIDIES AND
TAX REFORM**



IMF, 2015:

**\$5.3 Trillion is Spent on Fossil Fuel
Subsidies Worldwide**

(includes direct and indirect subsidies)

Equals **\$10 million/minute**, more than govts.
spend on health

A Carbon Tax, on the other hand...

- encourages investors/entrepreneurs to develop low-carbon technologies
- offers stable carbon prices the market can count on
- generates revenues to return to the public via dividends



HUMAN RIGHTS-BASED LEGAL CHALLENGES



The Ancient Public Trust Doctrine (PTD)

- **legally compels** protection of ecological resources needed for public welfare and survival
- *says government trustees **must protect** these resources for present and future generations*

- the world needs such a legal basis *for the rights of the general public* -- a basis that can be enforceable against government
- this is best provided, said Joseph Sax in 1970, by the **Public Trust Doctrine**

Atmospheric Trust Litigation

would defend the Earth's largest commons – the atmosphere -- against private interests encroaching on it

We need to introduce such legislation

Our Children's Trust

- seeks to hold U.S. government legally accountable for failing to protect the climate that children's future lives depend upon
- in 2011, *Juliana v. United States et al.* was filed in Federal Court by 21 young plaintiffs who argue that their constitutional and public trust rights are being violated by the U.S. Govt.
- It will be heard before the Ninth Circuit Court of Appeals in Portland, Oregon, **June 4th, 2019**

Inter-generational theft

Failure to preserve the atmospheric trust - by entitlement spending and spewing carbon - amounts to inter-generational theft

Well-known climate scientist Dr. James E. Hansen is acting as co-plaintiff on behalf of his granddaughter.



Our Children's Trust

accepts tax-deductible donations and needs strong support from all who are concerned about securing a livable, human rights-based climate.



GAME CHANGERS IN TECHNOLOGY & INNOVATION



The Good News: Zero-Carbon Clean, Everlasting Energy Technologies

- *total global technical potential for renewable energy is much higher than global demand*
- *solar has the highest potential*

IPCC Special Renewables Report (2012)

Canadian Zero Carbon energies include

- **solar** voltaic, concentrated solar thermal, the solar updraft tower,
- onshore **wind**, offshore wind, ultrahigh tethered wind
- **geothermal** (subsurface and deep)
- **small hydro** (mini and micro)
- thermal **ocean**, tidal ocean, and wave ocean energy

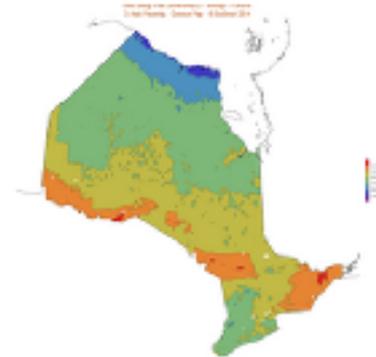
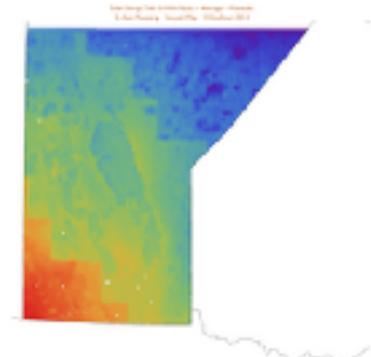
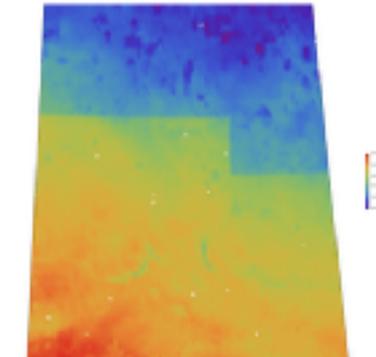
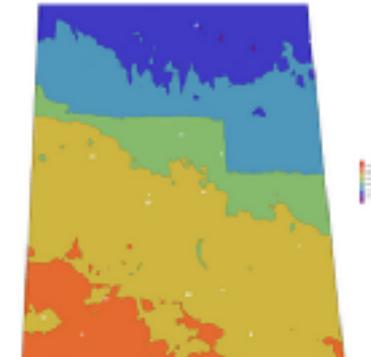
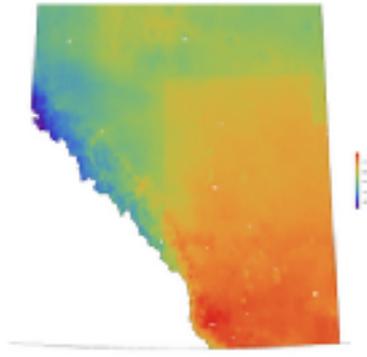
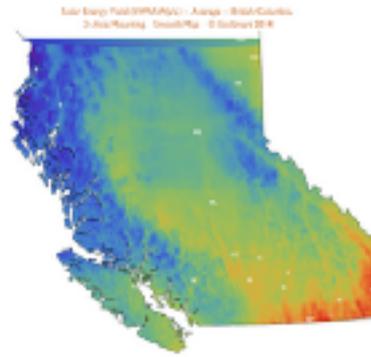
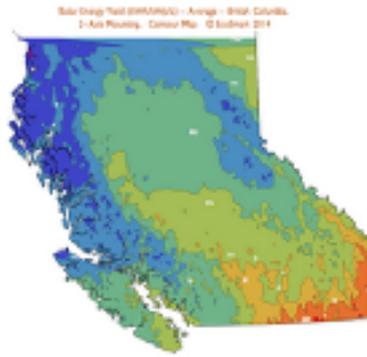


