


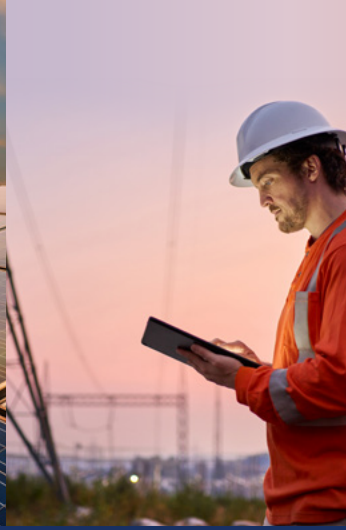

Natural Resources Canada

Ressources naturelles Canada

Energy Fact Book

Spring 2026 Edition

Canada

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Aussi disponible en français sous le titre : Cahier d'information sur l'énergie, Édition printemps 2026

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Cat. No. M136-1E (Print) M136-1E-PDF (online)

ISSN 2370-3105 ISSN 2370-5027

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Preface

The Energy Fact Book provides **reliable, up-to-date statistics and analysis** to support evidence-based dialogue on Canada's energy sector. The new spring and fall release schedule will help ensure the publication continues to reflect the latest data and developments across Canada's energy system.

Designed for a wide audience—including government, industry, academia, educators, media and the public—**this resource aims to bridge technical depth with broad accessibility**.

The contents of this publication span a wide array of indicators including energy production and consumption, prices and trade; as well as economic contributions, technology trends and environmental impacts—curated to provide a holistic overview of the sector.

The Energy Fact Book draws on the expertise of Natural Resources Canada, Statistics Canada, the Canada Energy Regulator and Environment and Climate Change Canada, and **benefits from ongoing collaboration across federal and provincial agencies**, under the scope of the **Canadian Centre for Energy Information**.

Refer to the annexes for definitions, methodology, and notes on data availability and consistency. For questions and comments, contact **energyfacts-faitsenergetiques@nrcan-rncan.gc.ca**.

Contents

Introduction

Canada is an energy nation. From hydroelectricity to the oil sands to emerging renewables, our vast and varied natural resources have helped build a resilient economy, connect our communities, and support energy security at home and abroad.

Today, the energy landscape is evolving. Canada is innovating in how energy is produced, delivered, and used. Renewable electricity continues to grow, led by wind and solar. Oil and gas remain foundational to the mix, meeting energy needs at home and abroad, supported by efficiency gains and operational advancements in production and use. At the same time, clean fuels are emerging and technologies such as carbon capture, energy storage, and electrification are reshaping industrial processes and transportation.

These changes are part of a global energy transformation—driven by technological change, shifting demand, affordability needs, and the imperative to maintain international competitiveness. With its geography, skilled workforce, and commitment to research, Canada is positioned to lead in this transformation, —leveraging regional strengths, priorities, energy mixes, and economic pathways.

Reliable data are essential to understanding these developments and seizing the opportunities they create for innovation, investment, and long-term economic growth. By presenting key facts and indicators on Canada's energy system in a clear and accessible format, the Energy Fact Book has remained a trusted reference for over fifteen years.

Section 1:
Key Energy, Economic and Environmental Indicators

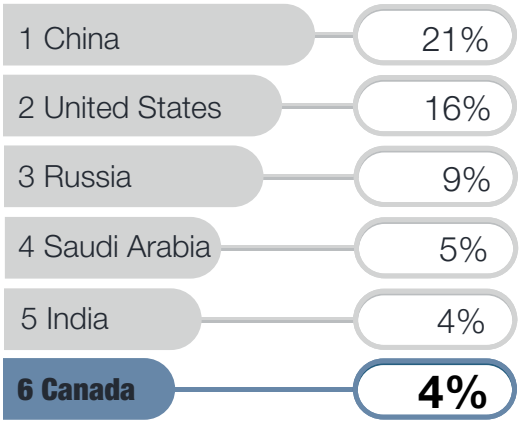
Energy production and supply
Economic contributions
Energy and GHG emissions

Energy Production and Supply

CANADA: A GLOBAL ENERGY LEADER

The amount of primary energy produced by Canada in 2023 is **42% more** than in 2005. The world, on average, has increased energy production by **34%** in the same period.

WORLD TOTAL PRIMARY ENERGY PRODUCTION
TOP ENERGY PRODUCERS, 2023



GLOBAL ENERGY RANKINGS FOR CANADA

	Proved reserve/ capacity	Production	Exports
Crude oil	4	4	3
Uranium	3	2	2
Hydroelectricity	4	3	-
Electricity	8	7	3
Coal	19	14	8
Natural gas	10	5	6

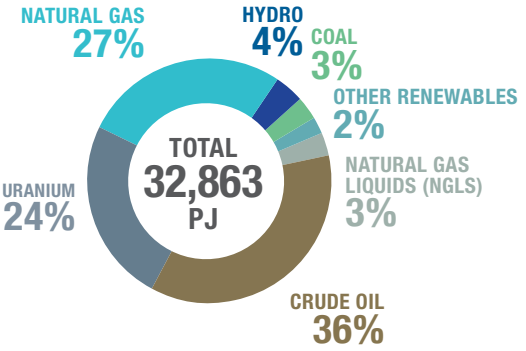
CANADIAN ENERGY PRODUCTION

Primary energy is energy that is found in nature before any processing or conversion. *The Energy Fact Book* calculates primary energy production by using two methods. The first method treats the energy embodied in uranium as primary energy, thereby capturing the uranium Canada produces and then exports. This method provides a more accurate picture of energy production in Canada.

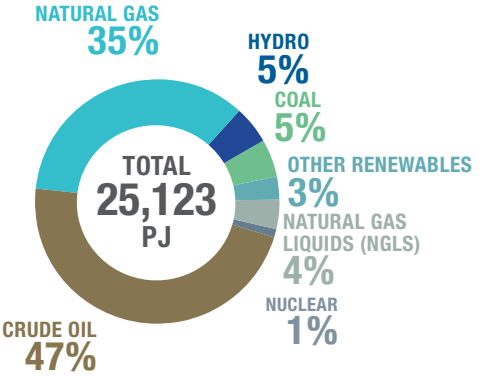
The second method–also employed by the International Energy Agency (IEA), the Energy Information Administration (EIA) and others–treats domestic electricity production from nuclear energy as primary energy, but not uranium itself. Uranium is energy-dense, and Canada exports most of its uranium production, which explains why the two methods produce such different results.

PRIMARY ENERGY PRODUCTION BY SOURCE (2024)

PRIMARY ENERGY PRODUCTION, INCLUDING URANIUM



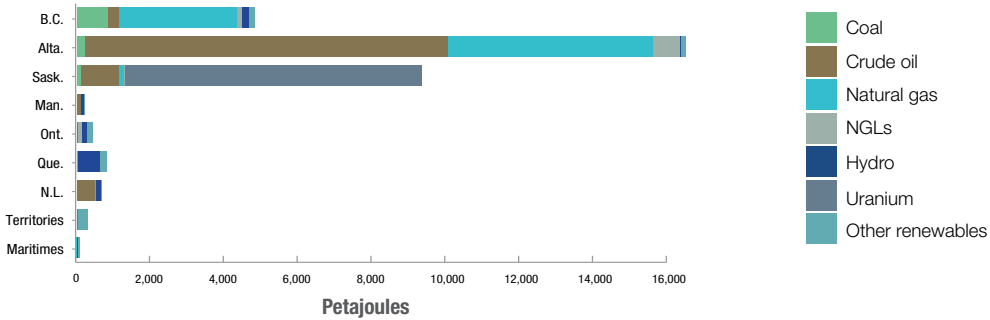
PRIMARY ENERGY PRODUCTION, EXCLUDING URANIUM



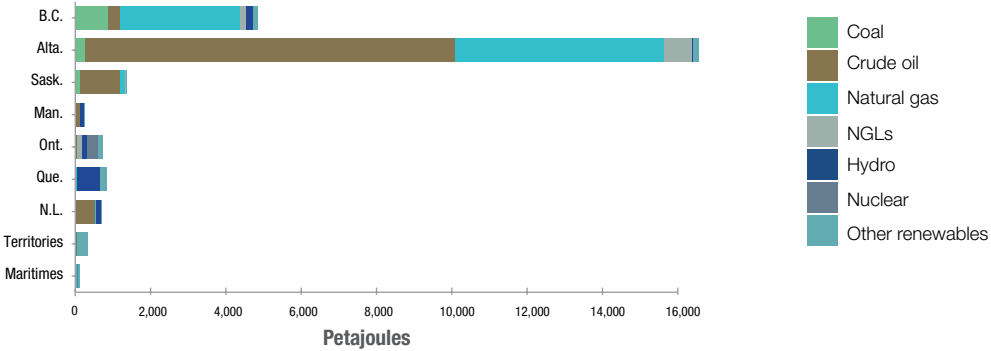
"Other renewables" includes wind, solar, wood/wood waste, biofuels and municipal waste.

PRIMARY ENERGY PRODUCTION BY REGION AND SOURCE (2024)

PRIMARY ENERGY PRODUCTION, INCLUDING URANIUM



PRIMARY ENERGY PRODUCTION, EXCLUDING URANIUM

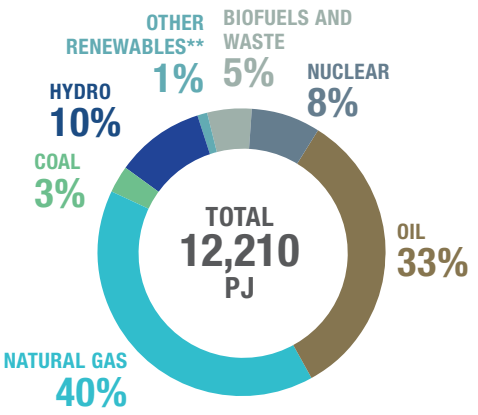


CANADA'S ENERGY SUPPLY

A look at Canada's total energy supply (TES) helps to better understand the impact of energy sources on GHG emissions. The TES[1] is calculated as:

TES = PRODUCTION + IMPORTS - EXPORTS + STOCK CHANGES

CANADA TOTAL ENERGY SUPPLY,* BY SOURCE, 2023



- Fossil fuels made up **76%** of Canada's TES in 2023.
- Renewable energy sources made up **16.5%** of Canada's TES in 2023.

Comparatively, the global TES is made up of

81% **Fossil fuel**
(oil **30%**, coal **28%**, natural gas **23%**)

14% **Renewables**

5% **Nuclear**

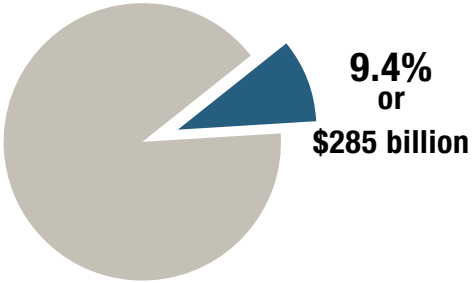
* not including electricity trade
**"Other renewables" includes wind, solar and geothermal.
[1] For the purposes of TES, electricity production is calculated by using the energy content of the electricity (i.e. at a rate of 1 TWh = 0.086 Mtoe), with the exception of nuclear electricity, which is calculated assuming a 33% conversion efficiency factor increase (i.e. 1 TWh = 0.086 ÷ 0.33 Mtoe).

Economic Contributions

NOMINAL GROSS DOMESTIC PRODUCT (2025)

ENERGY'S NOMINAL GDP CONTRIBUTION FOR CANADA

NOMINAL GDP (% OF CURRENT DOLLARS)



CANADIAN GDP

ENERGY DIRECT 8.0% ($244 billion)

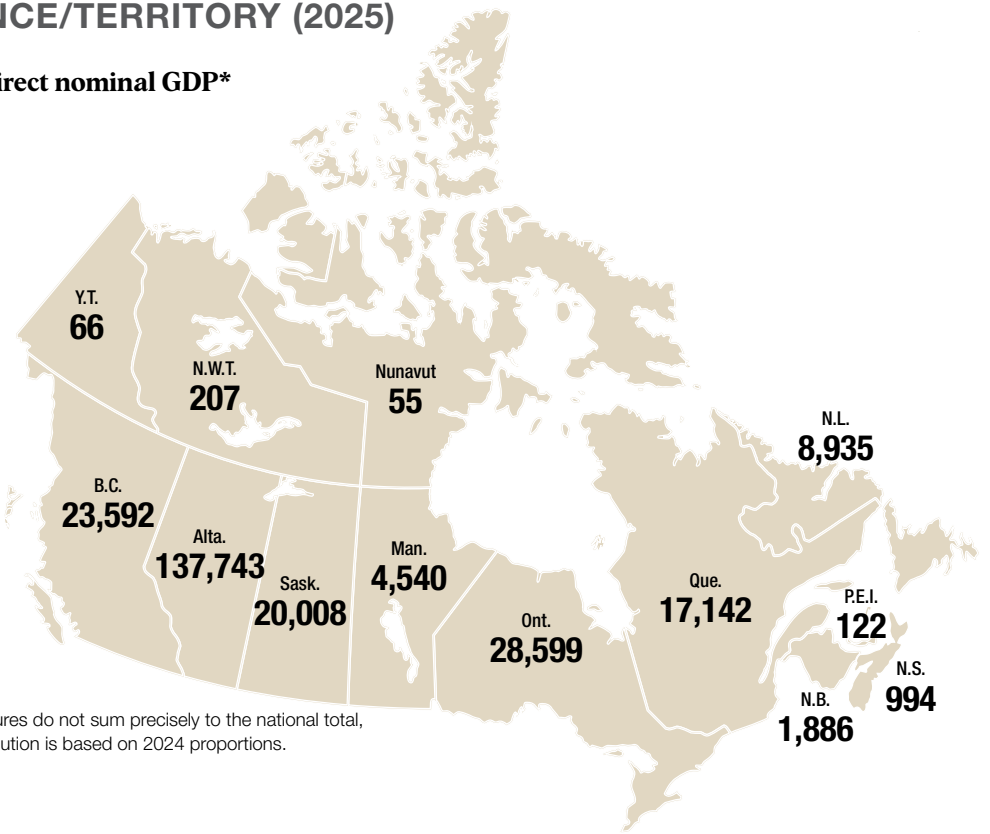
- PETROLEUM 6.1%
- ELECTRICITY 1.7%
- OTHER 0.2%

ENERGY INDIRECT 1.4% ($41 billion)

Parts may not sum to total due to rounding. For more information on the methodology used by Statistics Canada to estimate indirect contributions, please contact statcan.iadinfoddci-dciinfoiad.statcan@statcan.gc.ca.

ENERGY'S NOMINAL GDP CONTRIBUTION BY PROVINCE/TERRITORY (2025)

Energy sector direct nominal GDP*
($ millions)



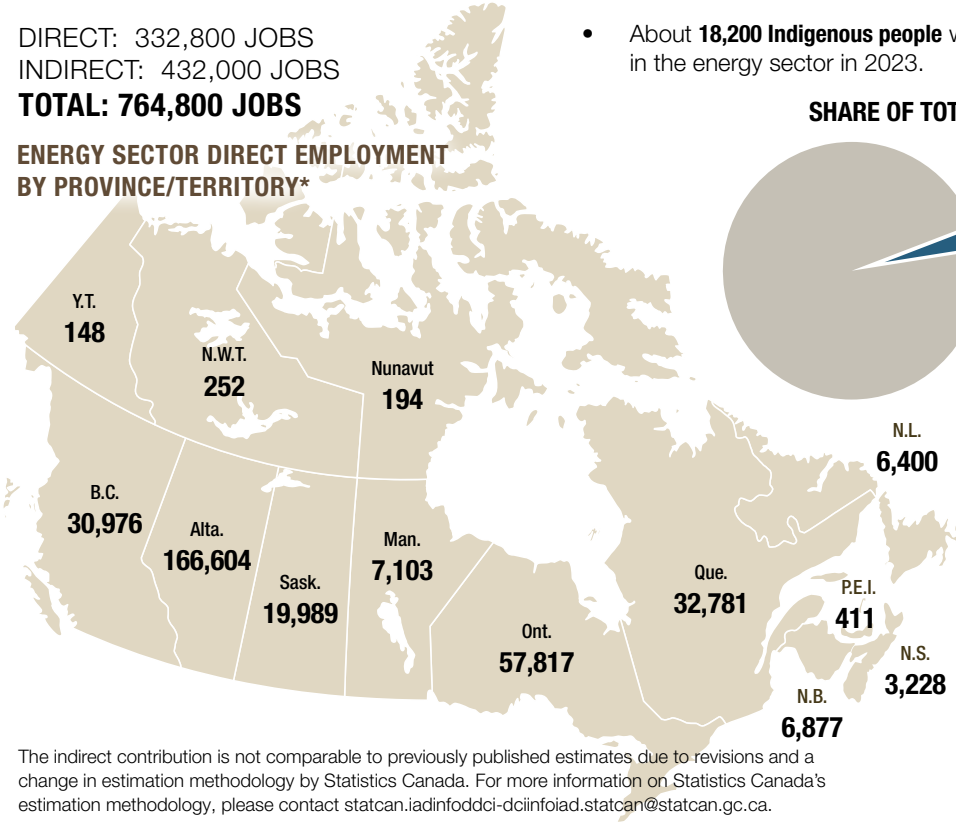
*Provincial/territorial figures do not sum precisely to the national total, due to rounding. Distribution is based on 2024 proportions.

EMPLOYMENT IN CANADA'S ENERGY SECTOR (2025)

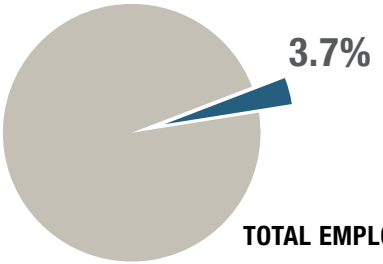
DIRECT: 332,800 JOBS
INDIRECT: 432,000 JOBS
TOTAL: 764,800 JOBS

- About **18,200 Indigenous people** were directly employed in the energy sector in 2023.

ENERGY SECTOR DIRECT EMPLOYMENT BY PROVINCE/TERRITORY*



SHARE OF TOTAL EMPLOYMENT, 2025

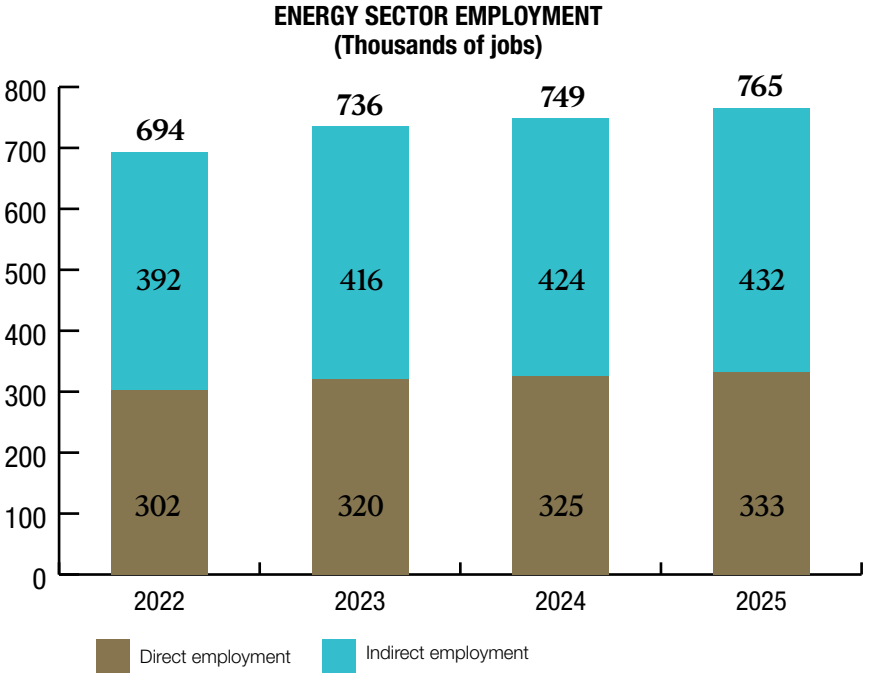


TOTAL EMPLOYMENT

ENERGY DIRECT 1.6%
PETROLEUM 1.0%
ELECTRICITY 0.5%
OTHER 0.1%

ENERGY INDIRECT 2.1%

The indirect contribution is not comparable to previously published estimates due to revisions and a change in estimation methodology by Statistics Canada. For more information on Statistics Canada's estimation methodology, please contact statcan.iadinfoddci-dciinfoiad.statcan@statcan.gc.ca.



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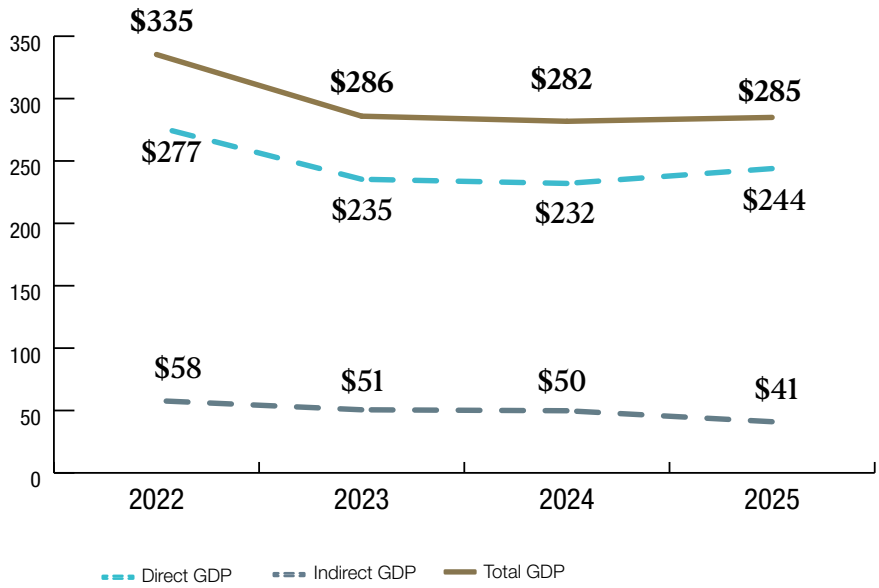
ENERGY SECTOR GDP
(Billions of dollars)



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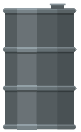
ENERGY TRADE (2025)

Energy exports

$197.8 billion
representing
27%
of total Canadian goods exports



Oil and gas domestic exports totalled
$182 billion
of which
89% were to the U.S.

exported energy products to
137
countries

The U.S. accounts for
85%
of energy exports by value ($168.9 billion)

Exports to the U.S.

	% of Canadian exports destined for U.S.	% of Canadian production exported to U.S.	% of U.S. imports coming from Canada	% of U.S. consumption supplied by Canada
Crude oil	90	82	63	23
Natural gas	97	45	>99	9
Electricity	100	6	81	1
Coal	1	2	19	0.1

Energy imports

$54.4 billion
representing

7%
of total Canadian goods imports

imported energy products from

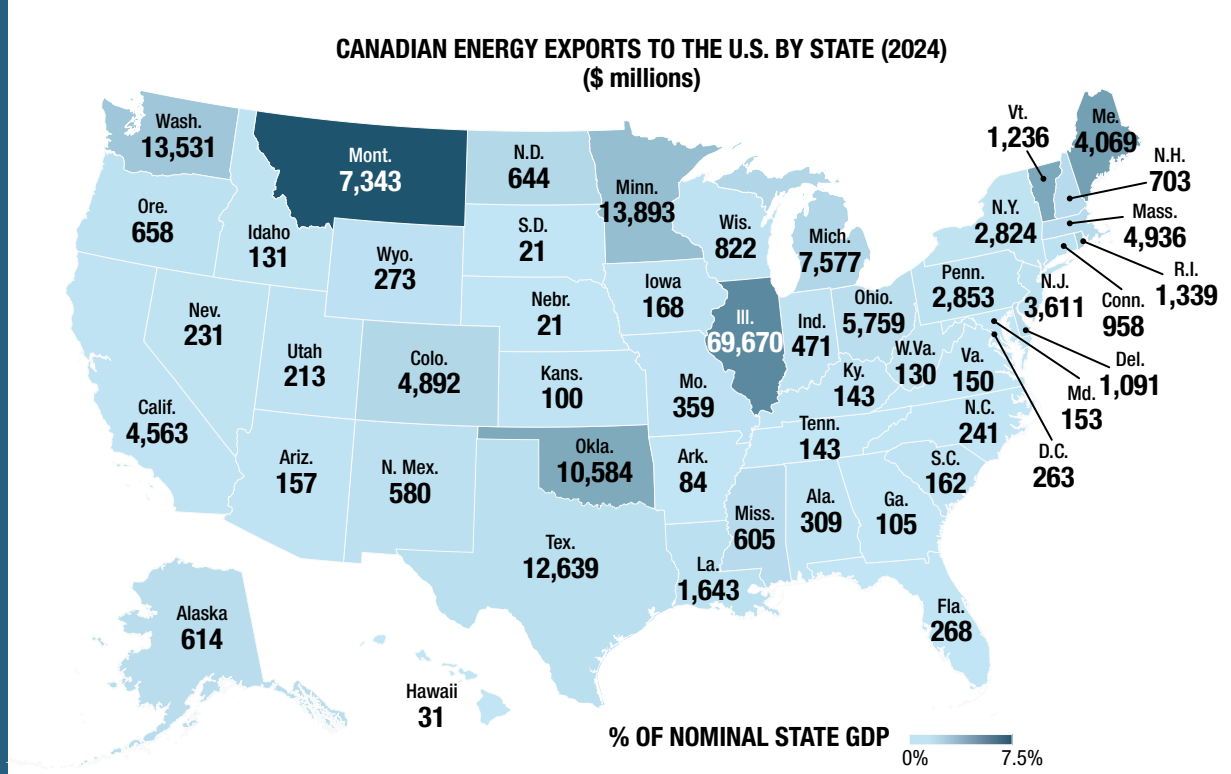
119
countries

The U.S. accounts for

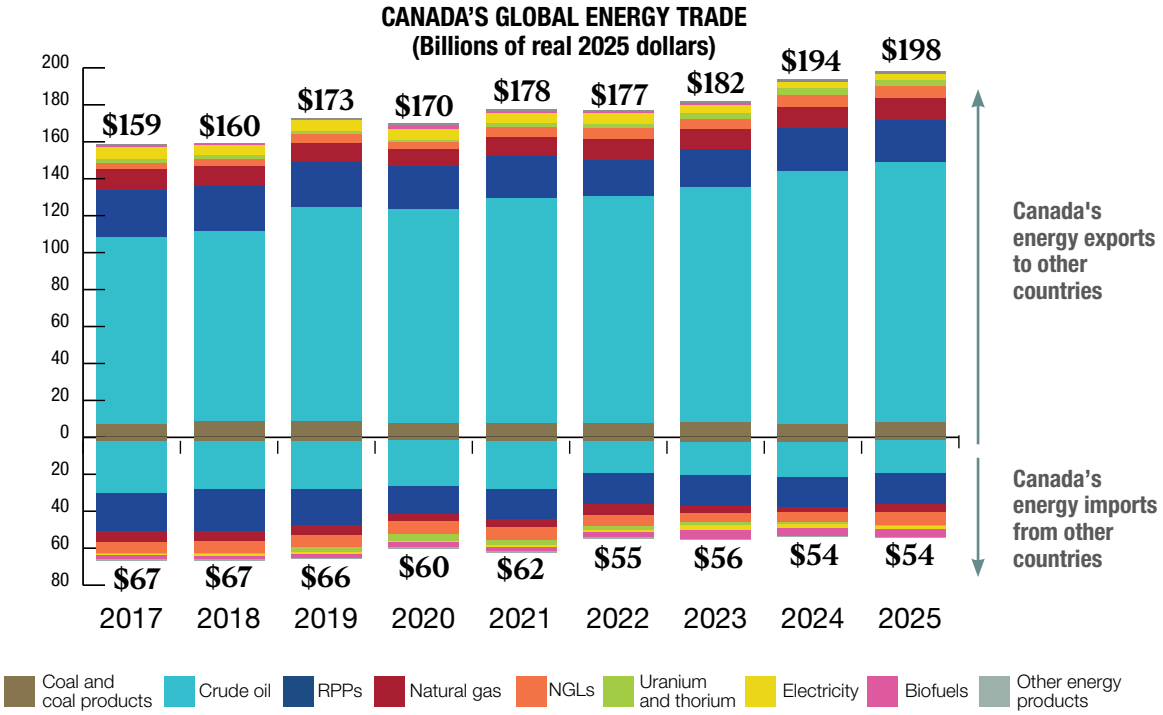
79%
of energy imports by value ($43 billion)

Imports from the U.S.

	% of Canadian imports originating from U.S.	% of U.S. exports destined for Canada	% of Canadian consumption supplied by U.S.
Crude oil	76	10	22
Natural gas	96	12	17
Electricity	100	90	4
Coal	67	5	32



* All exports values in Canadian dollars. Values may not sum to U.S. total due to rounding and additional exports to overseas U.S. Territories.

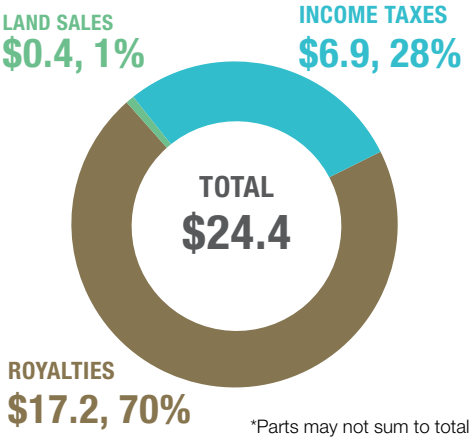


Despite energy price fluctuations, Canada's inflation-adjusted energy trade has remained resilient. From 2017 to 2025 Canada exported nearly **$1.6 trillion** in energy products while importing over **$500 billion**.

GOVERNMENT REVENUES

Federal and provincial/territorial governments in Canada receive direct revenues from energy industries through corporate income taxes, crown royalties, which are the share of the value of oil and gas extracted that is paid to the Crown as the resource owner, and crown land sales, which are paid to the Crown in order to acquire the resource use for specific properties.

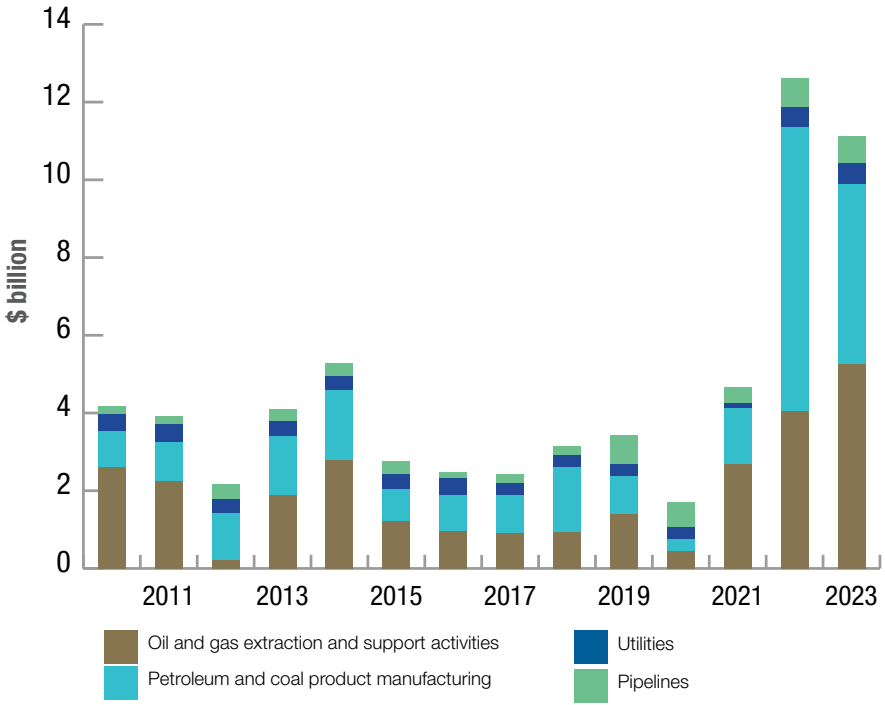
GOVERNMENT ENERGY REVENUE, 2019-2023 AVERAGE ($ BILLIONS)



*Parts may not sum to total due to rounding.

