Prepare for Climate Change and Reduce Energy Consumption

Indicator #1—Total community greenhouse gas emissions

Why is this indicator important?

The earth's climate is changing due to greenhouse gas emissions generated through human activities. Potential impacts of climate change include sea level rise, water deficits, increasing flooding, and wildfires. Local governments can reduce major sources of emissions through the creation of more efficient forms of transportation and housing. Such action may contribute to the global initiative to mitigate the most severe impacts of climate change. Local governments can also transition communities to adapt to the impacts of a changing climate.

What does this indicator tell us?

This indicator helps us understand the increase or decrease of regional greenhouse gas emissions. Greenhouse gases cause climate change. They are emitted from the consumption of fuel for transportation, electrical production for home heating or the decomposition of solid waste. The RDN and member municipalities may influence the level of emissions through more efficient land use patterns, housing forms, transportation systems, construction standards and landfill operations.

Where do we want to go?

Climate change will alter the way we live, though we can decrease the impacts by globally decreasing our greenhouse gas emissions. As a region, we can contribute to global efforts to curb greenhouse gas emissions through efficient transportation systems, construction standards, and waste disposal.

Target: Reduce greenhouse gas emission 33 percent below 2007 levels by 2020 and 80 percent below 2007 levels by 2050.

What is included in this indicator?

This indicator relies on information from the Province of BC's Community Energy and Emissions Inventory (CEEI) for the amount of emissions created by on-road transportation, buildings, and solid waste sectors. The CEEI estimates emissions within the RDN. Estimates are based on data from greenhouse gas source sectors from utilities and public agencies and are used to calculate the size of each sector's carbon dioxide emissions (CO_2e).

Where are we right now?

The most recent CEEI estimates are from 2012 and only include measures for buildings (217,771 tonnes of carbon dioxide) and solid waste (15,044 tonnes of carbon dioxide) emissions. The CEEI for 2010 estimates that the region produced 845,695 tonnes of carbon dioxide, based on road transportation, buildings, and solid waste disposal. The transportation sector emitted the greatest volume of emissions in 2010, with 66 percent of total community emissions. The building sector produced 27 percent of emissions and the solid waste sector produced seven percent of emissions, respectively. Overall, emissions have increased from 812,151 CO_2e tonnes in 2007, which is the base year for the target. The change represents a four percent increase in emissions in the region.

Goal 1

Prepare for Climate Change and Reduce Energy Consumption

Target: Reduce greenhouse gas emissions 33 percent below 2007 levels by 2020 and 80 percent by 2050.

Total Green House Gas Emissions

2007 GHG Emissions

812,151 CO_2e tonnes

2010 GHG Emissions

845,695 CO_2e tonnes

2012 GHG Emissions

232,815 CO_2e tonnes*

2020 Target Emissions

(33% below 2007)

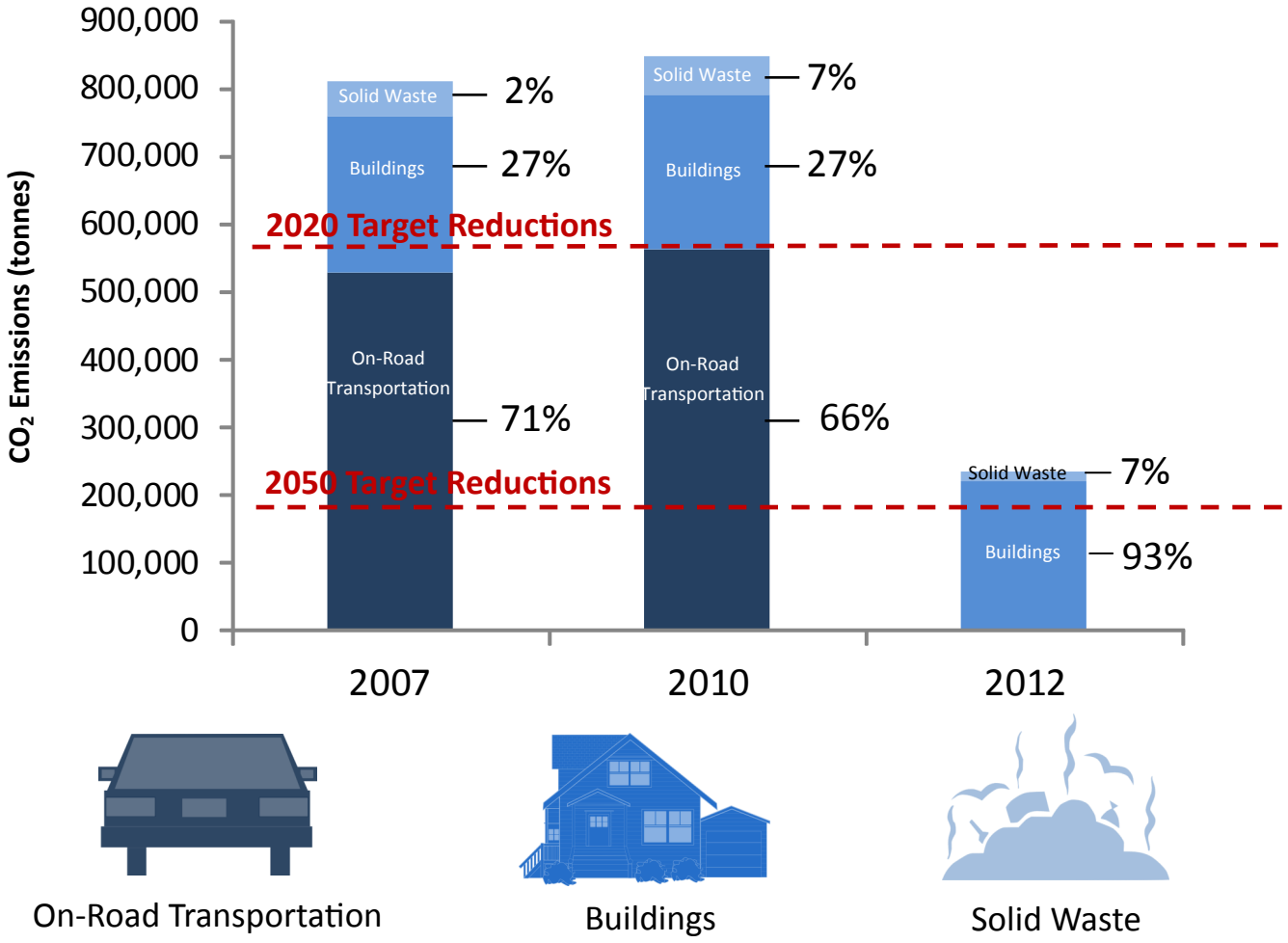
544,138 CO_2e tonnes

2050 Target Emissions

(80% below 2007)

162,429 CO_2e tonnes

Total Greenhouse Gas Emissions by Source



On-Road Transportation

Buildings

Solid Waste

*2012 emission totals for buildings and solid waste only

Updated August 2018

Every reasonable effort has been made to use comparable data with consistent geographies and methodology. Where data limitations exist, these are noted within the document content, chart or table. For further details of the results, please refer to the RGS Annual Reports for information: https://www.rdn.bc.ca/rgs-progress-reports