Wind turbines off Skovshoved, Denmark



Concentrated Solar Plant, Seville, Spain
Affordable, reliable, clean, can now smelt
aluminum. Prairies can do it

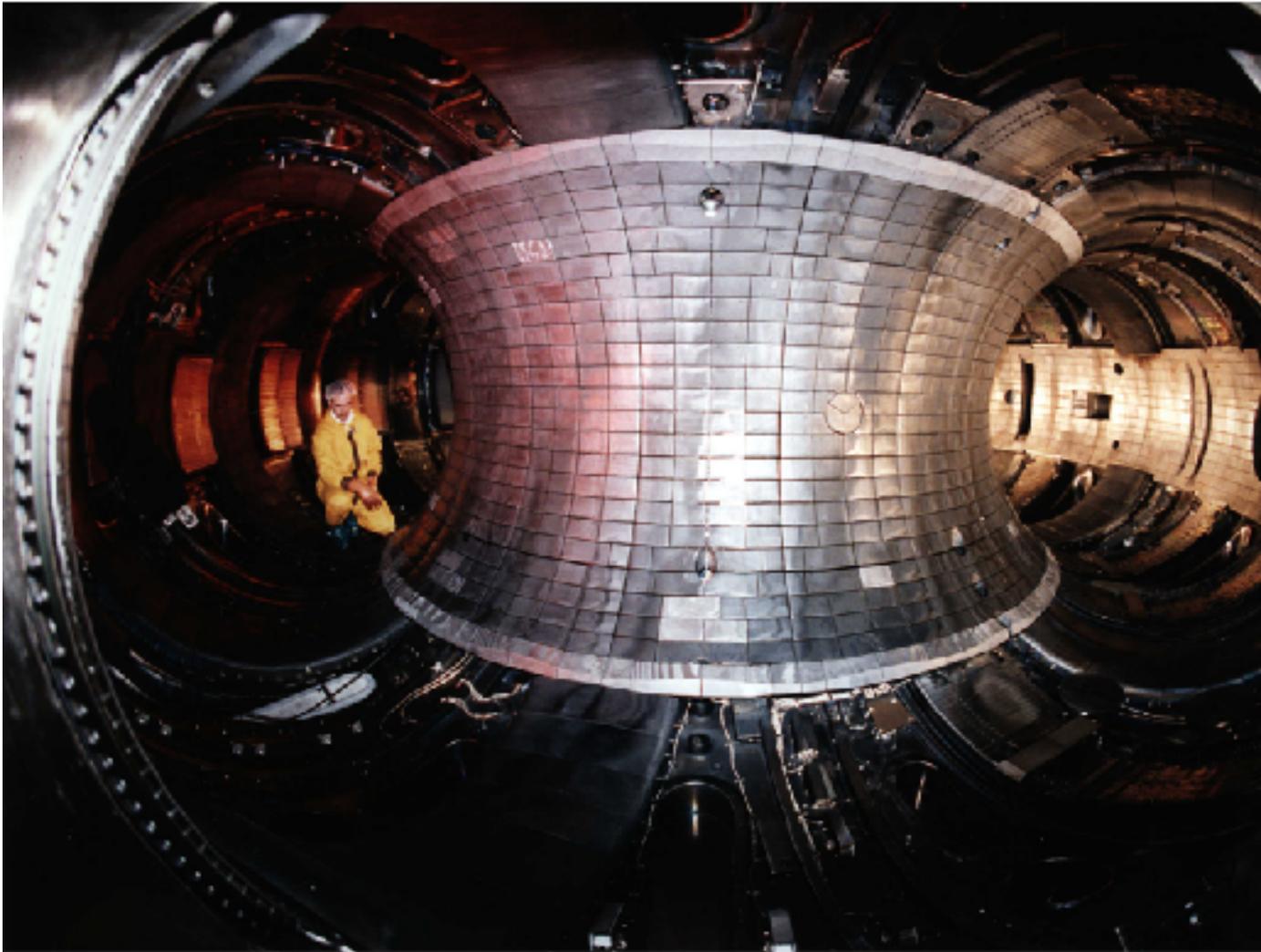
Canadian Solar Maps by Province



(EcoSmart)



Small hydro power for rural BC



The Tokamak Fusion Test Reactor, Princeton
Fusion looks promising in 15-20 years

The 2018 IPCC Assessment set a near-zero target for CO2-equivalent emissions

- we already have technology to do this by 2050
- needs an **immediate declaration of a global climate emergency** by all nations, IPCC and UN Security Council.
- **emergency declaration gives national governments special powers to act quickly**

Top Priority Actions

1. Launch WWII-type emergency mobilization to reduce emissions (use Climate Mobilization model)
2. Introduce fully-costed escalating carbon pollution tax nationally and globally
3. Terminate fossil fuel subsidies by all governments asap
4. Transfer subsidies to deep geothermal energy, ultra high wind, and solar
5. Subsidize advanced safe nuclear fission reactors

Other Priority Actions

6. Phase out subsidies for industrial chemical agriculture
