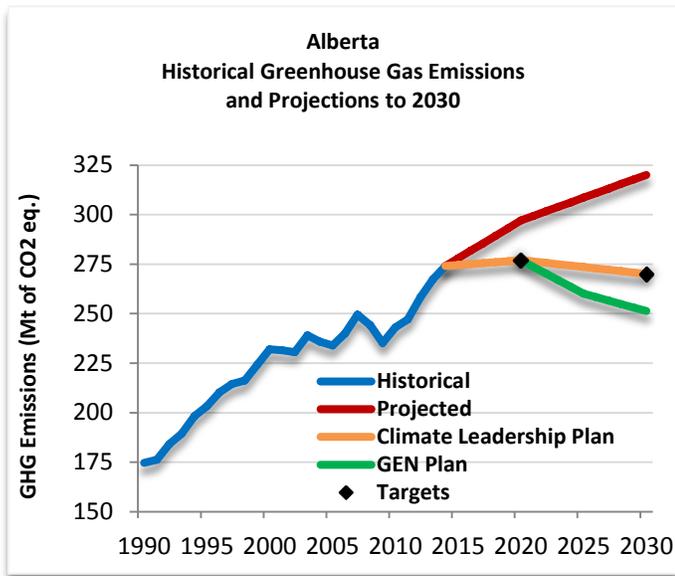


One Million Climate Jobs Challenge for Canada: 141,046 Climate Jobs in Alberta

The Green Economy Network (GEN) has calculated that Alberta could create 141,046 person-years of employment over five years through a total public investment of \$10.89 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 will reduce Alberta's annual greenhouse gas (GHG) emissions by up to 25.7 megatonnes (Mt). This action plan will help to transition the province to a lower-carbon economy, create a healthier environment, and strengthen communities, while reducing poverty and inequality.



Emissions

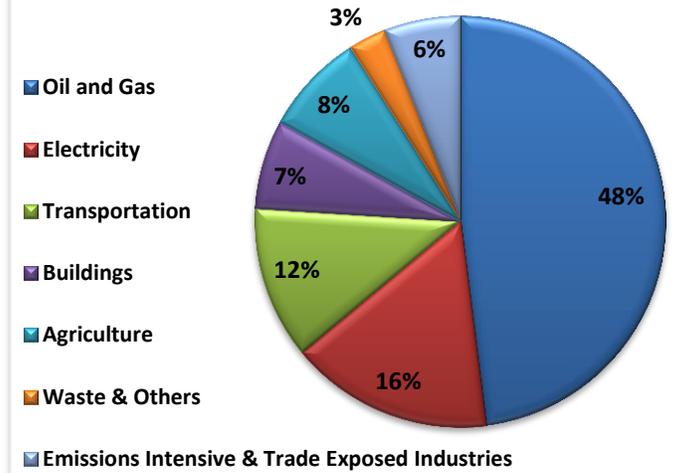
- Total GHG emissions in Québec were 274 Mt in 2014, representing 37.4% of total GHG emissions in the country;
- Alberta's GHG emissions have increased by 56% since 1990;
- Alberta has legislated an emissions cap of 100 Mt for the oil sands, allowing emissions to grow by over 42% from current levels; and
- Alberta has shown climate leadership by introducing a carbon levy that commenced on January 1, 2017. Revenues will be used for renewable energy, green infrastructure, energy efficiency, a rebate for low- and middle-income families, and help for businesses, coal communities, and Indigenous communities, among other priorities

Unemployment

In In 2016, Alberta had an annual average of 200,800 unemployed workers and a total average unemployment rate of 8.1%. Alberta's average annual unemployment rate has risen from 6.0% in 2015 and more than doubled since the recession.

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

GHG Emissions for Alberta by Canadian Economic Sector (2014)



Summary of Calculations for Alberta

	\$Billions Invested Over 5-Year Period	Total Person-Years Created	GHG Emission Reduction (Mt CO2eq)
Renewable Energy	\$ 3.1	38,004	10.3 - 14.7
Energy Efficiency (incl. building retrofits)	\$ 4.5	65,700	4.8 - 8.3
Public Transit (improvements and expansion)	\$ 1.58	20,070	1.4 - 1.8
High-Speed Rail	\$ 1.7	17,272	0.5 - 0.9
5-Year TOTALS	\$ 10.89	141,046	17.0 - 25.7

Energy Efficiency and Conservation

Targeted public investment of \$4.5 billion in energy efficiency and conservation over a five-year period, in combination with complementary workforce development policies, would generate 56,940 person-years of employment in Alberta and reduce annual GHG emissions by up to 8.3 Mt.

- Alberta has the country's highest household energy consumption per square metre;
- Over 55% of Alberta's housing stock was built before 1980; and
- Over 87% of the province's housing stock is still in need of energy efficiency retrofits.

One Million Climate Jobs Challenge for Canada: 141,046 Climate Jobs in Alberta

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.

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

Types of Jobs in Renewable Energy:

- Boilermaker
- Community and Social Services
- Construction Worker
- Drilling Equipment Operator
- Education and Health Services
- Electrician
- Engineer
- Excavator Operator
- 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 and High-Speed Rail

A total public investment of \$12.46 billion in public transit and high-speed rail - including investments in transportation demand management - would create 37,342 person-years of employment in Alberta over five years. Targeted public investment in public transit and high-speed rail will also reduce Alberta's annual GHG emissions by up to 2.7 Mt, with the potential for greater emissions reductions over time.

- The transportation sector was responsible for 12% of Alberta's GHG emissions in 2014;
- 82% of commuters in Edmonton travel by personal automobile, as do over 76% of commuters in Calgary;
- 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
- The province could lower emissions by up to 3% by investing in high-speed rail in the Edmonton-Red Deer-Calgary corridor.

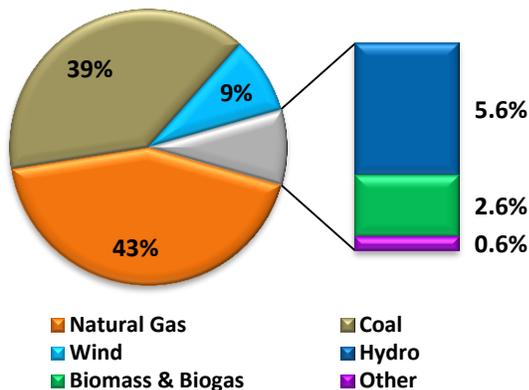
Targeted investments in public transportation will introduce more comprehensive and accessible services while making fares more affordable for low-income families. Implementing these priorities as part of a public transportation strategy will ensure that underserved communities and individuals - including (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 Alberta 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 Alberta a reality, get people back to work, and give our children the future that they deserve.

Alberta
Installed Capacity Mix (2015)



Renewable Energy

A total public investment of \$3.1 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 38,004 person-years of employment in Alberta over a five-year period. In addition, this investment will result in an annual GHG emission reduction of up to 14.7 Mt.

- As of 2015, almost 40% of Alberta's installed electricity generation capacity was from coal and more than 40% was from natural gas;
- Alberta has committed to phase-out coal and to source 30% of electricity from renewable sources by 2030;
- The Province has substantial potential for wind, geothermal, and solar energy; and
- The Pembina Institute (2016) has calculated that investments in renewable energy and energy efficiency can generate a net increase in jobs following the retirement of coal.

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.