

An Evening of Optimism In A Warming Canada



Calvin Beauchesne

Climate Change and Energy

- Fossil fuels are responsible for over 80% of CO2 emissions in past decade according to IPCC
- UN Secretary General Antonio Guterres called investing in fossil fuels “moral and economic madness” and called for a swift transition to clean sources of energy



COP27

- Breakthrough agreement for ‘loss and damage’ fund for developing countries least responsible for global climate crisis
- No global agreement to phase out fossil fuels, however fossil fuels received most attention out of any previous COP



United States

- Passed \$369 billion in climate investments last year through Inflation Reduction Act
- Includes tax credits/other incentives for electric cars, heat pumps and clean energy
- Puts US on track to reduce emissions 40% below 2005 levels by 2030



Green | Cleaner Tech

100,000 Green Jobs Announced Since US Adopted Climate Law, Study Finds

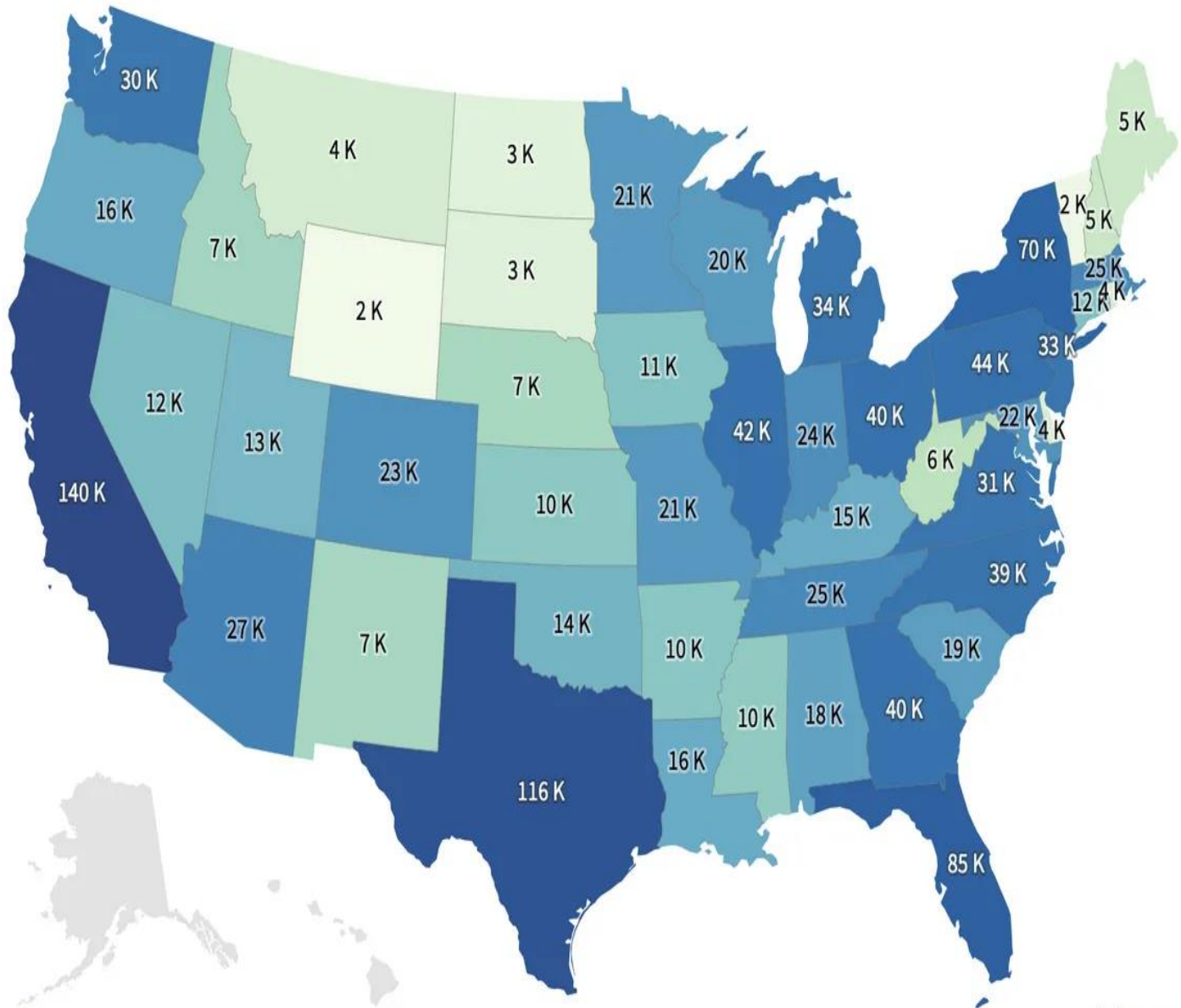
Since the Inflation Reduction Act became law, companies have said they'll create jobs in wind and solar energy, EV manufacturing and other clean energy sectors, according to the group Climate Power.



