

Greenhouse Gas Emissions Meet 2015 Reduction Goal

17.8% reduction since 2006



Minneapolis greenhouse gas (GHG) emissions from citywide activities decreased 17.8% in 2015 compared to the 2006 baseline, exceeding the reduction goal of 15% by 2015.

GHG emissions decreased 10.7% in 2015 compared to the previous year, driven primarily by milder, near-average winter months, which resulted in a decrease in natural gas consumption. An increase in emissions from wastewater was offset by decreases in emissions from electricity consumption, natural gas consumption, on-road transportation, and solid waste.

Emissions from electricity consumption decrease over time

Carbon intensity per electric megawatt hour (MWh) decreased 6.9% and electricity consumption declined in 2015, resulting in an overall decrease in electricity emissions of 8.6% from 2014.

Despite a growing number of buildings, emissions from electricity consumption are declining overall. Since 2006, Minneapolis' building stock has grown by 38 million square feet (7.7%), while electricity consumption has decreased 6.0%. Emissions from electricity consumption are down 31% from 2006, accounting for 81% of total GHG reductions since 2006. Improved energy efficiency and cleaner electricity (more renewables and fewer coal power plants) drive this change.

Emissions from electricity consumption are the largest share of the City's inventory, but are expected to be eclipsed by natural gas in the coming years as more renewable electricity is added to Xcel Energy's portfolio. Additionally, the mitigating effect of Xcel Energy's <u>Windsource</u> program (10,900 Minneapolis residential and business subscribers in 2015) accounted for almost 13,000 metric tons of CO2_e (carbon dioxide equivalent) avoided (0.3% of total emissions).





Average winter and summer

Yearly weather variations have an impact on the consumption of natural gas and electricity use for heating and cooling. According to the National Oceanic and Atmospheric Administration (NOAA), the winter months of 2015 were equivalent to the 30-year average of 7,580 heating degree days (HDD) and greater than the 2006 baseline of 6,676 HDD. Despite this, natural gas emissions in 2015 were less than 2006. The summer of 2015, with 783 cooling degree days (CDD), was 4% warmer than the 30-year average of 753 CDDs, yet much cooler than the 2006 baseline of 1,023 CDD.

Updates to the inventory methodology

Modifications were recently made to the City's accounting of GHG emissions to make the annual inventory compliant with the <u>Global Protocol for Community-Scale Greenhouse Gas Emission Inventories</u> (GPC). The GPC is the global reporting standard used by the Compact of Mayors and other large participating municipalities. Major revisions to the Minneapolis inventory included:

- Use of a reduced electricity emissions factor (without biogenic emissions) from Xcel Energy.
- Updated global warming potentials for methane and nitrous oxide.
- Updated solid waste calculation methodology for landfills.
- Removal of emissions from Minneapolis-St. Paul International Airport (MSP) operations (outside of Minneapolis's jurisdictional and municipal boundary) from yearly totals. MSP airport emissions will continue to be tracked separately.
- Removal of emissions from the Hennepin Energy Recovery Center (HERC), which operates as a cogeneration facility that sells electricity to (and is accounted for in) Xcel Energy's portfolio.

These revisions were made to all reporting years, including the 2006 baseline, to ensure an accurate comparison across time. Continued improvements to this inventory's methodology may be made in future yearly reports.

Minneapolis Clean Energy Partnership helps drives progress toward City goals

Minneapolis' goals include a 15% reduction in citywide emissions by 2015, a 30% reduction by 2025, and an 80% or more reduction by 2050, all from a 2006 baseline. Overall, 2015 emissions are down 17.8% from 2006 levels.

Minneapolis will make progress towards its goals by continuing to implement the City's <u>Climate Action Plan</u> as well as work with CenterPoint Energy and Xcel Energy on implementing the <u>Minneapolis Clean Energy Partnership</u> <u>2017-2018 Work Plan</u>.

For reasonable accommodations or alternative formats please contact the City Coordinator's Office of Sustainability, Luke Hollenkamp, 612-673-2349 or Luke.Hollenkamp@minneapolismn.gov

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