



Québec:
a partner
for the EU
in decarbonizing
economies

Québec

sustainable



Québec 

A wealth of affordable renewable energy

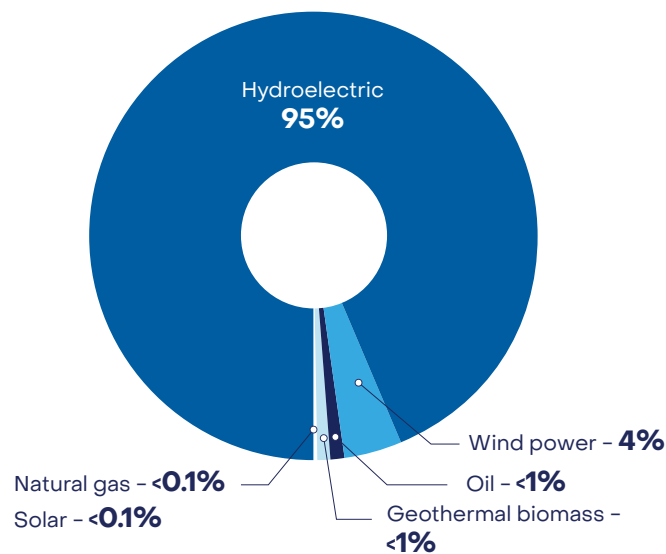
➤ Québec is a leader in hydroelectricity, power transmission and renewable energy integration. **As the world's fourth largest electricity producer**, Québec is equipped with a reliable network and world-class knowhow.



➤ We boast some of the most competitive electricity rates in North America, which has helped several industries flourish (aluminium, pulp and paper, aerospace, mining and metals processing, data centres, etc.) and maintain low production costs and carbon outputs.

Electricity production in Québec by source (2018)

Total production - 213.7 TWh



Source: Régie de l'énergie du Canada

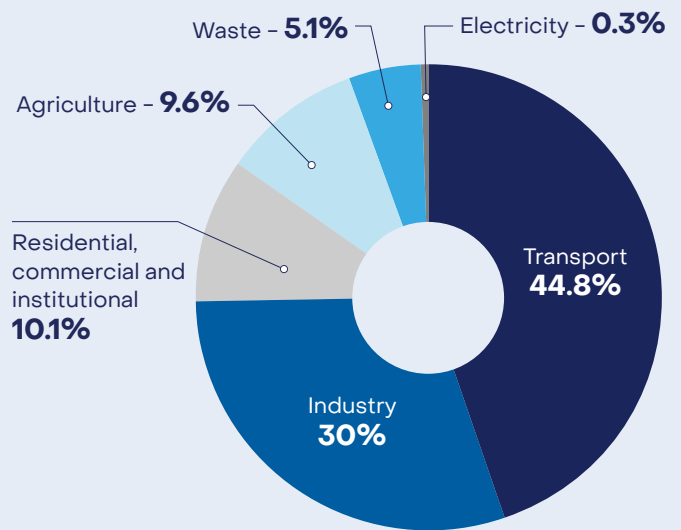
More than 99% of the electricity produced in Québec comes from clean energy sources. Wind power has developed rapidly in recent years and offers significant potential for growth.

Québec's electricity mix is one of the cleanest in the world, alongside Iceland and Norway.

➤ Québec is committed to fulfilling the targets set out in the 2016 Paris Agreement and **is proud to have the lowest GHG emission rate per capita among Canadian provinces and U.S. States**. Québec aims to achieve its energy transition by electrifying its entire economy and implementing the following strategies and action plans:

- The **2030 Plan for a Green Economy** was unveiled in November 2020 and this plan sets out the electrification and climate change policy framework that engages Québec in an ambitious, multisectoral project. The objective is to become **carbon neutral by 2050**.
- The **2013-2020 Climate Change Action Plan** superseded in March 2021 by the 2030 Plan for a Green Economy, this plan equipped Québec with the necessary means to establish a carbon market. Québec's system has been linked to California's since 2014 and is part of the Western Climate Initiative.
- The 2018-2023 Energy Transition, Innovation and Efficiency Master Plan seeks to cement the energy transition and establish a clear path towards a decarbonized economy.