Photographer: David Paul Morris/Bloomberg

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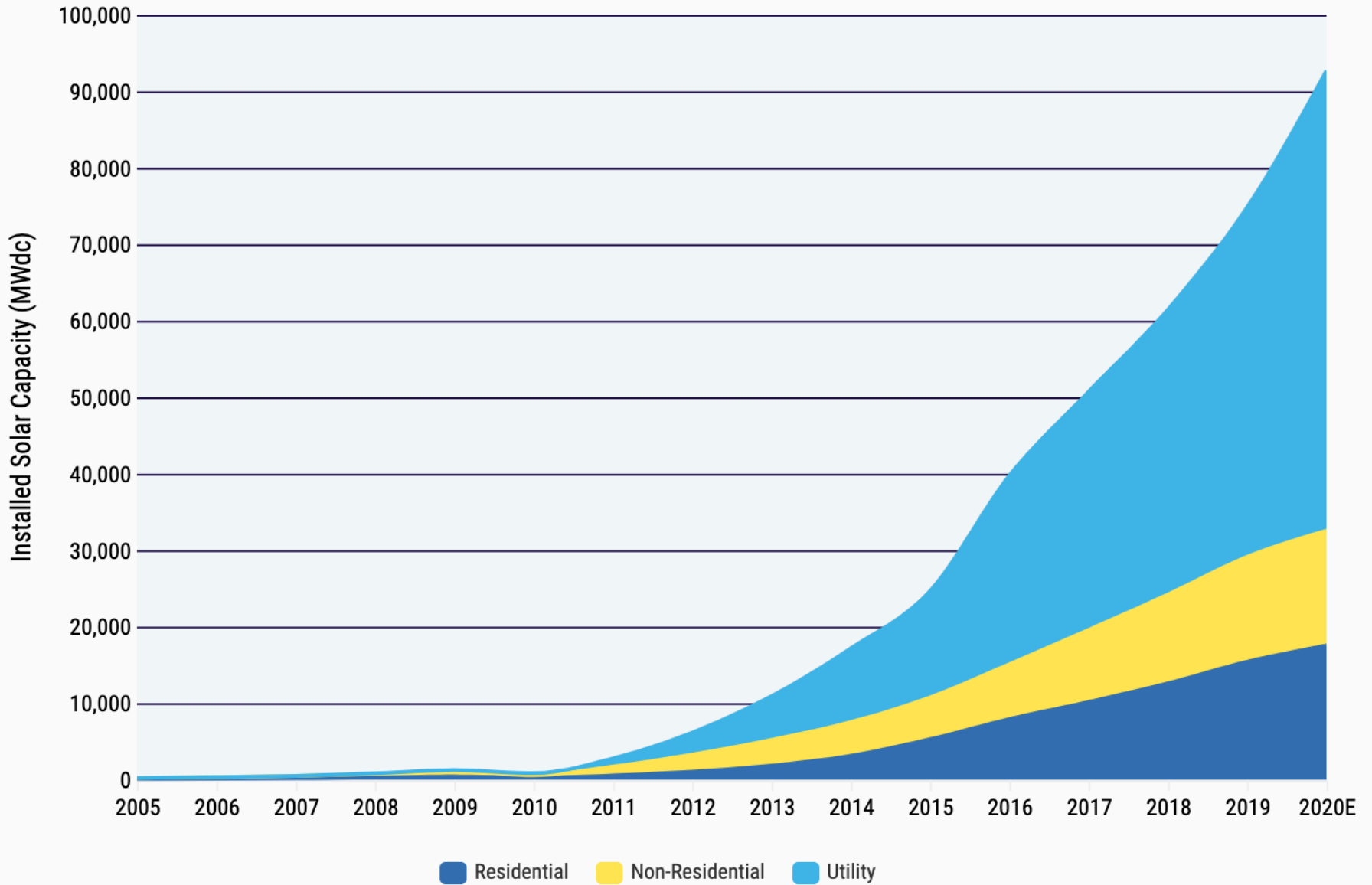
Potentially Induced Number of New Jobs in 2030 through the Inflation Reduction Act



[Get the data](#)