- An important share of government revenues is collected from the petroleum sector, which averaged **$24 billion** over the last five years, including **$20 billion** from upstream oil and gas extraction and its support activities.
- Between 2019 and 2023, the energy sector's share of taxes paid by all industries was **8.0%**. Operating revenues of the energy sector represented **9.1%** of all operating revenues earned by industries in Canada.

CORPORATE INCOME TAXES PAID BY ENERGY INDUSTRIES (Federal and Provincial)



Energy and GHG Emissions

In 2023,

78%

of global GHG emissions from human activity were from the production and consumption of energy.

This includes activities such as using gasoline for transportation, fossil fuel-fired electricity generation, oil and gas production, and heating and cooling buildings.

In Canada, **about 81%** of emissions come from energy. Canadians use more energy because of our extreme temperatures, vast landscape and dispersed population.

The challenges of transitioning to a lower-carbon energy system are numerous, but they also present opportunities for Canada to be a global leader by supporting innovative technologies in the energy sector, including promoting our growing renewables and cleantech sectors.

Since 2000, there has been a decoupling between the growth of Canada's economy and GHG emissions, largely because of technological improvements, regulations, and more efficient practices and equipment.

In 2023, emissions increased slightly as economic activity continued to recover from the impacts of the COVID-19 pandemic, with 2023 emissions 53 Mt lower than in 2019 (-7.1%).

Between 2000 and 2023, Canada's GHG emissions decreased by

7%

while GDP increased

56%

GHG emissions decreased

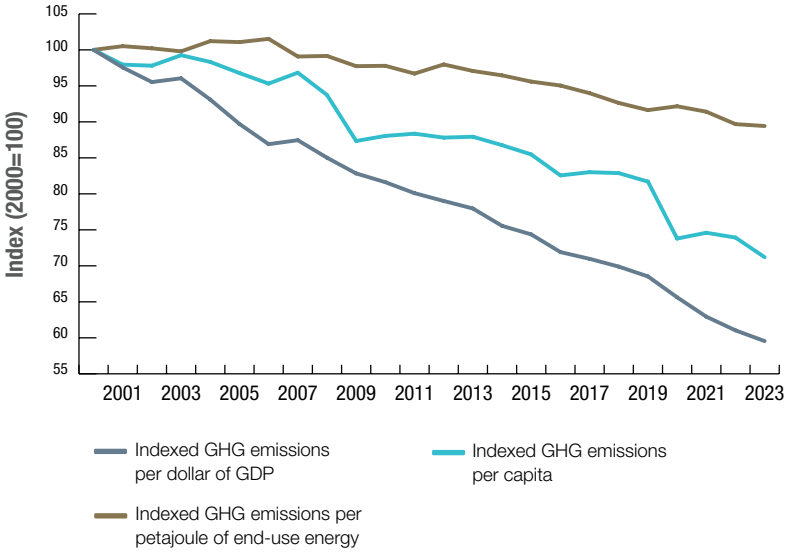
39%

per dollar of GDP and

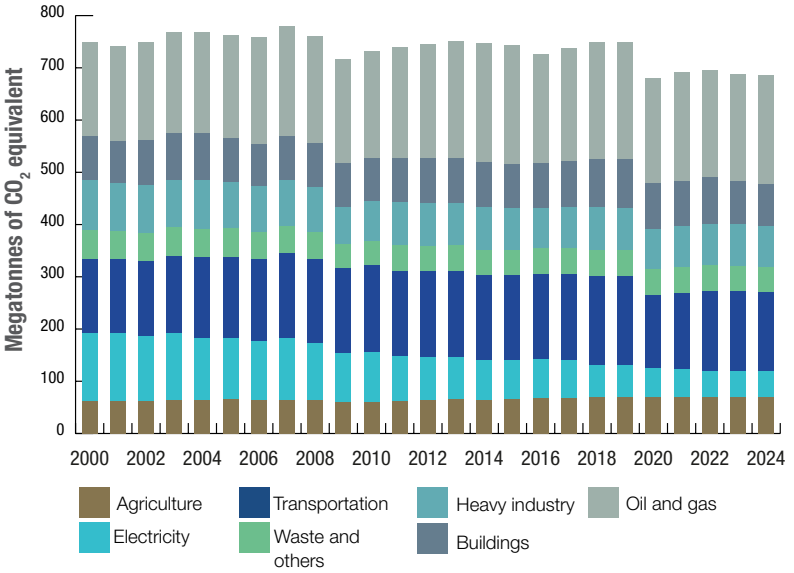
26.1%

per capita.

INDEXED TREND IN GHG EMISSIONS PER PERSON, PER UNIT OF GDP AND PER UNIT OF ENERGY CONSUMED, 2000–2023



GHG EMISSIONS BY CANADIAN ECONOMIC SECTOR, 2000–2024



- Between 2000 and 2024, **emissions from electricity production decreased 61%**, largely because of Ontario's successful coal phase-out action plan, which started in 2001.
- **Emissions from oil and gas production increased 16%** largely due to an increase of 67% in production.
- **Emissions from heavy industry have decreased by 20%** despite an increase in output of the industrial sector. This is due in part to improvements in energy efficiency and fuel switching.

CANADA'S ENERGY INFORMATION LANDSCAPE

Canadian energy data is produced by a diverse range of entities. Established in 2020, the **Canadian Centre for Energy Information (CCEI)** works to consolidate and enhance the quality and accessibility of Canadian energy data.

FEDERAL GOVERNMENT

- Statistics Canada
- Natural Resources Canada
- Canada Energy Regulator
- Environment and Climate Change Canada

PROVINCES & TERRITORIES

- Provincial and territorial governments
- Energy regulators
- Public utilities and system operators

INDUSTRY

- Energy producers
- Infrastructure companies
- Industry associations

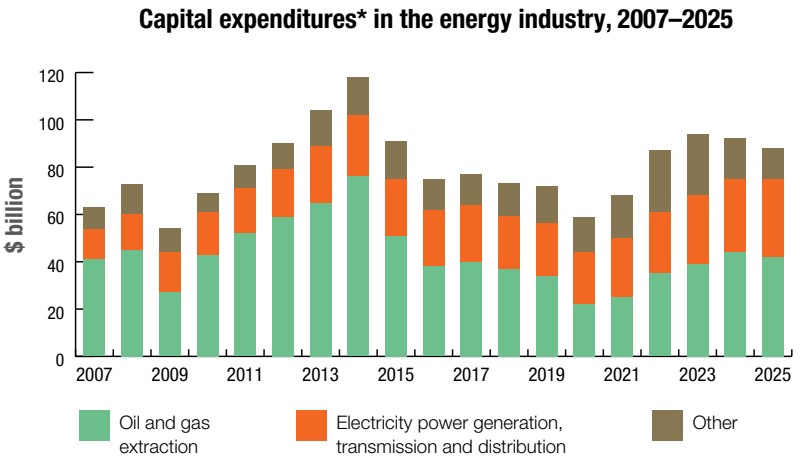
RESEARCHERS

- Universities and scientific institutions
- Independent research organizations
- Collaborative research networks

Section 2: **Investment**

Capital expenditures
Energy infrastructure and major projects
FDI and investment abroad
Energy assets
RD&D
Environmental protection expenditures

Capital Expenditures

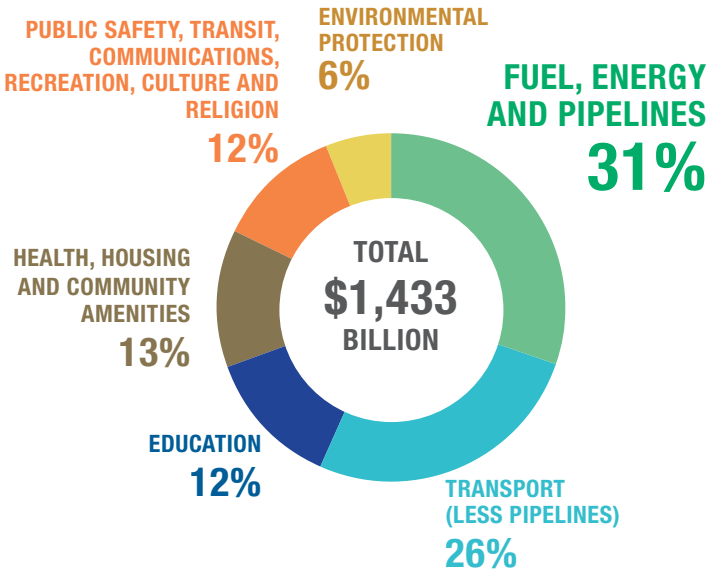


- Capital expenditures in Canada's energy sector totaled **$89 billion** in 2025, a decrease of 24% from a peak in 2014.
- After reaching an eleven year low of **$59 billion** in 2020, investment has rebounded by **51%**.
- Oil and gas extraction was the largest area of energy sector capital expenditure at **$42 billion** in 2025, followed by electrical power generation and distribution ($34 billion).

*Excludes residential expenditures and intellectual property investments such as exploration expenses. Includes investments in renewable electricity, does not capture other forms of renewable energy.

Canada's Energy Infrastructure

Fuel, energy and pipeline infrastructure made up the largest proportion of Canada's infrastructure at **31%** of net stock in 2025.



Statistics Canada defines infrastructure as:

> "the physical structures and systems that support the production of goods and services and their delivery to and consumption by governments, businesses and citizens."

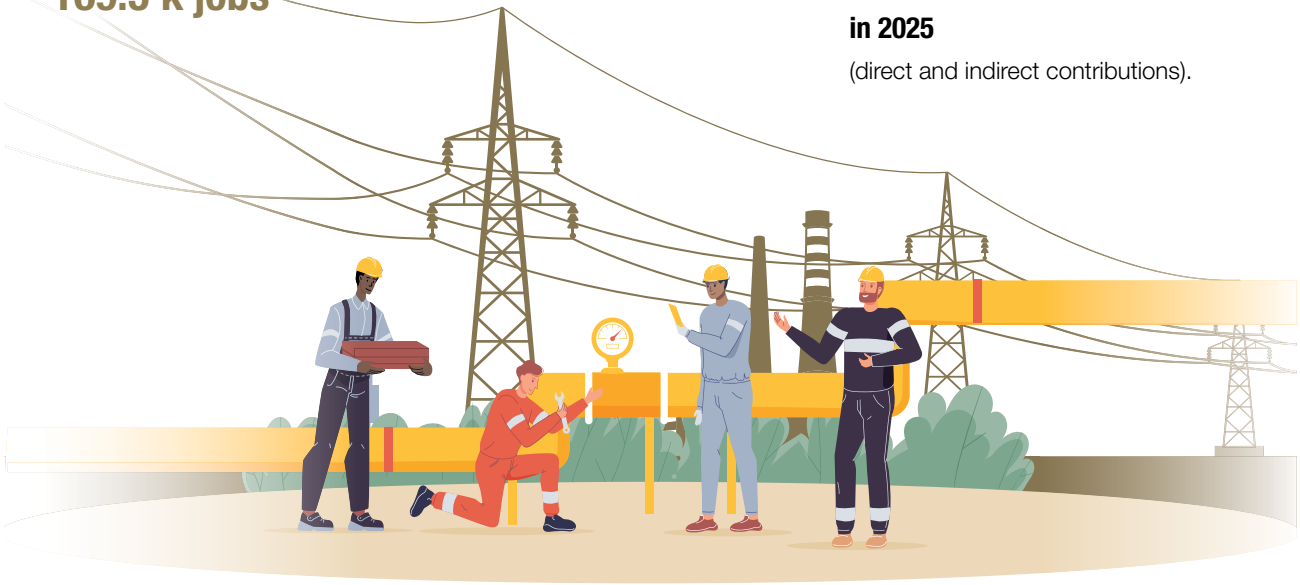
Fuel, energy and pipeline infrastructure includes electric power infrastructure like wind and solar, hydro, nuclear, and thermal generation, power transmission and distribution lines and oil and gas pipelines.

FUEL, ENERGY AND PIPELINE INFRASTRUCTURE INVESTMENT AND OPERATIONS

supported
169.5 k jobs

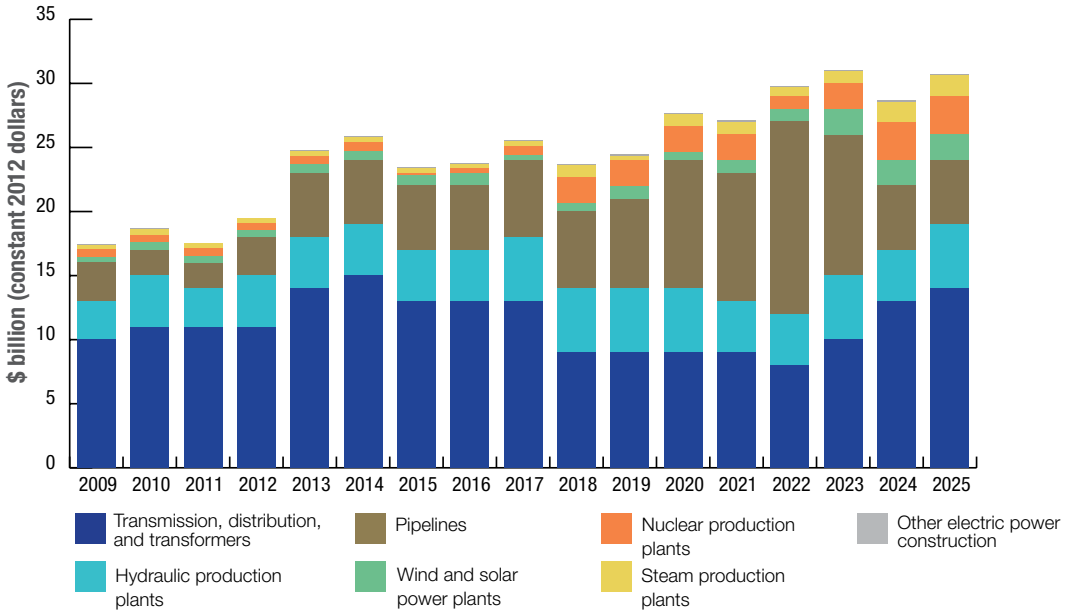
generated $15.7 billion
in employment income

and **$31.4 billion**
in GDP
in 2025
(direct and indirect contributions).



Public and private investment in fuel, energy and pipeline infrastructure in 2025 was **$41.8 billion** (nominal).

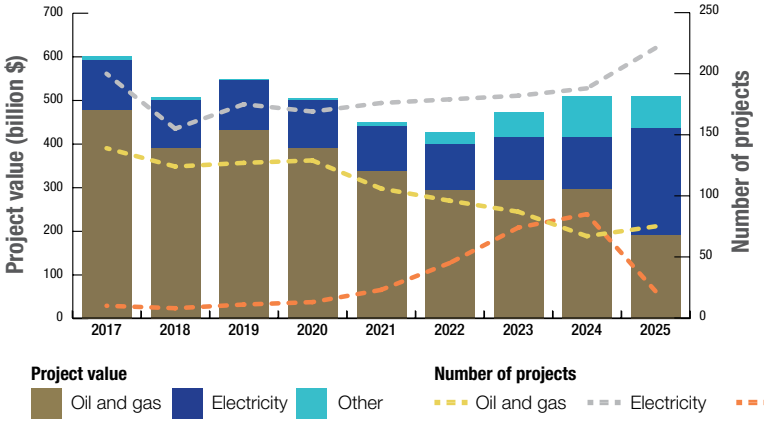
Public and private investment in fuel, energy and pipeline infrastructure, 2009–2025



Canada's Major Energy Projects

- In 2025, there were 205 planned (announced, under review, or approved) energy projects worth **$378B**, and 113 energy projects under construction worth **$132B**.
- Most major projects are in the electricity sector (221), which now represents the largest share of total project value ($243B), surpassing the oil and gas sector.
- There were **186 clean technology projects** valued at **$240B**.

Trends in Major Energy Projects, 2017–2025



Natural Resources Canada's Major Projects Inventory captures information on major natural resource projects in Canada that are either currently under construction or planned in the next 10 years.

Minimum capital thresholds for inclusion are: **$50 million** for oil and gas, **$20 million** for electricity, and **$10 million** for other clean energy or technology projects.

Projects that are either announced, under review, approved and under construction are included.

CLEAN TECHNOLOGY PROJECT TRENDS 2018-2025

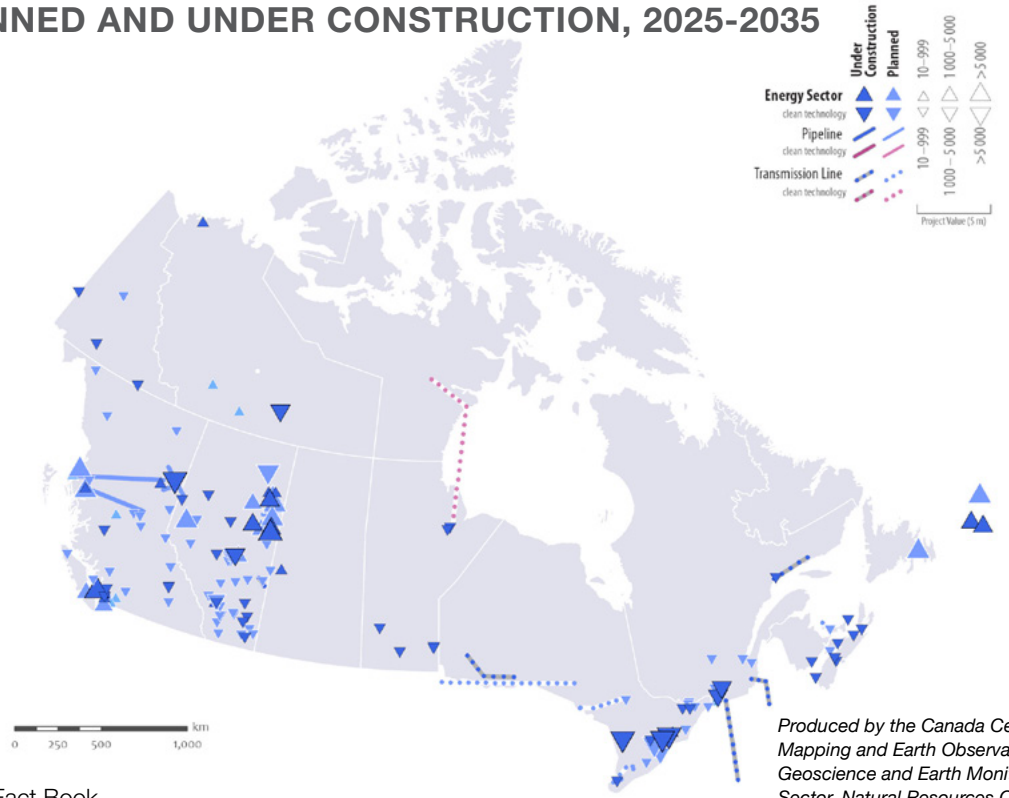
	2018	2019	2020	2021	2022	2023	2024	2025
Total Clean Tech projects	**144 ($109.5B)**	**151 ($99.3B)**	**159 ($99.4B)**	**178 ($104B)**	**197 ($118B)**	**233 ($157.4B)**	**215 ($194.2B)**	**186 ($239.9B)**
Hydro	65 ($48.2B)	70 ($50.0B)	61 ($52.0B)	58 ($39.2B)	63 ($44.8B)	78 ($37.4B)	58 ($30.4B)	46 ($37.7B)
Wind	27 ($9.1B)	31 ($9.4B)	36 ($8.3B)	41 ($14.6B)	35 ($13.4B)	32 ($12.4B)	33 ($26.8B)	34 ($23.3B)
Biomass/Biofuels	33 ($6.4B)	32 ($3.0B)	29 ($4.6B)	31 ($8.0B)	35 ($9.4B)	47 ($14.3B)	41 ($12.6B)	26 ($7.1B)
Solar	7 ($0.9B)	6 ($0.7B)	13 ($1.4B)	22 ($2.2B)	30 ($3.0B)	31 ($6.2B)	36 ($8.8B)	31 ($6.4B)
Nuclear	5 ($28.5B)	5 ($28.5B)	3 ($26.1B)	4 ($27.4B)	3 ($26.1B)	2 ($25.8B)	3 ($51.8B)	5 ($87.9B)
Carbon Capture and Storage	3 ($16.3B)	2 ($7.2B)	1 ($6.0B)	2 ($11.3B)	6 ($15.5B)	9 ($38.3B)	8 ($38.3B)	6 ($19.4B)
Geothermal	1 ($0.0B)	2 ($0.2B)	3 ($0.3B)	5 ($0.4B)	4 ($0.4B)	4 ($0.4B)	4 ($0.4B)	2 ($0.2B)
Tidal	0 ($0.0B)	1 ($0.1B)	6 ($0.3B)	6 ($0.3B)	7 ($0.4B)	7 ($0.4B)	4 ($0.2B)	2 ($0.05B)
Multiple[1]	0 ($0.0B)	0 ($0.0B)	0 ($0.0B)	1 ($0.03B)	1 ($0.03B)	1 ($0.03B)	1 ($0.03B)	6 ($8.3B)
Other[2]	3 ($0.1B)	2 ($0.1B)	7 ($0.4B)	8 ($0.5B)	13 ($5.3B)	22 ($22.1B)	25 ($23.8B)	28 ($49.5B)

[1] "Multiple" includes developments such as the Haida Gwaii Clean Energy Project, a multi-phased project consisting of hydro and solar sites.

[2] "Other" includes initiatives such as hydrogen production, battery storage, and industrial decarbonization projects.

MAJOR ENERGY PROJECTS

PLANNED AND UNDER CONSTRUCTION, 2025-2035

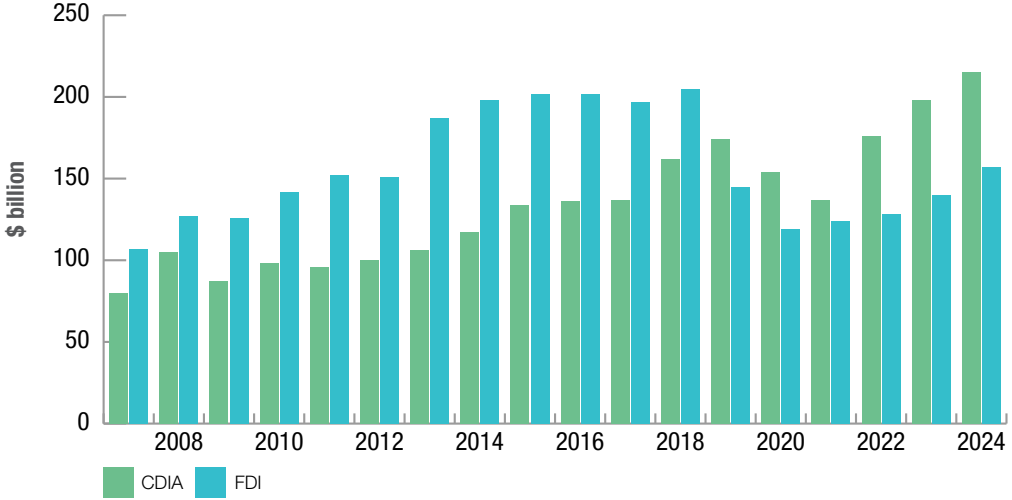


Produced by the Canada Centre for Mapping and Earth Observation, Geoscience and Earth Monitoring Sector, Natural Resources Canada 2026

INTERNATIONAL INVESTMENTS AND INVESTORS

Canada's energy industries operate in free markets, where investments by both Canadian and foreign companies ensure an efficient, competitive and innovative energy system.

Stock of foreign direct investment (FDI)* in Canada and Canadian direct investment abroad (CDIA) in the energy industry



* Direct investment is defined as a company owning a minimum of 10% of voting equity interest in a foreign enterprise and is measured as the total equity value at the time of acquisition. Excludes residential expenditures and intellectual property investments such as exploration expenses.

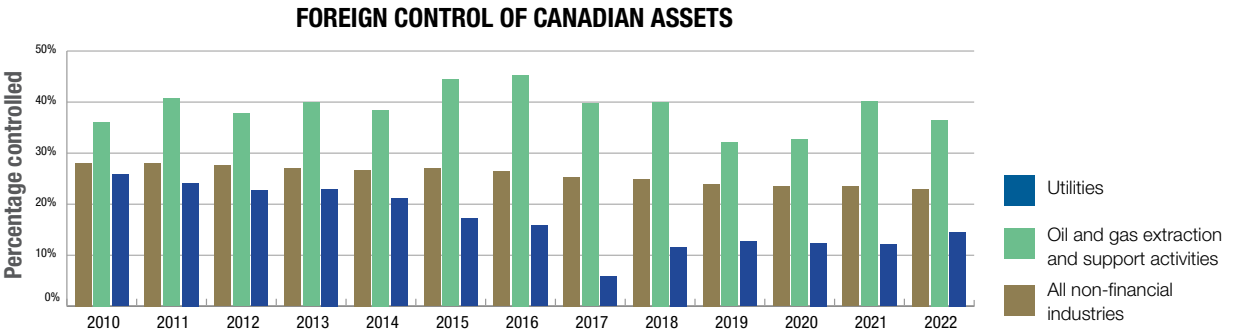
FDI and CDIA include investments in renewable electricity, do not capture other forms of renewable energy.

Stock of Foreign Direct Investment in Canada and Canadian Direct Investment Abroad

- The stock of **foreign direct investment** (FDI) in the energy sector rose in 2024 to **$157 billion** (+12.4% over the previous year).
- The energy industry's share of overall FDI in Canada was **10%** in 2024, same as in 2023.
- The stock of **Canadian direct investment abroad** (CDIA) was valued at **$215 billion** in 2024, up 8% from 2023.
- Investment in oil and gas extraction accounted for **$36 billion** of the CDIA stock in 2024.

FOREIGN CONTROL OF CANADIAN ASSETS

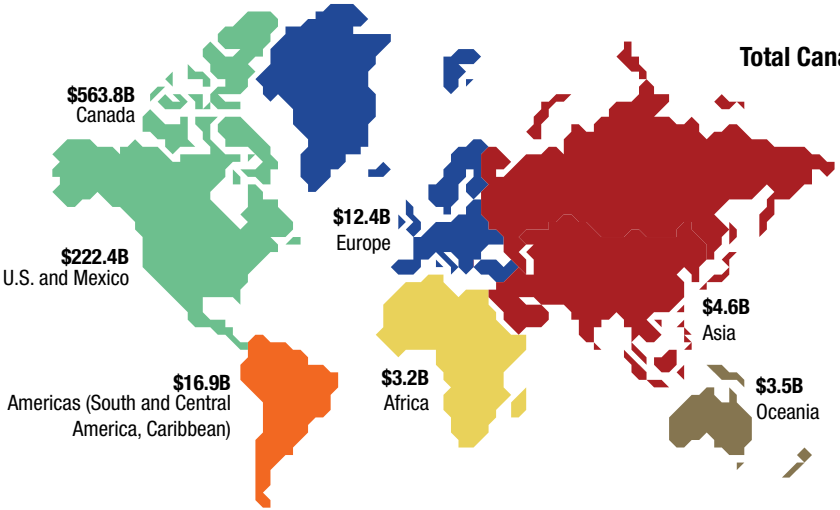
Foreign control is a measure of the extent to which foreign entities operate in Canada. Generally, a corporation is deemed to be foreign-controlled if **more than 50%** of its shares are owned by one or more foreign companies.



Canadian Energy Assets

The total value of Canadian* energy assets (CEA) went up in 2023 to **$827 billion**, an increase of **9.4%** from **$756 billion** in 2022. In 2023, domestic CEA totaled **$564 billion, up 12.9%** from 2022, while CEA abroad totaled **$263 billion**, up from **$256 billion**.

CANADIAN ENERGY ASSETS BY REGION, 2023



Total Canadian energy assets

$827B

Total Canadian energy assets abroad

$263B

* A Canadian company is here defined as a publicly traded company headquartered in Canada and not foreign-controlled.

Research, Development and Demonstration

CANADIAN TOTAL EXPENDITURES ON ENERGY RD&D

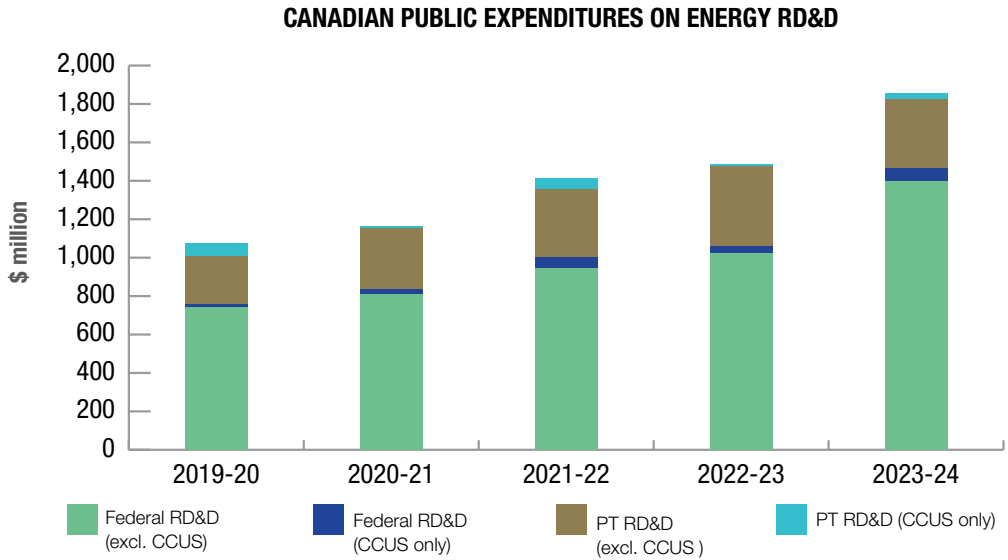
In 2023-24, federal energy RD&D expenditures were $1,464M and provincial and territorial (P&T) government energy RD&D expenditures were $396M, for a combined total of $1,860M.

In 2023-24, federal spending increased by **38% ($404M) compared to 2022-23**. Energy efficiency contributed significantly to the total federal spending (46%), doubling its investment in 2023-24 (668M) compared to 2022-23 (385M).

Canada has made international commitments to advance federal energy RD&D expenditures - including through Mission Innovation (MI) and through Canada's 2022 commitment of **$2B** in pre-allocated money to the Clean Energy Technologies Demonstration Challenge, mobilizing public investments internationally for clean energy demonstrations by 2026. Now at the mid-point of this commitment, federal demonstration investments from 2021-22 to 2023-24 have totalled **$1.38B** and remain on track to meet the 2026 commitment.

In 2023-24, P&T spending decreased by **7% (a $29M decrease)** due mostly to fossil fuels (excluding CCUS) and renewables. CCUS had a significant increase by **$22M to $31M** in 2023-24, compared to $9M in 2022-23. Similarly, energy efficiency had an increase by **$22M to $142M** in 2023-24, compared to **$120M** in 2022-23.

Canadian industry spent about **$2.7B** on energy R&D in 2022, an increase from the spending reported in 2021 **($2.3B)**.



* Provincial and territorial (P/T) includes utilities and other publicly owned entities (i.e. State-Owned Entities).

Generally, federal and provincial/territorial energy RD&D spending continues to increase with significant and steady federal contributions. In 2023-24, combined federal, provincial/territorial CCUS spending increased, similar to the combined spending in 2019-20.

EXPENDITURES ON ENERGY RD&D BY TECHNOLOGY AREA ($ MILLIONS)

	Federal (2023-24)	Provincial and territorial (2023-24)	Industry (2022)
Hydrocarbons (including CCUS)	138	57	998
Renewable and non-emitting energy**	576	138	803
Energy end use***	751	201	896
Total*	1,464	396	2,697

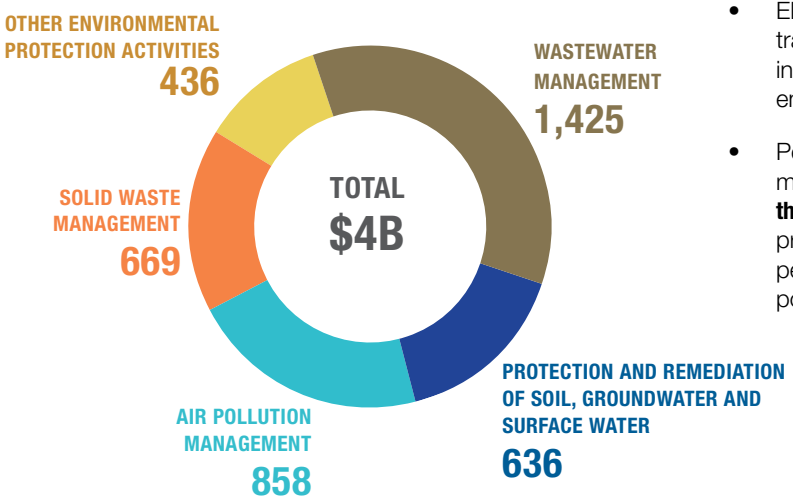
* Totals may not be exact due to rounding.
** Renewable and non-emitting energy includes renewable and nuclear energy.
*** Energy end use includes energy efficiency related to transport, industry and buildings & communities.
Note: Latest data for industry spending was not available at the time of this publication.

