

Fact sheet: Early Estimate of National Emissions 2022

September 28, 2023

The Canadian Climate Institute issued the [Early Estimate of National Emissions](#) for 2022 to help guide decision making ahead of the official publication of Canada's National Inventory Report.

An overview of the central findings from the 2022 Estimate is outlined below.

Emissions are up slightly from 2021, but still 6 per cent below 2005 levels

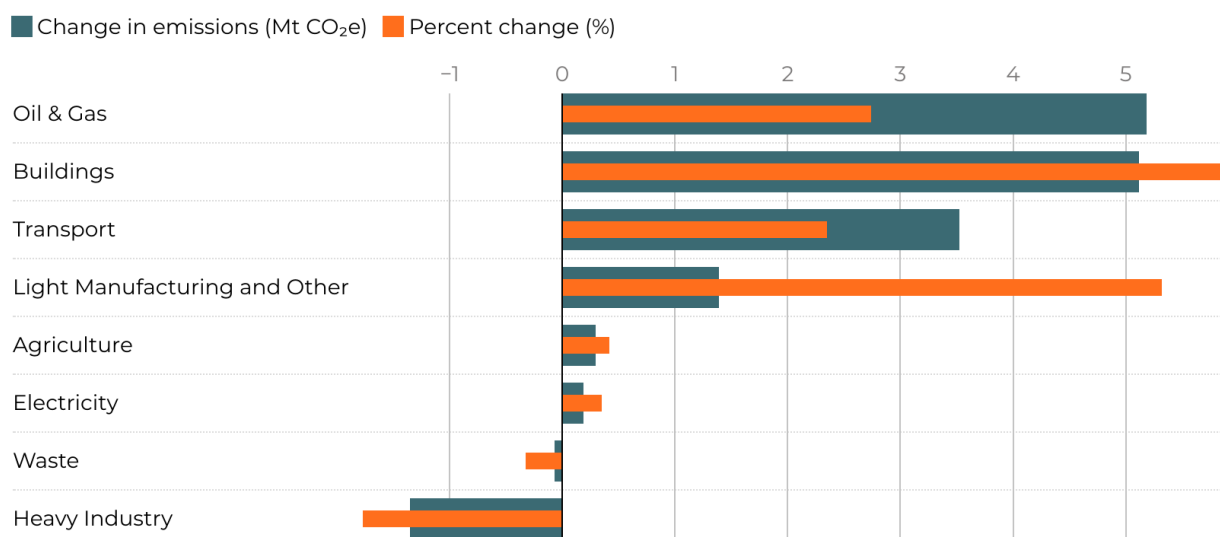
- Canada's total emissions in 2022 were 685 megatonnes of carbon dioxide-equivalent (Mt CO₂e), an increase of 2.1 per cent from the previous year (+14.2 Mt CO₂e).
- Despite this increase, emissions were still 6.4 per cent below 2005 levels.
- Canada's target for 2030 is a 40–45 per cent reduction from 2005 levels.
- To reach the target, emissions will need to fall by 5.4 per cent each year between now and 2030.

Oil and gas and buildings made up nearly three quarters of the increase

- Emissions from oil and gas production and buildings accounted for nearly three quarters (72 per cent) of the total increase from 2021 to 2022.

- These two sectors have seen a longer-term trend of rising emissions. Emissions from oil and gas production have increased by 15.5 per cent since 2005—and now sit at 194 Mt CO₂e. Building sector emissions increased 8.8 per cent from 2005 and total 92 Mt CO₂e in 2022.
- The rise in emissions from buildings was largely due to increased heating demand from a colder winter.