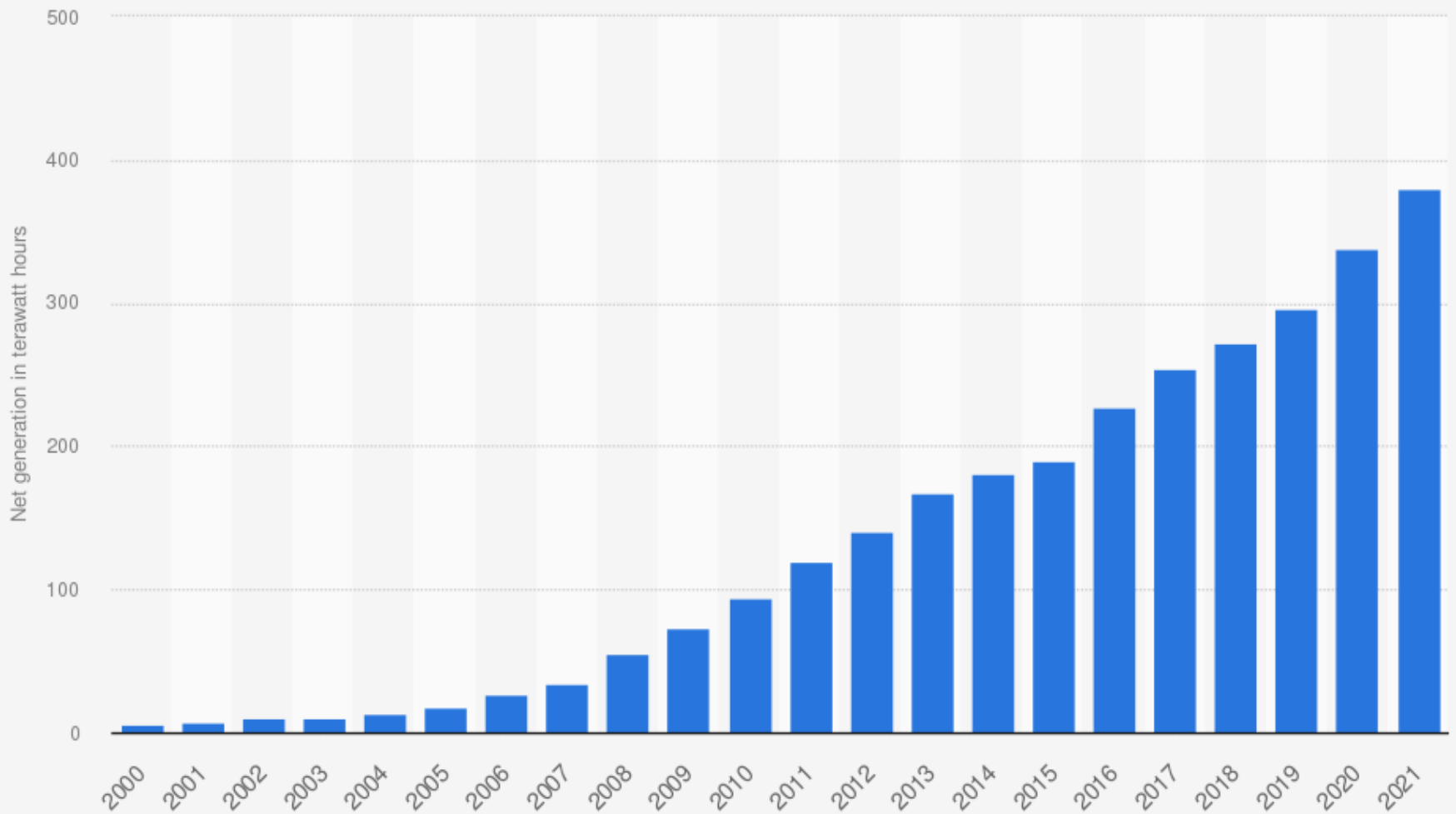
Cumulative U.S. Solar Installations



Source: [SEIA/Wood Mackenzie Power & Renewables U.S. Solar Market Insight 2020 Q3](#)



Net electricity generation from wind in the United States from 2000 to 2021 (in terawatt hours)



Source
EIA
© Statista 2023

Additional Information:
United States; EIA; 2000 to 2021

Australia

- Labor Party wins majority government ousting climate laggard Scott Morrison after 3 terms of leadership
- Passed law pledging to cut CO2 emissions 43% below 2005 levels and net-zero by 2050



Australia blocks coal mine to protect Great Barrier Reef

By Tiffanie Turnbull
BBC News, Sydney

8 February 2023



The open-cut mine would have been set just 10km from the Great Barrier Reef in Queensland state

For the first time in history, Australia has blocked the creation of a coal mine under environmental laws.



European Union

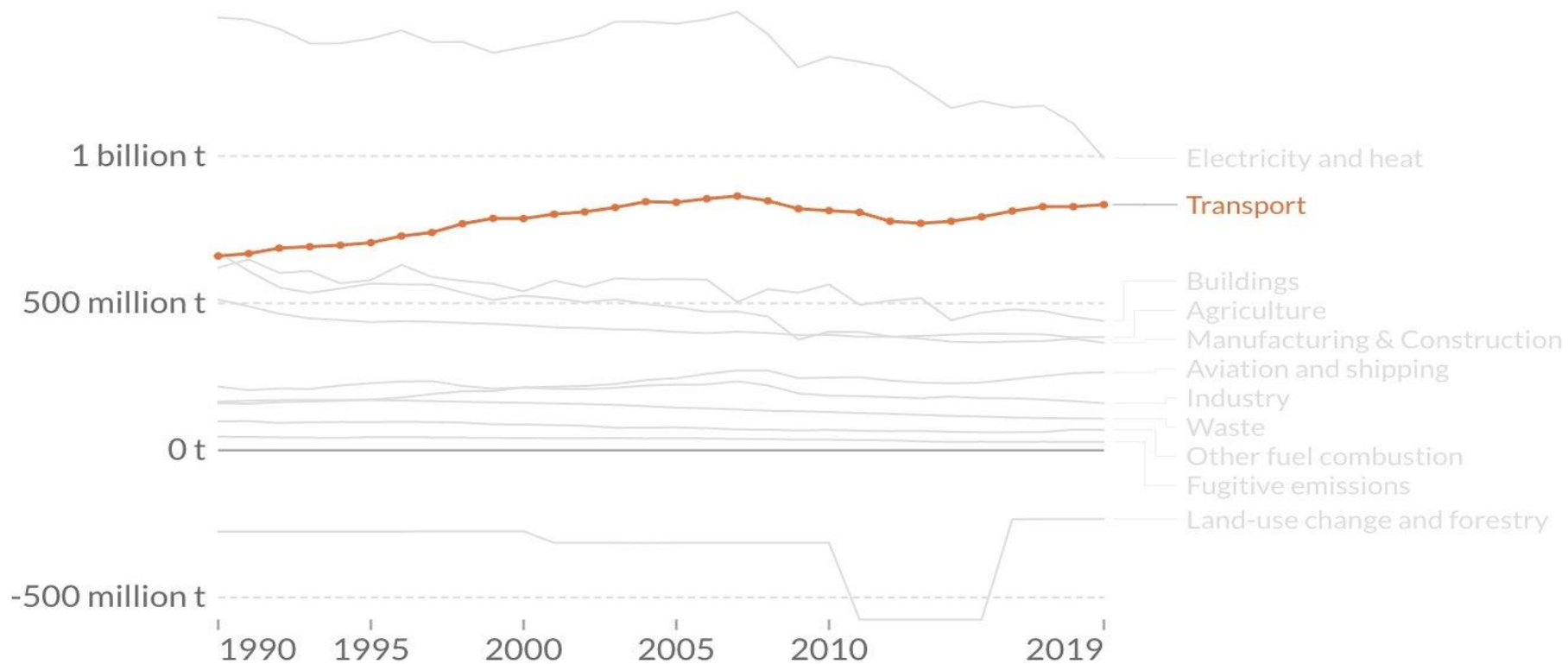
- Voted to ban sale of gas-powered cars by 2035
- Target to reduce emissions 55% below 1990 levels by 2030



Greenhouse gas emissions by sector, European Union (27)

Emissions are measured in carbon dioxide equivalents (CO₂eq). This means non-CO₂ gases are weighted by the amount of warming they cause over a 100-year timescale.