GHG emission distribution in Québec in 2018 per industry sector



Source: Ministère de l'Environnement et de la Lutte contre les changements climatiques

Québec fosters multilateral dialogues to tackle climate change and is a member of several regional climate change collaboration networks. These include:



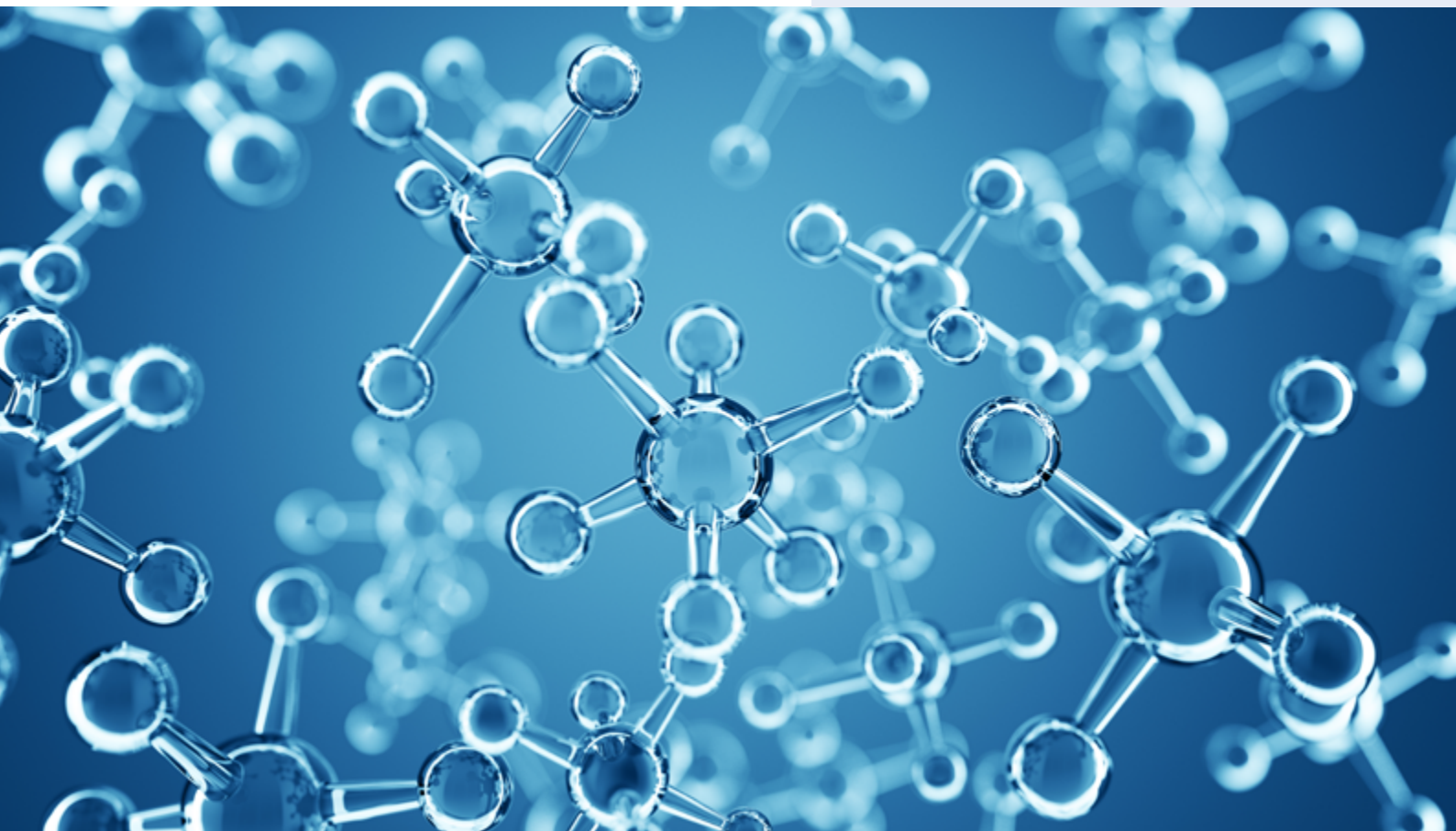
Green hydrogen: a promising solution

- › Québec is one of the rare places in the world where the cost-effective production of green hydrogen is possible thanks to renewable energy sources.
- › Québec's dynamism has attracted several major industry players, including the German company Hy2gen and the French company Air Liquide.
- › In 2019, Québec entered into a technological innovation cooperation agreement with France, focusing primarily on mobility, energy management, and direct and indirect hydrogen applications.