Environmental Protection Expenditures

Environmental protection expenditures (operating and capital spending combined) by the energy sector totalled **$6.1 billion** in 2023, representing **51%** of expenditures made by all industries.

The oil and gas sector ($4 billion) accounts for the largest share of those expenditures, at 34% of total environmental protection expenditures made by all industries.

OIL AND GAS EXTRACTION EXPENDITURES PER ENVIRONMENTAL ACTIVITY (2023, $ MILLIONS)



- Electric power generation, transmission and distribution invested **$868 million** on environmental protection measures.
- Petroleum and coal product manufacturing invested **more than $1 billion** in environmental protection activities, with the largest percentage of spending (89%) in pollution abatement and control.

Section 3:
Skills, Diversity and Community

Energy sector demographics
Energy affordability
Energy reliant communities

Energy Sector Demographics (2023)

Women held **24%** of energy sector jobs.

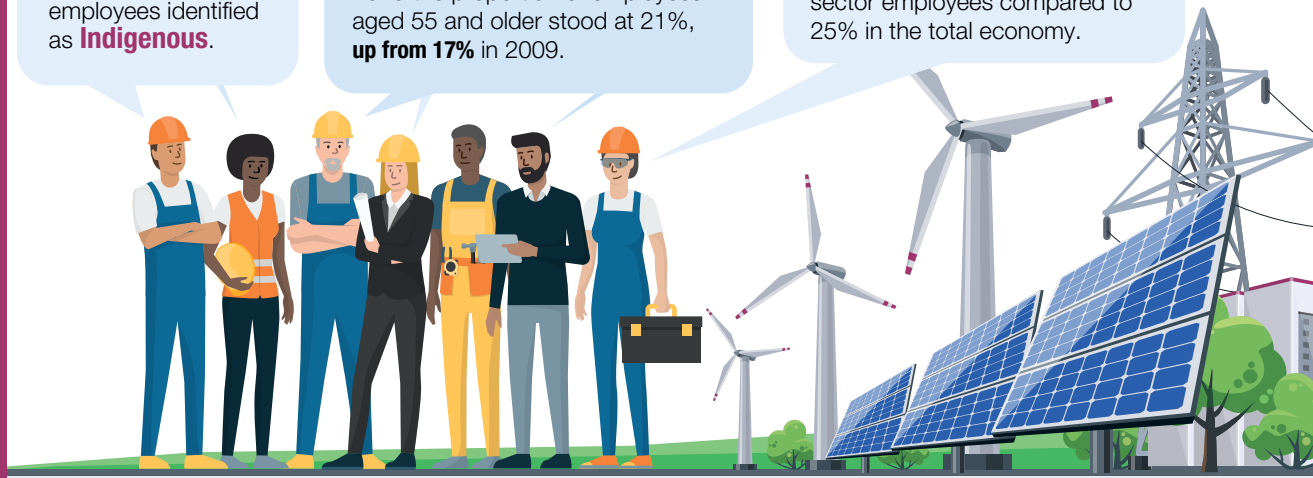
Nearly three-quarters (75%) of employees in the energy sector had more than a high school education and **57%** of workers had a **college diploma or university degree**.

Since 2009, the workforce in the energy sector has become **increasingly diverse**. In 2023, **21%** of the workforce identified as members of a visible minority group, up from **17%** in 2009.

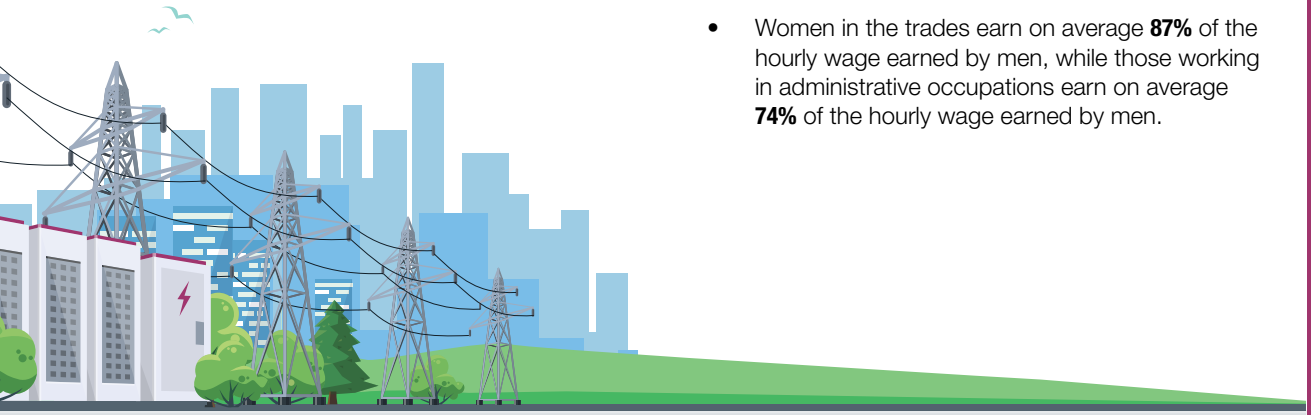
6% of energy sector employees identified as **Indigenous**.

The workforce in the energy sector has been **aging over time**. In 2023 the proportion of employees aged 55 and older stood at 21%, **up from 17%** in 2009.

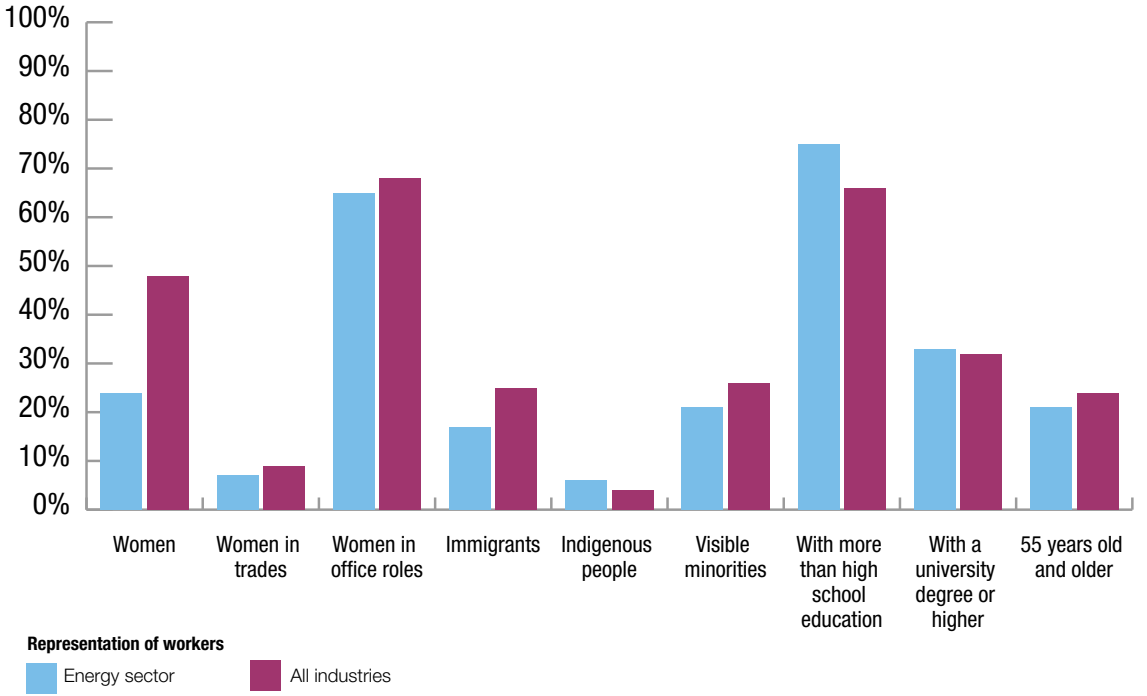
Immigrant workers represented **17%** of energy sector employees compared to 25% in the total economy.



- Energy sector jobs paid an average of **$129,498** per year, while the average Canadian job paid **$62,459**.
- The **gender wage gap** closed slightly in the energy sector in 2023, with women earning on average **85%** of the hourly wage earned by men. In contrast, in 2009, women earned on average **75%** of the hourly wages earned by men.
- Jobs requiring a **university degree** had the highest average compensation, reaching **$158,593**.
- Among **occupation types**, women in the energy sector are highly represented in office roles (administrative, general office worker, and auditor accountants and investment professionals) at **65%** of these occupations. Men are highly represented in trades (holding **93%** of these occupations).
- Women in the trades earn on average **87%** of the hourly wage earned by men, while those working in administrative occupations earn on average **74%** of the hourly wage earned by men.



Representation of demographic groups in the energy sector compared to all industries

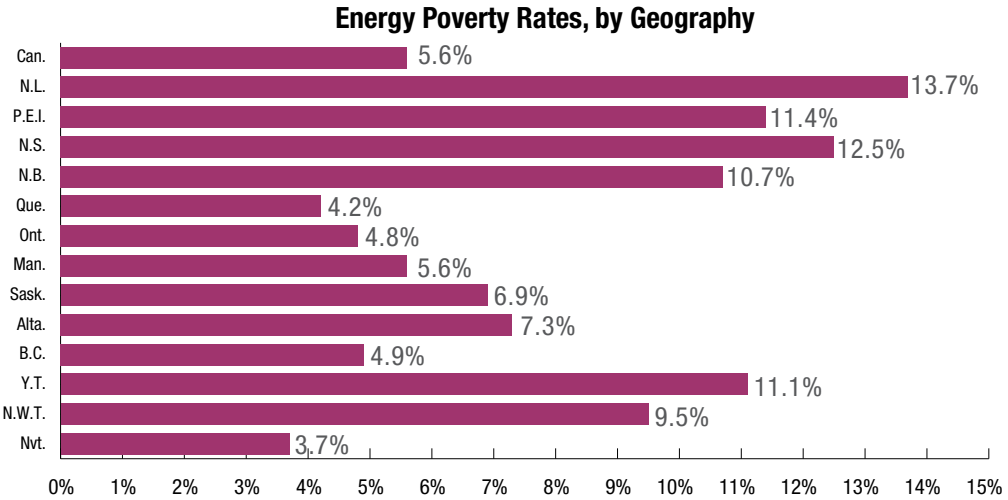


Energy Affordability

In 2023, in-home energy expenditure by Canadian households averaged **$2,376**. This represented 3% of the average disposable income.

When households spend 10% or more of their income on energy needs, this is referred to as **energy poverty**.

Overall, 5.6% of Canadian households spent 10% or more of their income on energy. This share varies considerably across regions and income levels.



Energy poverty rates are based on the number of energy poor households divided by total households.

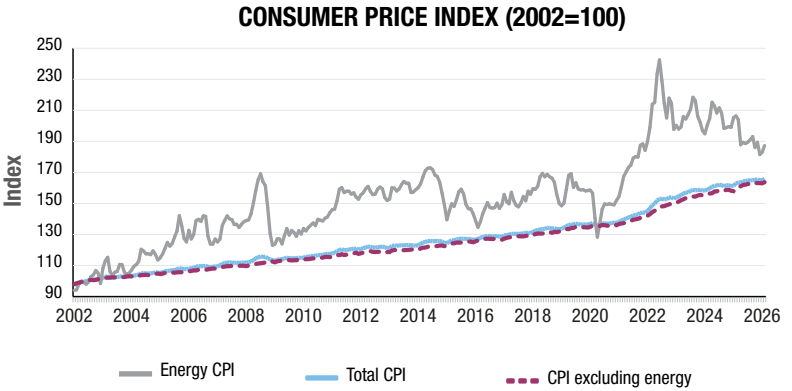
Energy, in this context, includes what is needed inside the home (i.e. space heating, appliances), and excludes transportation.

HOUSEHOLD EXPENDITURES ON ENERGY

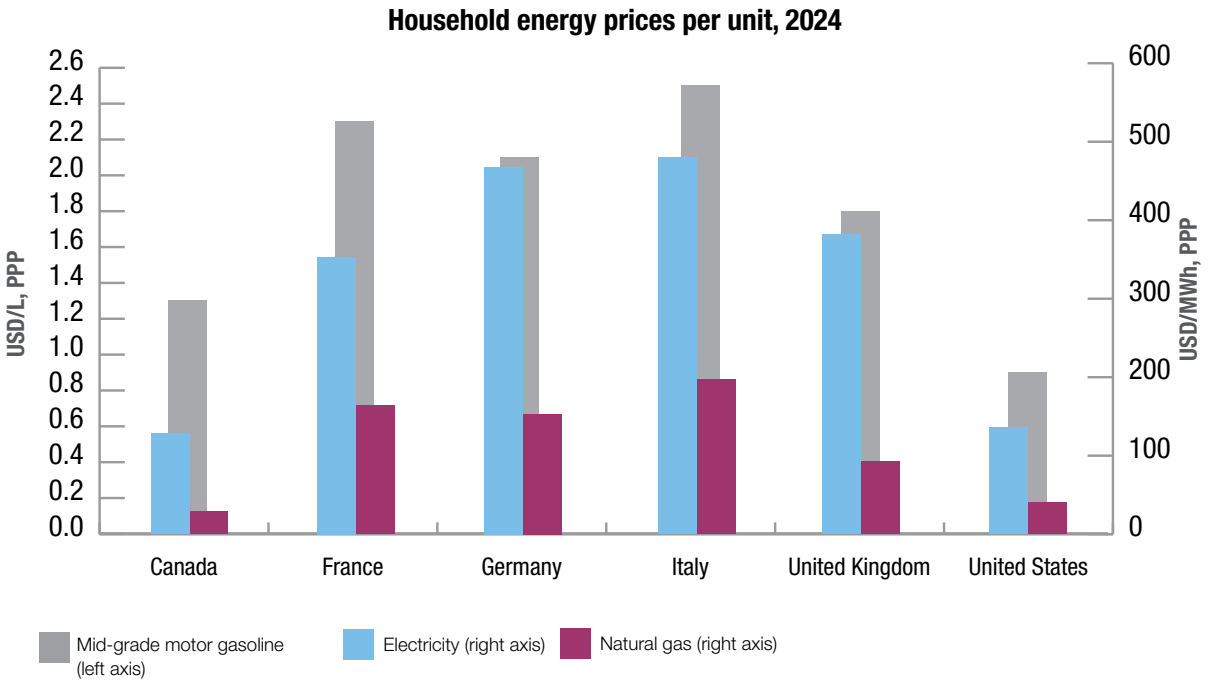
- Canadian households spent **$4,943** on average on energy in 2023.
- Residential expenditures, including for heating/cooling spaces, lighting and operating appliances, averaged **$2,376**.
- Expenditures on fuels for vehicles and tools averaged **$2,567**.
- Energy accounted for **6.4%** of household spending after income taxes, pension contributions, and other deductions. Lower-income households spend a larger share of their disposable income on energy.

ENERGY RETAIL PRICES

- The “energy” component of the consumer price index (CPI) has been volatile in recent years and has grown much faster than the non-energy component.
- This volatility reflects mostly the variations of upstream oil and gas prices and their impact on consumer products such as gasoline.



IN COMPARISON WITH OTHER DEVELOPED ECONOMIES, CANADA'S ENERGY PRICES ARE RELATIVELY LOW.

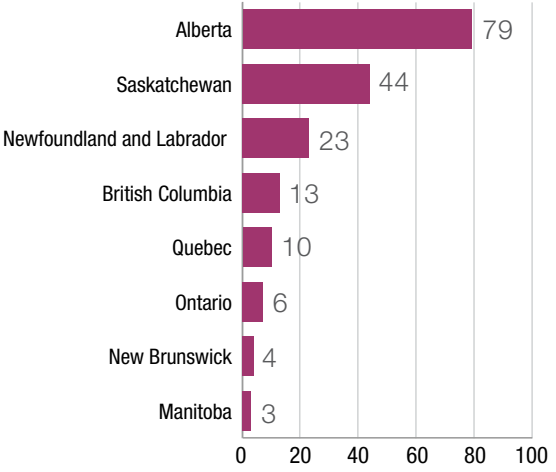


Energy Reliant Communities

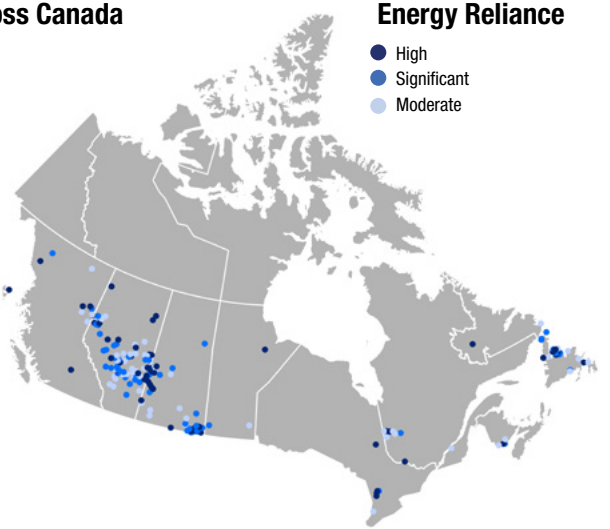
A community that has a higher share of employment from a specific sector, a relatively high share of total income from that sector, and relatively low sectoral diversity in their economy compared to the average Canadian community can be described as reliant on that sector.

There are **182 communities across Canada that are at least moderately reliant** on the energy sector. Of these communities, **80% are rural or remote**.

Distribution of energy reliant communities across Canada



Energy Reliance



Section 4:
Energy Efficiency

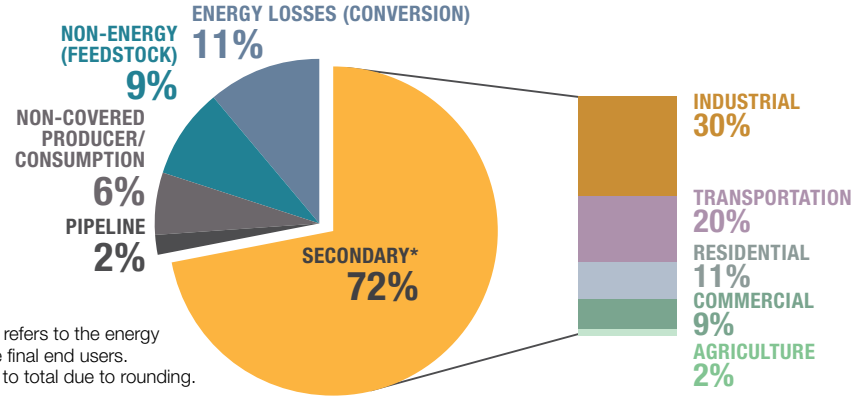
Energy use
Efficiency trends

Energy use

PRIMARY AND SECONDARY ENERGY USE BY SECTOR (2023)

- Primary energy use measures the total energy requirements of all energy users.
- Secondary energy use accounts for the energy used by final consumers in the economy.
- Primary energy use includes secondary energy use. Additionally, primary energy use includes the energy required to transform one form of energy into another (e.g. coal to electricity); the energy used to bring energy supplies to the consumer (e.g. pipeline); and the energy used to feed industrial production processes (e.g. the natural gas used as feedstock by the chemical industries).
- Not every fuel is consumed as energy. For example, hydrocarbon gas liquids in Canada are also used as a non-energy feedstock in the petrochemical industry.
- Canada's primary energy consumed was estimated at **12,538 PJ**.

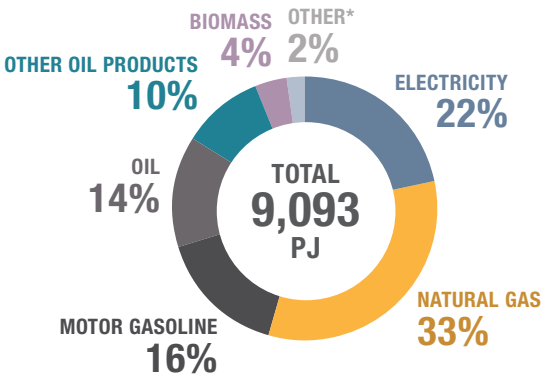
PRIMARY AND SECONDARY ENERGY USE BY SECTOR, 2023



*Secondary energy refers to the energy used directly by the final end users.
Parts may not sum to total due to rounding.

- Secondary energy use includes the energy used to run vehicles; the energy used to heat and cool buildings; and the energy required to run machinery.
- Canada's secondary energy use in 2023 was **9,093 PJ**.
- Total secondary energy use **increased 13%** from 2000 to 2023. Natural gas usage grew by **40%** while electricity usage increased 15%, during the same period.

CANADA'S SECONDARY ENERGY USE BY FUEL TYPE, 2022



* "Other" includes coal, coke, coke oven gas, NGLs and steam and waste. Parts may not sum to total due to rounding.

ENERGY IN OUR DAILY LIVES

- Canadian households use energy every day – to power lights and appliances, heat or cool spaces, run personal vehicles, recharge electronics and more.
- **79%** of residential energy consumption is used for space and water heating.
- Residential energy efficiency improved by **38%** between 2000 and 2023, **saving 520 PJ** of energy and **$13.4 billion in energy costs**.

Residential energy use decreased

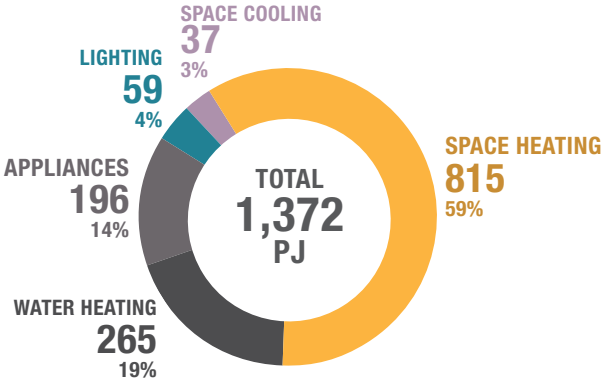
1% **since 2000,**

but would have increased by

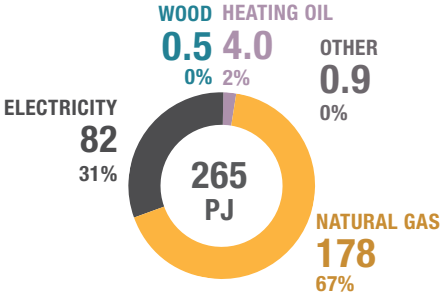
37%

without energy efficiency improvements.

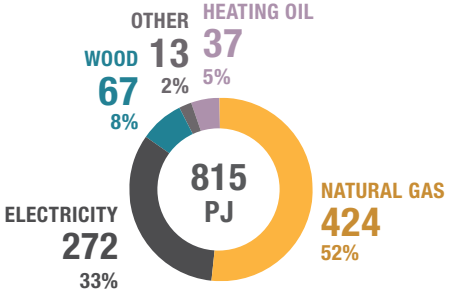
RESIDENTIAL ENERGY USE, BY TYPE (PJ), 2023



WATER-HEATING ENERGY USE (PJ), 2023

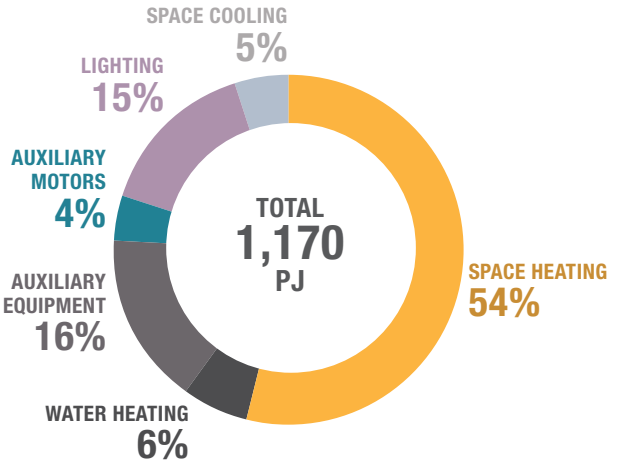


SPACE-HEATING ENERGY USE (PJ), 2023



Parts may not sum to total due to rounding.

COMMERCIAL AND INSTITUTIONAL ENERGY USE BY END USE, 2023



Commercial and institutional energy use increased between 2000 and 2023

18%

but would have increased

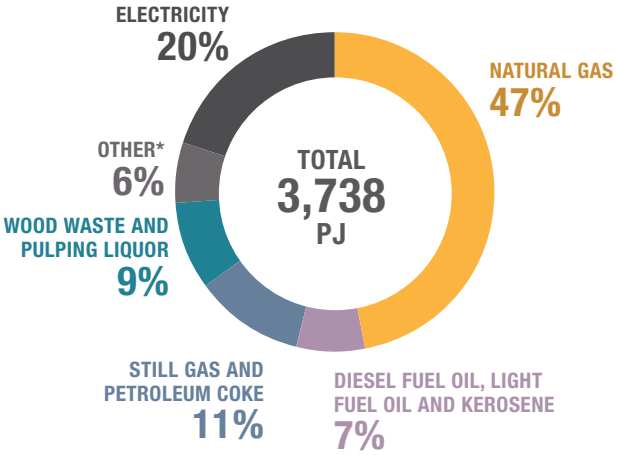
29% **without energy efficiency improvements.**

Energy intensity (GJ/m²) decreased

8%.

Since 2000, energy efficiency in the commercial and institutional sector has **improved 11%**, saving 109 PJ of energy and **$3.3 billion** in energy costs in 2023.

INDUSTRIAL SECTOR ENERGY USE BY FUEL TYPE, 2023



- The **industrial sector** includes all manufacturing, mining (including oil and gas extraction), forestry and construction activities.
- From 2000 to 2023, **industrial energy use increased 18%**.
- Excluding resource extraction industries, **energy efficiency improvements of 4%** in the industrial sector resulted in **savings of 102 PJ** and **$1.5 billion** in energy costs in 2023.

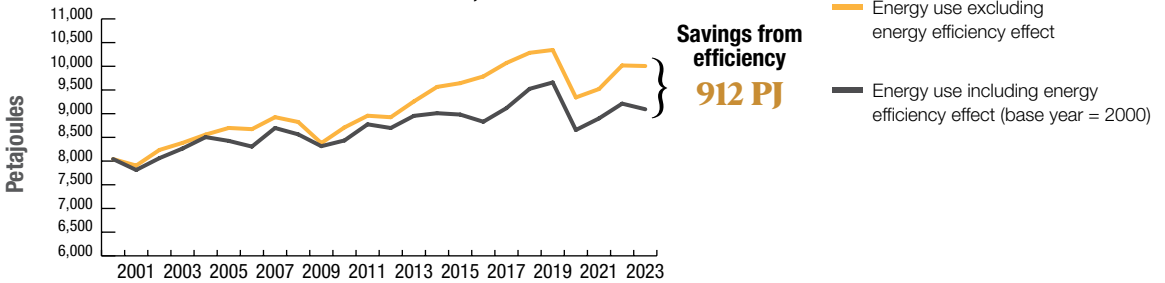
* "Other" includes HFO, coke and coke oven gas, coal, LPGs, NGLs, steam and waste.
Parts may not sum to total due to rounding.

Efficiency Trends

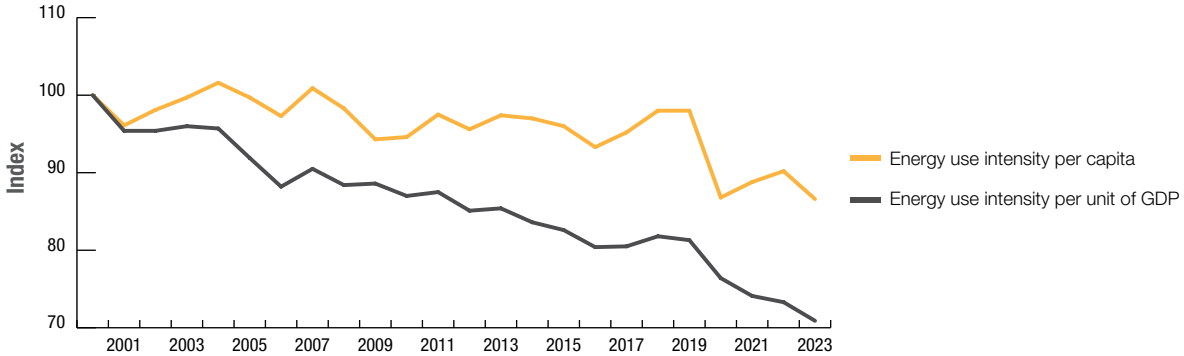
HISTORICAL ENERGY EFFICIENCY

- **Energy efficiency** is a measure of how effectively energy is used for a given purpose and is an important path toward decarbonization.
- **Energy intensity** is the ratio of energy use per unit of activity (such as floor space and GDP).
- **Efficiency improvements** slow the rate of growth in energy use.
- **Energy efficiency** in Canada **improved by 14%** between 2000 and 2023.
- **Energy use grew by 13%** between 2000 and 2023. Without energy efficiency improvements, energy use would have **grown by 24%**.
- **Energy efficiency savings** of **912 PJ** in 2023 were equivalent to end-user savings of **$38 billion**.

SECONDARY ENERGY USE WITH AND WITHOUT ENERGY EFFICIENCY EFFECT, 2000–2023



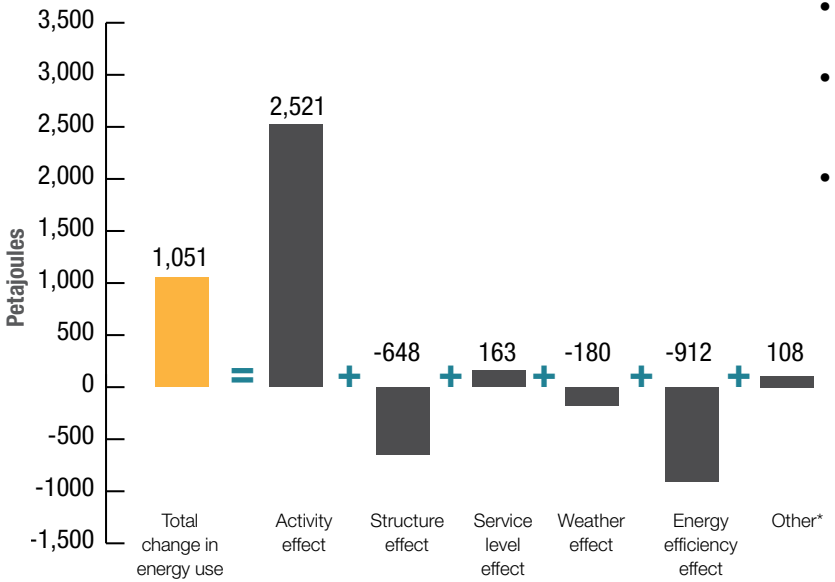
INDEXED TOTAL SECONDARY ENERGY USE INTENSITY PER CAPITA AND PER UNIT OF GDP, 2000–2023 (2000=100)



Per capita energy consumption was 13% lower in 2023 than in 2000.

Canada used 29% less energy per dollar of GDP in 2023 than in 2000.

