



City of Bellevue 2023 Greenhouse Gas Emissions Inventory

Executive Summary

Prepared by Cascadia Consulting Group, Inc. and the City of Bellevue
January 2025



Executive Summary

INTRODUCTION

Bellevue has committed to reducing greenhouse gas (GHG) emissions from community sources and municipal operations as part of its climate action strategy. To track its progress in this effort, Bellevue has completed an analysis of 2023 GHG emissions related to communitywide activities and municipal operations. This summary report presents an overview of findings from this GHG analysis.

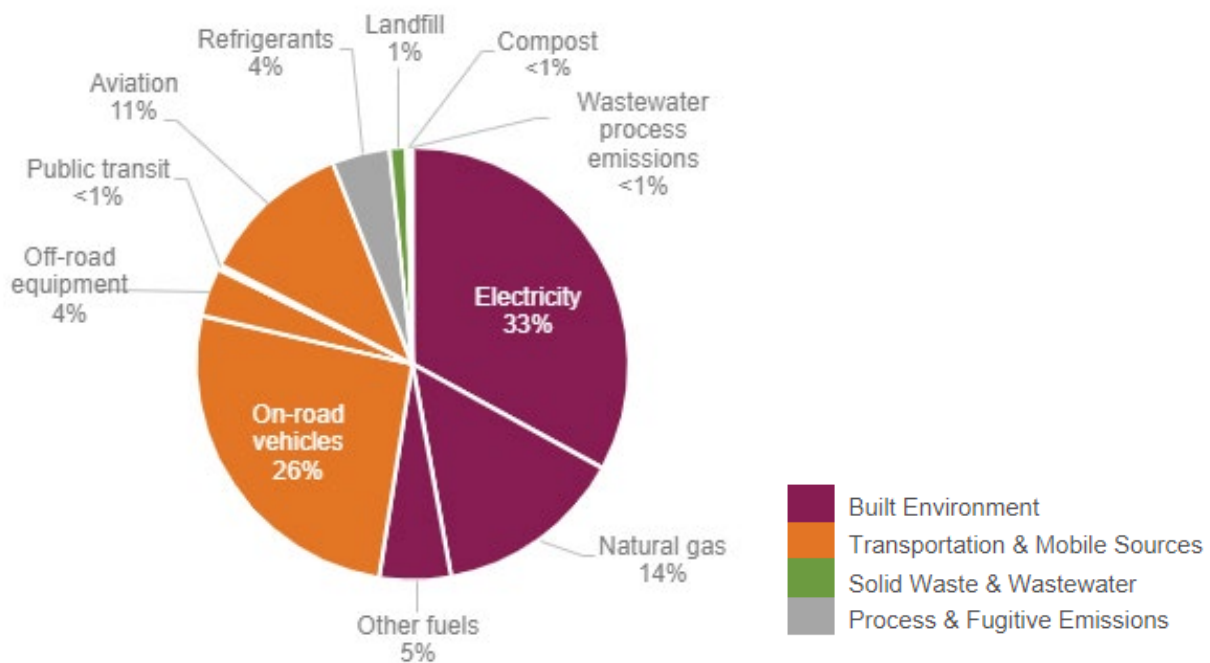
EMISSIONS OVERVIEW

Communitywide Emissions

The Bellevue community emitted an estimated **1,970,587** metric tons of carbon dioxide equivalent (MTCO₂e) in 2022—equivalent to **12.7** MTCO₂e per capita. Primary sources of community greenhouse gas emissions include (**Figure 1**):

- ✦ Electricity (**33%**) and natural gas (**14%**) to heat, cool, and power residential and commercial buildings.
- ✦ On-road vehicles including passenger cars and heavy-duty trucks (**26%**).
- ✦ Participation in regional aviation (**11%**).