Figure 1: Change in emissions by sector from 2021 to 2022

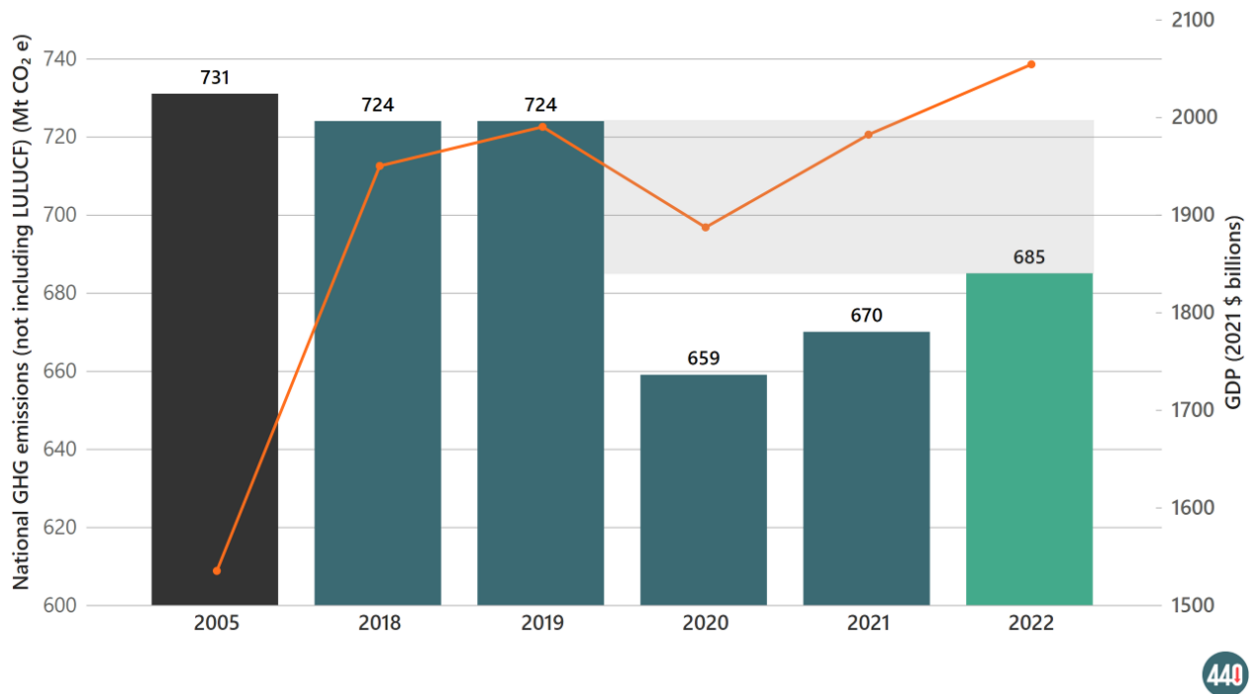


The electricity sector has made the most progress on emissions

- Emissions from the electricity sector are less than half of what they were in 2005—a reduction of 55.6 per cent.
- Canada’s electricity grid is already [84 per cent non-emitting](#), compared to only [40 per cent in the United States](#).

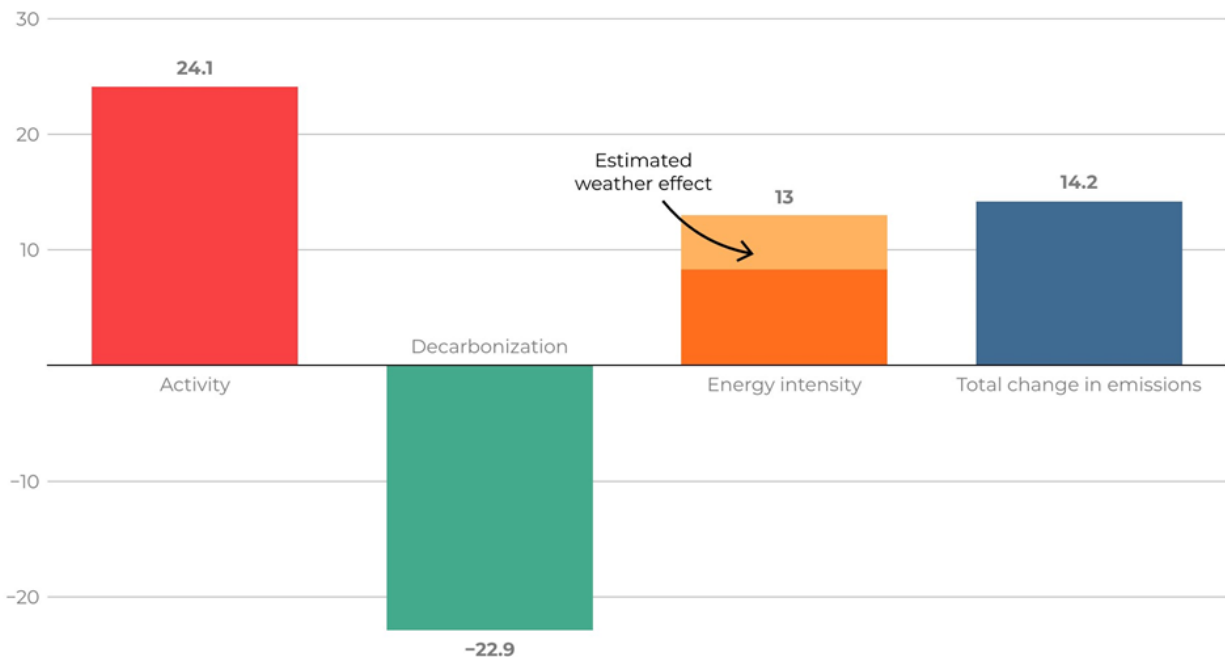
Canada’s emissions are still lower than they were pre-pandemic