[↔ Change country](#) Relative change



Source: Our World in Data based on Climate Analysis Indicators Tool (CAIT).
OurWorldInData.org/co2-and-greenhouse-gas-emissions • CC BY

▶ 1990 2019

CHART

TABLE

SOURCES

↓ DOWNLOAD



Related: [CO₂ data: sources, methods and FAQs](#)



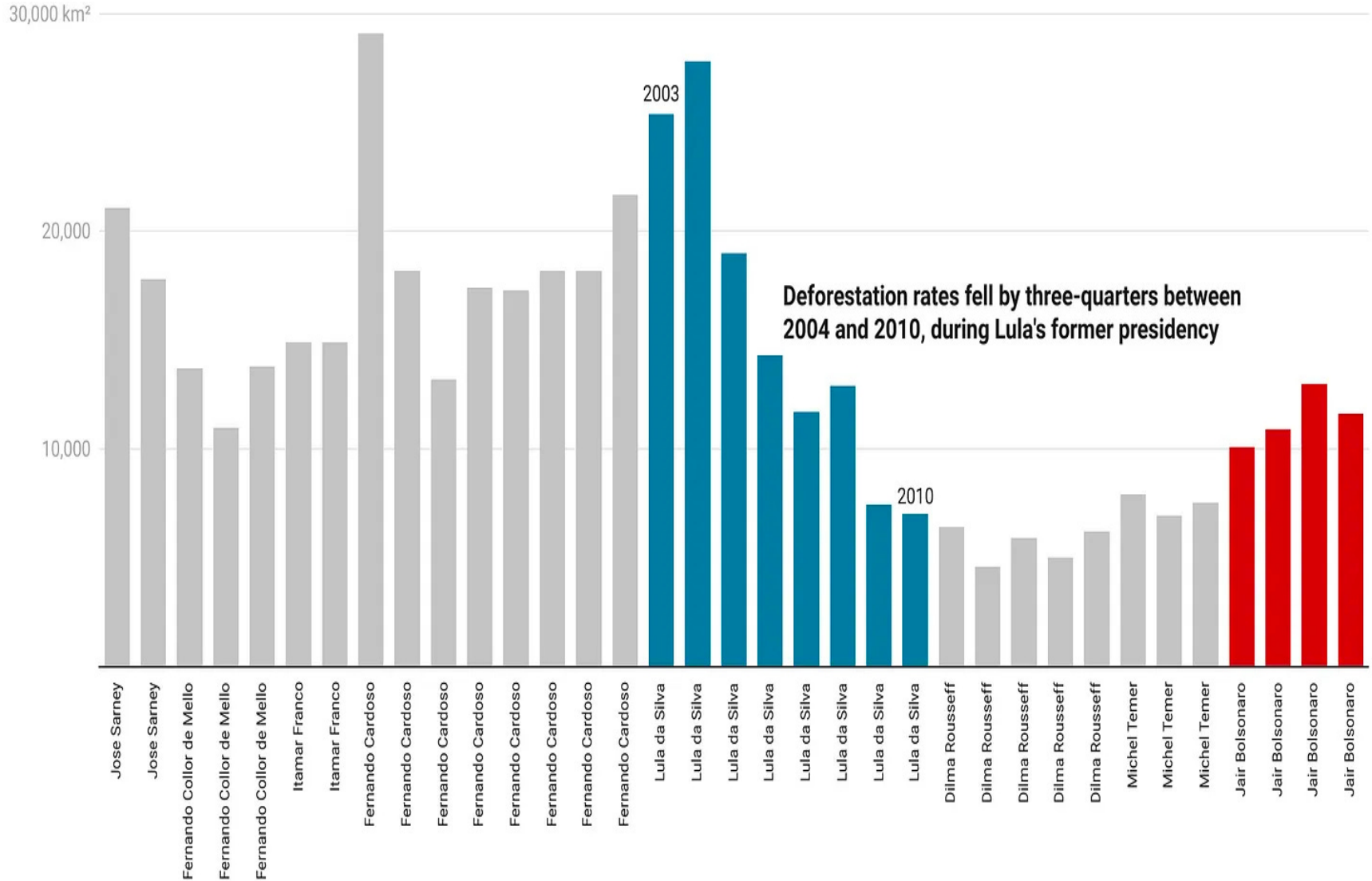
Brazil

- Leftist President Lula da Silva ousted far-right incumbent Jair Bolsonaro
- Commitment to eliminate Amazon deforestation by 2030
- Deforestation in Brazil falls 61% in first month under new President



Deforestation rates in the Brazilian Amazon fell by 75% under Lula da Silva's presidency

Deforestation rates are given in square kilometres (km²) per year. Luiz Inácio Lula da Silva was re-elected to become Brazilian president for 2023.





Colombia

- Leftist ex-rebel Gustavo Petro defeats far right contestant Rodolfo Hernandez
- Campaign promise to end new oil and gas exploration



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Colombia

Colombia announces halt on fossil fuel exploration for a greener economy

The minister for mines, Irene Vélez, told world leaders the country will shift away from fossil fuels to begin a sustainable chapter

COP 15 UN Biodiversity Summit

- Global agreement reached to protect 30% of nature by 2030 and \$200 billion annually to fund biodiversity protection
- Pledge to reduce subsidies harmful to nature by \$500 billion annually



Canada

- Emissions reduction target of 40-45% below 2005 levels by 2030 and net-zero by 2050
- Have missed past 9 targets to reduce emissions