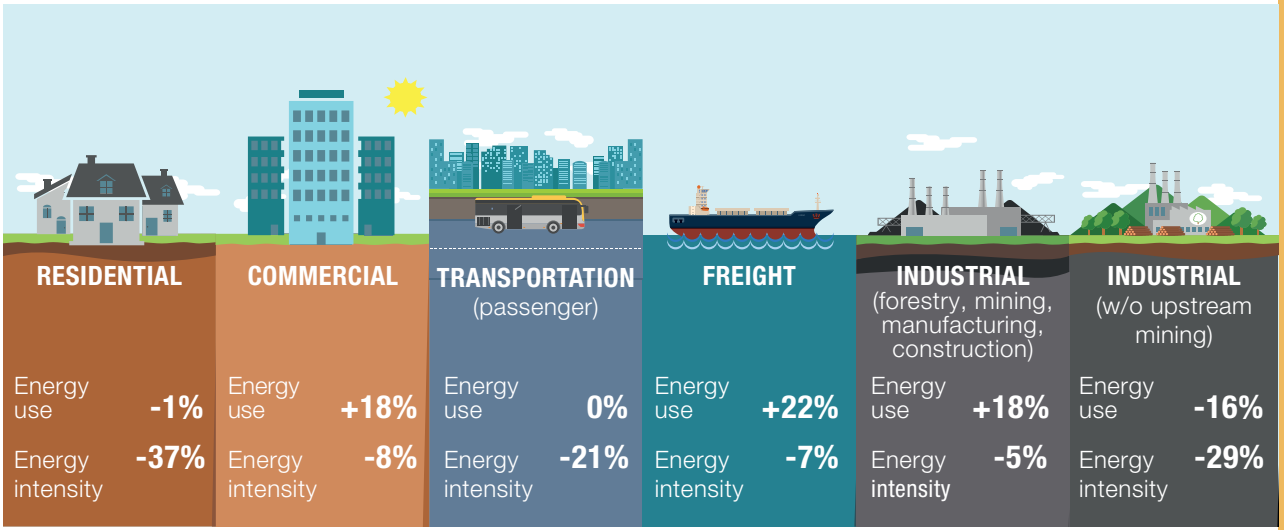
SUMMARY OF FACTORS INFLUENCING THE CHANGE IN ENERGY USE, 2000–2023



- **Activity**: major drivers of energy use in a sector (e.g. floor space area in the commercial/institutional sector)
- **Structure:** refers to change in the makeup of each sector
- **Service level:** increased penetration of auxiliary equipment in commercial/institutional buildings
- **Energy efficiency:** how effectively energy is being used for a given purpose. For example, providing a similar (or better) level of service with less energy consumption on a per unit basis is considered an improvement in energy efficiency.

* "Other" refers to street lighting, non-commercial airline aviation, off-road transportation and agriculture, which are included in the "Total change in energy use" column but are excluded from the factorization analysis.

TRENDS IN ENERGY USE AND INTENSITY BY SECTOR, 2000–2023

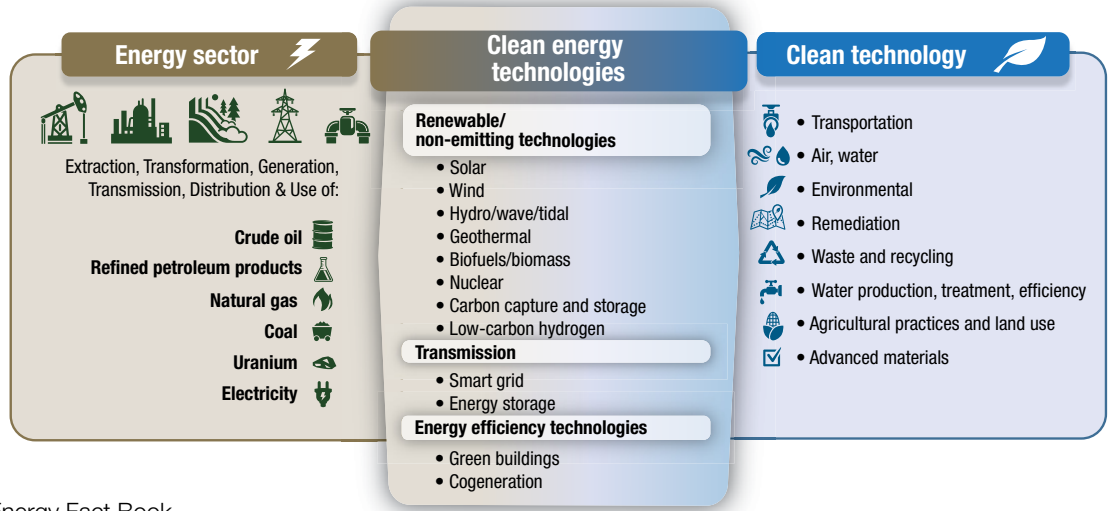


Section 5:
Clean Power and Low Carbon Fuels

Clean technology and electricity generation mix
Renewable energy
Biofuels and transportation

Clean Technology and the Economy

- In 2017, the Government of Canada invested in a Clean Technology Data Strategy to provide the foundation for measuring the economic, environmental and social impacts of clean technology in Canada.
- As part of this strategy, Statistics Canada has developed the Environmental and Clean Technology Products Economic Account (ECTPEA), which provides a comprehensive picture of the state of Canada's clean technology economy for the years from 2007 to 2023.
- The ECTPEA includes processes, products and services that reduce environmental impacts through environmental protection and resource management activities and the use of goods that have been adapted to be significantly less energy- or resource-intensive than the industry standard.



Environmental and clean technology (2024):

$87.6 billion of GDP
(**3.0%** of total GDP)

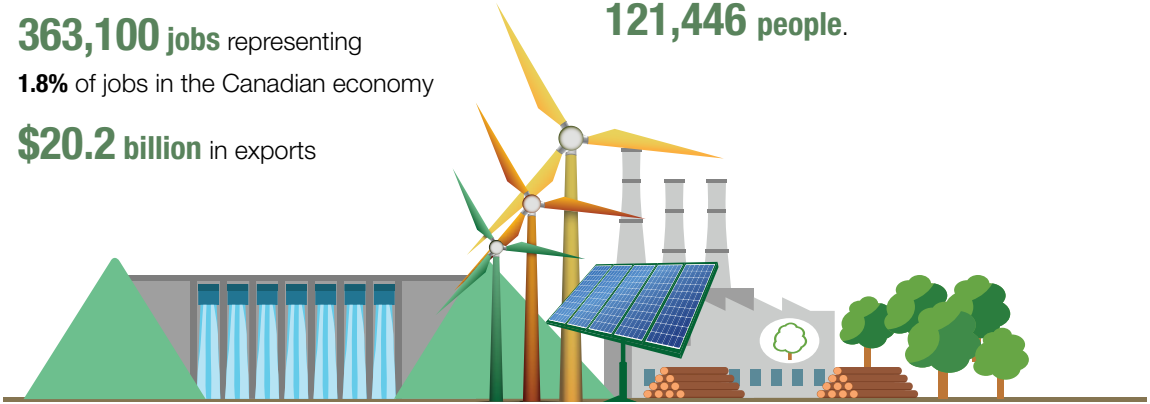
363,100 jobs representing
1.8% of jobs in the Canadian economy

$20.2 billion in exports

Of this, clean energy alone accounted for

1.5% of Canada's GDP

and employed
121,446 people.

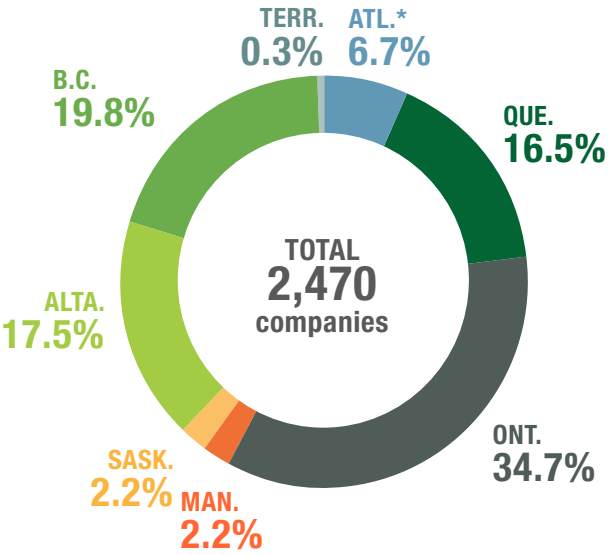


The TSX and TSX-Venture exchanges list **82 companies in the cleantech sector**, with a total market capitalization of **$49.3 billion**. Of these companies, 74 are headquartered in Canada, with a total market capitalization of **$40.3 billion** (as of January 31, 2026).

CLEANTECH COMPANIES

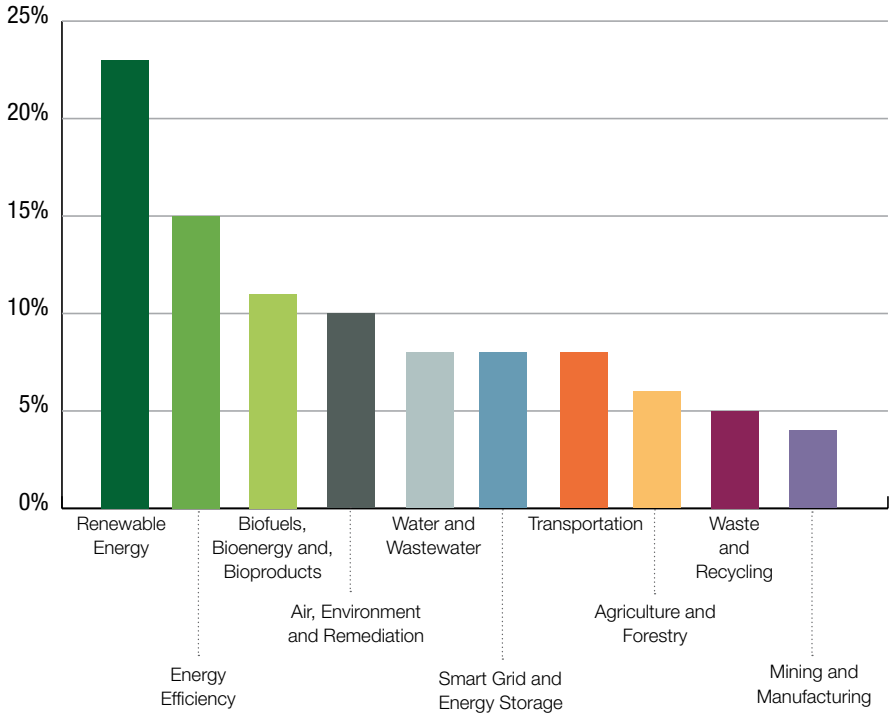
Over half of Canada's 2,470 pureplay cleantech companies have operations in the energy industry. They are concentrated in Ontario, British Columbia, Alberta, and Quebec.

CANADIAN CLEANTECH COMPANIES BY PROVINCE, 2025



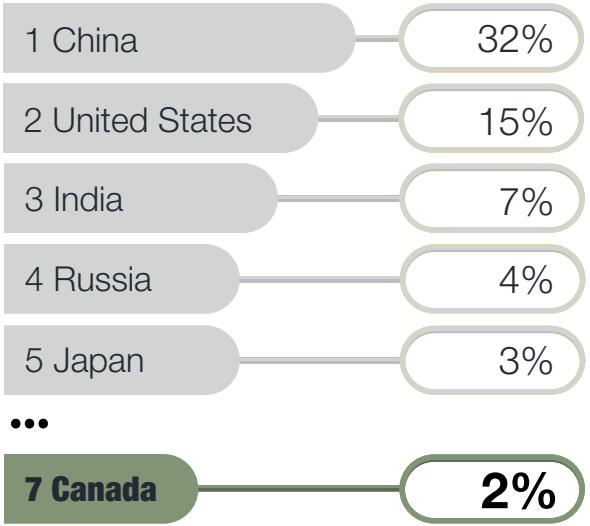
* Atlantic provinces

CANADIAN CLEANTECH COMPANIES BY INDUSTRY, 2025

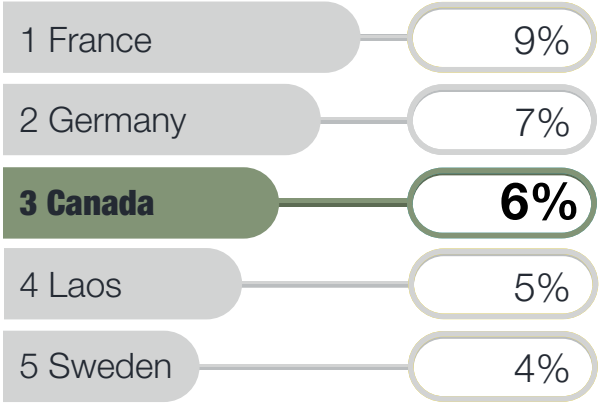


ELECTRICITY
INTERNATIONAL CONTEXT

World production – 30,122 TWh (2023)



World exports – 820 TWh (2023)



TRADE (2025)

All Canadian electricity trade is with the U.S.

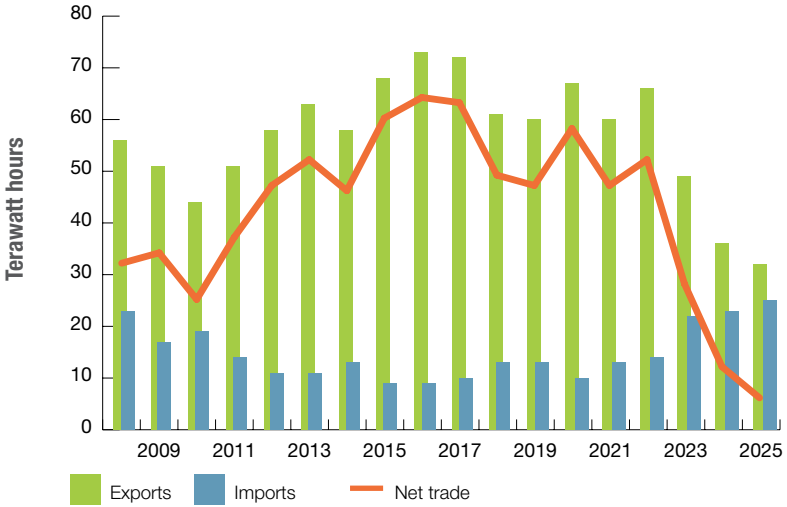
EXPORTS

31.6 TWh

IMPORTS

25.2 TWh

CANADA'S ELECTRICITY TRADE WITH THE U.S.*

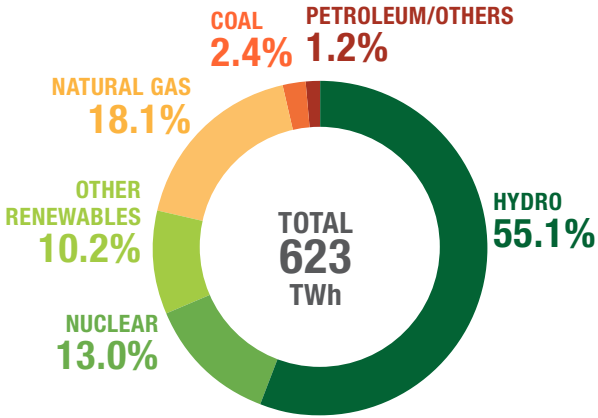


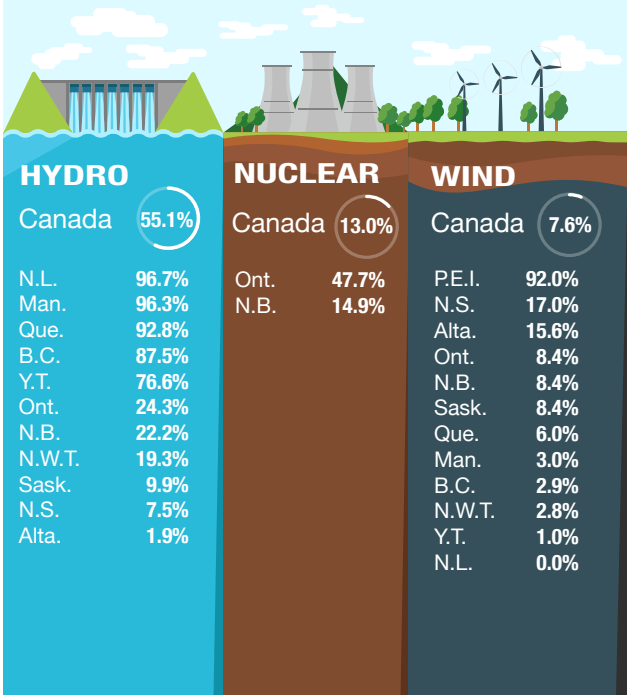
* includes only electricity traded under purchased contracts; excludes electricity transferred under non-financial agreements (e.g. under treaty obligations)

CANADIAN SUPPLY

GENERATION IN CANADA – 623 TWh

GENERATION BY SOURCE, 2024





PROVINCIAL ELECTRICITY GENERATION BY SOURCE, 2024

BIOMASS

Canada 1.5%

B.C.	6.6%
N.B.	5.6%
N.S.	3.8%
Alta.	2.1%
Que.	0.8%
P.E.I.	0.6%
Ont.	0.6%
Sask.	0.3%
Man.	0.2%
N.L.	<0.1%

NATURAL GAS

Canada 18.1%

Alta.	73.0%
Sask.	52.1%
N.S.	25.5%
N.B.	18.3%
Ont.	16.5%
N.W.T.	13.7%
Y.T.	9.2%
B.C.	1.9%
N.L.	0.6%
Man.	0.3%
Que.	<0.1%

PETROLEUM

Canada 1.0%

Nvt.	99.9%
N.W.T.	63.6%
Y.T.	11.4%
N.B.	10.5%
N.S.	6.4%
N.L.	2.2%
Alta.	1.4%
B.C.	0.9%
P.E.I.	0.5%
Que.	0.3%
Man.	<0.1%
Ont.	<0.1%
Sask.	<0.1%

SOLAR

Canada 1.1%

P.E.I.	3.0%
Alta.	3.0%
Ont.	2.3%
Y.T.	1.9%
N.S.	0.9%
N.W.T.	0.6%
Sask.	0.5%
Man.	0.2%
B.C.	0.1%
N.B.	0.1%
Nvt.	<0.1%
Que.	<0.1%
N.L.	<0.1%

COAL

Canada 2.4%

N.S.	38.9%
Sask.	28.4%
N.B.	19.9%
Alta.	2.1%

OTHER

Canada 0.2%

Alta.	0.8%
Sask.	0.5%
Ont.	0.2%
Que.	<0.1%
B.C.	<0.1%

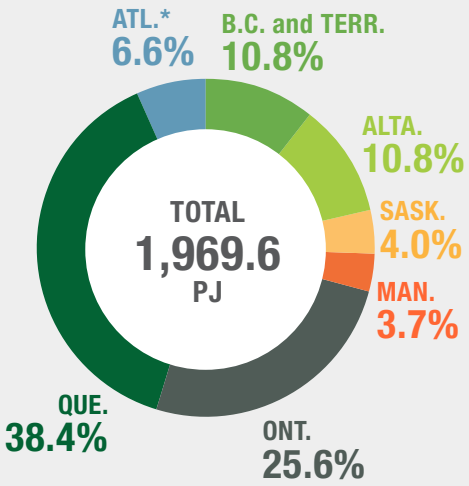
ELECTRICAL ENERGY USE

TOTAL ELECTRICAL ENERGY USE* FELL TO 1,969.6 PJ IN 2023

Sector	Energy use (PJ)	% of the total
Residential	636.8	32.3%
Commercial	536.0	27.2%
Industrial	753.7	38.3%
Transportation	4.5	0.2%
Agriculture	38.6	2.0%
Total	**1,969.6**	**100%**

*secondary energy use

ELECTRICAL ENERGY USE BY PROVINCE, 2023

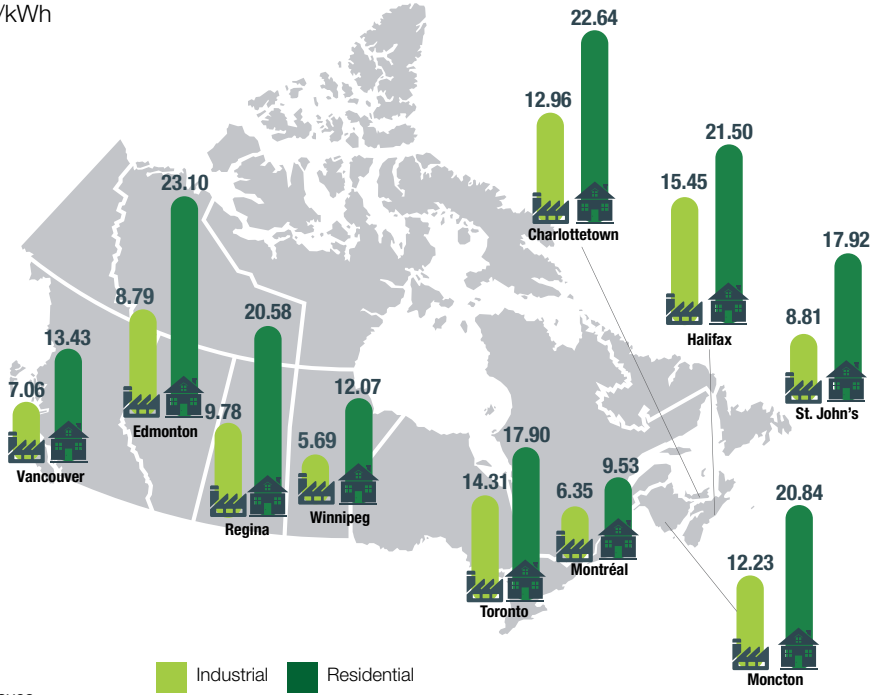


* Atlantic provinces

ELECTRICITY PRICES

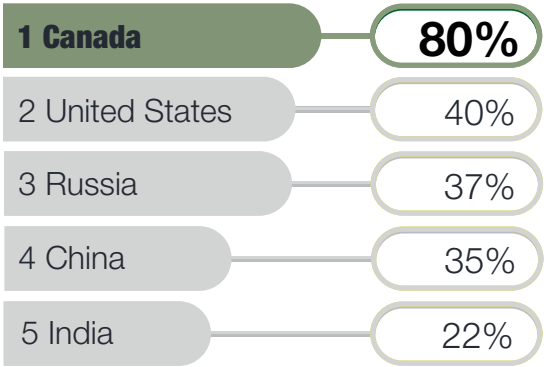
AVERAGE LARGE INDUSTRIAL AND RESIDENTIAL ELECTRICITY PRICES* (AS OF APRIL 2025)

in cents/kWh



*including taxes

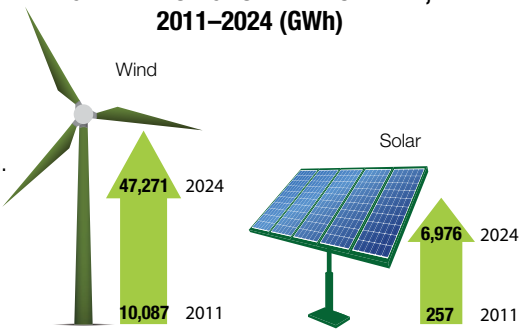
PERCENTAGE OF TOTAL ELECTRICITY FROM NON-EMITTING SOURCES FOR THE TOP FOUR ELECTRICITY-GENERATING COUNTRIES AND CANADA, 2023



- **Renewable electricity generation** has **increased 4%** between 2011 and 2024, with solar and wind having the largest growth.
- In 2024, **80% of electricity in Canada** came from non-GHG emitting sources. **Hydro** made up **55%**, **nuclear was 14%**, and other renewables were the remaining **11%***.

*Parts may not sum to total due to rounding.

WIND AND SOLAR NET ELECTRICITY GENERATION GROWTH IN CANADA, 2011–2024 (GWh)

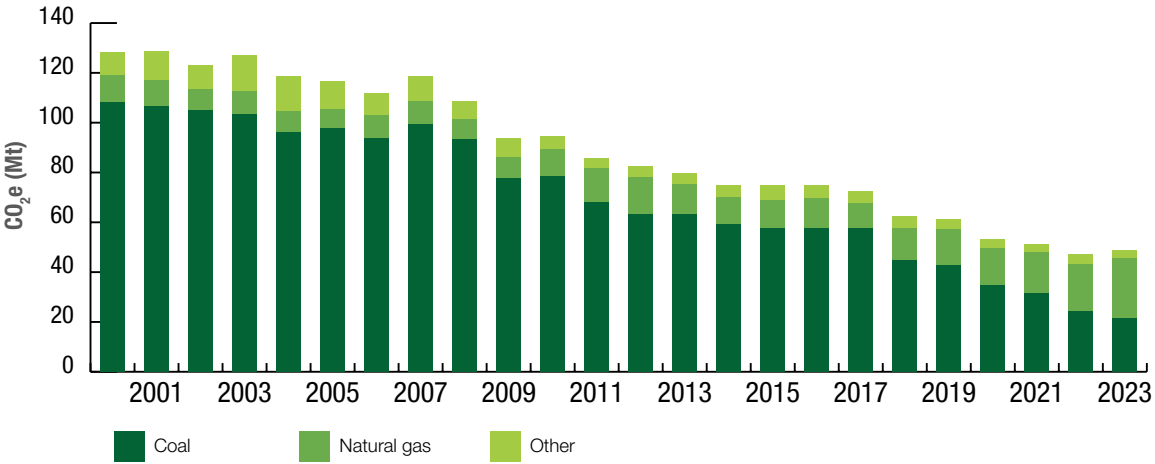


GHG SPOTLIGHT: ELECTRICITY

Total electricity emissions **decreased by 62%** from 2000 to 2023 because of increased generation from non-emitting sources.

Coal-fired electricity generation accounted for **3% of generation** and **44% of electricity-related** GHG emissions in 2023.

ELECTRICITY SECTOR GHG EMISSIONS FOR CANADA, 2000–2023



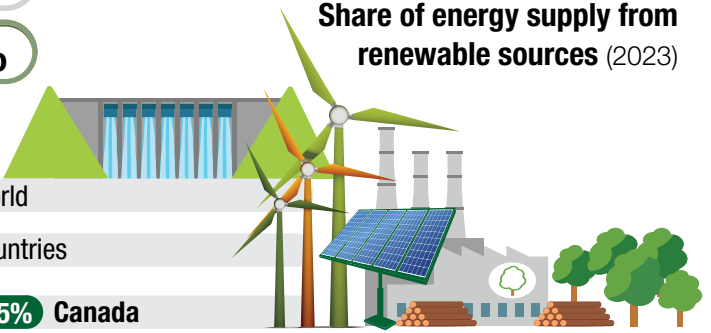
Renewable Energy

INTERNATIONAL CONTEXT

World production – 89,633 PJ or 2,141 MTOE (2023)

1 China	19%
2 India	11%
3 United States	9%
4 Brazil	7%
5 Indonesia	3%
6 Canada	**2%**

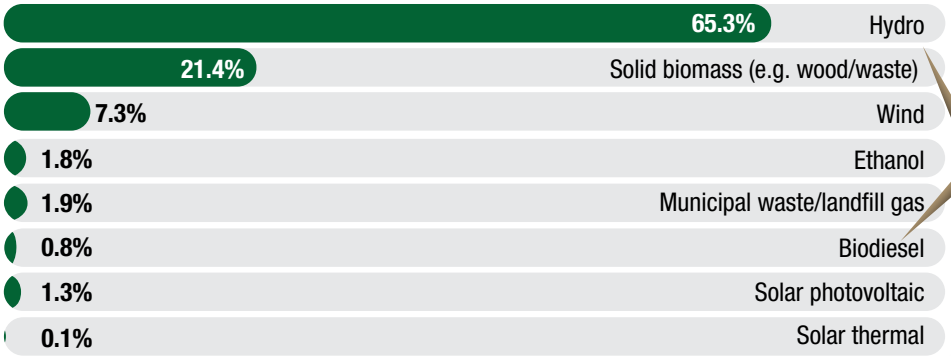
Share of energy supply from renewable sources (2023)

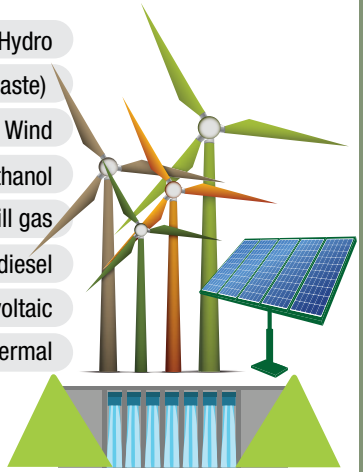


14.1%	World
12.6%	OECD countries
16.5%	Canada

CANADIAN PRODUCTION (2023)

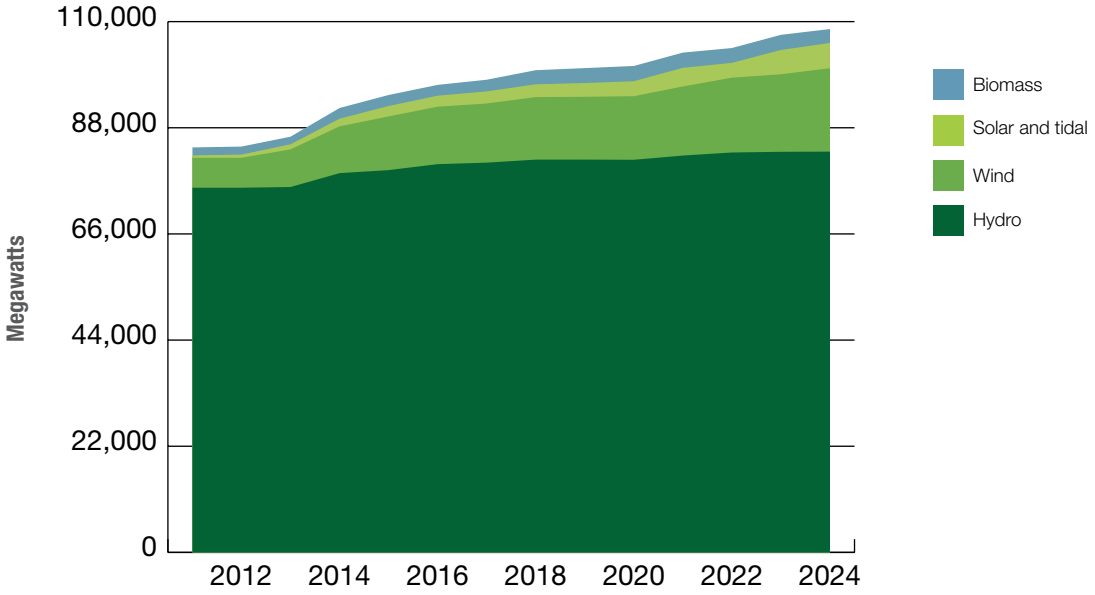
Total renewable energy* – 1,987 PJ or 47.5 MTOE



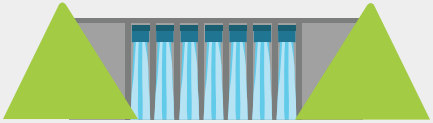


*includes energy consumed for electricity and heat production and for biofuels in the transportation sector

CANADIAN RENEWABLE ELECTRICITY GENERATING CAPACITY



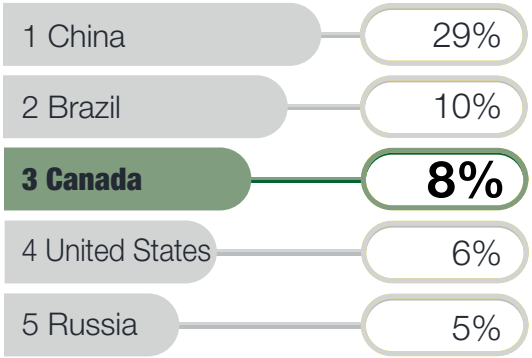
HYDROELECTRICITY



Moving water is the most important renewable energy source in Canada, providing **55%** of Canada's electricity generation. In fact, in 2023, Canada was the third-largest producer of hydroelectricity in the world.

