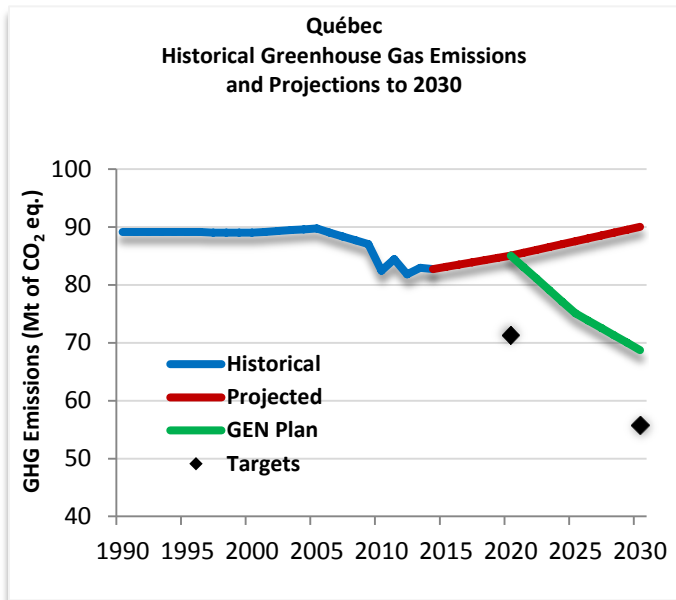


# One Million Climate Jobs Challenge for Canada: 203,258 Climate Jobs in Québec

The Green Economy Network (GEN) has calculated that Québec could create over 200,000 person-years of employment over a five-year period through a total public investment of \$15.2 billion in energy efficiency and conservation, renewable energy, and public transit and high-speed rail. In addition, targeted public investment in these three priority areas would reduce Québec's annual greenhouse gas (GHG) emissions by up to 16.3 megatonnes (Mt), transitioning the province to a lower-carbon economy and bringing Québec much closer to achieving its emission reductions targets for 2020 and 2030, while creating jobs and strengthening communities.



## Emissions

- Total GHG emissions in Québec were 82.7 Mt in 2014, representing 11.3% of total GHG emissions in the country;
- Québec is the third largest GHG emitter among Canadian provinces and territories, but also has the lowest emissions per capita of any province and emissions;
- Québec has committed to reduce emissions to 20% below 1990 levels by 2020 and to reduce emissions to 37.5% below 1990 levels by 2030, which is the most ambitious reduction target in the country; and
- Québec has also set a long-term GHG reduction target, with a goal to decrease GHG emissions to 80-95% below 1990 levels by 2050.

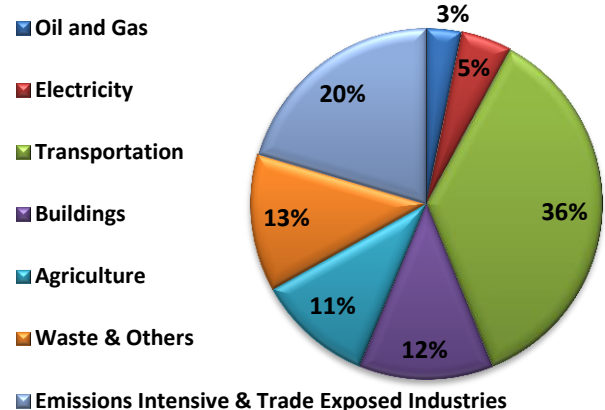
## Unemployment

In 2016, Québec had an annual average of 315,200 unemployed workers and an annual average unemployment rate of 7.1%.

While Québec has one of the lowest unemployment rates in Canada, the province is facing a labour shortage of 360,000 workers by 2030, due to large anticipated retirement numbers, slowing population growth and projected labour demand.

For references and additional information, please see <http://greeneconomy.net.ca/>

GHG Emissions for Québec by Canadian Economic Sector (2014)



## Summary of Calculations for Québec

	\$Billions Invested Over 5-Year Period	Total Person-Years Created	GHG Emission Reduction (Mt CO <sub>2</sub> eq)
Renewable Energy	\$ 3.54	44,364	2.4 - 4.2
Energy Efficiency (incl. building retrofits)	\$ 5.74	83,220	2.7 - 3.7
Public Transit (improvements and expansion)	\$ 3.52	51,290	3.8 - 6.6
High-Speed Rail	\$ 2.4	24,384	1.0 - 1.8
<b>5-Year TOTALS</b>	<b>\$ 15.2</b>	<b>203,258</b>	<b>9.9 - 16.3</b>

## Energy Efficiency and Conservation

Targeted public investment of \$5.74 billion in energy efficiency and conservation over a five-year period, in combination with complementary workforce development policies, would generate 83,220 person-years of employment in Québec and reduce annual GHG emissions by up to 3.7 Mt.

- Québec has the fifth highest energy consumption per square metre in Canada;
- Québec households devote roughly 8% of their disposable income to energy;
- Over 61% of Québec's housing stock was built before 1980; and
- Over 85% of the province's housing stock is still in need of energy efficiency retrofits.

Investments in home and building retrofits will save a significant amount of energy, reduce GHG emissions, reduce energy poverty, create opportunities to complete apprenticeships, and generate employment.