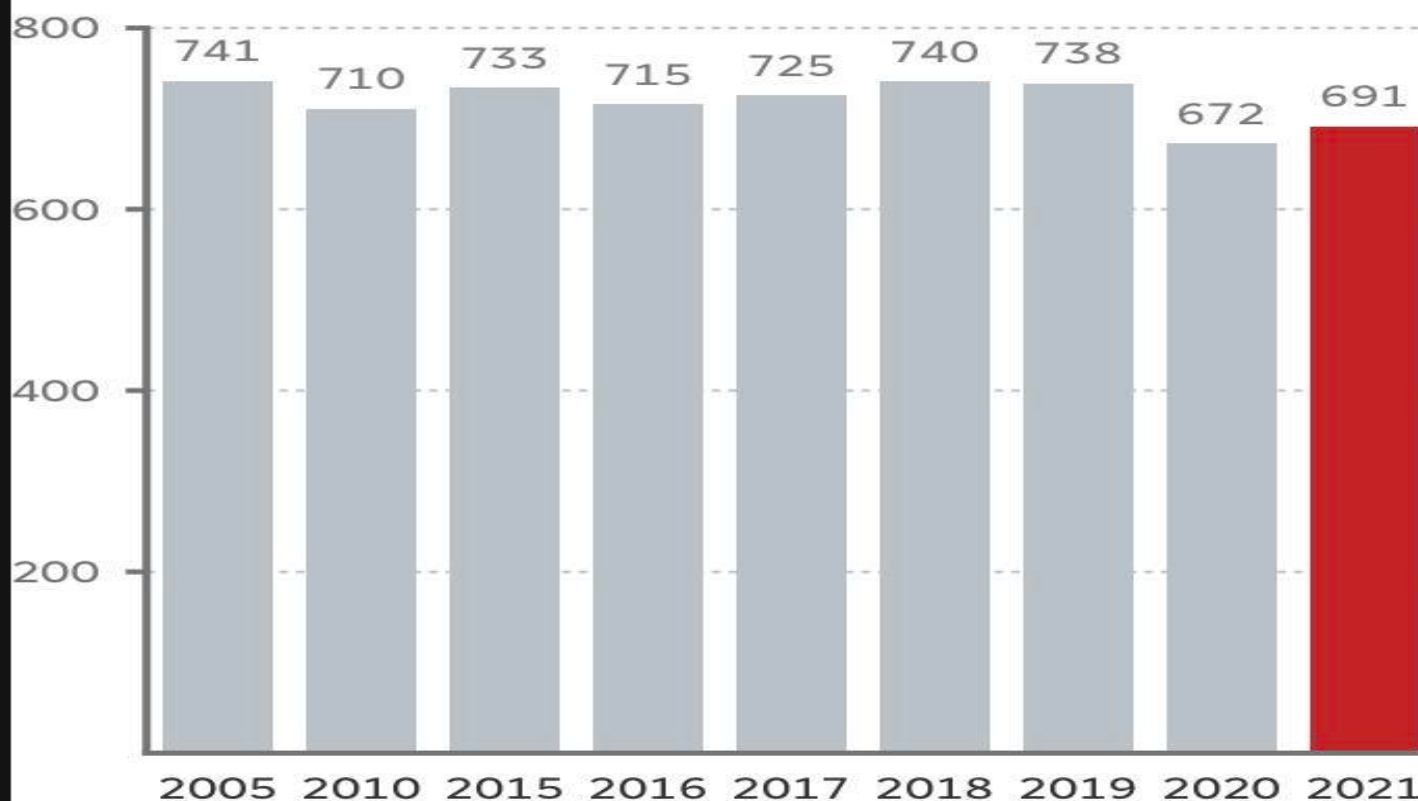




pandemic level of 738 megatonnes.

Early Estimate of National Emissions for 2021

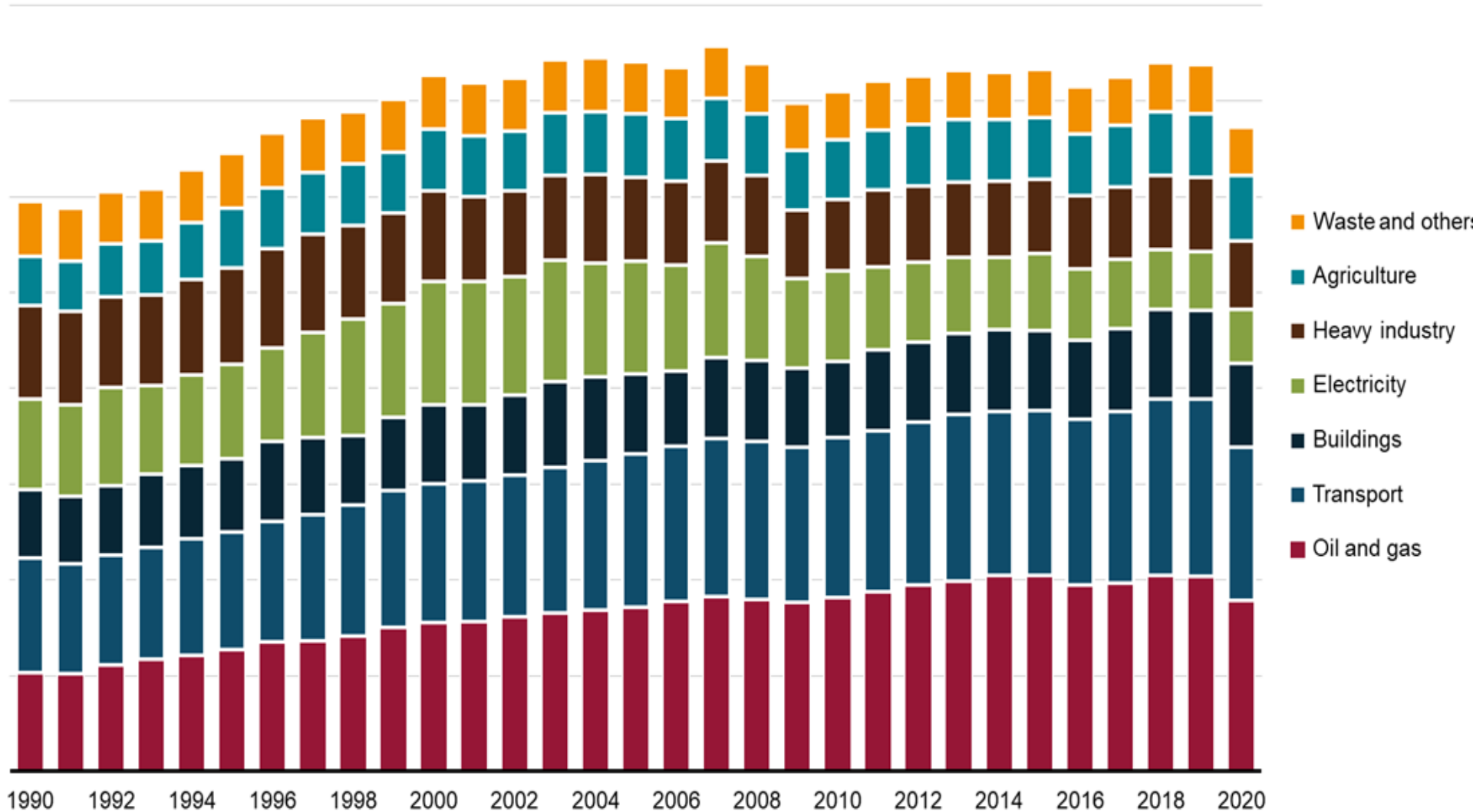
National GHG emissions (not including LULUCF) (MTCO₂e*)



