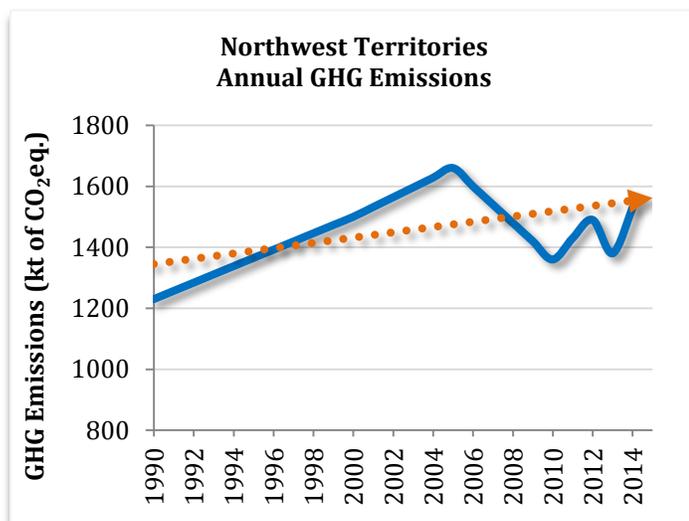


One Million Climate Jobs Challenge for Canada: Lowering Emissions and Creating Jobs in the Northwest Territories

The local impacts of climate change are already apparent in the Northwest Territories. During the past 50 years, the climate in the NWT has warmed at a rate four to five times faster than the global average, and average annual air temperatures have increased by 2 to 2.7°C. Arctic ice coverage is also declining and has been decreasing at a rate of 6.8% per decade since 1979.

Climate change has and will continue to have profound impacts on the arctic environment. Observable changes include increased frequency of extreme weather patterns, thinner sea ice, earlier and faster sea ice break-up, melting permafrost, and changes in wildlife distribution patterns. These changes are already having profound impacts for people living in the territories, and these changes particularly impact the traditional activities of Aboriginal people.



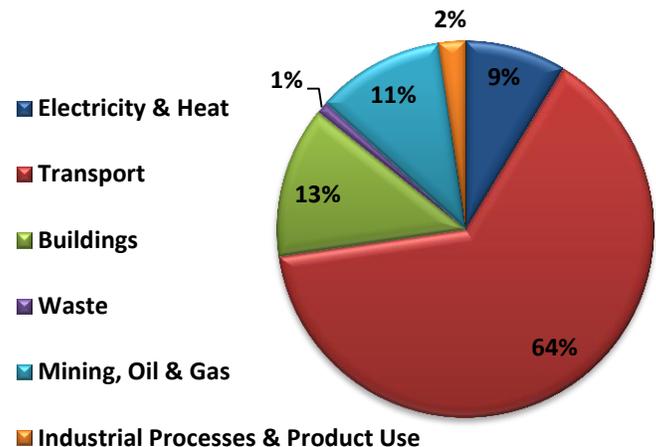
Targeted public investments in energy efficiency and building retrofits, renewable energy, and public and active transportation will reduce greenhouse gas (GHG) emissions and create jobs for people in the Northwest Territories.

Emissions

- Emissions in the Northwest Territories have increased by over 24% since 1990;
- On an absolute basis, the NWT's total emissions are low at less than 1% of Canada's total emissions. However, on an annual per capita basis, the NWT is the third highest emitter in Canada, at 33 tonnes per person; and
- The 2011-2015 Northwest Territories Greenhouse Gas Strategy set a GHG emissions reduction target of approximately 1,657 kilotonnes (kt) which is a return to 2005 levels by 2030.

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

GHG Emissions for Northwest Territories by Sector (2015)



Energy Efficiency and Conservation

Energy security and the energy efficiency of buildings, particularly homes, is a concern in the territories. The quality of housing in the North is also a concern because incidences of non-compliance with building codes and standards pose a threat to human health and well-being. Additionally, in many areas in the North, housing has not been designed and constructed to suit northern realities and lifestyles and therefore may not accommodate the needs of Northerners or be suited for the northern environment.

