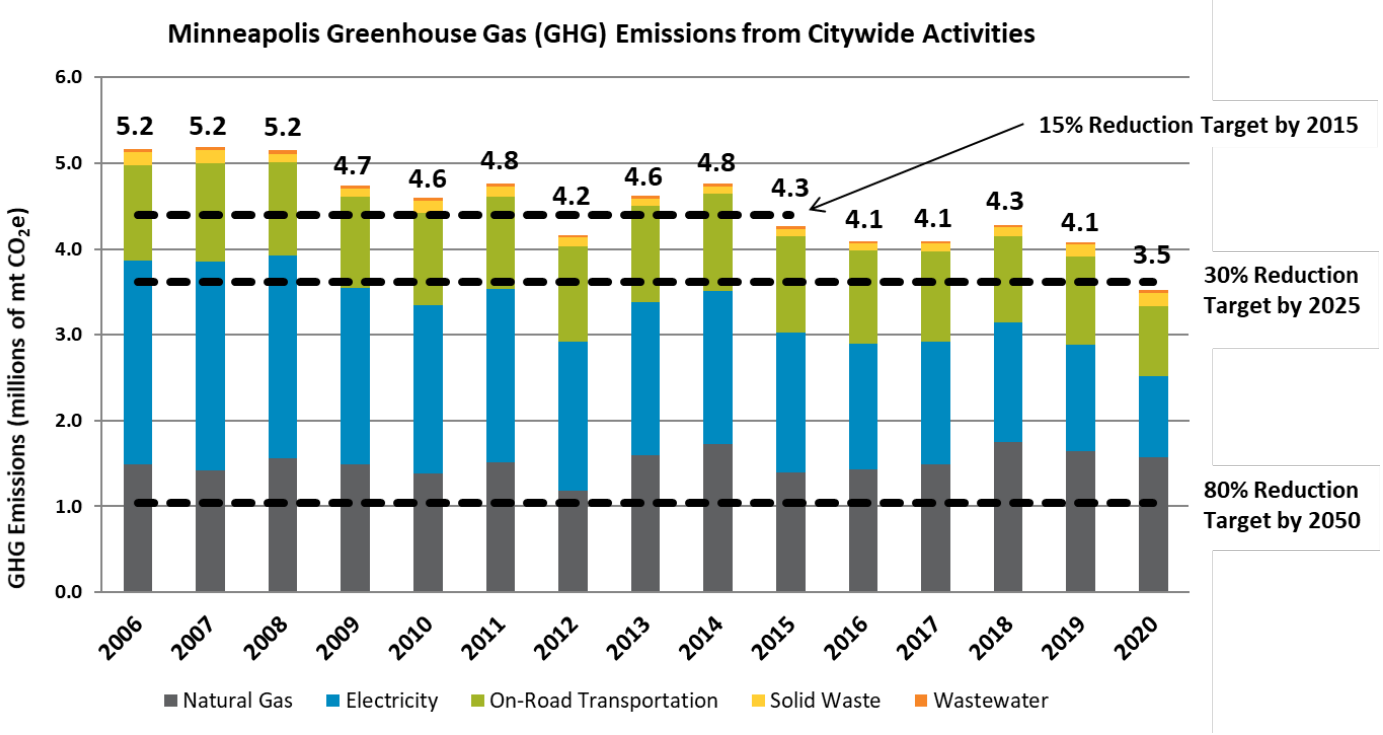
2020 GHG Emissions Update

32% overall GHG reduction since 2006

Pandemic impacts are significant contributor to reductions since 2019



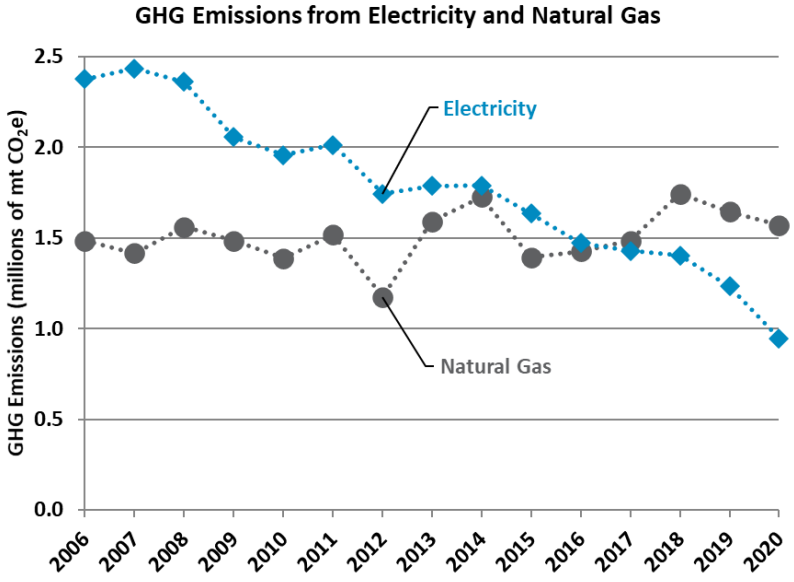
Minneapolis greenhouse gas (GHG) emissions from citywide activities have decreased 32% compared to the 2006 baseline. Upcoming goals include a 30% reduction by 2025 and an 80% or more reduction by 2050.

GHG emissions decreased 14% in 2020 compared to the previous year. Emissions decreases from electricity, fossil natural gas, transportation, and wastewater were greater than an emission increase from solid waste. A significant impact on 2020 emissions was the change in behavior due to the pandemic. Traffic volume was down 20% and electricity use was down 5% since 2019. Without these two factors, the overall emissions reduction would have been 27% instead of 32%. These reductions are likely short-term pandemic anomalies, particularly for traffic volume.

Fossil natural gas emissions continue the recent trend of exceeding electricity emissions