*Metric tonnes of carbon dioxide equivalent

GHG Emissions by Economic Sector, Canada 1990-2020

tonnes of carbon dioxide equivalent





Projection of Canada's GHG Emissions by Economic Sector (2021)

Sector	2005 — 2020	2021	% change from 2005
Oil and Gas	178.8K 171.3K	189,866	10.8%
Electricity	117.5K 56.2K	54,448	-53.7%
Transport	156.0K 160.2K	168,688	5.4%
Heavy Industry	87.2K 71.8K	74,245	-14.8%
Buildings	87.9K 83.7K	88,612	5.9%
Agriculture	68.7K 66.4K	64,524	-2.9%
Waste	28.7K 27.4K	27,664	-3.7%
Coal Production	2.3K 2.3K	2,314	-1.4%
Light Manufacturing, Construction and Forest Resources	23.9K 20.4K	20,861	-12.7%

Oil and Gas Cap

- Federal government planning cap on oil and gas emission by end of 2023
- No cap on production; bulk of emissions from oil and gas comes from combustion not production



Coal

- Country-wide coal phaseout by 2030
- Thermal coal exports to be banned by 2030



Transportation

- Federal target of 100% EV sales in 2035 and 60% in 2030
- Federal rebates for EVs up to \$5000
- Less focus on public/active transit
- No rebates for e-bikes/used EVs
- High frequency rail lines to be built between major cities in Ontario/Quebec



Fossil Fuel Subsidies

- Canada leads G7 countries in fossil fuel subsidies according 2018 report by Environmental Defense
- Fossil fuel subsidies between \$4.5 billion and \$18 billion in 2020
- Funding for carbon capture or cleaning up orphan wells not counted as subsidy by government
- Promise to end fossil fuel subsidies by 2023 as well as financing for fossil fuel projects abroad



Just Transition Act

- Legislation that provides funding and training for workers in fossil fuel sector to transition to jobs in renewable energy
- Passed Sustainable Jobs plan in 2023



Reforestation

- Promise to plant 2 billion trees by 2030
- So far 29 million trees have been planted in 2 years



Climate Financing

- Canada pledged \$5.3 billion in climate finance to developing countries over next 5 years
- International funds to protect Amazon rainforest



Single-Use Plastic Ban

- Canada banning some single-use plastics including grocery bags, straws, cutlery, six-pack rings
- Exports to continue until 2025



Fossil Fuel Non-Proliferation Treaty

- Global treaty calling for fair phaseout of fossil fuels
- Modeled after global treaty to phase out nuclear weapons
- Signatories include 70 cities, 101 Nobel Laureates, 1800 civil society organizations, 3000 scientists/academics, 2 countries and over 580,000 individuals



fossilfuel treaty.org

Fossil Fuel Ad Ban

- Fossil fuels caused 8.7 million deaths globally in 2018 due to air pollution, according to joint academic study
- Fossil fuels are a public health threat like tobacco companies, but fossil fuel companies are still allowed to advertise
- A lot of fossil fuel advertising is misleading and form of greenwashing



Fossil Banks

- Banks are complicit in global climate crisis through fossil fuel financing
- RBC is biggest financer of fossil fuels in Canada; over \$263 billion since Paris Agreement was signed in 2015 according to report
- Federal government can regulate banks to require net-zero commitments align with financial contributions