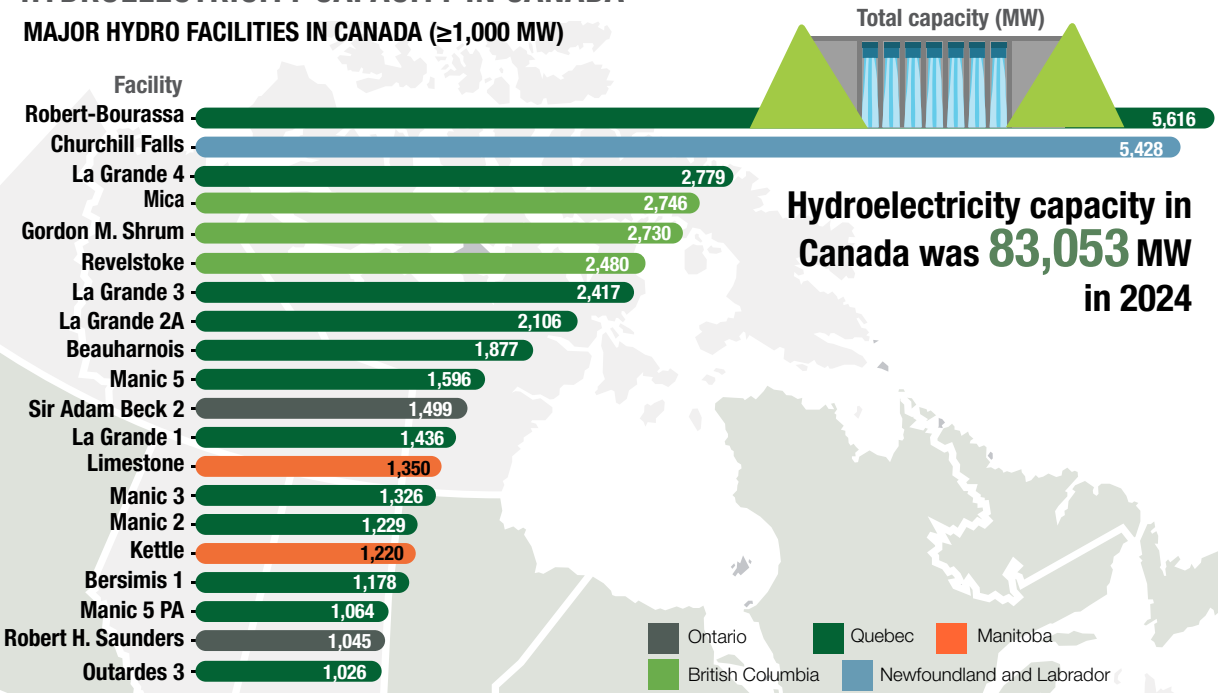
INTERNATIONAL CONTEXT

World generation of hydroelectricity – 4,252 TWh
(2023)



HYDROELECTRICITY CAPACITY IN CANADA

MAJOR HYDRO FACILITIES IN CANADA (≥1,000 MW)



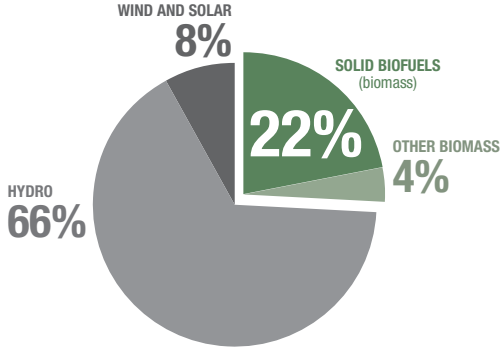
Hydroelectricity capacity in Canada was 83,053 MW in 2024

BIOMASS

- Biomass is a renewable energy resource derived from living organisms and/or their by-products.
- In 2023 there were **41 operational** co-generation units at pulp and paper mills and **35 Independent Power Providers (IPP)** using biomass.
- Electrical capacity of pulp and paper co-generation was **1,551 MW**, while heat capacity was **10,154 MW**. IPP capacity for electricity and heat was **831 MW** and **701 MW**, respectively.
- In 2023, there were about **640 operational** bioheat systems with installed capacity of **480 MWth**. **83%** of the biomass heating systems are less than **1 MW** in size.

Biomass* accounts for the **largest share of renewable energy production** in the OECD**, at

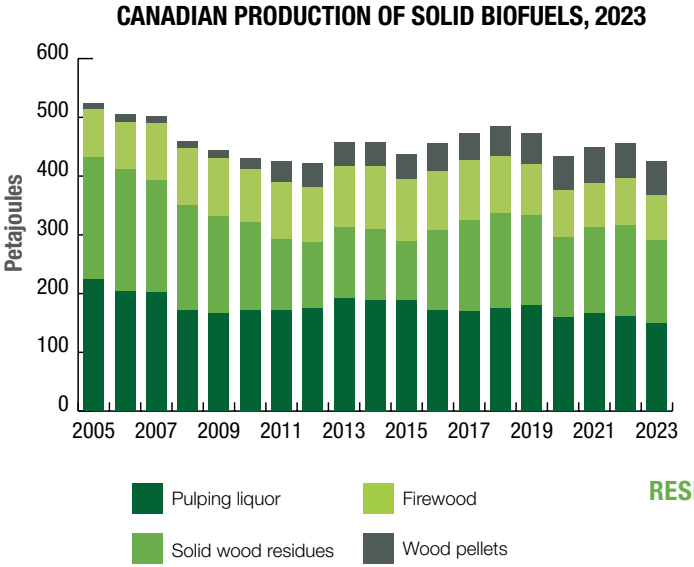
In Canada, that share is 26%.

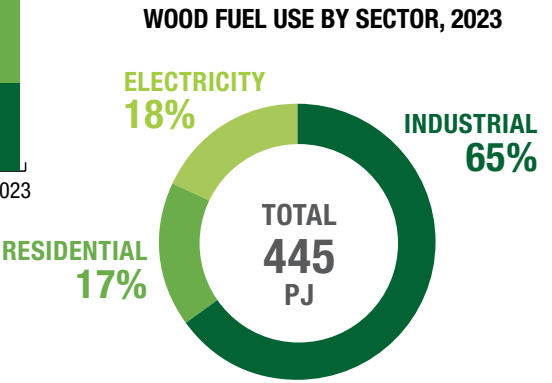


*Includes solid biofuels, liquid biofuels, biogases and renewable municipal waste

**Organization for Economic Cooperation and Development

CANADIAN PRODUCTION OF SOLID BIOFUELS



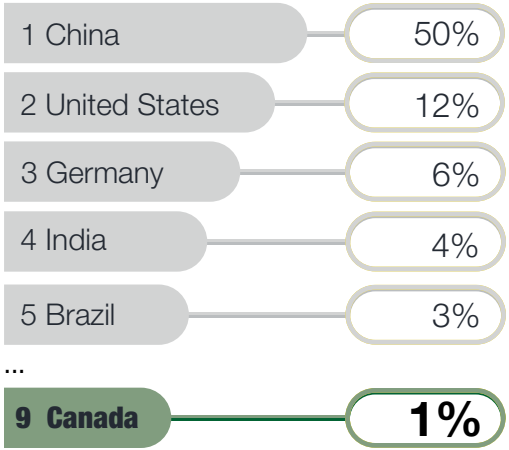


WIND POWER

- Electricity from wind energy is one of the **fastest growing sources** of electricity in the world and in Canada.
- Wind accounted for **7.6%** of electricity generation in Canada in 2024.

INTERNATIONAL CONTEXT

World capacity of wind power – 1,299 GW (2025)



WIND POWER IN CANADA

Capacity (2024):

17.3 GW

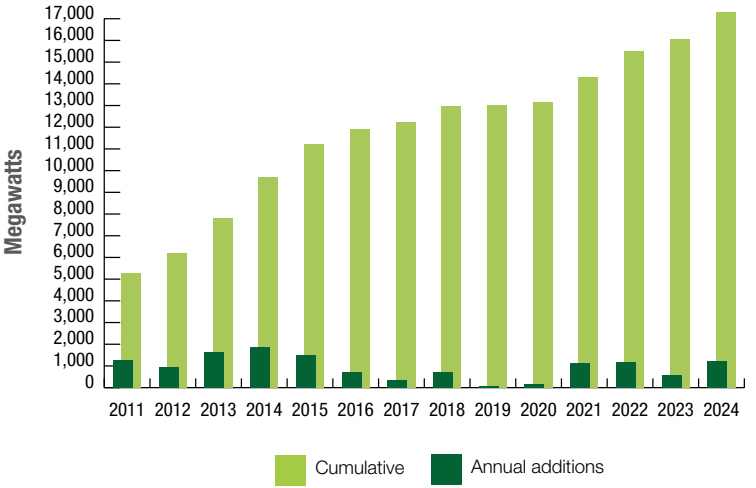
quadrupled

Generation (2024):

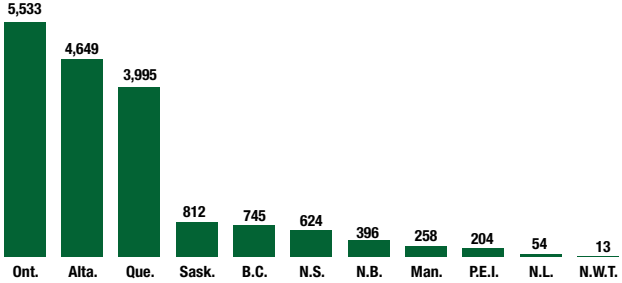
40.4 TWh

more than tripled

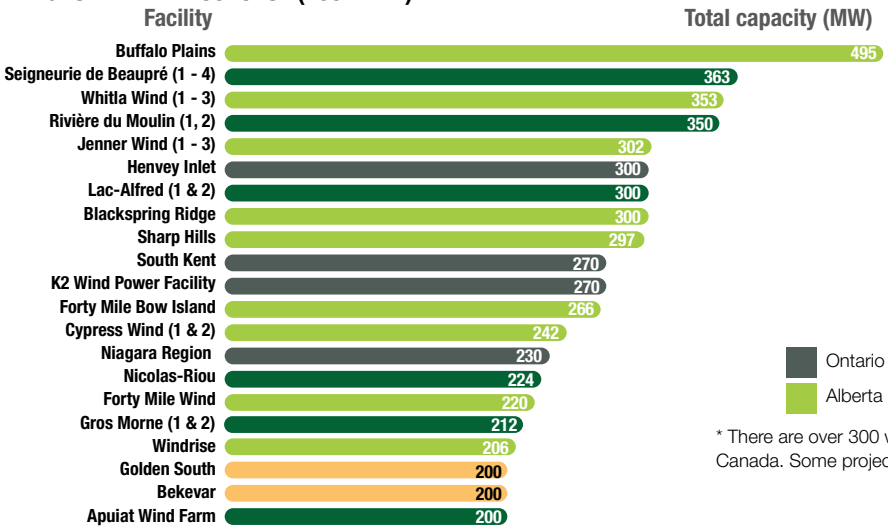
INSTALLED CAPACITY



CAPACITY BY PROVINCE (MW)



LARGEST WIND PROJECTS* (200 MW+)



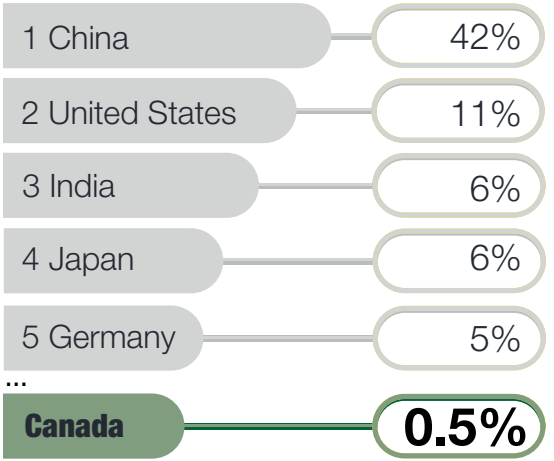
* There are over 300 wind energy projects across Canada. Some projects are part of a larger wind farm.

SOLAR PHOTOVOLTAIC

- Solar power is the conversion of energy from sunlight into electricity. Solar PV is rapidly becoming an economical, renewable technology to harness renewable energy from the sun.

INTERNATIONAL CONTEXT

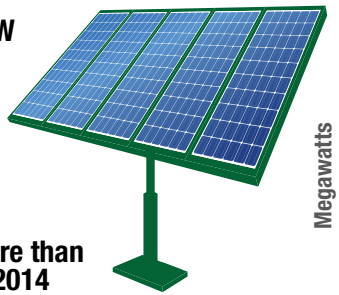
World capacity of solar PV – 1,581 GW (2023)



SOLAR PV IN CANADA

Capacity (2024):

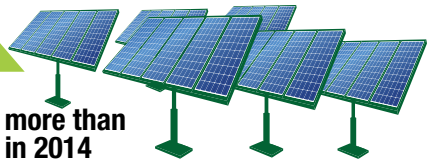
5,290 MW



2.4x more than in 2014

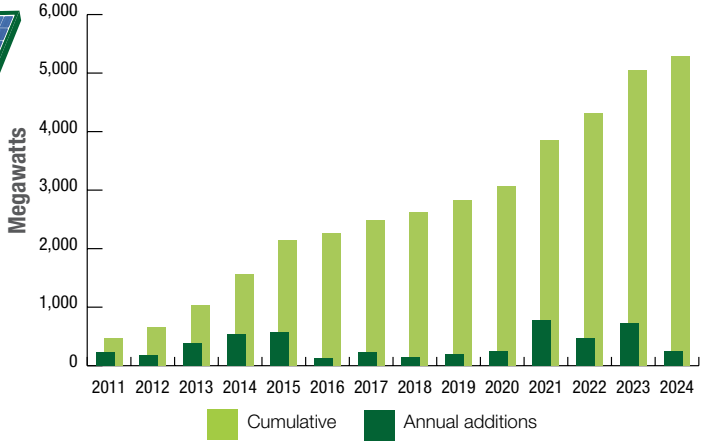
Generation (2024):

7 TWh

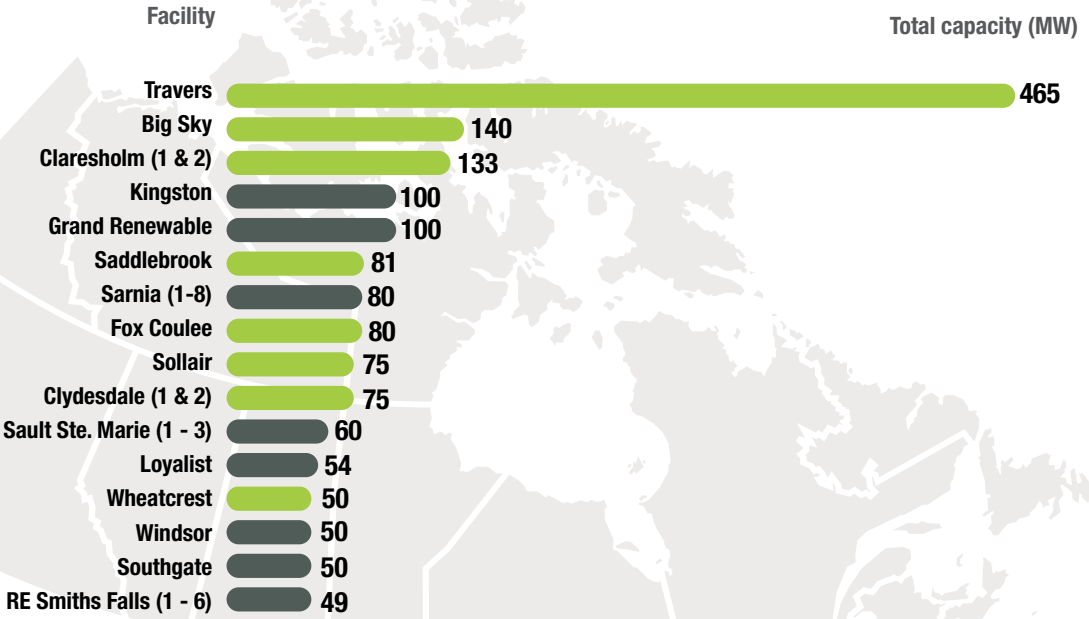


3.0x more than in 2014

INSTALLED CAPACITY



LARGEST SOLAR PROJECTS* (50 MW+)



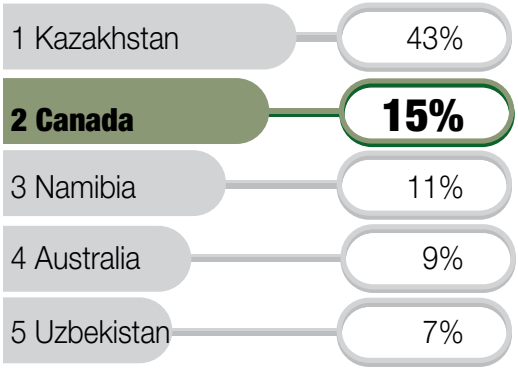
*There are 200+ major solar energy projects, and 48,000+ solar energy installations across Canada.

URANIUM

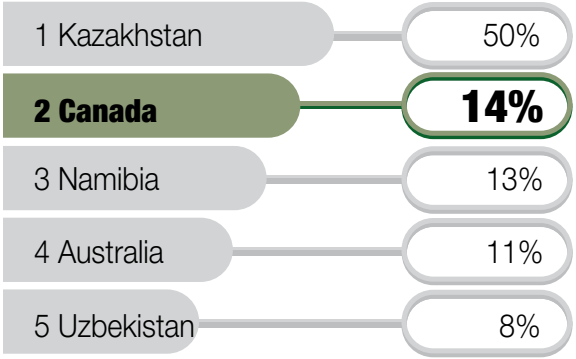
- Uranium is a silvery-white metal and a primary energy source. After raw uranium is mined and milled, it is **processed to make fuel for nuclear reactors** to generate electricity.

INTERNATIONAL CONTEXT

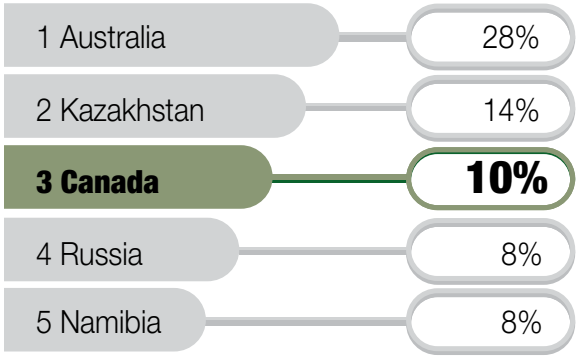
World production – 49.4 kt (2022)



World exports – 42.6 kt (2022)



World known recoverable resources – 5.9 Mt (2023)

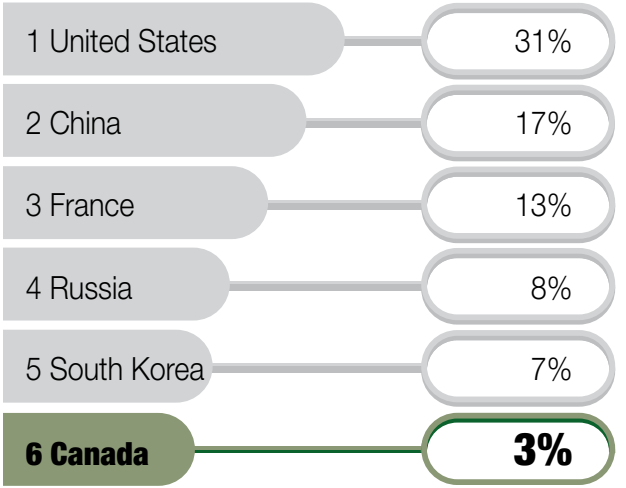


NUCLEAR POWER

- Nuclear energy is the second largest contributor of non-emitting electricity in Canada. In 2024, nuclear energy provided approximately **13% of Canada's total electricity needs** (50%in Ontario).

INTERNATIONAL CONTEXT

World generation – 2,552 TWh (2023)



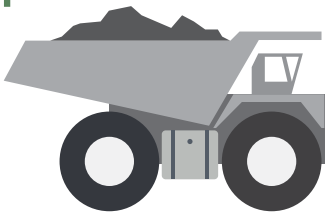
CANADIAN SUPPLY AND DEMAND (2024)

URANIUM

Canadian production **14.3 ktU**
All uranium comes from mines in Saskatchewan.

VALUED AT
about

$3 billion



About 90% of production
was available for export.

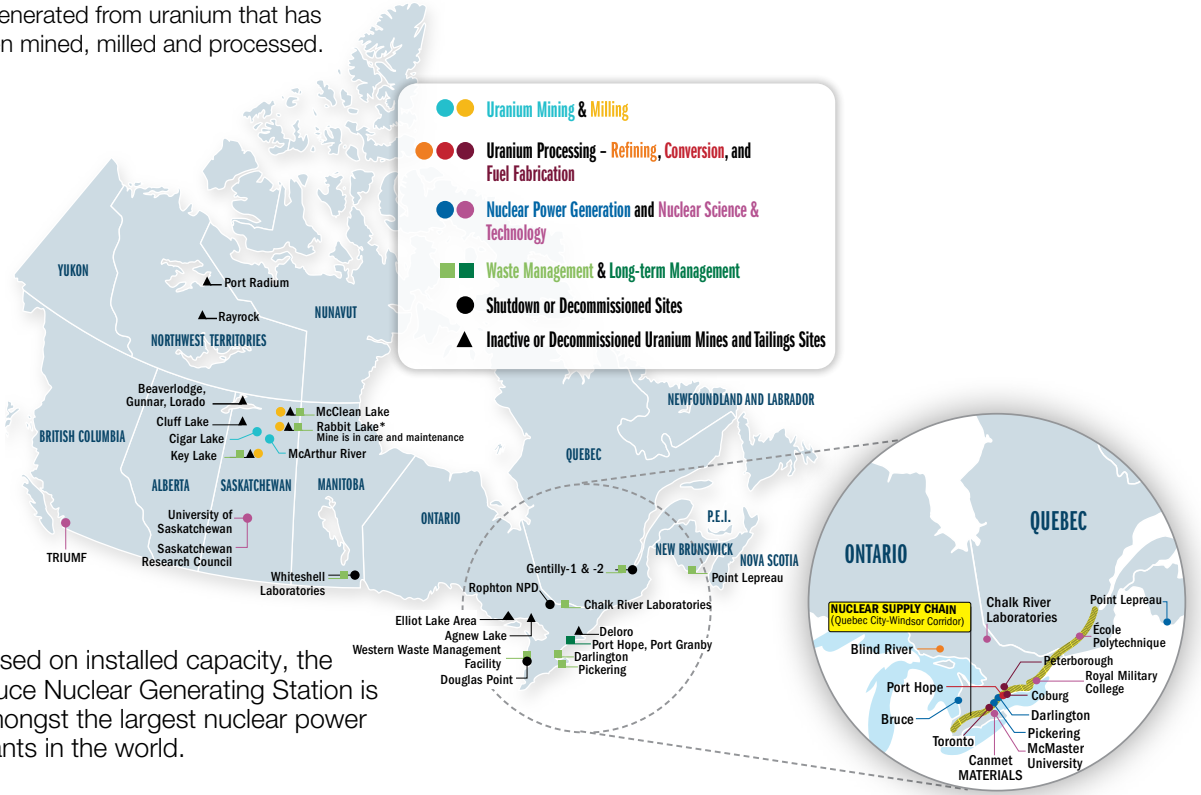
33% of uranium purchased by U.S. nuclear reactors in 2024 came from Canada, making Canada the largest foreign supplier of uranium to the U.S.

DOMESTIC USE:

About 10% of production

Used in Canada's CANDU reactors (Ontario and New Brunswick), including the Bruce Generating Station, amongst the world's largest operating nuclear facilities.

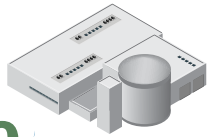
Across the country, nuclear power is generated from uranium that has been mined, milled and processed.



Based on installed capacity, the Bruce Nuclear Generating Station is amongst the largest nuclear power plants in the world.

CANDU NUCLEAR REACTORS

- **Canada has developed a unique nuclear reactor technology called CANDU**, for CANada Deuterium Uranium. Canada is one of roughly half a dozen countries that offer domestically designed reactors to the open commercial market.
- The CANDU reactor is a pressurized heavy water reactor (PHWR) that uses heavy water (deuterium oxide) as a moderator and coolant and natural uranium for fuel. The majority of power reactors in use in the world are light water reactors (LWR), which use normal water as the moderator and coolant and enriched uranium for fuel.
- There are 17 CANDU reactors operating in Canada, and nine operating in five other countries. These 26 reactors represent nearly 7% of global reactors and 5% of global nuclear electricity capacity (17.9 GWe).
- CANDU reactor refurbishment in Ontario is one of the largest infrastructure projects in Canada and will extend the life of Ontario's nuclear fleet past mid-century.



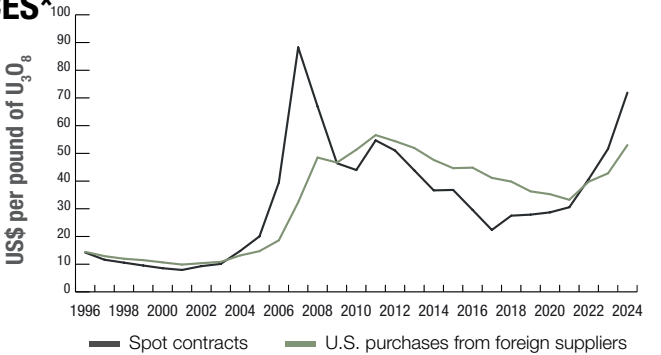
9 CANDU reactors

are in operation outside of Canada.

GROSS ELECTRICAL OUTPUT OF NUCLEAR POWER PLANTS IN CANADA

Facility	Province	Gross Electrical Output (MW)	Units
Darlington	Ontario	3,736	4
Bruce B	Ontario	3,507	4
Bruce A	Ontario	3,437	4
Pickering B	Ontario	2,160	4
Point Lepreau	New Brunswick	705	1

URANIUM - PRICES*



* The majority of Canadian uranium production is sold by long-term contract, as opposed to the spot market.

Biofuels and transportation

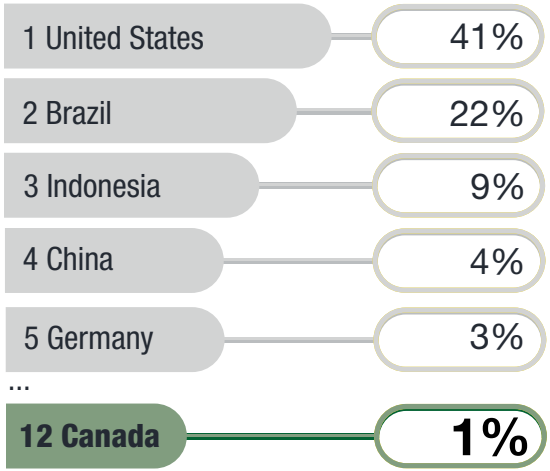
LIQUID BIOFUELS

- Liquid biofuels are enhanced biomass-derived fuels that can take the form of a liquid such as ethanol or renewable diesel fuels. The liquid biofuels are mixed with traditional gasoline and diesel to reduce the overall GHG emissions associated with the blended fuel.
- The federal *Renewable Fuels Regulations* require fuel producers and importers to have an average renewable content of **at least 5%** based on the **volume of gasoline** that they produce or import and **at least 2%** of the **volume of diesel fuel** that they produce and import.*

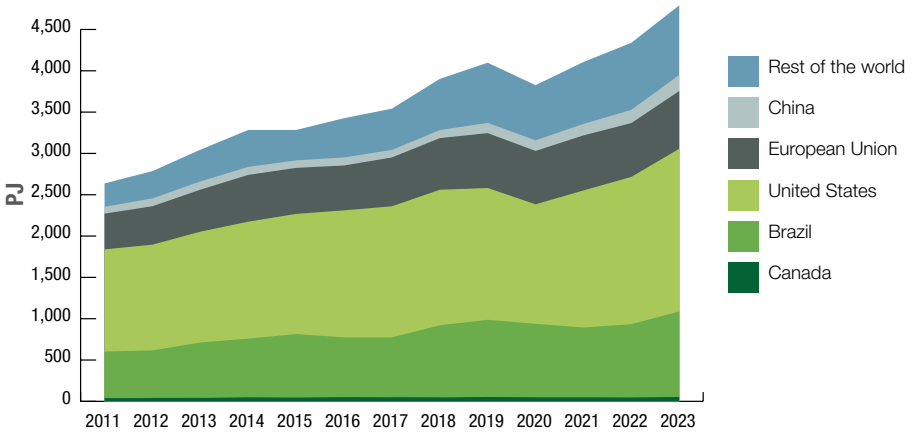
* Heating distillate oil volumes for space-heating purposes are excluded from the diesel regulations.

INTERNATIONAL CONTEXT

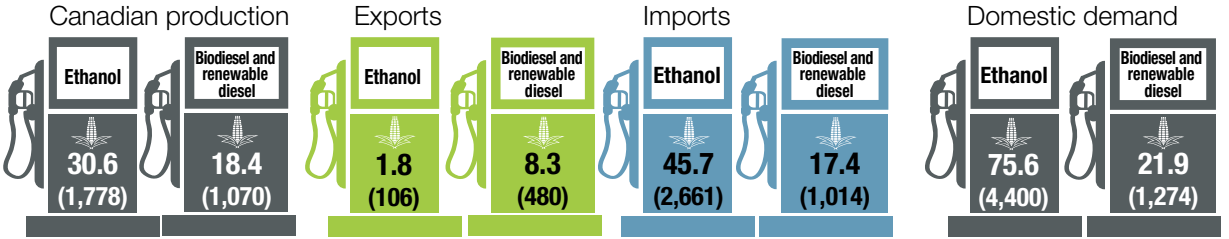
World production of biofuels – 4,791 PJ (2023)



WORLD BIOFUELS PRODUCTION



CANADIAN SUPPLY AND DEMAND (2025) - MB/D (MILLION LITRES)

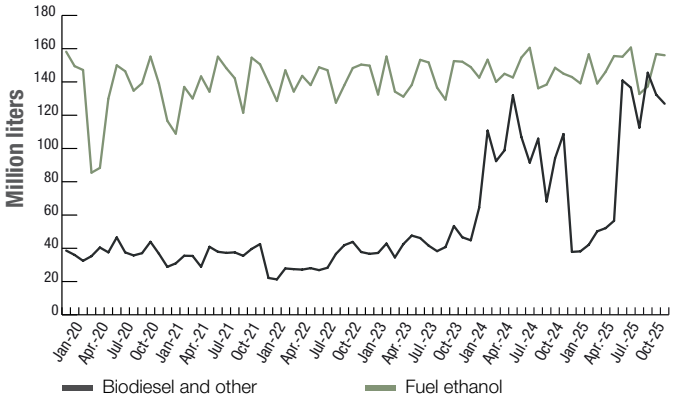


CANADIAN BIOFUEL PRODUCTION

- Liquid biofuels are made of **feedstocks such as cereal grains and vegetable oils**.
- In 2025, **4.3 million tonnes** of cereal grain, and **990 thousand tonnes** of vegetable oil were used in domestic production of biofuels.

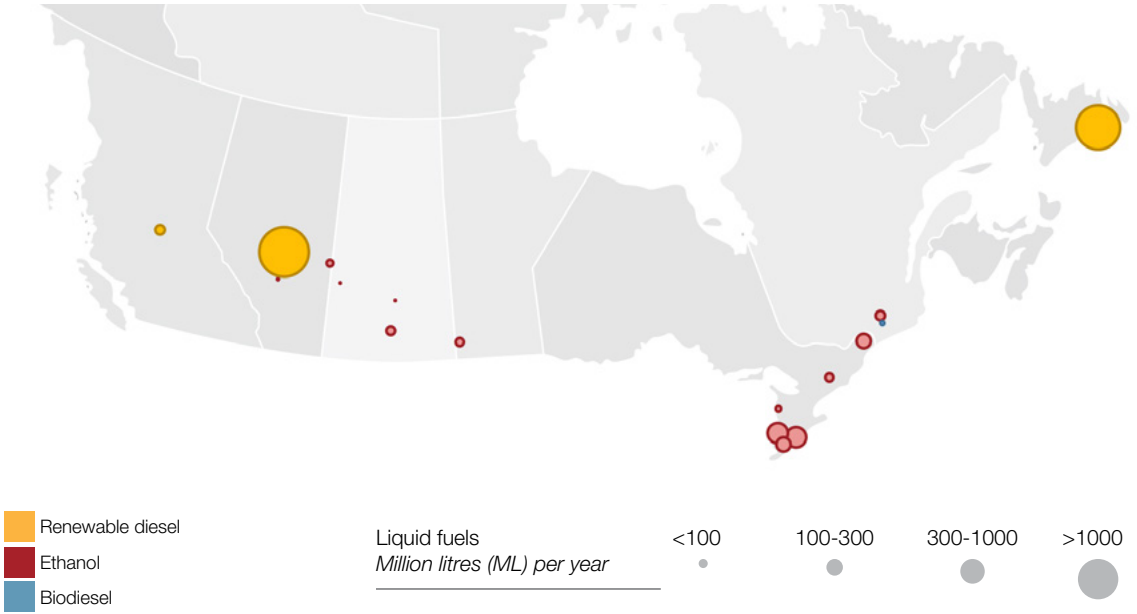
- Canada produced **1.8 billion liters of fuel ethanol** and **1.07 billion liters of biodiesel and other products** in 2025.
- Co-products are secondary goods that are generated during the biofuel manufacturing process and can be sold or reused. Biofuel production generated **1.4 million tonnes of co-products in 2025**, primary distillers grains which can be used as animal feed.