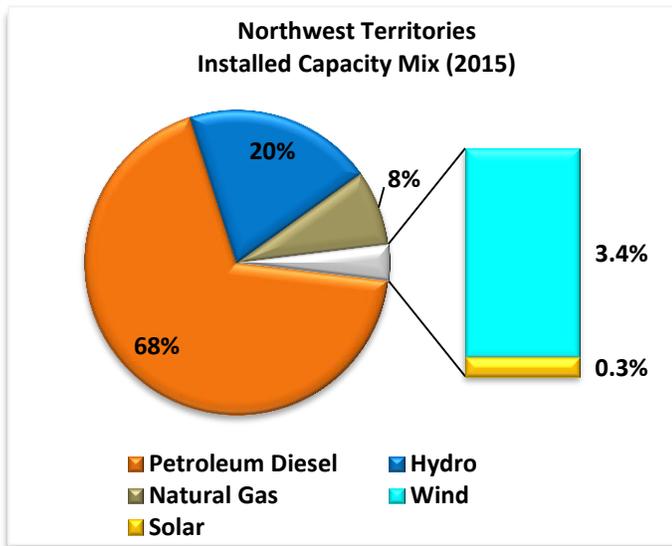
There are major opportunities to create employment by investing in renovating existing housing stock for energy efficiency and conservation, as well as for adaptation to the changing climate. These investments will also decrease GHG emissions and lower utility costs in response to energy savings, freeing up capital and discretionary income. There are also opportunities to create jobs and reduce emissions in the construction of new homes and buildings.

Budget 2017 committed \$36 million to the Northwest Territories over the next 11 years to support northern housing by helping territorial governments offset the higher cost of construction in the North. These investments could be an opportunity to dramatically increase the energy efficiency and climate change resiliency of new buildings, resulting in energy cost savings over time.

- 38% of homes were built before 1980 and 47% of homes require energy efficiency retrofits; and
- Homes and buildings in the NWT will also require retrofits to adapt to changing environmental conditions as a result of climate change.

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The City of Yellowknife commissioned the Pembina Institute (2015) to perform a study on residential retrofit financing options. The report found that significant economic and environmental benefits would be achieved through the proposed program, with an average homeowner saving approximately \$1,300 in energy costs, reducing energy use by 40.3 GJ and reducing GHG emissions by about 3.75 tonnes. This corresponds to an average reduction of 47% of household energy use and a 60% decrease in average household GHG emissions.



Renewable Energy

The 2017 Federal Budget committed \$641.4 million to reduce reliance on diesel for rural, remote, northern, and Indigenous communities. This total includes \$400 million in an Arctic Energy Fund to address energy security for communities north of the 60th parallel, including Indigenous communities, and \$21.4 million to Indigenous and Northern Affairs Canada to continue the Northern Responsible Energy Approach for Community Heat and Electricity Program to reduce reliance on diesel and support the deployment of renewable energy projects. In combination with the right policies, these investments could offer an enormous opportunity for skills development, training, and local jobs.

The NWT has an existing program to promote clean energy technologies. The Alternative Energy Technologies Program provides funding for renewable energy sources such as solar, wind, wood pellet heating, biofuel/synthetic gas, and ground source heat pumps. Funding is available to communities, commercial businesses, and NWT residents. However additional funding is required to reduce dependence on diesel.

A recent report, *The Northern Way* (2016), showed that it would cost between \$300 million and \$780 million to cut

the Northwest Territories' use of diesel for electricity in half. This report outlines a five-year plan to build hybrid micro-grids (diesel in combination with solar and wind) in diesel-powered communities.

Communities may choose to implement renewable energy systems to reduce the impact on the environment, but there are also economic incentives. Over time, renewable energy will help communities be sustainable economically, including creating local jobs and reducing energy costs.

Public and Active Transit

In Yellowknife, approximately 25% of commuters take public transit or choose active forms of transportation. Further investments in public and active transit, in combination with transportation demand management strategies, would result in a decrease in personal automobile emissions and would create jobs locally. Complementary strategies, including support for employees to use alternative modes of transportation, could further incentivize people to switch to public or active transportation.

Budget 2016 allocated \$320 million in funding for the Northwest Territories to improve and expand public transit systems.

Investments in public and active modes of transportation can also alleviate poverty and inequality by ensuring more equitable access to health services, education, recreation, and employment, including the employment opportunities that are created through the creation and expansion of transit services.

Building a More Equitable and Sustainable Future

The environmental changes and impacts we are already seeing today are projected to continue into the future. We need a collaborative and comprehensive approach to reduce GHG emissions and ensure that we are fostering resilient communities. We must also strive to reduce poverty and inequality through public investments to mitigate and adapt to climate change in the Northwest Territories.

The incidence of poverty is higher in the North, where the divide between low-income households and top earners is more pronounced in the territories than in the provinces. Investments in energy efficiency and conservation, renewable energy and public and active transit can help to alleviate poverty and inequality, while also creating employment and lowering GHG emissions. We must also ensure that workers in carbon-intensive industries are supported in this transition. Let's work together to put this plan for the Northwest Territories into action, create decent jobs, and build a better future.