One possible solution to improving the energy balances of sectors where electrification proves to be more challenging is hydrogen. These sectors include:

- Heavy goods transport
- Manufacturing
- Green chemistry



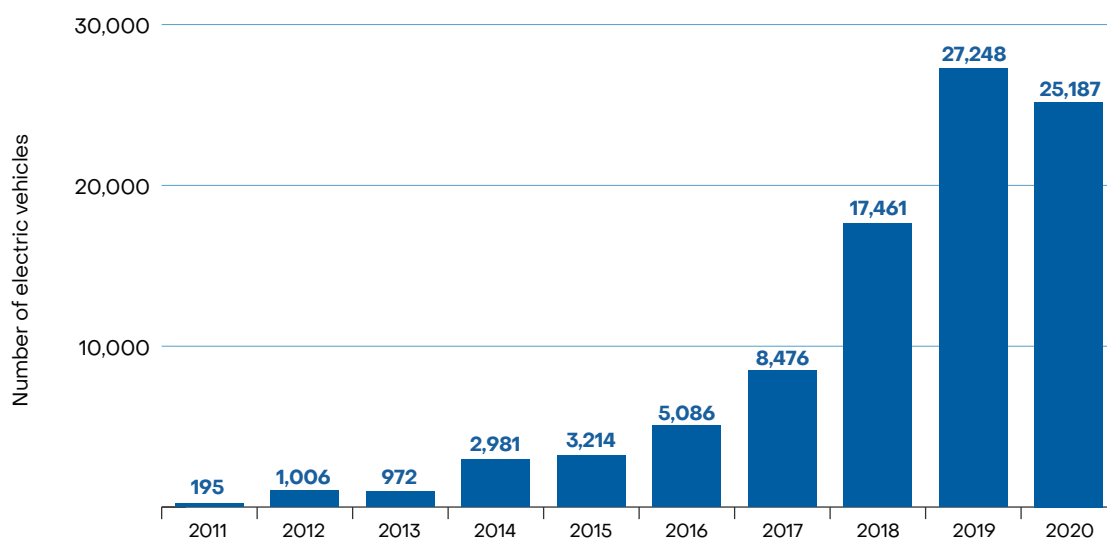
Electromobility: powering the electric revolution



Thanks to its solid clean energy capabilities, Québec has the winning conditions required to develop electric transportation. We established a **Transportation Electrification Action Plan** and banned **the sale of new gasoline-powered vehicles as of 2035**.

- Québec boasts **the second highest per-capita EV sales in North America**, trailing just behind California. In Canada, Québec is a forerunner in EV sales. Almost half of all electric vehicles found on Canadian roads are in Québec, and Quebecers have **two times more electric or hybrid vehicles than its demographic weight**.

**There are 102,566 electric vehicles
on Québec roads as of April 30, 2021**



Source: Société de l'assurance automobile du Québec, electric and hybrid vehicles registered in Québec

- In 2018, Québec adopted an **Act** on zero-emission motor vehicles, following in California's footsteps, which seeks to promote the supply of EVs by requiring motor vehicle manufacturers to sell a specific number of EVs.
- Québec is one of the founding members of the International Zero-Emission Vehicle Alliance (ZEV Alliance), a collaboration of **some twenty national and subnational governments** working together to promote ZEV best practices across jurisdictions.