MONTHLY PRODUCTION OF LIQUID BIOFUELS, 2020–2025

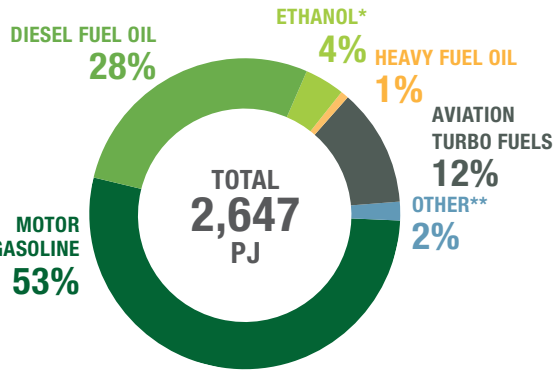


Currently the **majority of liquid biofuel facilities** in Canada are **located in southern Ontario and Saskatchewan**. The largest facility is located in Alberta.

BIOFUEL PRODUCTION CAPACITY (2025)

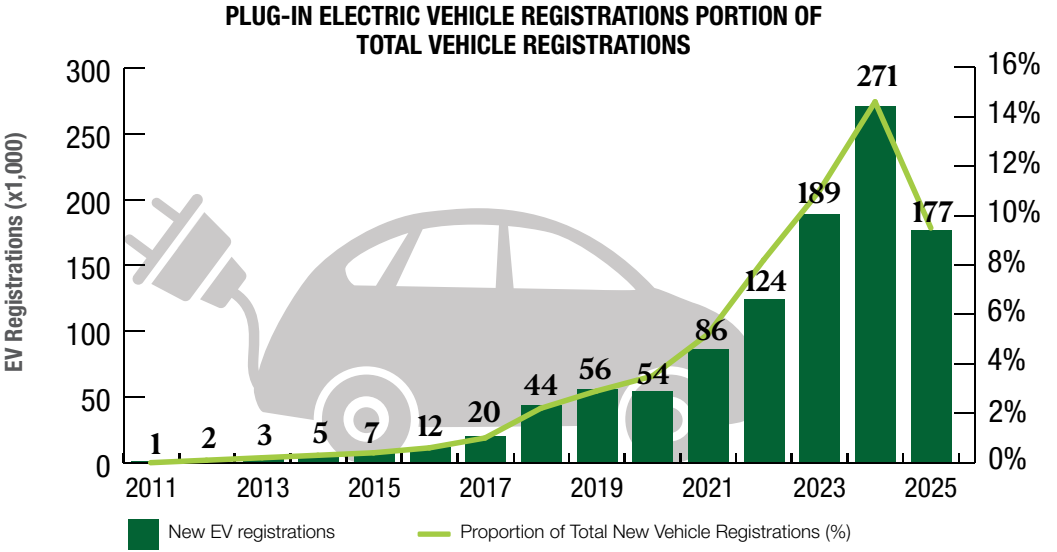


FUEL MIX OF THE TRANSPORTATION SECTOR, 2023



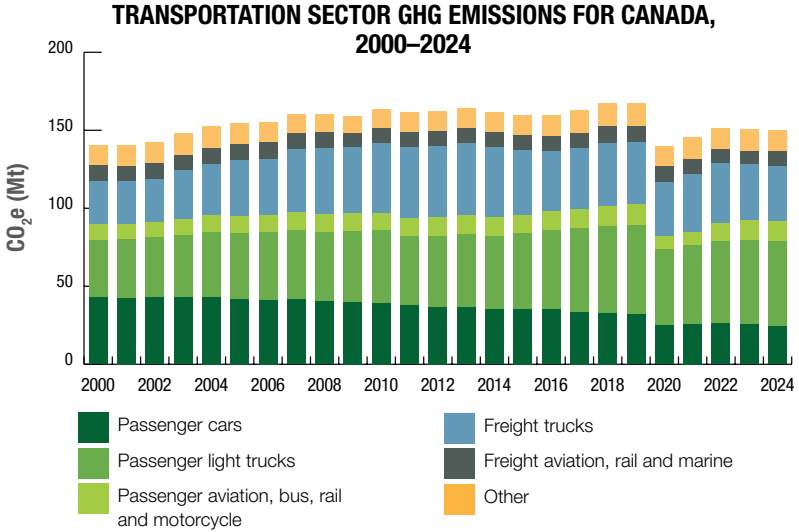
- Total transportation energy use **increased 17%** from 2000 to 2023.
- Energy efficiency improvements in the transportation sector saved Canadians **657 PJ** of energy and over **$26 billion** in energy costs in 2023.
- Passenger transportation contributes **51%** to the total emissions, freight emissions are **44%**, and off-road emissions are **5%**.

* The ethanol proportion is estimated based on disposition data.
** The category "Other" includes electricity, natural gas, biodiesel, light fuel oil, aviation gasoline and propane
Parts may not sum to total due to rounding.



- In 2025, **177,000** new electric vehicles (EVs) were registered in Canada, accounting for **9.5% of all new motor vehicle registrations**.
- This was down from a 2024 peak of **271,000 new EV registrations,** or **14.6% of the national total**.
- The decline coincided with global trade uncertainty and the rollback of federal and provincial EV purchase incentives.

GHG SPOTLIGHT: TRANSPORTATION



- **Transportation GHG emissions** (from passenger, freight, and other forms of transport) **increased** 3% from 2021 to 2024, reflecting a gradual rebound from the pandemic. Despite the increase, transportation emissions were 10% below their pre-pandemic level in 2019.

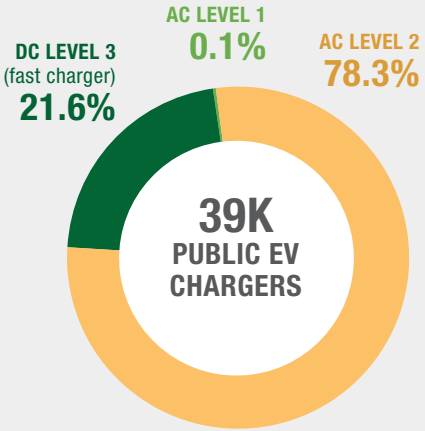
ELECTRIC VEHICLE CHARGING

EV chargers deliver electricity to the on-board batteries of both **battery electric vehicles (BEV)** and **plug-in hybrid electric vehicles (PHEVs)**. There are two main types of EV chargers: **alternating current (AC) chargers** provide electricity to the vehicle via Level 1 and Level 2 chargers. **Direct current (DC) chargers**, also known as **Level 3 fast chargers**, provide electricity much more rapidly.

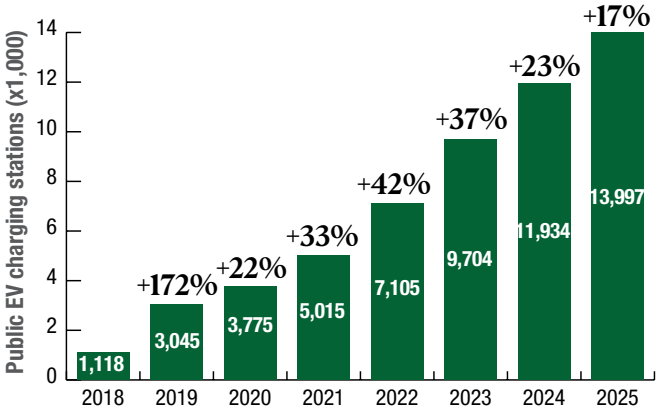
Charger	Input	Outlet type	Estimated charging time*	Estimated range per hour of charging*	Typical uses
AC Level 1	120 V	Standard electrical outlet (for example, phone charger)	8–50+ hours	3-8 km	Home charging and back-up situations
AC Level 2	208/240 V	Special electrical outlet (for example, stove or dryer plug)	4–10 hours	16-50 km	Home charging, charging at businesses and public spaces
DC Level 3 (fast charger)	480 V	DC outlet (not found in homes)	25–30 minutes	Up to maximum driving range of vehicle	Charging at dedicated stations, public spaces, and highway corridors

*Estimates assume 80% charging level limit. Time to full charge and range per hour of charging will vary depending on the vehicle, battery, and charger, as well as fluctuating temperatures, battery state, and tire pressure.

TYPES OF EV CHARGERS AT PUBLIC CHARGING STATIONS IN CANADA (2026)*



PUBLIC EV CHARGING STATIONS IN CANADA*



Canada's network of public charging facilities for EVs has expanded rapidly in recent years. In 2026, roughly **19%** of publicly accessible EV charging facilities nationwide supported at least one DC fast charger.

*Total includes publicly accessible stations reserved for patrons of businesses

HYDROGEN

Hydrogen is a versatile energy carrier that can be produced from a variety of feedstocks.

Hydrogen can be converted to electricity through a fuel-cell in electric vehicles and power generation equipment, combusted to produce heat, or used as a feedstock in a range of chemical and industrial processes.

Hydrogen produced via low-carbon production pathways such as electrolysis or natural gas using carbon abatement can be ideal for decarbonizing hard-to-abate sectors such as heavy industry, truck freight or bus transit.

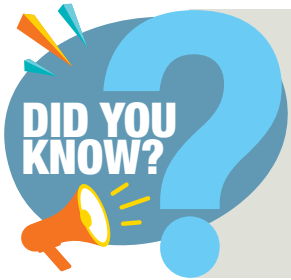
Versatile energy carrier

Carbon free at point of use

Can be produced from variety of feedstocks

Can be transported long distances

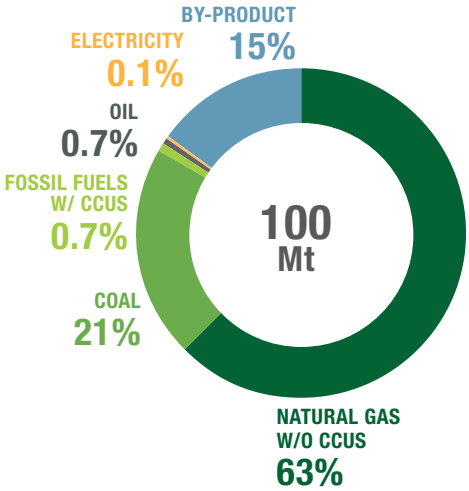
Highest energy per mass of any fuel



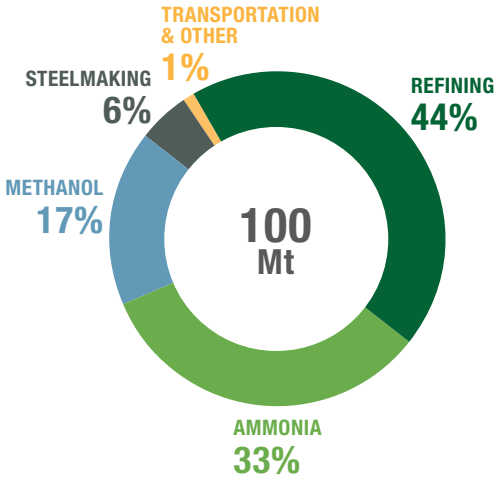
The energy in **1 kg** of hydrogen is the same as approximately **2.8 kg** of gasoline.

- The total global production of hydrogen in 2024 was **100 million tonnes (Mt)**, in which **85%** of production was deliberate, and **15%** was produced as a by-product to industrial processes.
- Global demand for hydrogen in 2024 was **100 Mt**. Hydrogen for oil refining and ammonia production were the most common end-uses, accounting for approximately **44%** and **33%** of total demand, respectively.

GLOBAL HYDROGEN PRODUCTION BY ENERGY SOURCE, 2024



GLOBAL HYDROGEN DEMAND BY END-USE, 2024



- Canada is **one of the top 10 hydrogen producers in the world today, with an estimated 4 Mt** of hydrogen produced per year (low-carbon and carbon-intensive).
- Most hydrogen in Canada is produced from natural gas and used by the chemical industry and the oil and gas sector. Some of this hydrogen is now being produced using carbon abatement technologies, with several facilities already producing low-carbon hydrogen and others coming online soon.
- Air Liquide's **20 MW** electrolyser is **Canada's largest electrolysis** facility, producing low-carbon hydrogen using electricity to split water. Canada's total deployed low-carbon hydrogen production capacity is currently **over 12,000 tonnes** per year.
- There are more than **100 established hydrogen and fuel cell companies** spanning the full value chain, **employing almost 4,300 people** in direct jobs within Canada, and generating **revenues in excess of $525 million** and **investing $125 million in research, development and demonstration**.

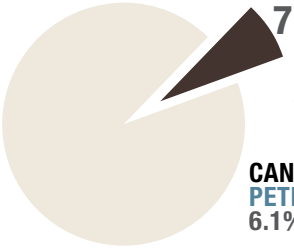
Section 6:
Oil, Natural Gas and Coal

Crude oil
Natural gas
Hydrocarbon gas liquids (HGLs)
Refined petroleum products (RPPs)
Coal
GHG emissions from petroleum

Petroleum and the Economy

NOMINAL GDP CONTRIBUTION FOR CANADA, 2025

NOMINAL GDP (% OF CURRENT DOLLARS)



7.2%
or
$218.1 billion

CANADIAN GDP
PETROLEUM DIRECT
6.1% ($186.0 BILLION)

PETROLEUM INDIRECT
1.1% ($32.1 BILLION)

EMPLOYMENT, 2025

DIRECT: 199,500 JOBS

Oil and gas extraction:	84,800
Support activities:	60,900
Exploration:	3,200
Natural gas transmission and distribution:	19,400
Crude oil and other pipeline transportation:	5,800
Other:	25,200

INDIRECT: 322,000 JOBS

TOTAL: 521,500 JOBS

Approximately **11,300 Indigenous people** are employed in the oil and gas sector.

- Capital Expenditures (2025): **$55 billion**
- Canada's oil and gas sector represents about **30%** of the country's GHG emissions.
- Exports (2025): **$182 billion** (25% of total goods exports)

4TH Largest oil producer globally

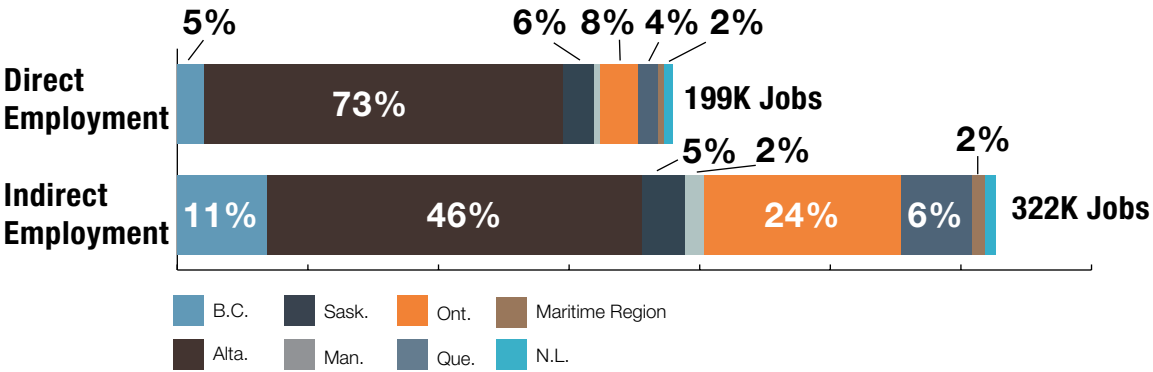
5TH Largest gas producer globally

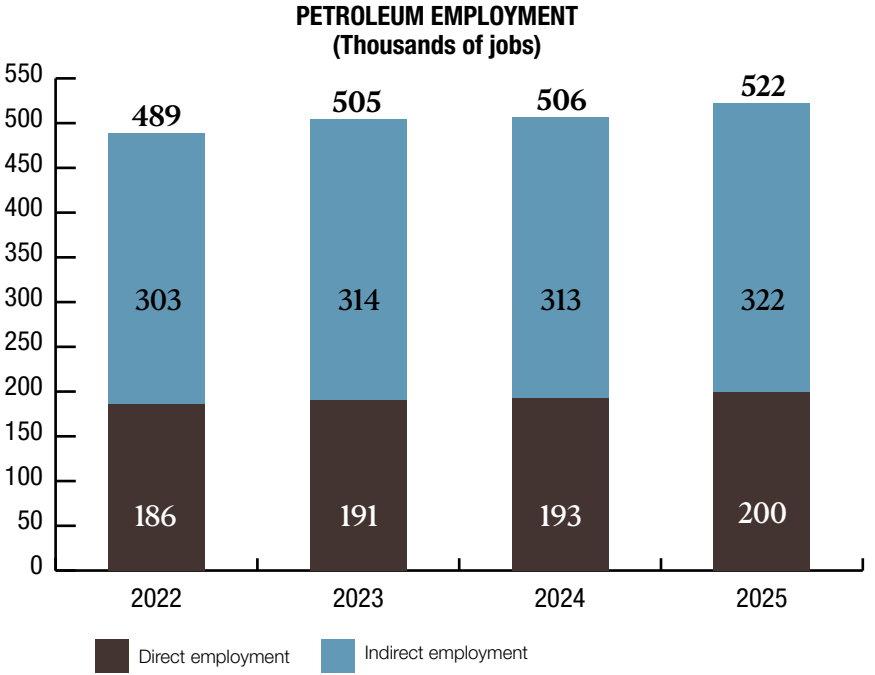
Parts may not sum to total due to rounding. The indirect contribution is not comparable to previously published estimates due to revisions and a change in estimation methodology by Statistics Canada. For more information on Statistics Canada's estimation methodology, please contact statcan.iadinfoddci-dciinfoiad.statcan@statcan.gc.ca.

While Canada's petroleum sector **directly employed 199K people** in 2025, the sector's use of inputs from other industries created an additional

322K indirect jobs in the supply chain.

Alberta employed the largest share (46%) of the supply chain workers followed by Ontario (24%). BC (11%), Quebec (8%), and Saskatchewan (5%) also accounted for sizeable shares of supply chain jobs.





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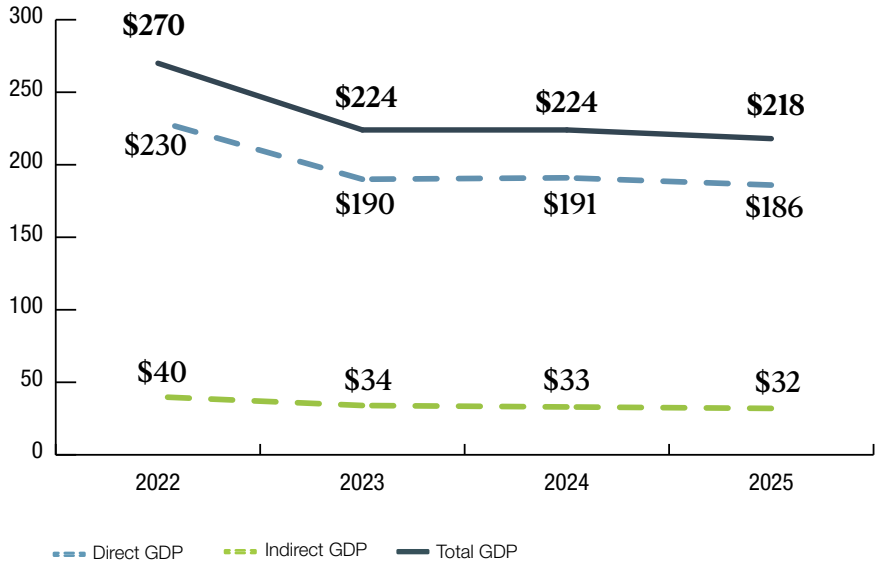
PETROLEUM GDP
(Billions of Canadian Dollars)



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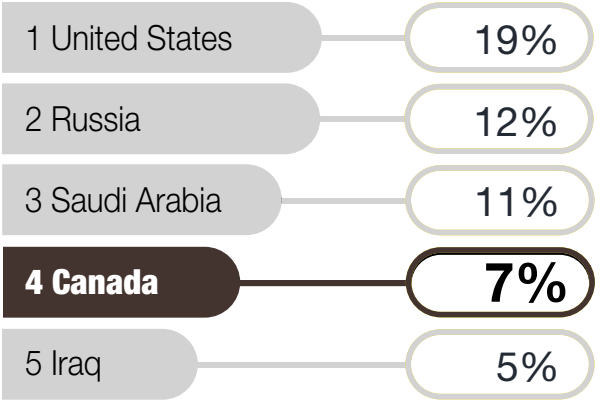
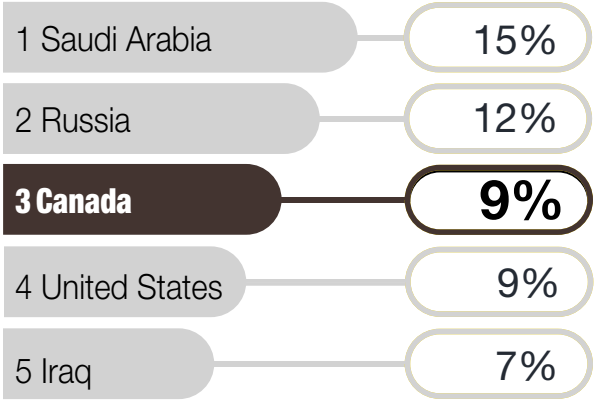
Crude Oil

INTERNATIONAL CONTEXT

World production* – 89.2 MMb/d (2023)



World exports* – 45.3 MMb/d (2023)

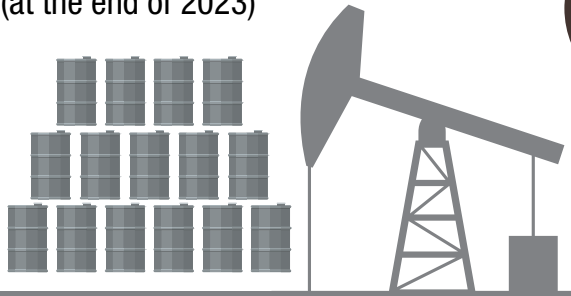


* includes crude oil, NGLs, additives and other hydrocarbons (including the receipts of additives).

World proved reserves

1,768 billion barrels

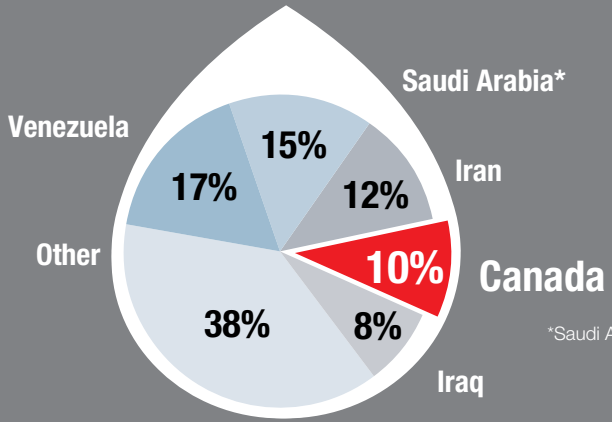
(at the end of 2023)



Proved reserves are those reserves expected to be recoverable with a high degree of certainty.

97%

of Canada's proven oil reserves are located in the oil sands.

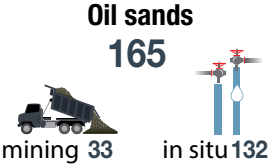


*Saudi Arabia and Kuwait reserves include the Saudi-Kuwaiti "neutral zone," with total proved reserves of 5 billion barrels.

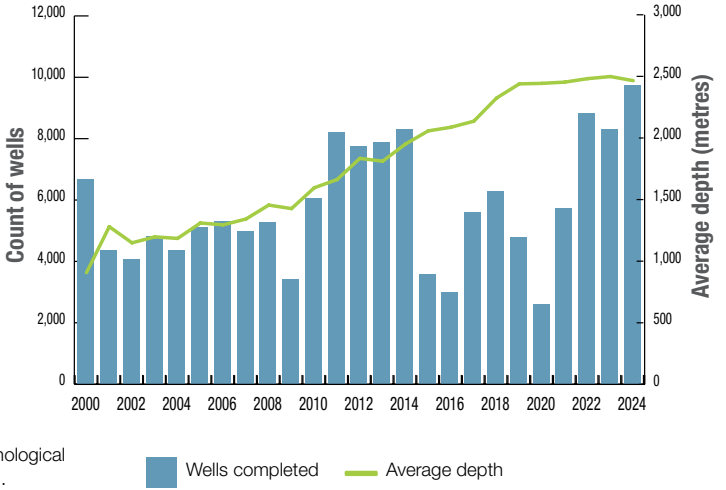
CANADIAN RESOURCES

REMAINING ESTABLISHED RESERVES*

(billion barrels, as of December 2023)



COUNT AND AVERAGE DEPTH OF OIL WELLS COMPLETED IN WESTERN CANADA



* Reserves known to exist and recoverable under current technological and economic conditions. Totals may not sum due to rounding.

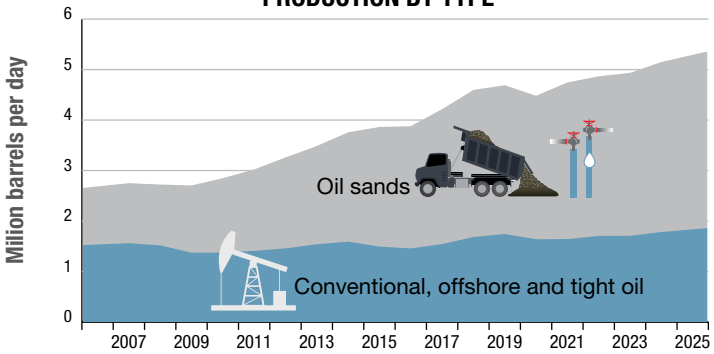
** Reserves also include proved reserves of pentanes plus (a crude-oil equivalent that is associated with oil production).

CANADIAN PRODUCTION

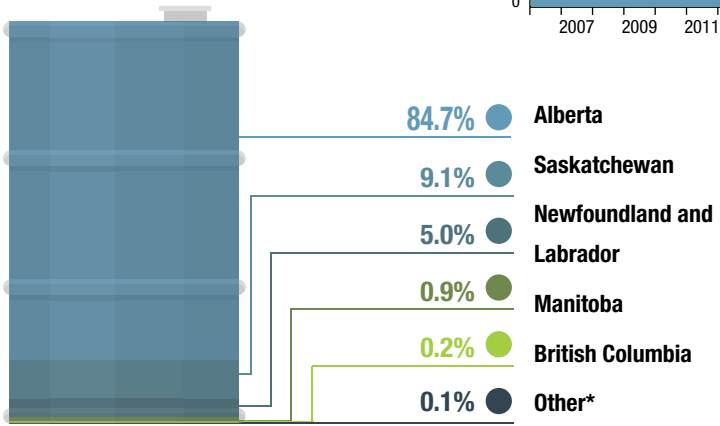
Oil sands production has exceeded conventional production since 2010.

In 2025, oil sands production was **3.5 MMb/d** compared with **1.9 MMb/d** of other oil production.

PRODUCTION BY TYPE

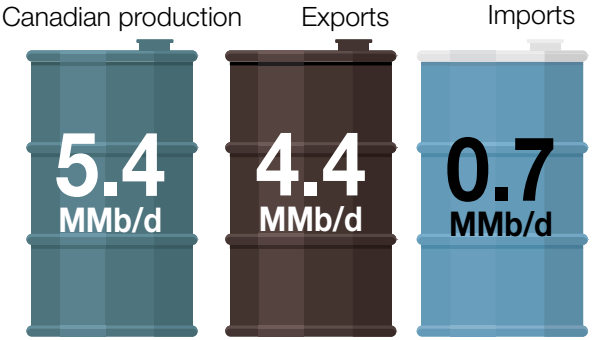


PRODUCTION BY PROVINCE, 2025

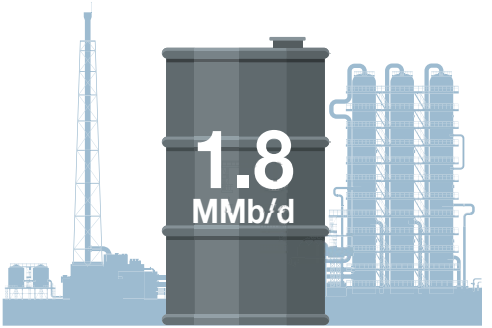


*Other: Nova Scotia, Ontario and the Northwest Territories.

CANADIAN SUPPLY AND DEMAND* (2025)

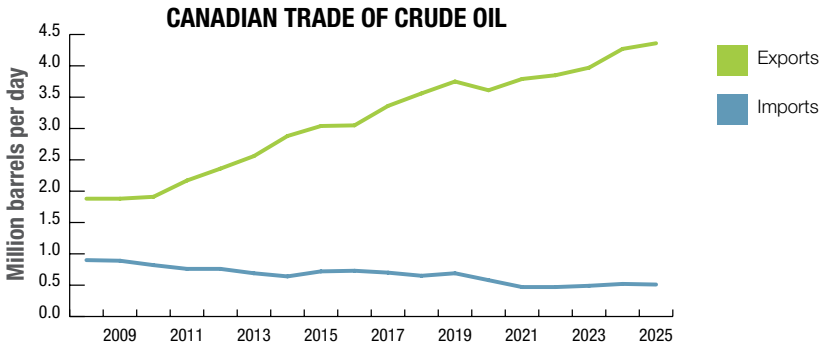


* includes condensates and pentanes plus.



CRUDE OIL INPUT TO DOMESTIC REFINERIES

TRADE



OIL SANDS

An estimated **$393 billion** of capital investment to date, including **$12.5 billion** in 2025

OF CANADA'S PROVED RESERVES

OF CANADA'S OIL PRODUCTION IN 2025 OR 3.5 MMb/d

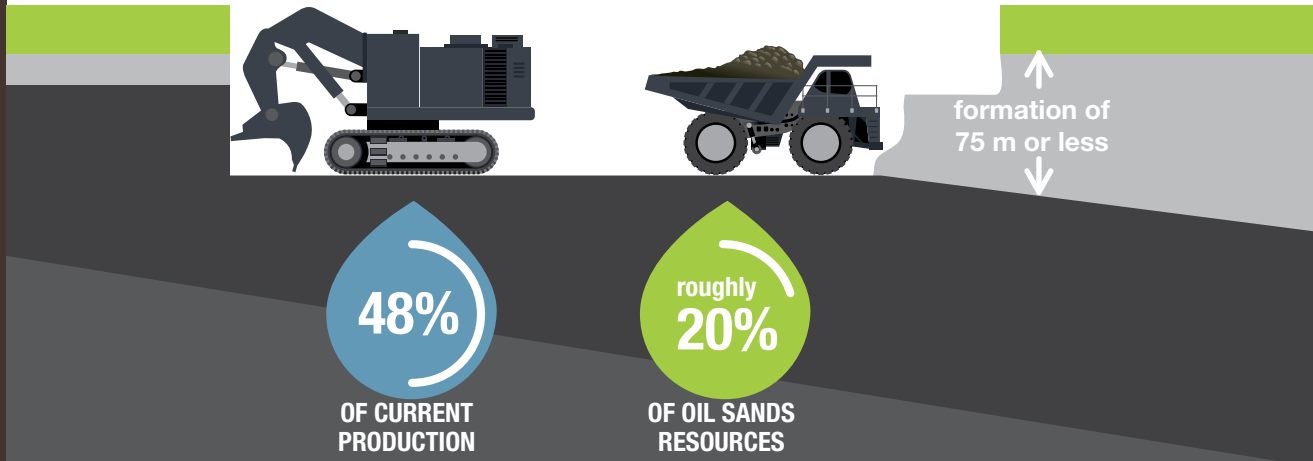
BITUMEN UPGRADING

- Crude bitumen from oil sands may be transported to upgraders for processing to make it lighter – "synthetic crude oil."
- In 2024, **41%** of the raw bitumen produced was sent for upgrading in Alberta.
- Major companies with upgrading capacity include Syncrude, Suncor, Shell, Canadian Natural Resources, Husky and Nexen-CNOOC.
- The total upgrading capacity in Canada is **1.5 MMb/d**
- Bitumen may also be blended with diluent (e.g. condensates) and sold directly to refineries capable of processing heavier oils.