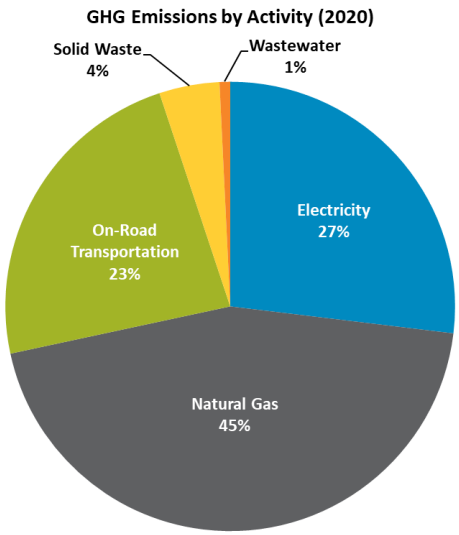
Fossil natural gas has been the largest source of GHG emissions over the last four years. Steadily decreasing electricity consumption paired with increasing renewable generation has resulted in a 60% decrease in electricity emissions since 2006.

Annual temperatures create significant year-to-year variation in the use of fossil natural gas for heating. This shows our building stock is not sufficiently resilient to winter extremes. Constructing new buildings to the highest energy standards and upgrading existing buildings with air sealing and insulation will reduce fossil natural gas use and save money. Minneapolis adopted in 2020 new sustainable building policies for affordable housing and will adopt in 2021/2022 new policies for City-owned and City-invested buildings that create a pathway to net zero energy buildings within the next decade.



Dramatic fossil natural gas emissions reductions are necessary to meet City climate goals