7. Switch subsidies to regenerative organic mixed agriculture
8. Create global trusts in support of the Amazon and Boreal forests
9. Introduce education about Global GHG mitigation via international agreement
- .
10. Apply direct CO₂ air removal (negative emission) technologies to save coral reefs, biodiversity and food production

MARKET LEADERSHIP



Global energy markets have been strongly influenced by

- the Paris global agreement to limit warming to 1.5°C or 2°C
- the October 2018 UN 1.5°C Report
- the expectation of government regulation of energy sources
- the understanding that carbon will be un-burnable and need to stay in the ground
- the sense that “the burning age is over”

Record global renewables *market expansion* is underway:

- **installed renewable energy capacity**
- **advanced energy storage systems (AESS)**
- **global wind anemometers market**
- **installed capacity of photovoltaic glass**
- **global photonic crystals market**
- **electric vehicles are pledged to permeate the global market**

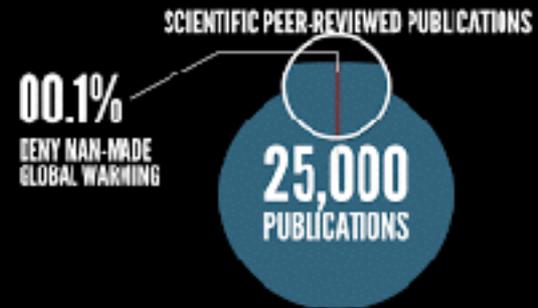
CIVIL RESISTANCE STRATEGIES



MISSION IMPOSSIBLE?



SCIENCE APPENDIX: EVIDENCE OF THE CLIMATE EMERGENCY



Source: James Powell, 2014