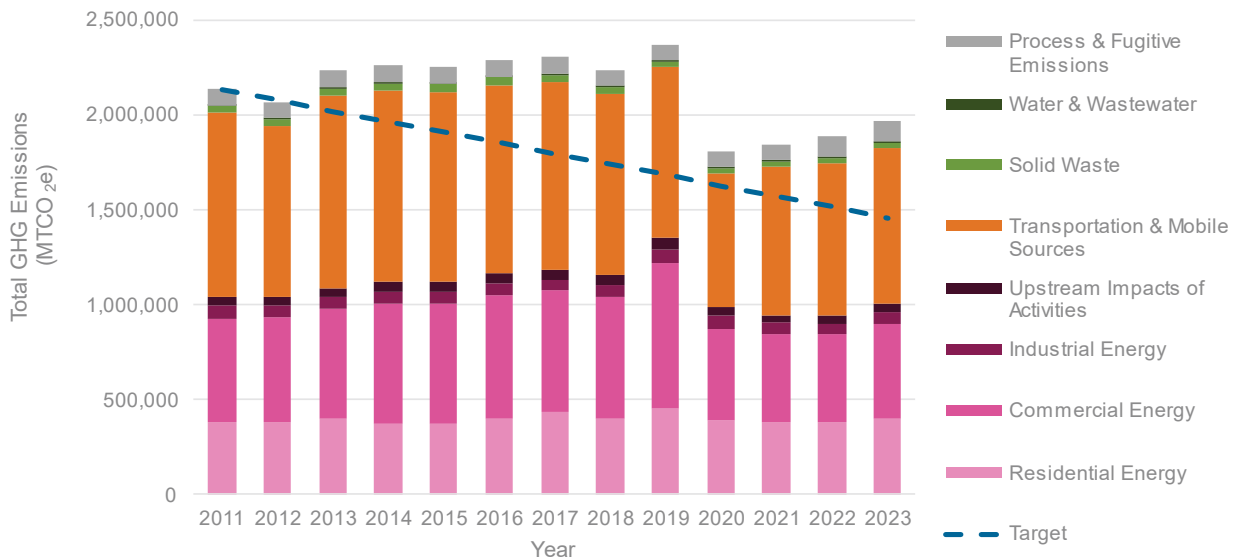
Figure 1. Bellevue’s community 2023 GHG emissions, by sector.



Bellevue’s 2023 communitywide emissions represent a **4.5% increase** compared to the last GHG inventory in 2022¹. Key drivers to changes in Bellevue’s emissions include an increase in emissions from increased energy consumption, increased travel, and changes to the carbon intensity of electricity provided by Puget Sound Energy (**Figure 2**). This increase is also likely due to the return to pre-COVID-19 activity levels.

Bellevue’s GHG emissions declined by **7.7%** from 2011 to 2023, despite a population growth of **25%** and an increase in jobs of **26%**.

Figure 2. Communitywide GHG Emissions Trends Over Time by Sector



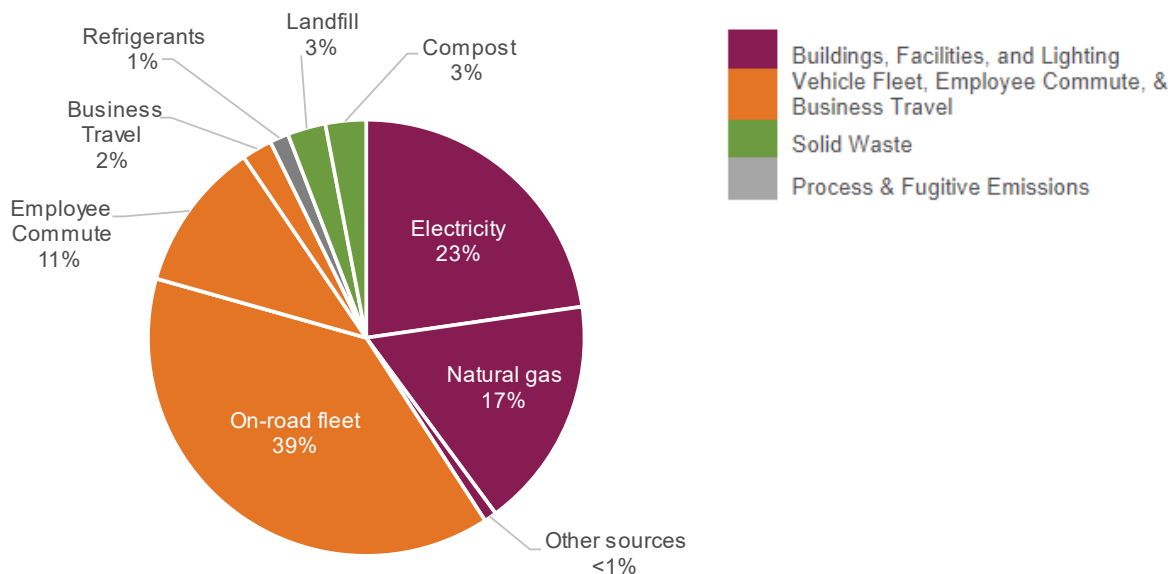
¹ Bellevue’s 2022 community emissions were adjusted from 1,962,586 MTCO₂e to 1,884,860 MTCO₂e based on updated aviation emissions data.