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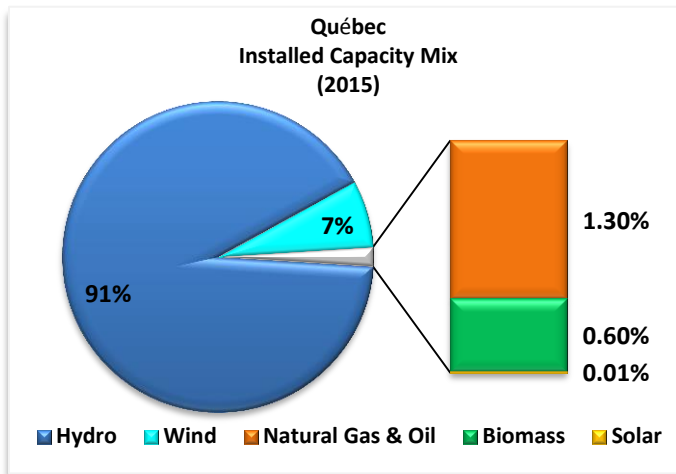
## Types of Jobs in Energy Efficiency and Conservation:

- Architect
- Boilermaker
- Carpenter
- Civil Structural Engineer
- Community and Social Services
- Construction Equipment Operator
- Construction Labourer
- Education and Health Services
- Electrical Engineer
- Electrician
- Energy Efficiency Auditor
- HVAC Installer
- HVAC Technician
- Ironworker
- Office and Administrative Support
- Pipefitter
- Plumber
- Roofer
- Service Industry Occupations
- Steelworker
- Weatherization Installer/ Technician

The transition to a renewable energy economy will require an increase in electrification and must be a Just Transition that respects the rights of Indigenous Peoples, revitalizes communities, and ensures that workers in carbon-intensive industries are protected and able to support their families.

## Types of Jobs in Renewable Energy:

- Boilermaker
- Community and Social Services
- Construction Worker
- Drilling Equipment Operator
- Education and Health Services
- Electrician
- Engineer
- Excavator
- Heavy Equipment Operator
- Ironworker
- Land Surveyor
- Machinist
- Mechanic
- Office and Administrative Support
- Pipefitter
- Plumber
- Service Industry Occupations
- Scientist
- Sheet Metal Worker
- Steelworker
- Surveyor
- Welder



## Public Transit

A total public investment of \$5.92 billion in public transit and high-speed rail - including investments in transportation demand management - would create 75,674 person-years of employment in Québec over five years. Targeted public investment in public transit and high-speed rail will also reduce Québec's annual GHG emissions by up to 8.4 Mt, with the potential for greater emissions reductions over time.

- The transportation sector was responsible for 36% of Québec's GHG emissions in 2014 and over half of those emissions were from passenger vehicles;
- A study commissioned by the federal government shows it would cost 50% more to meet new travel demands by car than it would by public transit; and
- Developing high-speed rail in the Québec City - Windsor corridor would relieve freight congestion, create jobs, and decrease emissions.

## Renewable Energy

A total public investment of \$3.54 billion in renewable energy- including investments in modernizing electricity infrastructure, such as smart grids and microgrids, and large-scale and small-scale energy storage systems - would create 44,364 person-years of employment in Québec over a five-year period. In addition, this investment will result in an annual GHG emission reduction of up to 4.2 Mt.

In the 2030 Energy Policy, the Québec government set ambitious targets to be achieved by 2030:

- Renewable energy to meet 61% of energy needs;
- Reduce the amount of petroleum products consumed by 40%;
- Increase overall renewable energy output by 25%; and
- Increase bioenergy production by 50%.

Québec has enormous potential to develop additional renewable energy sources to meet these targets and profit from additional energy exports to neighbouring markets that have also set GHG reduction targets:

- Quebec has the fourth highest onshore and offshore wind potential in all of Canada; and
- The highest renewable potential in tidal energy.

Targeted investments in public transportation will introduce more comprehensive and accessible services while making fares more affordable for low-income families. Implementing these priorities as part of a public transportation strategy will ensure that underserved communities and individuals - including (but not limited to) women, people of colour, youth and students, Indigenous Peoples, seniors, and persons with disabilities - will benefit from increased access to health services, education, recreation, and employment, including the employment opportunities that are created through the creation and expansion of transit services.

## Types of Jobs in Public Transit and High-Speed Rail:

- Automotive Technician
- Bus and Transit Driver
- Civil Engineer
- Community and Social Services
- Construction Equipment Operator
- Construction Labourer
- Education and Health Services
- Electrician
- Industrial Engineer
- Machinist
- Mechanic
- Mechanical Engineer
- Metal Fabricator
- Office and Administrative Support
- Rail-Track Layer
- Service Industry Occupations
- Transportation Planner
- Urban Planner
- Welder

**This plan for Québec lays the foundation for tackling climate change while creating jobs. It also provides a strategy to address poverty and inequality. The proposals outlined in this plan will not only serve displaced workers from polluting industries, but will also create opportunities for workers from industries suffering the impacts of climate change, the unemployed, the working poor, as well as Indigenous Peoples, racialized communities, women, youth, LGBTI individuals, and persons with disabilities. Let's act now to make this plan for Québec a reality, make our cities stronger and more liveable, and give our children the future that they deserve.**