- Canada's economy grew 3 per cent larger in 2022 than it was before the COVID-19 pandemic in 2019, while emissions were down 5 per cent below 2019 levels.



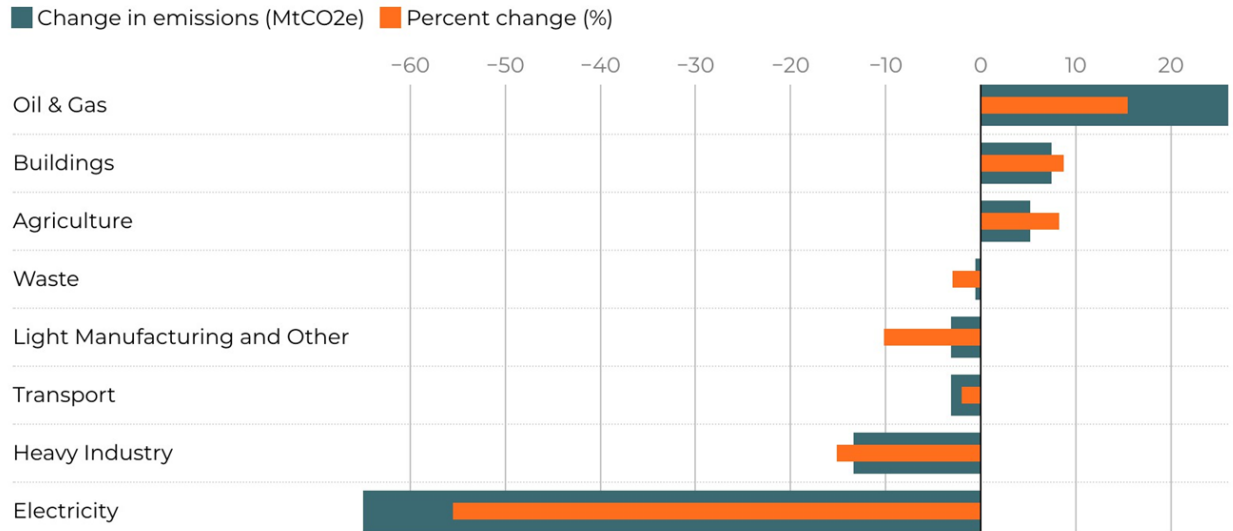
Climate policy is driving progress, but not enough to counter other increases

- Climate policy and market drivers, including clean technology deployment, reduced emissions by 22.9 Mt CO₂e in 2022.
- However, a growing and more energy-intensive economy pushed emissions up in 2022 by a combined total of 37.1 Mt CO₂e, which resulted in an overall net increase of 14.2 Mt CO₂e.



Most other sectors have seen decreases in emissions

- Since 2005, emissions from oil and gas production and buildings increased by 38 Mt, while all other sectors (except agriculture) reduced emissions by 85 Mt.
- Since 2005, emissions were down in the following sectors:
 - electricity (-55.6 per cent)
 - transport (-2.0 per cent)
 - heavy industry (-15.2 per cent)
 - coal production (-6.8 per cent)
 - light manufacturing (-15.7 per cent)



Full details on the [2022 Early Estimate of National Emissions](https://www440megatonnes.ca) are available at [440Megatonnes.ca](https://www440megatonnes.ca), a project of the [Canadian Climate Institute](https://www.climateministry.ca). The first Early Estimate of National Emissions (for 2021) was released in February 2023. Find it here.