MINING METHOD

Process: Companies use trucks and shovels to scoop oil sands from the ground. The oil sands are then transported to extraction plants where bitumen is separated from the sand by using steam. Tailings are then pumped into settling basins.

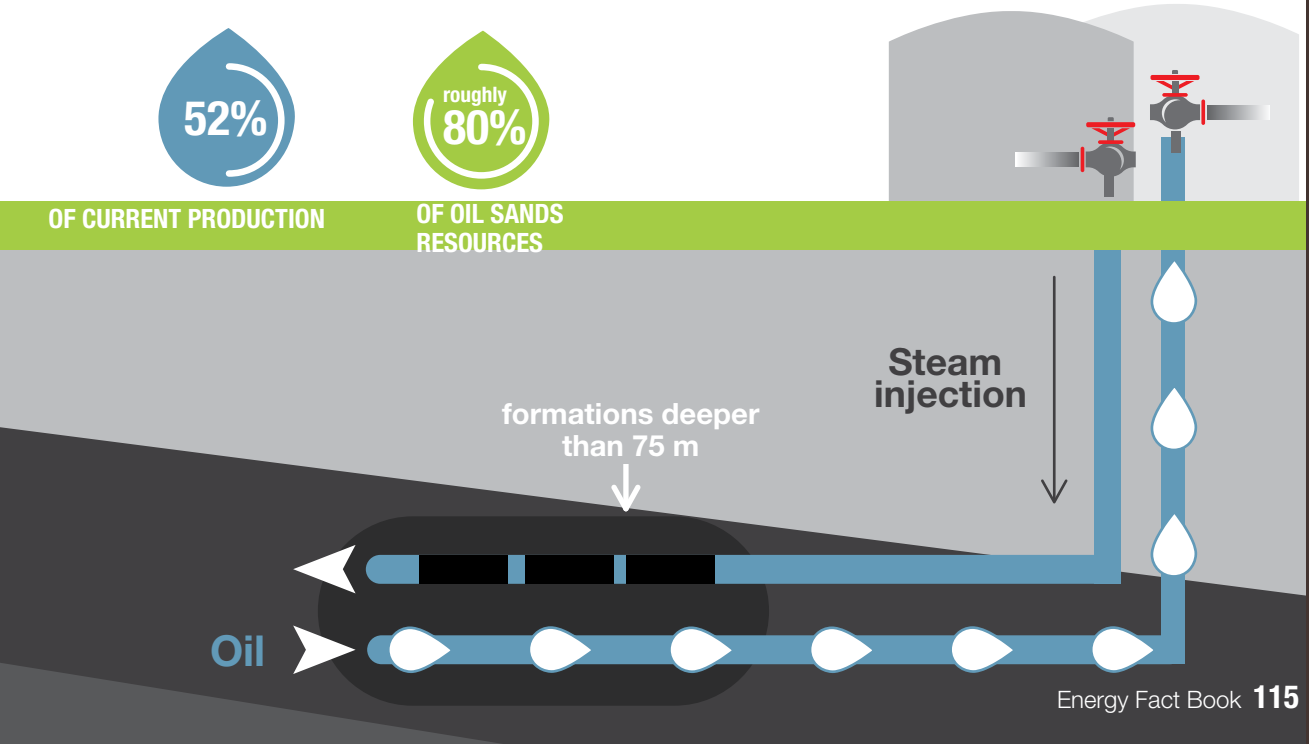
In 2025, **seven projects in Alberta** produced **1,767 Mb/d**: CNRL Horizon Mine **(317 Mb/d)**, Syncrude Mining Project **(313 Mb/d)**, Imperial's Kearl **(298 Mb/d)**, Suncor Base Mine (**262 Mb/d**), Fort Hills Mine (**183 Mb/d**), CNRL's Muskeg Mine **(179 Mb/d)** and Jackpine Mine **(145 Mb/d)**.



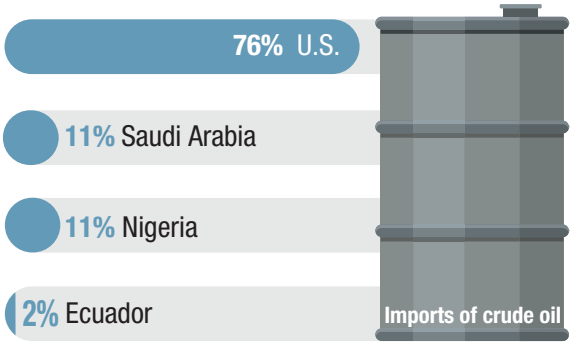
IN SITU METHOD

Process: Companies drill vertical and/or horizontal wells to inject steam to facilitate the flow of oil.

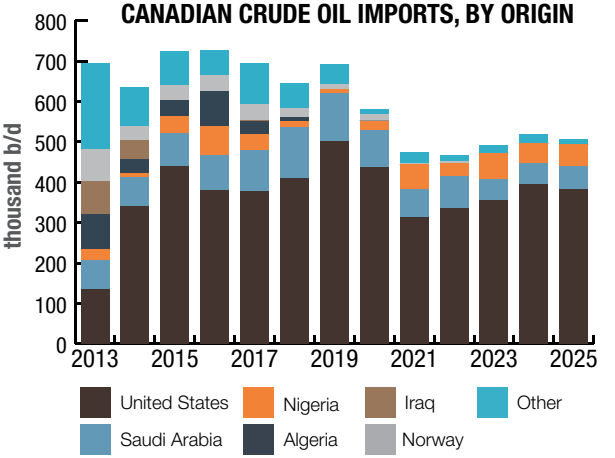
More than 20 projects in Alberta – The largest projects in 2025 were Firebag and MacKay River (Suncor) at **278 Mb/d**, Christina Lake (Cenovus) at **230 Mb/d**, Foster Creek (Cenovus) at **206 Mb/d** and Cold Lake (Imperial Oil) at **156 Mb/d**.



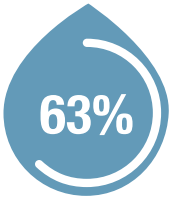
In 2025, imports of crude oil into Canada came from a range of countries including:



Over recent years, the U.S. has become Canada's primary supplier of imported crude oil.

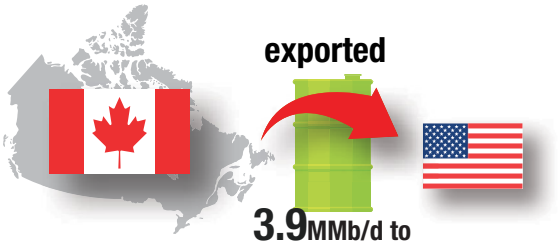


In 2025, Canada was the **largest foreign supplier of crude oil** to the U.S., accounting for



of total U.S. crude oil imports

of U.S. refinery crude oil intake



exported 3.9 MMb/d to

representing 90% of all Canadian crude oil exports

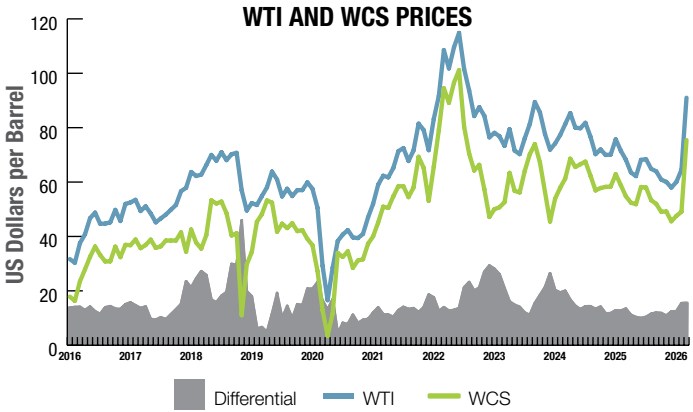
PRICES

WEST TEXAS INTERMIEDATE (WTI) AND WESTERN CANADIAN SELECT (WCS)

- WTI is a reference price for light crude oil delivered at Cushing, Oklahoma (a major pipeline hub) and is used as the benchmark price for North American crudes. WTI underlies oil futures contracts on the NYMEX.
- WCS is the main benchmark price for Canadian heavy crude, specifies delivery at Hardisty, Alberta and is representative of the price of oil from the oil sands.

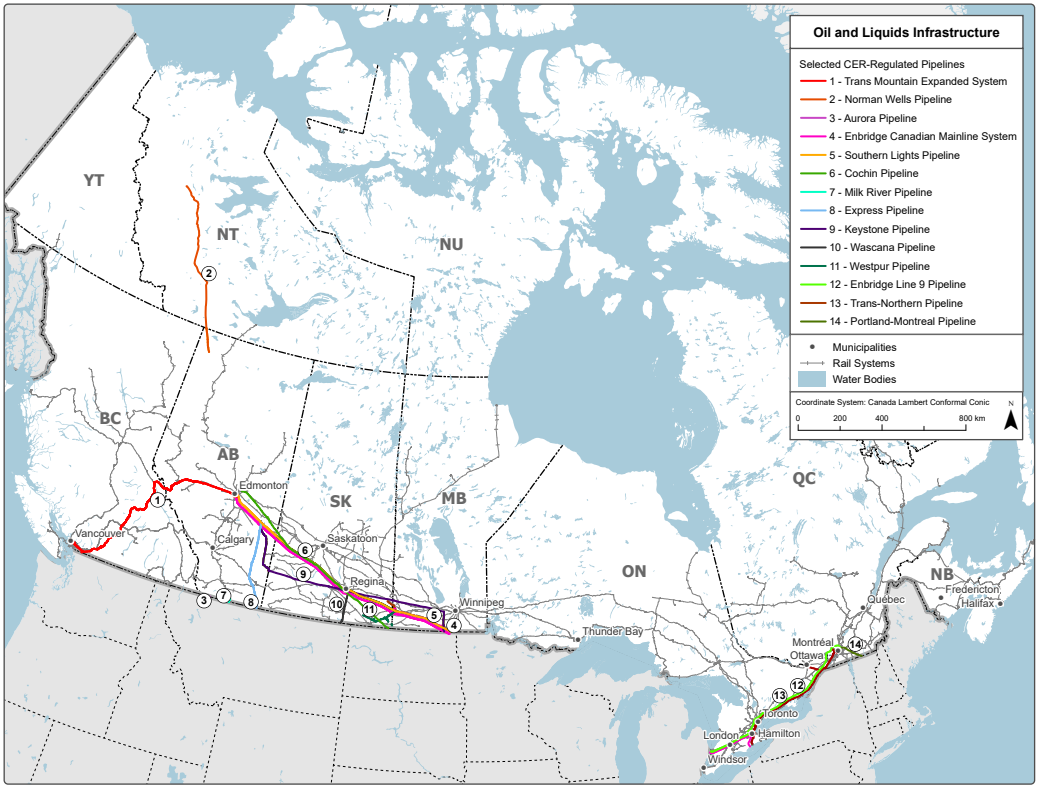
CRUDE PRICE DYNAMICS

- WCS is typically sold at a discount to WTI due to differences in quality and transportation costs. Heavy crude is more difficult to process and requires specialized equipment at refineries.
- The WCS-WTI differential typically ranges between US$10–$20 per barrel, though it can widen significantly due to pipeline constraints, demand shocks, or geopolitical uncertainty.
- In Q2 2020, prices collapsed amid the drop in demand from the global pandemic. Prices recovered through 2021 as lockdown measures eased, then surged in the first half of 2022 following the Russian invasion of Ukraine.



- Prices remained volatile from 2023 to 2025 before rising sharply again in early 2026, due to escalating conflict in the Middle East and renewed supply uncertainty.

MAJOR CER REGULATED OIL PIPELINES



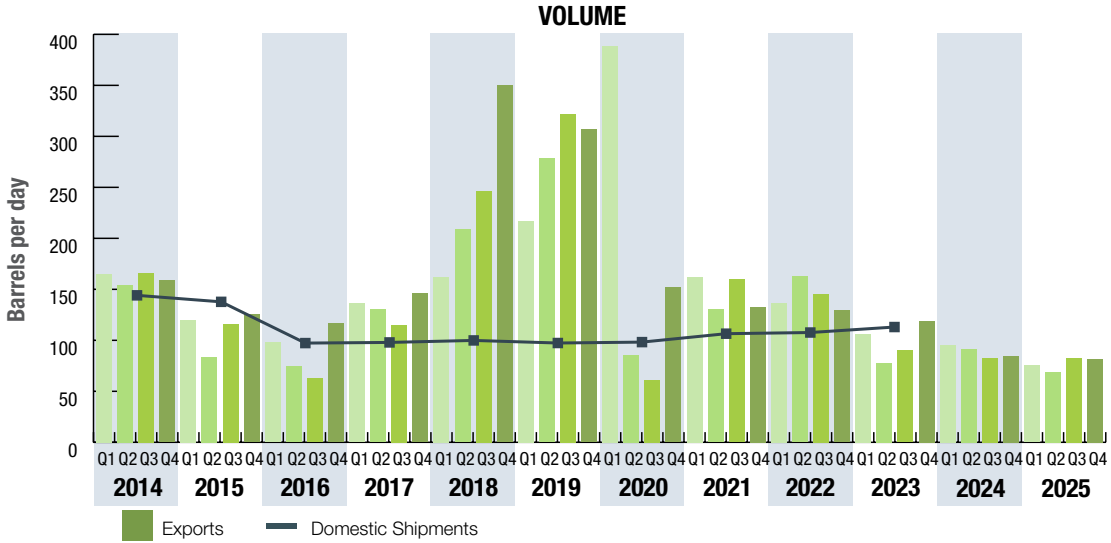
The map is a graphical representation intended for general informational purposes only. Map produced by the CER, August 2024, Last updated on Aug 09

OIL BY RAIL

Oil shipments by rail have varied considerably over the past decade, driven by shifts in global oil prices and transportation capacity. Exports fell sharply in 2015-2016 amid declining prices, then surged in 2018 as pipeline constraints in Western Canada increased reliance on rail.

Exports reached a high of 412 Mb/d in February 2020, just before a pandemic-related price downturn triggered a steep decline. Although volumes briefly rebounded, they have since levelled off below prior peaks.

By contrast, domestic shipments of fuel oils and crude have remained relatively stable since 2016.

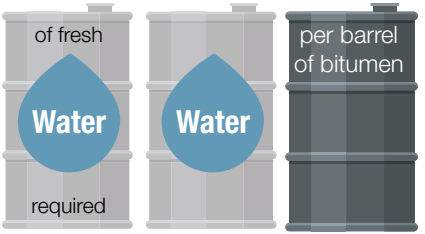


OIL SANDS: ENVIRONMENTAL CONSIDERATIONS

WATER

Mining method:

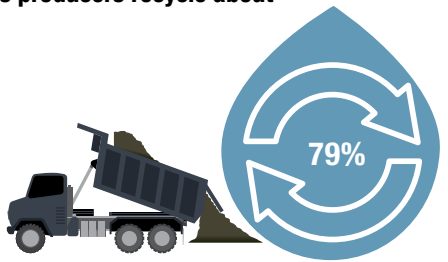
2.1 barrels



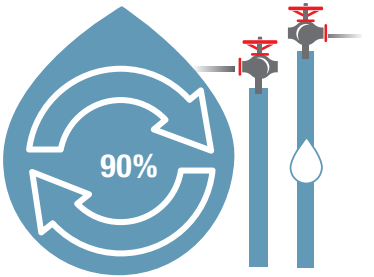
In situ method: an average of

0.15 barrels

Oil sands producers recycle about



OF THE WATER USED FOR ESTABLISHED MINES



OF THE WATER USED FOR IN SITU PRODUCTION

GREENHOUSE GASES

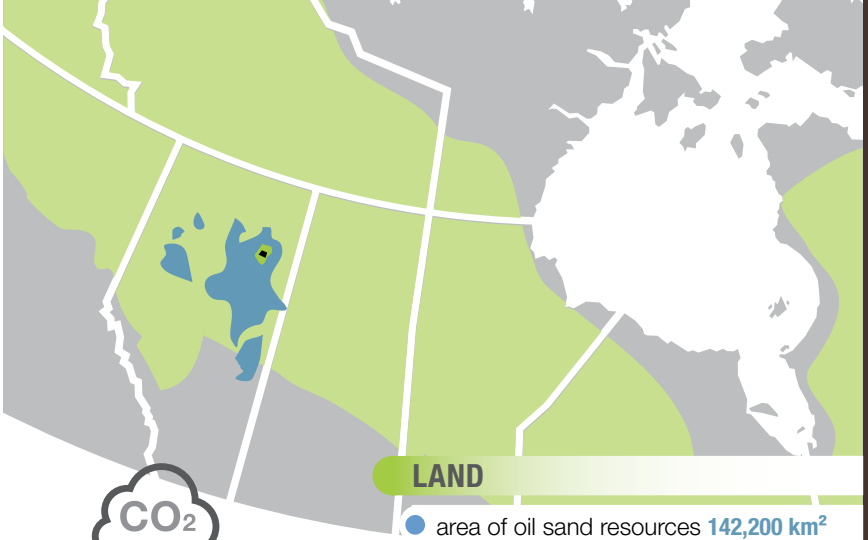
13% of Canada's total **GHG emissions** in 2024 and **0.18%** of **global emissions in 2023**

From 2000 to 2024, emissions intensity per barrel decreased by

CO_2

29%

as a result of **technological and efficiency improvements**, fewer venting emissions and reductions in the percentage of crude bitumen being upgraded to synthetic crude oil.



LAND

- area of oil sand resources **142,200 km²**
- total mineable area **4,800 km²**
- total area being mined **953 km²**
  tailings ponds **257 km²**

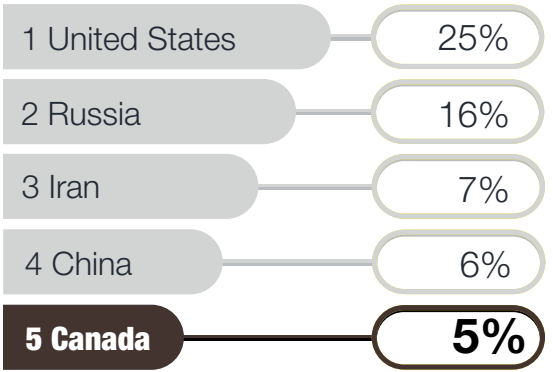
For comparison:

- Canada's area **10,000,000 km²**
- Canada's boreal forest **2,700,000 km²**

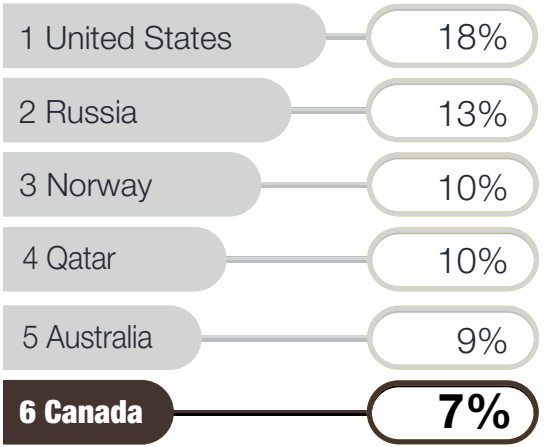
Natural gas

INTERNATIONAL CONTEXT

World production – 413 Bcf/d (11.7 Bcm/d)
(2024, PRELIMINARY)

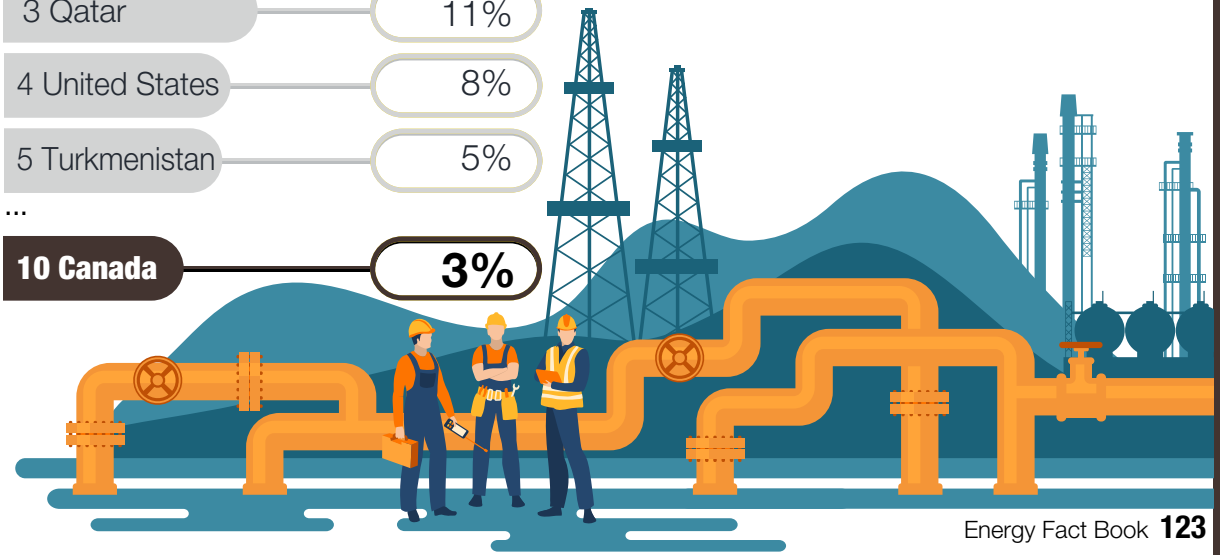


World exports – 119 Bcf/d (3.4 Bcm/d)
(2024, PRELIMINARY)



World proved reserves – 7,604 Tcf (215 Tcm)
(BEGINNING OF 2024)

1 Russia	22%
2 Iran	16%
3 Qatar	11%
4 United States	8%
5 Turkmenistan	5%
...	
10 Canada	**3%**



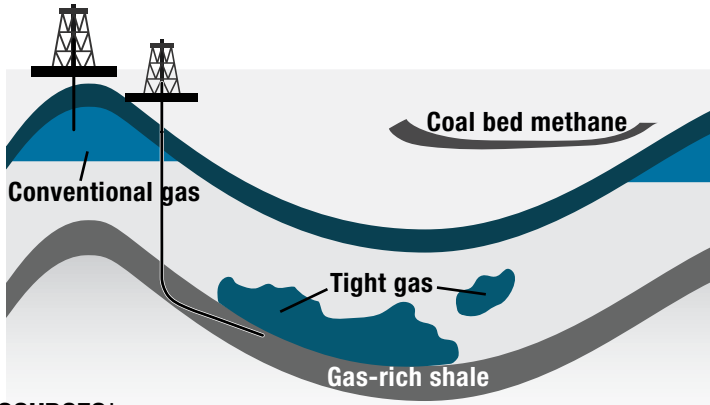
CANADA-U.S. RESOURCES

PROVED RESERVES* (Beginning of 2024)

196** Tcf

604 Tcf

TOTAL **800** Tcf



MARKETABLE/TECHNICALLY RECOVERABLE RESOURCES*

Canada total, year-end 2023 **1,368** Tcf

conventional **380** Tcf

unconventional **988** Tcf

(coal-bed methane, shale and tight gas)

U.S. total, year-end 2020 **2,973** Tcf

portion that is shale and tight gas **2,172** Tcf

portion that is other **801** Tcf

World total (year-end 2022) **28,358** Tcf

conventional **14,867** Tcf

unconventional **13,490** Tcf

* Please see *Annex 2: Units and conversion factors* for definitions of proved reserves and recoverable resources.

** NRCan approximation based on data publicly available as of August 2025.

CANADA-U.S. MARKET (2025)

Canada's natural gas market is heavily integrated with that of the U.S. largely because of the location of supply basins, demand centres, and the availability of transportation infrastructure, as well as existing Canada-U.S. trade agreements. These factors allow for consumers and distributors on either side of the border to freely access natural gas from the lowest cost supplier.

Canadian average marketable production

19.5 Bcf/d (0.55 Bcm/d)

9% conventional

91% unconventional*

U.S. average marketable production

107.7 Bcf/d (3.05 Bcm/d)

16% conventional

84% unconventional*

Canada-U.S. production

127.2 Bcf/d (3.60 Bcm/d)

LNG imports

91 MMcf/d

38 MMcf/d

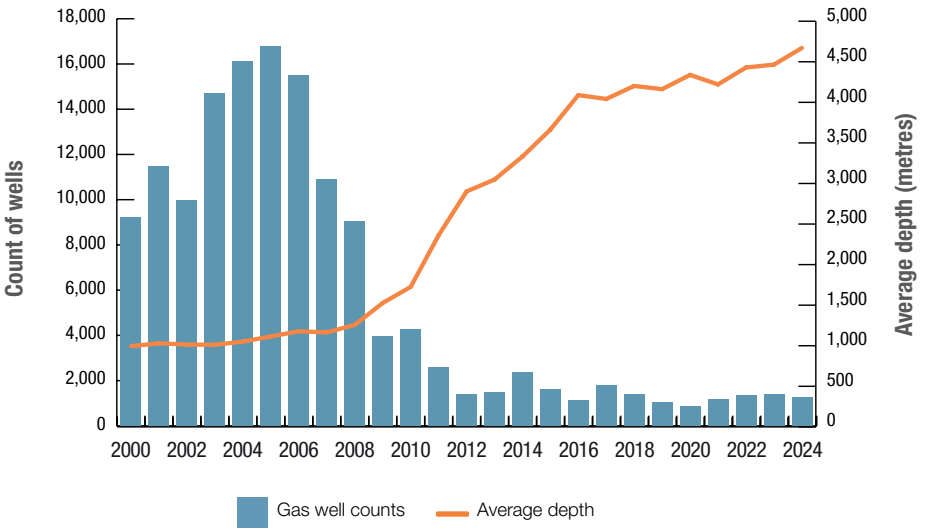
LNG exports

304 MMcf/d

15,091 MMcf/d

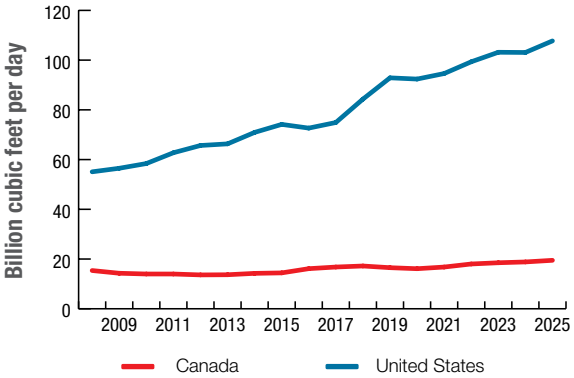
* Unconventional gas includes tight gas, coal bed methane and shale gas.

COUNT AND AVERAGE DEPTH OF NATURAL GAS WELLS COMPLETED IN WESTERN CANADA

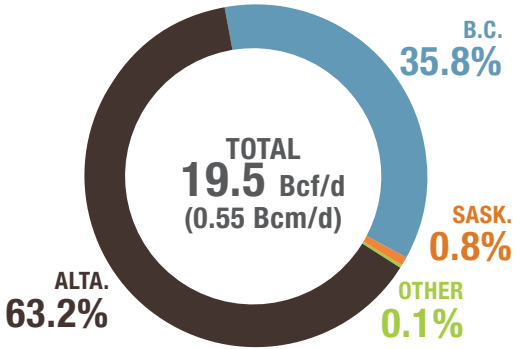


While Canadian natural gas production remained relatively flat and the number of wells drilled declined, the well productivity has increased over time. This reflects the increased use of horizontal drilling and increased well length.

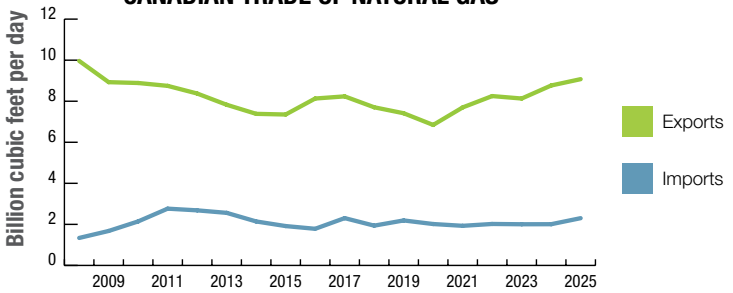
CANADIAN AND U.S. MARKETABLE PRODUCTION OF NATURAL GAS



MARKETABLE PRODUCTION BY PROVINCE, 2025



CANADIAN TRADE OF NATURAL GAS



Canadian exports to the U.S.

8.8 Bcf/d (0.25 Bcm/d)

Canadian imports from the U.S.

2.2 Bcf/d (0.06 Bcm/d)

- Natural gas imports from the U.S. into Eastern Canada are on the rise because of higher supplies in the U.S. Northeast and shorter transportation distances from these U.S. natural gas basins.
- Canadian natural gas exports to the western U.S. and U.S. Midwest remain significant.
- Since 2009, Canada has imported liquefied natural gas (LNG) from other countries via the Canaport LNG terminal in Saint John, N.B.
- In 2017, Canada started exporting small quantities of LNG to other countries via the Port of Vancouver, B.C.
- Canada's first LNG export terminal began shipments in 2025, exporting LNG from Kitimat, B.C., to the global market. The majority of exports from this terminal in 2025 were directed to Asia.

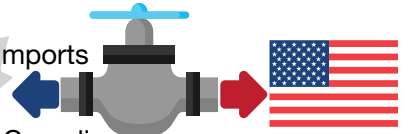
47% of Canadian production is exported in 2025.

Canadian exports are largely destined for the U.S.

>99% of U.S. imports and 9% of U.S. consumption comes from Canada.

The value of Canadian net exports (exports minus imports) was **$5.6 billion** in 2025.

96% of Canada's imports and **17%** of Canadian consumption comes from the U.S.



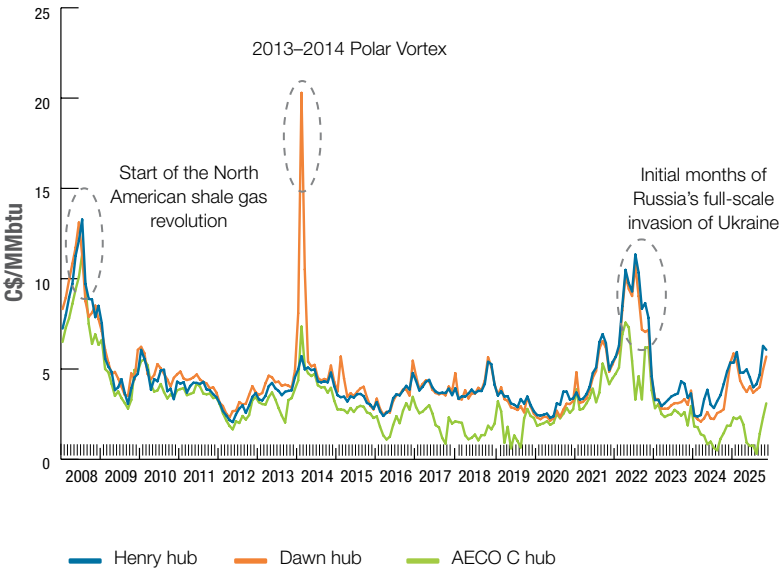
UPSTREAM PRICES

The AECO hub is Canada's largest natural gas trading hub, and the AECO price serves as a benchmark for Alberta wholesale natural gas transactions.