HSBC to end funding for new oil and gas fields

By Esme Stallard
BBC News Climate and Science

14 December 2022



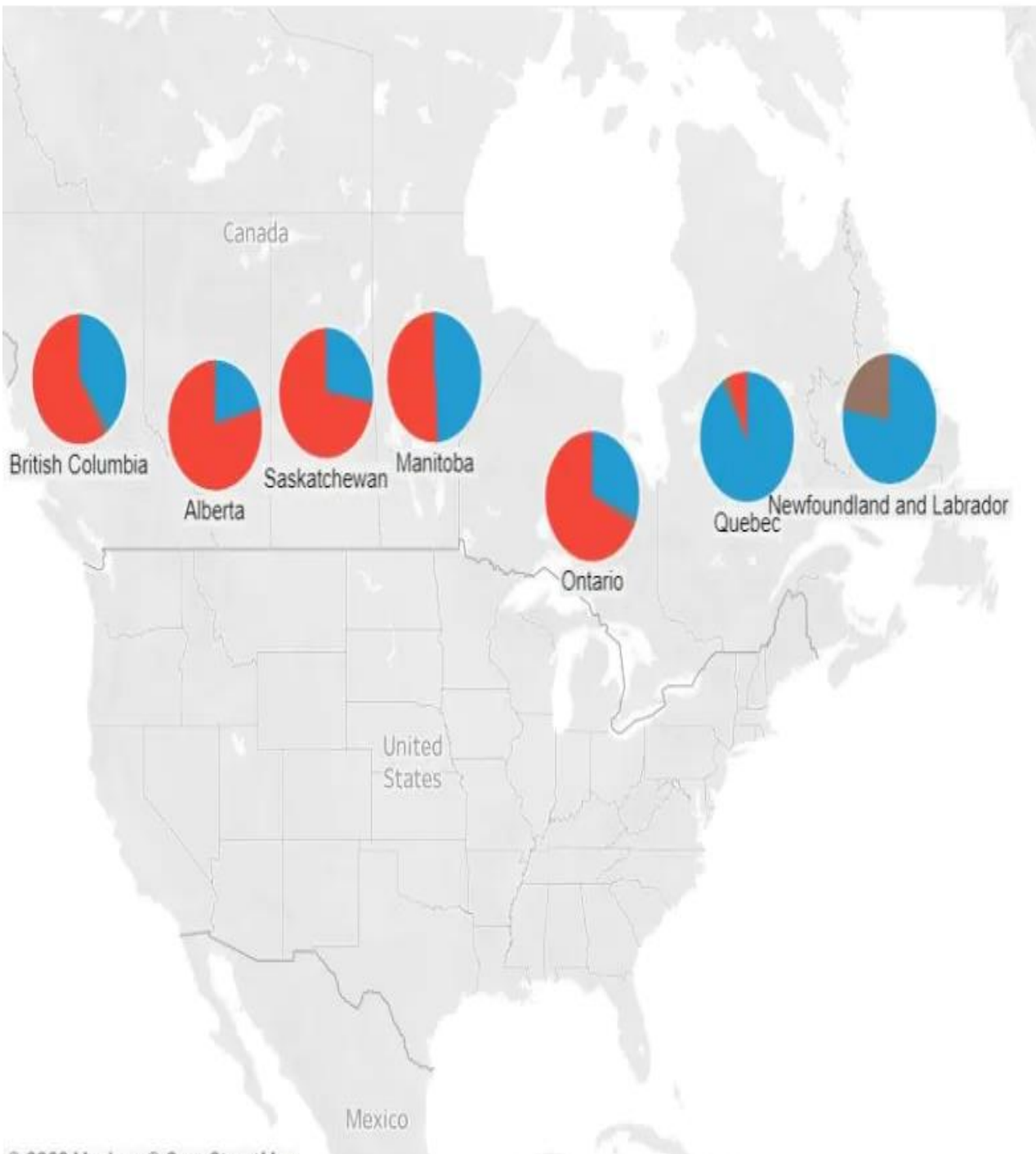
HSBC has announced it will stop financing new oil and gas fields, as part of its efforts to drive down global greenhouse gas emissions.

Environment groups said the move sends "a strong signal" to fossil fuel giants that

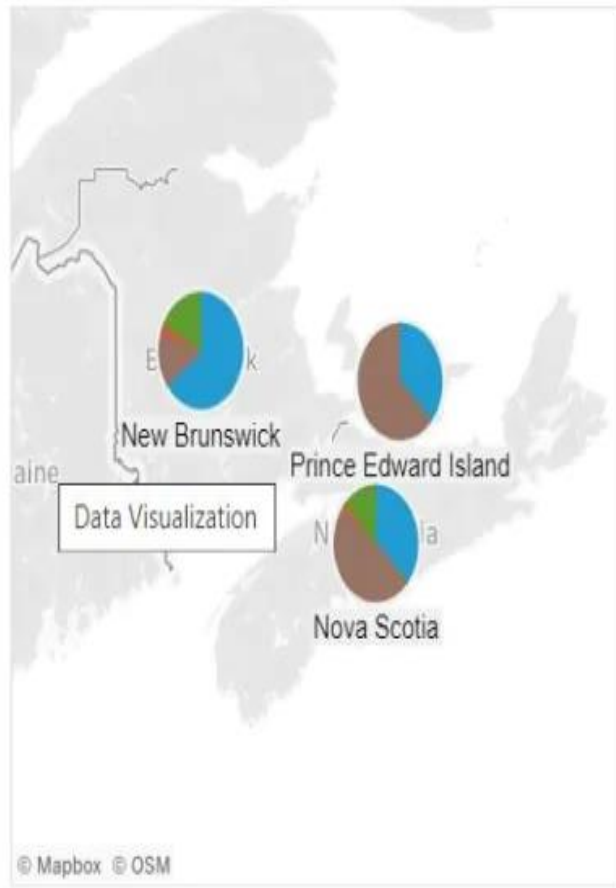
Building Electrification

- More and more jurisdictions passing electrification codes for new buildings
- Buildings are responsible for around 10% of emissions in Canada
- Study published in International Journal of Public Research and Health shows 1/8 cases of childhood asthma in US linked to indoor gas stoves





Maritime provinces



© Mapbox © OSM

Source

- Electricity
- Heating oil
- Natural gas
- Wood



Embed:

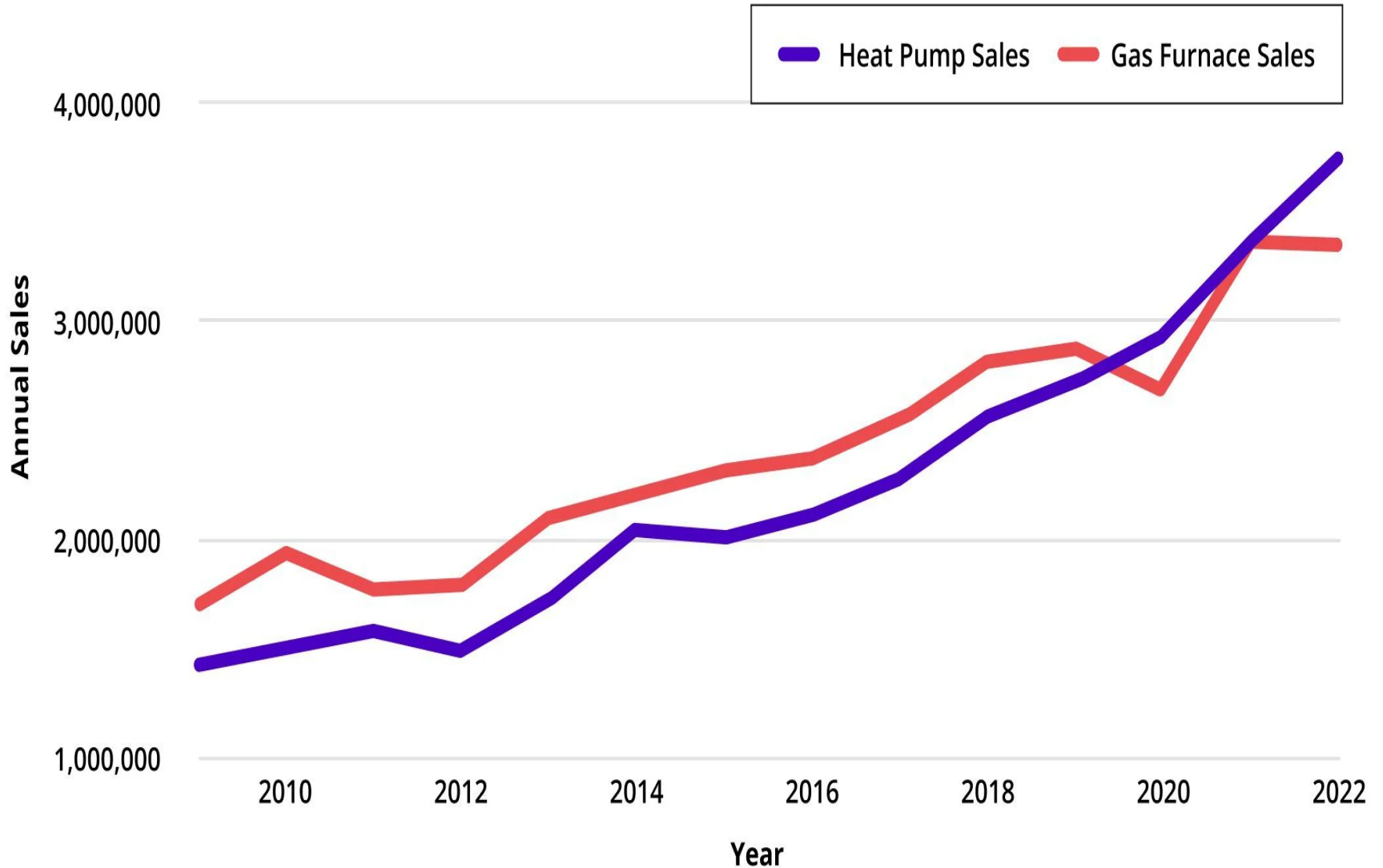
Fossil fuel heating bans in the EU by 2024

Hover or tap each item in the legend to show countries with that regulation.



- Oil and gas boilers in ALL buildings
- Oil and gas boilers in NEW buildings only
- Oil boilers in ALL buildings
- Oil boilers in NEW buildings only
- Gas boilers in NEW buildings only
- No ban

Heat Pump Sales Exceed Gas Furnace Sales



Source: <https://www.ahrinet.org/analytics/statistics/monthly-shipments>

2022 annual sales are projected from available October year-to-date numbers.

Sue Big Oil

- Legal campaign to hold fossil fuel companies liable for damages caused by climate crisis
- Fossil fuel companies have spent millions in lobbying politicians against pursuing climate policies and in shady climate-denial groups



SUE 
BIG OIL

Youth Climate Corps

- National program to employ/empower youth to work on climate action projects
- Projects can focus on wildfire risk reduction, ecological restoration, energy efficiency, urban gardening and community leadership



Windfall Tax

- *“Higher tax rate on profits that ensue from a sudden windfall gain to a particular company or industry.”* –Wikipedia
- Oil companies have been making record profits this year due to war in Ukraine



Is It Enough?

- Governments are still not doing nearly enough to fight global climate crisis
- CO2 emissions are still rising despite increased growth in clean energy
- 1.5°C target as outlined in Paris Agreement may be out of reach but every fraction of a degree makes a difference
- Grassroots climate activist groups and NGOs continue to push for fossil fuel phase-out and bold climate action policies around the world

What Can You Do?

- Join a group (you're not alone!)
- Get political (write a letter, call your representative, organize a rally)
- Donate
- Adopt more climate-friendly lifestyle
- Keep learning



Letters

- Write letter to federal MP Rob Morrison telling him what climate policies you would like to see Canada support
- Opposition MPs still needs to know there is strong support for climate policies in electoral district



Rob Morrison, MP Kootenay-Columbia

Rob Morrison

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Cranbrook, BC

V1C 4X8