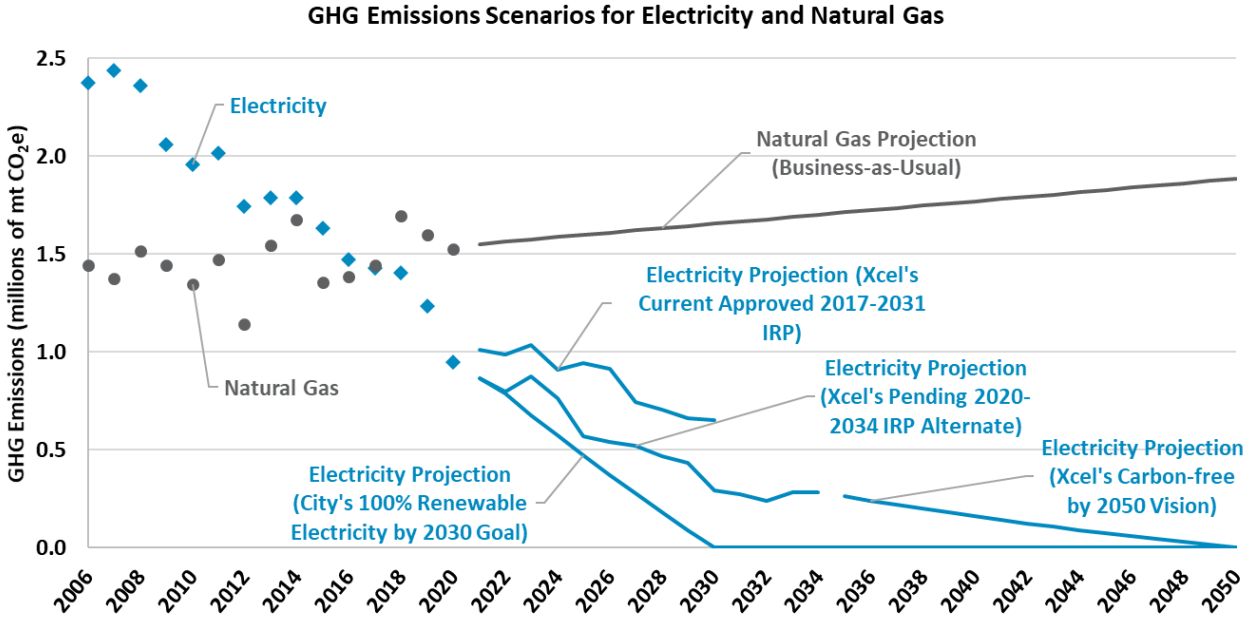
Dramatic fossil natural gas emissions reductions are crucial to the City's science-based climate goals, given the scale of emissions from this sector. Accomplishing this requires a two-pronged approach: conservation and gas alternatives.



With continued building growth in the City, reduced gas consumption per building is critical. More aggressive energy codes - via state-wide energy code updates or state legislation to free cities to adopt more energy efficient standards - are key tools for energy reduction in our growing, prosperous city.

Conservation must also be paired with alternatives to traditional fossil natural gas. Primary amongst these alternatives is electrification of systems traditionally powered by gas. Switching gas appliances such as heating systems, stoves, and water heaters to electric and heat pump alternatives powered by renewable electricity can result in substantial greenhouse gas reductions.

The City has adopted goals to achieve 100% renewable electricity for municipal facilities and operations by 2023 and citywide by 2030. Additionally, Xcel Energy's current 2017-2031 Integrated Resource Plan (IRP), pending 2020-2034 IRP, and carbon-free by 2050 vision all forecast steady electricity emissions reductions. Looking toward 2050, if four emissions sectors are carbon-free (i.e. electricity is 100% renewable, on-road transportation is fully electrified and carbon-free, and wastewater and solid waste are carbon-free), but fossil natural gas use continues along the current upward trend, emissions overall would only decrease 64%, failing to meet the 80% reduction goal. This highlights the strategic importance of shifting gas end uses to other carbon-free fuels like 100% renewable electricity.



The City's continuing commitment to climate action

A 2018 increase of utility franchise fees created new and expanded City initiatives that assist residents and businesses in implementing clean energy projects. For example, a substantial share of the funding has been invested in hundreds of energy efficiency and renewable energy projects through the Minneapolis Green Cost Share Program. In recent years, the City implemented three new residential building energy disclosure policies - Multifamily Energy Benchmarking (2019), Time of Sale Energy Disclosure (2020), and Time of Rent Energy Disclosure (in effect beginning in 2021). For these actions and the on-going implementation of the City's Climate Action Plan, the City of Minneapolis was ranked 4th nationally for the second consecutive year in the *2020 City Clean Energy Scorecard* by the American Council for an Energy-Efficient Economy (ACEEE).

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

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Para asistencia 612-673-2700, Yog xav tau kev pab, hu 612-673-2800, Hadii aad Caawimaad u baahantahay 612-673-3500.