

Reduction of Greenhouse Gas Emissions

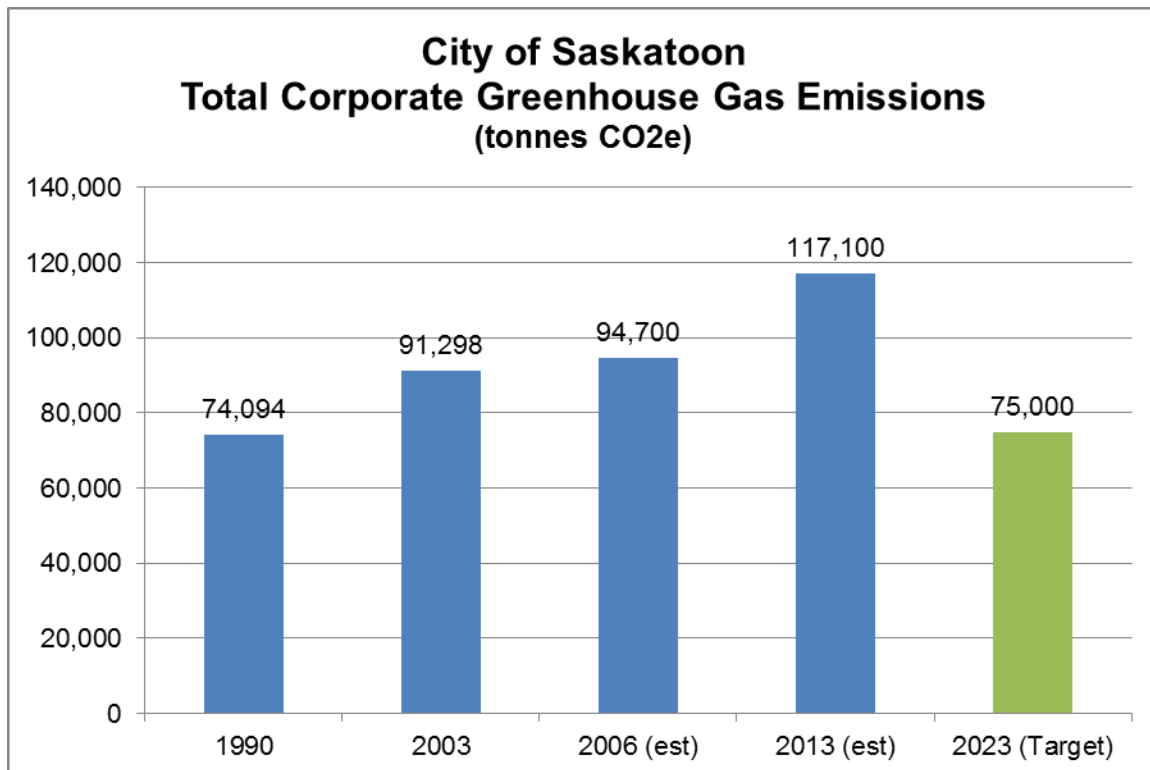
10-Year Target: Reduce the City of Saskatoon's greenhouse gas emissions by 30% from 2006 levels

Description: The target measures our success as an organization in reducing our impact on climate change by lowering greenhouse gas emissions and diversifying to more renewable energy sources.

A 30% reduction from 2006 levels means the City of Saskatoon (corporate) must reduce greenhouse gas emissions to 75,000 tonnes. Considering growth, 67,770 tonnes of greenhouse gas (CO₂e) must be eliminated to reach the target.

How are we doing?

In 2013, the City of Saskatoon (corporate) emitted an estimated 117,100 tonnes of CO₂e, an increase from 2006 levels.



Source: City of Saskatoon

How are other cities doing?

Other municipalities report greenhouse gas reductions relative to different years making comparisons challenging. The following is a sample of other cities' corporate greenhouse gas targets and current status:

City	Corporate Reduction Targets	Current Status
Regina	20% below 1990 by 2005 & 1% each year following until 2012	No status available
Winnipeg	20% below 2006 by 2019	20.2% below 2006 (2007)
Calgary	20% below 2005 by 2020 80% below 2005 by 2050	46% below 2005 (2012) and 100% of corporate electricity offset by renewable electricity certificates (mostly wind power)
Edmonton	20% below 1990 by 2020 50% below 1990 by 2050	No status available

What do we need to do to achieve this target?

Continued operational changes and investments in energy efficiency are needed to reduce greenhouse gases. Several measures have been implemented through the *2009 Energy and Greenhouse Gas Management Plan* with costs ranging from \$6 to \$1,500 per tonne of greenhouse gas saved. Operational changes have been as simple as introducing set-back thermostats to reduce energy for heating to complex initiatives like installing solar heating at indoor pools and producing electricity from landfill gas.

Current initiatives shown below will contribute to achieving the target.

Initiative	Estimated Tonnes of CO ₂ e Reduction
Civic Building Energy Efficiency through Energy Performance Contracting	8,000
Compressed Natural Gas Garbage Fleet	570
Water and Waste Water Plants	300
Garbage Service Verification	300
Innovation (Green) Teams	4,500
Sustainable Procurement	Unavailable
CHP at Shaw and Lakewood (produces heat and power in one efficient process)	900
Landfill Gas	45,000
Recovery Park	8,200
Totals	67,770

What are the benefits of achieving the target?

- Almost all greenhouse gas reduction activities reduce utility costs (savings today) or help defer major capital costs (future savings).
- Conventional non-renewable energy is replaced with renewable sources that generate a new revenue stream for the City.
- Reducing greenhouse gases can also reduce air pollutants.
- Future legislation mandating emissions reduction is anticipated. By reducing emissions now, the City will avoid making deeper cuts in greenhouse gases in the future to comply with regulations.

What are the risks?

- The City's greenhouse gas emissions have been rising as a result of increased activity to respond to citizen expectations and growth. Future growth will contribute to more emissions as City vehicles travel greater distances.
- Saskatoon Water's waste water treatment plant expansion will result in increased electricity usage. Processes to respond to new regulations for waste water treatment could also require more electricity, thereby increasing greenhouse gas emissions.