Government Operations Emissions

Bellevue’s government operations accounted for approximately **7,739** MTCO₂e of emissions in 2023, equivalent to **6.0** MTCO₂e per fulltime employee—representing **0.39%** of total communitywide emissions. Primary sources of government operations emissions (**Figure 3**) include:

- ← The City’s vehicle fleet and equipment (**39%**).
- ← Electricity (**23%**) and natural gas (**17%**) to heat, cool, and power government buildings and facilities.
- ← Employee commuting (**11%**)

Figure 3. Bellevue’s government operations 2023 GHG emissions, by sector.

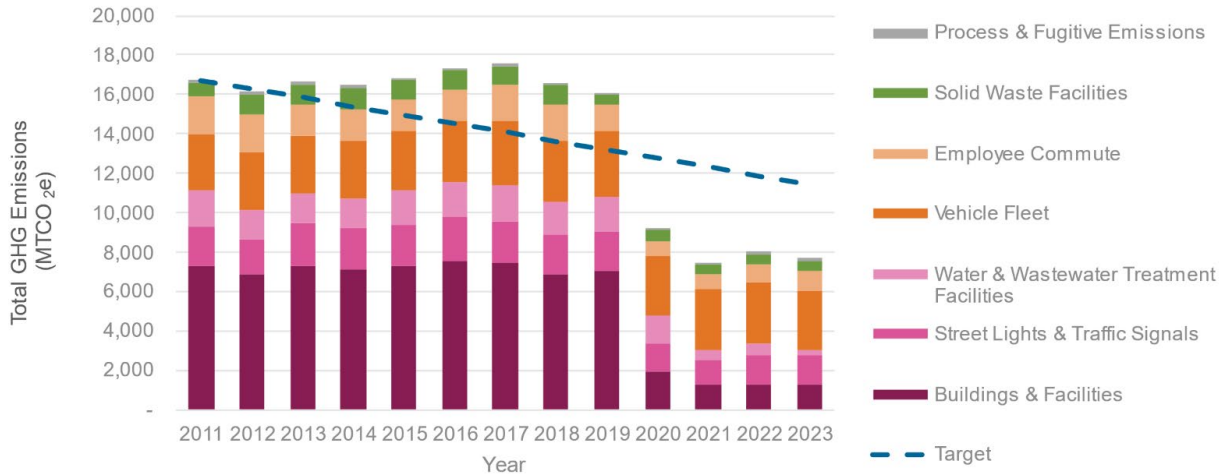


Bellevue’s 2023 government operations emissions represent a **4% decrease** compared to the last GHG inventory in 2022 (**Figure 4**). The largest increase to municipal emissions was from fugitive emissions such as from the use of refrigerants and natural gas, which increased by **24%** from 2022 to 2023.

Government operations emissions decreased by **54%** from 2011 to 2023², due to the City’s investments in renewable energy, energy efficiency in city facilities, and improved solid waste management.

² Employee commute emissions for 2020 and 2022 were adjusted to reflect the impacts of COVID-19 on employee commute patterns, using updated methodology and newly available data.

Figure 4. Municipal Operations GHG Emissions Trends Over Time by Sector



NEXT STEPS

Reducing emissions by 95% by 2050 (compared to the 2011 baseline year) will require a combination of visionary and strategic federal, state, and local action. External entities and policies, including federal fuel economy standards, state energy and building codes, and a cleaner regional energy grid, are important factors in whether Bellevue will meet its 2030 and 2050 greenhouse gas emissions reduction goals.

Bellevue is working on updating its Sustainable Bellevue Environmental Stewardship Plan for 2026-2030. As part of this work, Bellevue will update its Emissions Wedge Analysis, to evaluate different pathways to reduce emissions that will not be addressed by state and federal policies. With a combination of strong action at the state, federal, regional, and utility level, and local leadership, Bellevue can achieve its greenhouse gas emissions reduction goals.