- › From mining and the manufacturing of EV components and assembly to research, the Government of Québec is making significant investments to **promote the development of electric transportation** for people and goods. In fact, several visionary Québec-based companies are already developing electric-powered city and school buses, trucks, ATVs, boats, motorcycles, and charging stations, among others.
- › **Québec's Battery Sector Strategy** aims to support the development of the entire value chain—from mineral extraction to recycling—which will lead to the development of one of the cleanest batteries in the world and even more efficient energy storage technologies.
- › **Québec is not only working** on making road transport more sustainable, but it is **also seeking to reduce maritime and air transport pollution**. Several of Québec's and Europe's largest ports have signed agreements that aim to support sustainable maritime transport and logistic innovations. Aéro Montréal, Québec's aerospace cluster, supports the development of ground-breaking new technologies which seek to reduce GHG emissions in the aerospace sector.

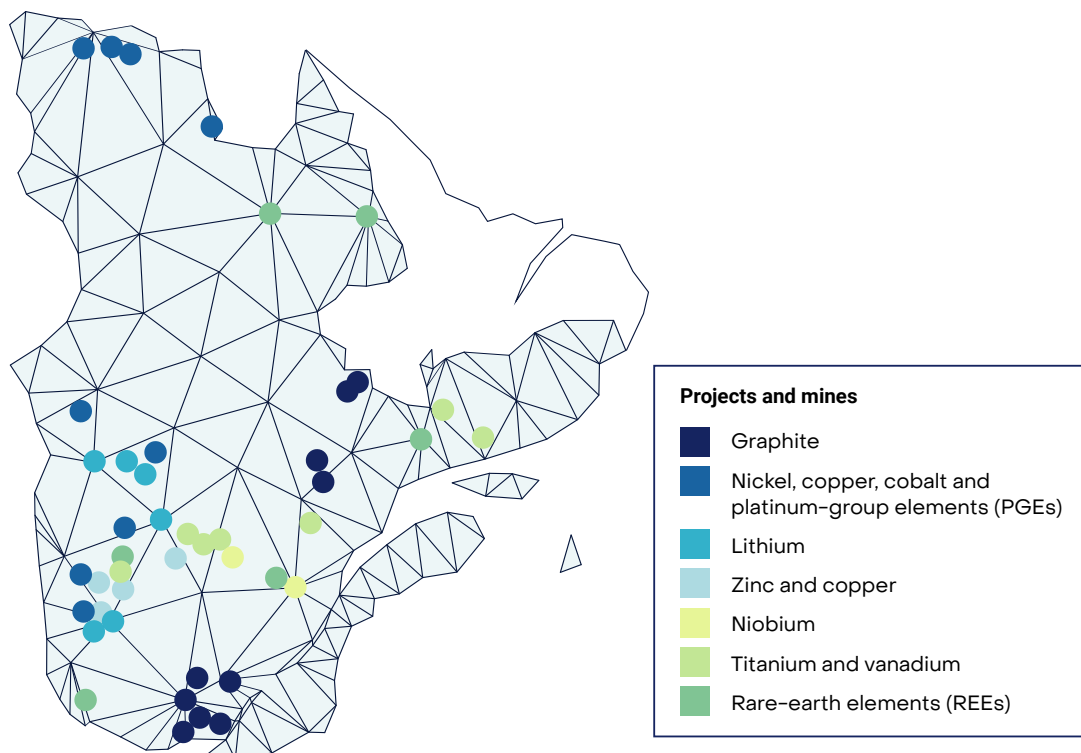


A land rich in critical and strategic minerals



- One fifth of Canada's diversified mineral resources and mining production is based in Québec. **Québec's subsurface harbours an incredible wealth of strategic minerals required for battery manufacturing.** These minerals include cobalt, rare-earth elements (REEs), platinum-group elements (PGEs), graphite, lithium and nickel.
- The government's goal is for Québec to become a leader in the production, transformation and recycling of critical and strategic minerals (CSMs) by working in partnership with local and Indigenous communities. The Québec Plan for the Development of Critical and Strategic Minerals 2020–2025 sets out the actions planned to actively contribute to the global technological and energy transition and the creation of wealth in a greener economy.
- Québec is renowned for its **longstanding expertise in the development of lithium-ion batteries.** Hydro-Québec's Center of Excellence in Transportation Electrification and Energy Storage works with industrial partners from across the globe.

Key Québec critical and strategic minerals



Source: Ministère de l'Énergie et des Ressources naturelles du Québec