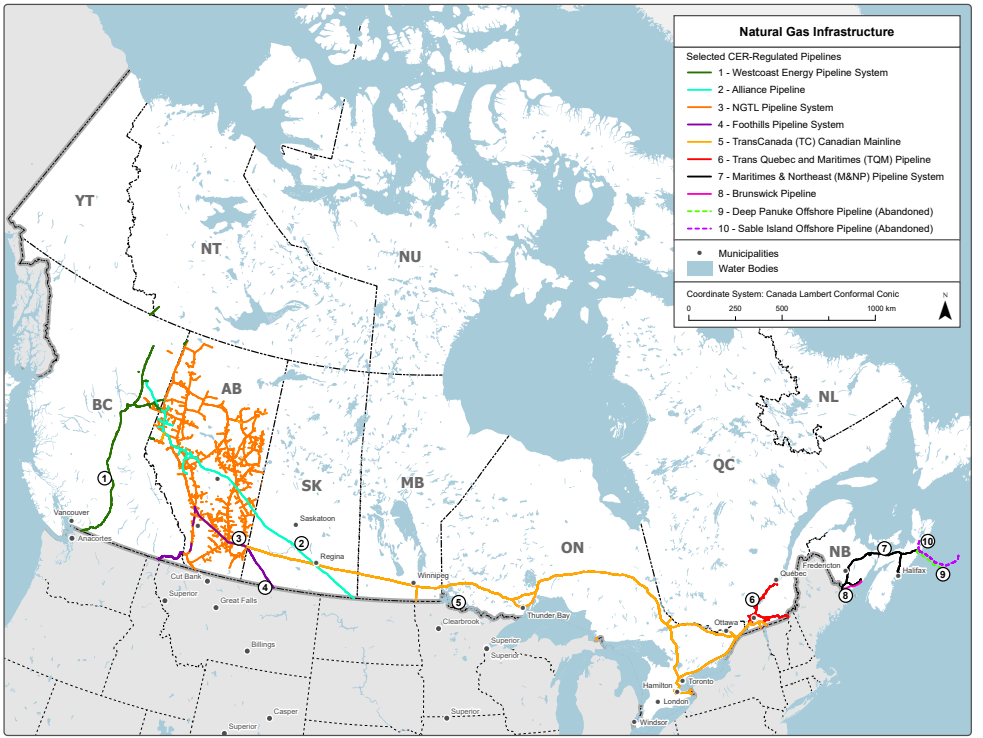
AECO PRICE

Average: 2009–2016	**$3.38**/MMbtu
Average: 2017	**$2.20**/MMbtu
Average: 2018	**$1.53**/MMbtu
Average: 2019	**$1.80**/MMbtu
Average: 2020	**$2.24**/MMbtu
Average: 2021	**$3.64**/MMbtu
Average: 2022	**$5.43**/MMbtu
Average: 2023	**$2.64**/MMbtu
Average: 2024	**$1.39**/MMbtu
Average: 2025	**$1.69**/MMbtu

MONTHLY AVERAGE NATURAL GAS SPOT PRICES



TRANSPORTATION
CER REGULATED GAS PIPELINES



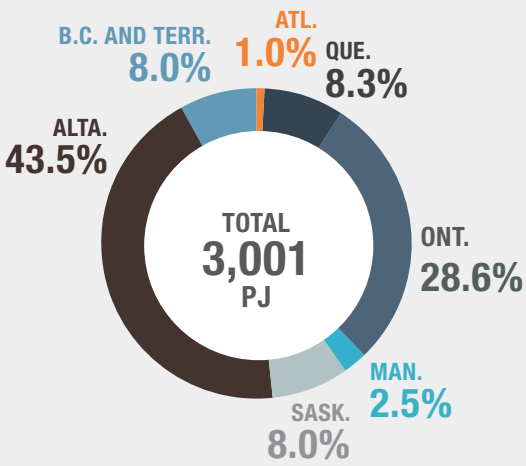
The map is a graphical representation intended for general informational purposes only. Map produced by the CER, August 2024, Last updated on Aug 07

NATURAL GAS ENERGY USE

NATURAL GAS END USE BY SECTOR, 2023

Sector	Energy use (PJ)	Energy use (Bcf/d)	% of the total
Residential	612.2	1.59	20.4%
Commercial	577.9	1.50	19.3%
Industrial	1,755.9	4.56	58.5%
Transportation	4.4	0.01	0.1%
Agriculture	50.4	0.13	1.7%
Total	**3,000.8**	**7.79**	**100%**

NATURAL GAS ENERGY USE BY PROVINCE, 2023

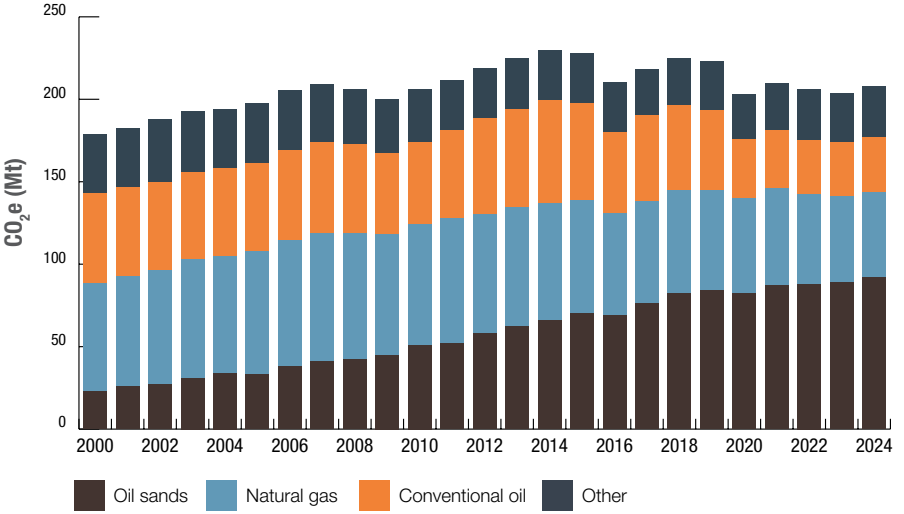


GHG SPOTLIGHT: OIL AND GAS

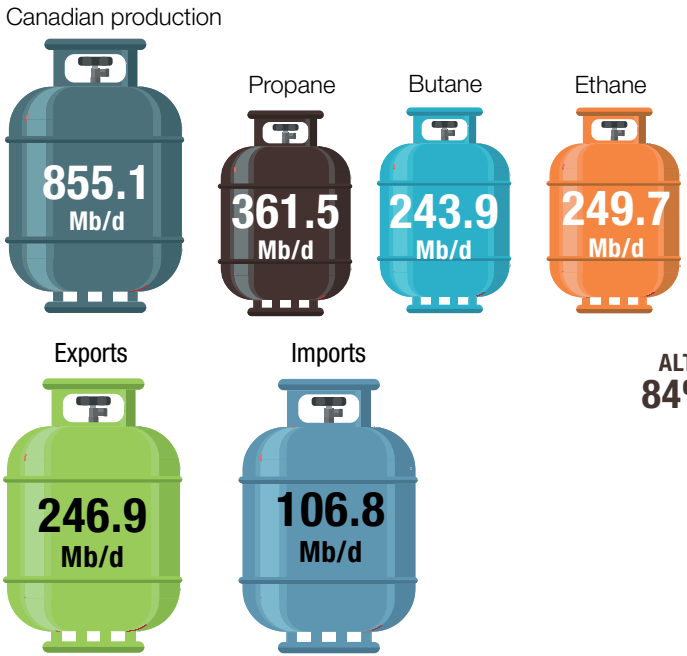
GHG emissions from oil and gas production **have gone up 16% between 2000 and 2024,** largely from increased oil sands production, particularly in situ extraction.

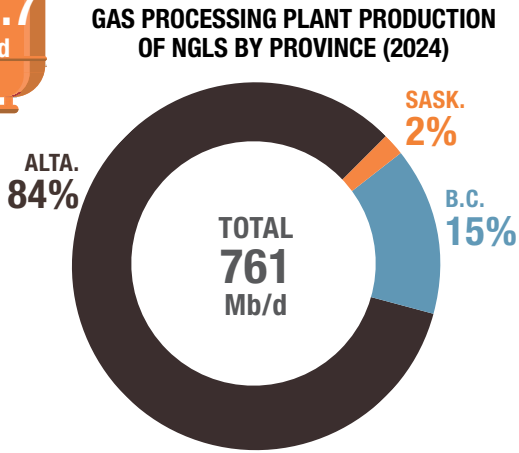
During this period, oil sands production emissions **nearly quadrupled** while conventional oil and natural gas emissions **decreased by 29%**.

OIL AND GAS SECTOR GHG EMISSIONS FOR CANADA, 2000–2024



HYDROCARBON GAS LIQUIDS (HGLs)
SUPPLY AND DEMAND* (2025)





* excludes condensates and pentanes plus, which are induded as part of crude oil, and includes refinery-produced LPGs.

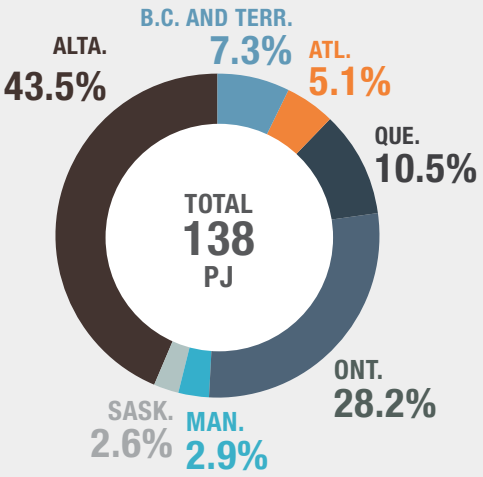
NATURAL GAS LIQUIDS ENERGY USE

TOTAL NATURAL GAS LIQUIDS ENERGY USE WAS 138 PJ IN 2023.

Sector	Energy use* (PJ)	% of the total
Residential	14.2	10.3%
Commercial	34.3	24.9%
Industrial	67.9	49.3%
Transportation	12.4	9.0%
Agriculture	8.9	6.5%
Total	**137.8**	**100%**

*secondary energy use

NATURAL GAS LIQUIDS ENERGY USE BY PROVINCE, 2023



REFINED PETROLEUM PRODUCTS (RPPs)

PETROLEUM REFINERIES

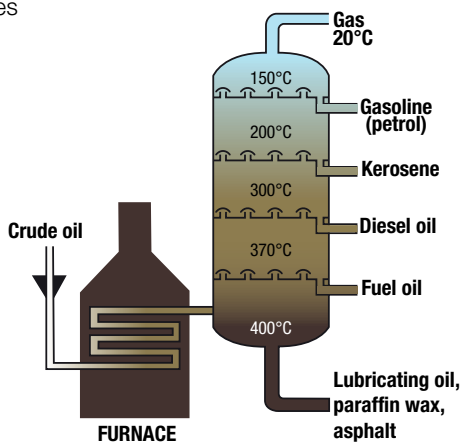
Petroleum refineries transform crude oil into a wide range of refined petroleum products (RPPs, e.g. gasoline, diesel). Other facilities such as asphalt plants, lubricant plants, upgraders and some petrochemical plants also process crude oil to produce a limited range of products.

REFINERY ACTIVITIES

- **crude oil distillation:** separating products from crude oil by heating
- **additional processing:** e.g. catalytic cracking, reforming, coking
- **product blending:** end-use RPPs are usually blended with additives or renewable fuels

REFINERY OUTPUTS

- transportation fuels: gasoline, diesel, aviation fuels, heavy fuel oil
- heating oil
- liquid petroleum gases: propane and butane from refineries
- petrochemical feedstock
- other products: e.g. kerosene, lubricating oils, greases, waxes, asphalt



SUPPLY AND DEMAND* (2025)

Canadian net production

2.0
MMb/d
(117 billion L)

Exports

0.4
MMb/d
(21 billion L)

Imports

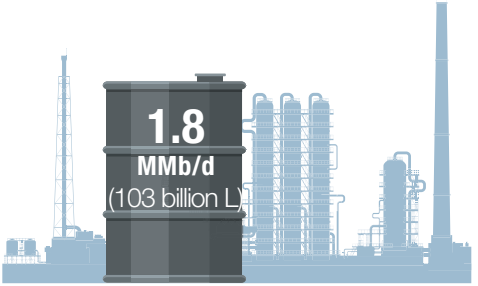
0.2
MMb/d
(10 billion L)

Domestic Consumption

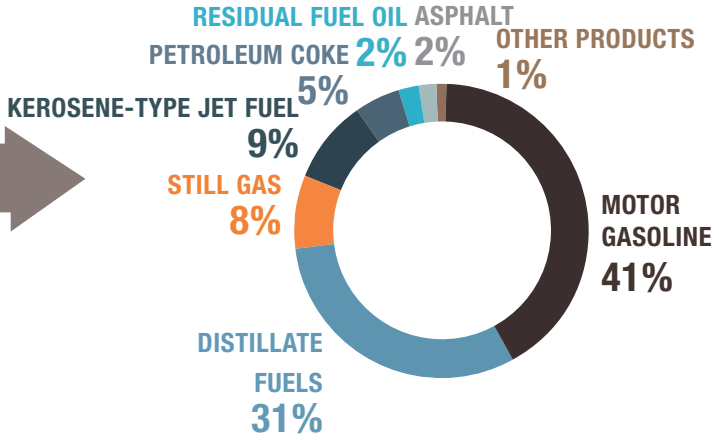
1.8
MMb/d
(105 billion L)

*Some product shares are based on estimates from Natural Resources Canada.

CRUDE OIL SHIPPED TO DOMESTIC REFINERIES

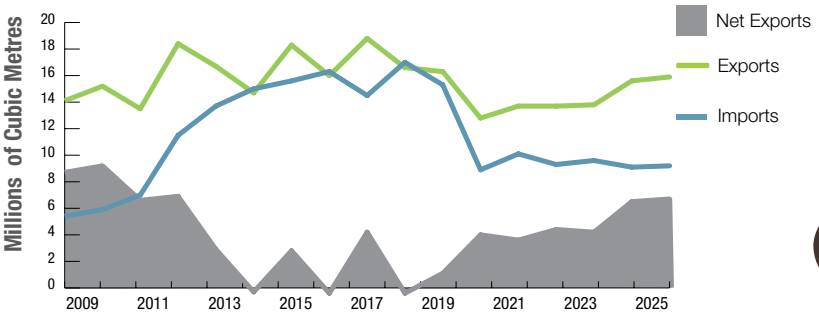


DOMESTIC CONSUMPTION BY PRODUCT, 2025*

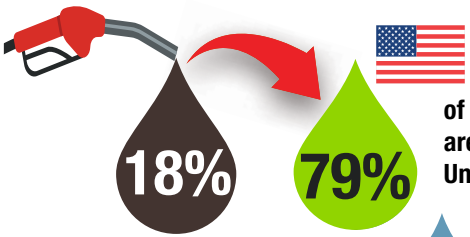


TRADE

CANADIAN TRADE OF MAJOR REFINED PETROLEUM PRODUCTS (RPPs)



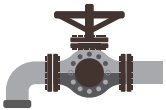
Primarily motor gasoline, diesel, jet fuel, fuel oil, and kerosene



of Canadian produced RPPs are exported

of major RPP exports are destined for the United States.

of United States imports come from Canada.



of the total volume of Canadian consumption is imported, largely from:

44%
United States

13%
Netherlands

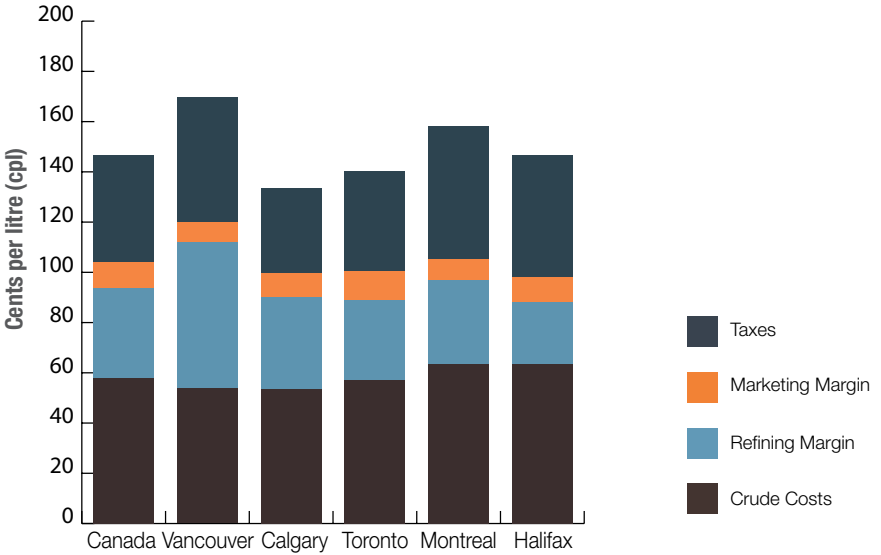
9%
United Kingdom

8%
Belgium

7%
Nortway

RETAIL PRICES

AVERAGE CANADIAN REGULAR GASOLINE PRICES, 2025



REFINERY CAPACITY

CANADIAN PETROLEUM REFINERIES BY COUNT AND CAPACITY*, 2025

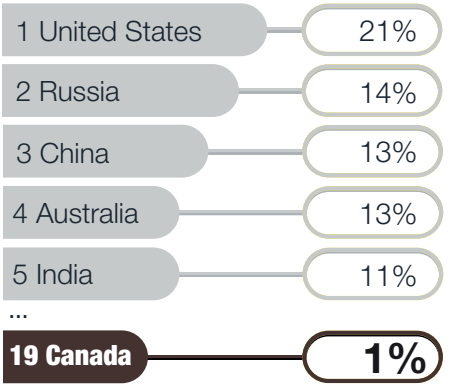
Province	Petroleum refinery		Asphalt plants		Lubricant plants (using crude oil as feedstock)		Total	
	Count	Capacity	Count	Capacity	Count	Capacity	Count	Capacity
Alberta	4	536	1	30	-	-	5	566
British Columbia	2	67	-	-	-	-	2	67
New Brunswick	1	320	-	-	-	-	1	320
Ontario	4	407	-	-	1	16	5	423
Quebec	2	372	-	-	-	-	2	372
Saskatchewan	1	135	1	24	-	-	2	159
Total	**14**	**1,837**	**2**	**54**	**1**	**16**	**17**	**1,907**

*Capacities are in Mb/d.

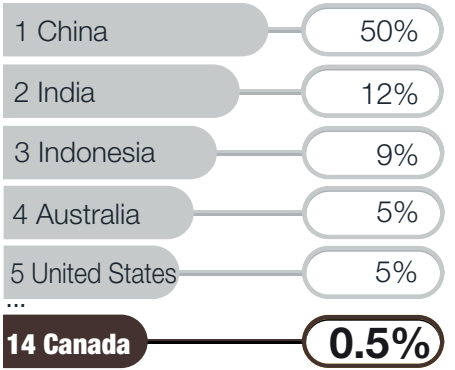
Coal

INTERNATIONAL CONTEXT

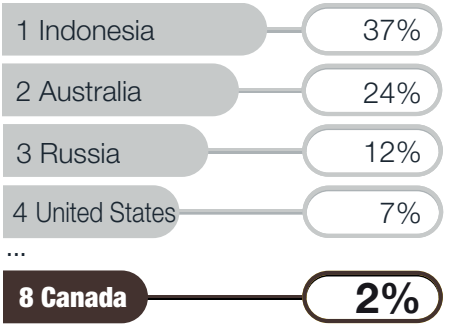
World proved reserves – 1,166 BILLION TONNES (2023)



World production – 8.8 BILLION TONNES (2024)

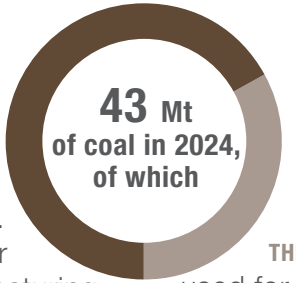


World exports – 1.5 BILLION TONNES (2024)



PRODUCTION AND USE

Canada produced



67% is **METALLURGICAL COAL** used for steel manufacturing

33% is **THERMAL COAL** used for electricity

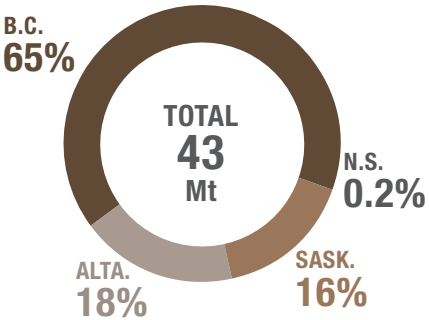
Electricity generation consumed

of coal in **2024**, a

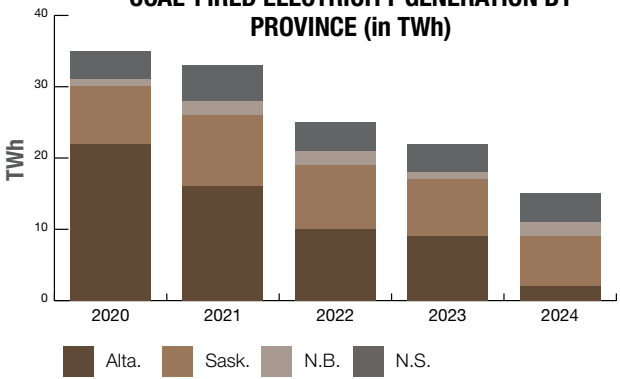
81% decrease from

in **2010**.

COAL PRODUCTION BY PROVINCE, 2024



COAL-FIRED ELECTRICITY GENERATION BY PROVINCE (in TWh)



DOMESTIC DEMAND (2024)

Used mostly for electricity generation (8.5 Mt)

Also for metallurgical applications

TRADE

CANADIAN TRADE OF COAL

Canada's exports are primarily metallurgical coal (**82%** in 2025).

TRADE (2025)

EXPORTS

$7.5 billion in coal exports

(by volume)

major export destinations

33% China

23% Japan

20% South Korea

1% of Canadian exports are to the U.S.,

representing **19%** of **U.S. coal imports**.

IMPORTS

$1.0 billion in coal imports

67% of Canadian imports are from the U.S.

ANNEXES

Annex 1: Notes on methodology

In this publication, energy industries are generally considered to include oil and gas extraction; coal mining; uranium mining; electric power generation, transmission and distribution; pipeline transportation; natural gas distribution; biofuels production; petroleum refineries; and support activities for oil and gas extraction. The petroleum sector is a subset of these industries, and in this publication consists of oil and gas extraction and support activities, pipeline transportation and distribution of oil and gas, and petroleum refineries.

Clean energy industries such as renewable and nuclear electricity generation, biofuels production and carbon capture and storage facilities are contained within the definition of energy industries. Some energy-related industries (e.g. petroleum product wholesaler-distributors and coal product manufacturing) are excluded because of a lack of data.

This publication represents data availability at the time of its preparation. All data is subject to revisions by statistical sources. In some instances, more than one source may be available and discrepancies in numbers may occur because of conceptual or methodological differences. In addition, some numbers may not add up precisely due to rounding.

Annex 2: Units and conversion factors

PREFIXES AND EQUIVALENTS

Prefix				
SI/Metric		Imperial	Equivalent	
k	kilo	M	thousand	10^3
M	mega	MM	million	10^6
G	giga	B	billion	10^9
T	tera	T	trillion	10^{12}
P	peta	-	quadrillion	10^{15}

Notes

- Tonne may be abbreviated to “t” and is not to be confused with “T” for tera or trillion.
- Roman numerals are sometimes used with imperial units (this can create confusion with the metric “M”).

CRUDE OIL

Upstream

- reserves usually in barrels or multiples (million barrels)
- production/capacity often in barrels per day or multiples (thousand barrels/day or Mb/d, million barrels/day or MMb/d)
- metric: 1 cubic metre = 6.2898 barrels
- International Energy Agency: uses weight (tonnes) rather than volume

Downstream (petroleum products)

- volumes of refined products usually in litres
- 1,000 litres = 1 cubic metre
- U.S.: 1 U.S. gallon = 3.785 litres

NATURAL GAS

Volume

- reserves/production usually in cubic feet or multiples (billion cubic feet or Bcf, trillion cubic feet or Tcf)
- production/capacity often in cubic feet per day or multiples (Bcf/d, Tcf/d)
- metric: 1 cubic metre = 35.3147 cubic feet

Density

- 1 million t LNG = 48.0279 billion cubic feet

Pricing

Volume-based:

- cents per cubic metre (¢/m^3) (customer level in Canada)
- $ per hundred cubic feet ($/CCF) (customer level in the U.S.)

Energy content-based:

- $ per gigajoule ($/GJ) (company level in Canada)
- $ per million British thermal units ($/MMbtu) (company level in the U.S., LNG)

URANIUM

- 1 metric tonne = 1,000 kilograms of uranium metal (U)
- U.S.: in pounds of uranium oxide (U_3O_8)
- 1 lb. U_3O_8 = 0.84802 lb. U = 0.38465 kg U

COAL

- 1 metric tonne = 1,000 kilograms
- U.S.: 1 short ton = 2,000 pounds
- 1 metric tonne = 1.10231 short tons

ELECTRICITY

Capacity

- maximum rated output that can be supplied at an instant, commonly expressed in megawatts (MW)

Total capacity

- installed generator nameplate capacity

Generation/sales

- flow of electricity over time, expressed in watt-hours or multiples:
  - kilowatt-hours or kWh (e.g. customer level)
  - megawatt-hours or MWh (e.g. plant level)
  - gigawatt-hours or GWh (e.g. utility level)
  - terawatt-hours or TWh (e.g. country level)

From capacity to generation

- A 1-MW unit operating at full capacity over one hour generates 1 MWh of electricity
- Over one year, this unit could generate up to 8,760 MWh (1 MW × 24 hr × 365 days)
- Units are rarely used at full capacity over time because of factors such as maintenance requirements, resource limitations and low demand
- "Capacity factor" is the ratio of actual generation to full capacity potential

ENERGY CONTENT

Rather than using "natural" units (e.g. volume, weight), energy sources can be measured according to their energy content – this allows comparison between energy sources

- metric: joules or multiples (gigajoules or GJ, terajoules or TJ, petajoules or PJ)
- U.S.: 1 British thermal unit (BTU) = 1,055.06 joules
- IEA: energy balances expressed in oil equivalent: :
  - thousand tonnes of oil equivalent (ktoe)
  - million tonnes of oil equivalent (Mtoe)

Typical values

- 1 m^3 of crude oil = 39.0 GJ
- 1,000 m^3 of natural gas = 38.3 GJ
- 1 MWh of electricity = 3.6 GJ
- 1 metric tonne of coal = 29.3 GJ
- 1 metric tonne of wood waste = 18.0 GJ
- 1 metric tonne of uranium = 420,000 GJ to 672,000 GJ

NATURAL GAS RESOURCES AND RESERVES

Proved reserves

Volumes of natural gas from known accumulations, of marketable quality, demonstrated with reasonable certainty to be recoverable, as of the estimate date, under current economic, technological, regulatory, and operating conditions, and suitable for delivery to market within a reasonable time frame.

Marketable/technically recoverable resources

Estimated volumes of natural gas – discovered or undiscovered – that exist in subsurface accumulations. Discovered resources are estimated quantities of gas in known drilled reservoirs, which are too remote to be connected to existing pipelines and markets. If pipelines were built, gas volumes would be recoverable under existing technological and economic conditions.

Undiscovered resources are an estimate, inferred from geological data, of gas volumes thought to be recoverable under current or anticipated economic and technological conditions, but not yet discovered by drilling. These resources may be near or remote from pipelines.

Annex 3: Abbreviations

AC	alternating current
AECO	Alberta Energy Company
AESO	Alberta Electric System Operator
AER	Alberta Energy Regulator
B	billion
b/d	barrels per day
Bcf/d	billion cubic feet per day
Bcm/d	billion cubic metres per day
BEV	battery electric vehicle
CANDU	Canada deuterium uranium
CAPP	Canadian Association of Petroleum Producers
CanREA	Canadian Renewable Energy Association
CCEI	Canadian Centre for Energy Information
CCS	carbon capture and storage
CCUS	carbon capture, utilization and storage
CDIA	Canadian direct investment abroad
CEA	Canadian energy assets
CER	Canada Energy Regulator
CFS	Canadian Forest Service
CO_2 equivalent	carbon dioxide equivalent
CPI	consumer price index
CPL	cents per litre
DC	direct current
ECCC	Environment and Climate Change Canada
ECTPEA	Environmental and Clean Technology Products Economic Account
EGS	enhanced geothermal system
EIA	Energy Information Administration (U.S.)
EU	European Union
EV	electric vehicle
FDI	foreign direct investment
G7	seven wealthiest major developed nations: Canada, France, Germany, Italy, Japan, U.K. and U.S.
GDP	gross domestic product
GHG	greenhouse gas
GJ	gigajoule
GST	Goods and Services tax
GWh	gigawatt hours
HGL	hydrocarbon gas liquids
HST	Harmonized sales tax
IEA	International Energy Agency
IHA	International Hydropower Association
kg	kilogram
km	kilometre
km^2	square kilometre
kt	kilotonne
kWh	kilowatt hour
lb.	pound
L	litre
LCOE	levelized cost of electricity

LNG	liquefied natural gas
LPG	liquefied petroleum gases
LWR	light water reactor
m	metre
m^2	square metre
m^3	cubic metre
Mb/d	thousand barrels per day
MJ	megajoule
MMb/d	million barrels per day
MMcf/d	million cubic feet per day
MMbtu	million British thermal units
Mt	million tonnes; megatonne
Mtoe	million tons of oil equivalent
MW	megawatt
NGCC	natural gas combined cycle
NGL	natural gas liquids
NRCan	Natural Resources Canada
OEE	NRCan Office of Energy Efficiency
NRSA	Natural Resources Satellite Account
NSERC	National Science and Engineering Research Council of Canada
NYMEX	New York Mercantile Exchange
OECD	Organisation for Economic Co-operation and Development
PHEV	plug-in hybrid electric vehicle
PHWR	pressurized heavy water reactor
PJ	petajoule
Pkm	passenger-kilometre
Provinces and territories	
	Alta. – Alberta
	B.C. – British Columbia
	Man. – Manitoba
	N.B. – New Brunswick
	N.L. – Newfoundland and Labrador
	N.S. – Nova Scotia
	N.W.T. – Northwest Territories
	Ont. – Ontario
	P.E.I. – Prince Edward Island
	Que. – Quebec
	Sask. – Saskatchewan
	Y.T. – Yukon
	Atl. – Atlantic provinces
	Terr. – Territories
P/T	provincial/territorial
PV	photovoltaic
RD&D	research, development and demonstration
R&D	research and development
RPP	refined petroleum products
SDTC	Sustainable Development Technology Canada
StatCan	Statistics Canada
States	
	Ala.– Alabama
	Ariz. – Arizona

Ark.– Arkansas
Calif. – California
Colo. – Colorado
Conn. – Connecticut
Del. – Delaware
D.C. – District of Columbia
Fla. – Florida
Ga. – Georgia
Ill. – Illinois
Ind. – Indiana
Kans. – Kansas
Ky. – Kentucky
La. – Louisiana
Me. – Maine
Md. – Maryland
Mass. – Massachusetts
Mich. – Michigan
Minn. – Minnesota
Miss. – Mississippi
Mo. – Missouri
Mont. – Montana
Nebr.– Nebraska
Nev. – Nevada
N.H. – New Hampshire
N.J. – New Jersey
N.Mex. – New Mexico
N.Y.– New York
N.C.– North Carolina
N.D. – North Dakota
Okla.– Oklahoma
Ore. – Oregon
Penn. – Pennsylvania
R.I. – Rhode Island
S.C. – South Carolina
S.D. – South Dakota
Tenn. – Tennessee
Tex. – Texas
Vt.– Vermont
Va. – Virginia
Wash. – Washington
W.Va. – West Virginia
Wis. – Wisconsin
Wyo. – Wyoming

Tcf	trillion cubic feet
Tcm	trillion cubic metres
Tkm	tonne-kilometre
t	tonnes
TPES	total primary energy supply
TWh	terawatt-hour
TSX	Toronto Stock Exchange
U.K.	United Kingdom
U.S.	United States
US$	United States dollars
V	volt
WCS	Western Canadian Select
WTI	West Texas Intermediate

Annex 4: Sources

SECTION 1: KEY ENERGY, ECONOMIC AND ENVIRONMENTAL INDICATORS

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- **Energy use, efficiency and trends:** NRCan OEE. *National Energy Use Database*; NRCan estimates

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- **RENEWABLES**
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  - **World known recoverable resources of uranium:** OECD Nuclear Energy Agency and International Atomic Energy Agency. Uranium: *Resource, Production and Demand*; World Nuclear Association. *Supply of Uranium*
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https://energy-information.canada.ca/en