Ann Arbor Community-Wide Greenhouse Gas Inventory

Prepared by the Office of Sustainability and Innovations

2020 Update

GHG Inventory Background

Annually estimated

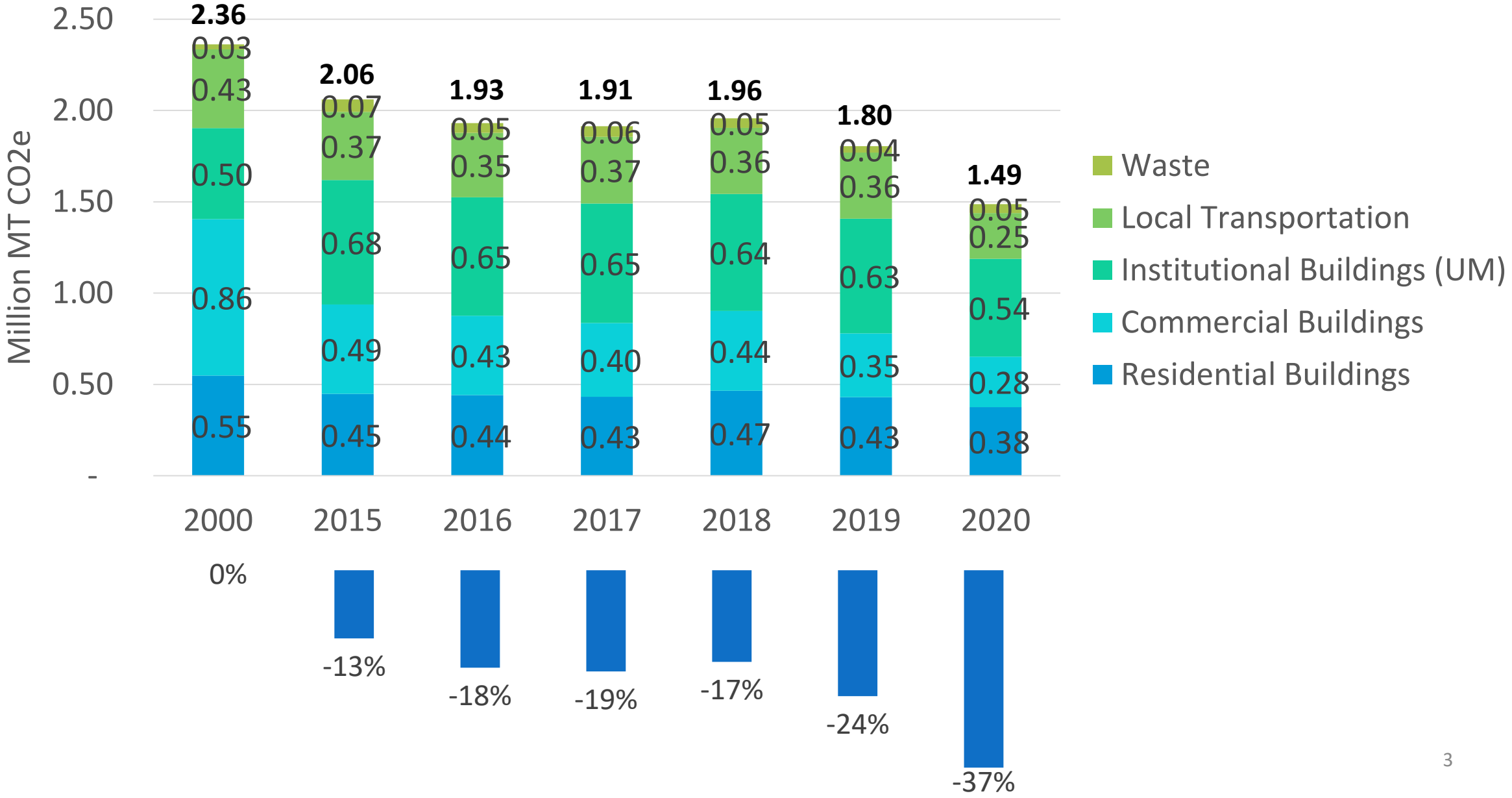
Based on aggregated, scaled, and/or modeled data

Estimated using the ICLEI US Community Protocol

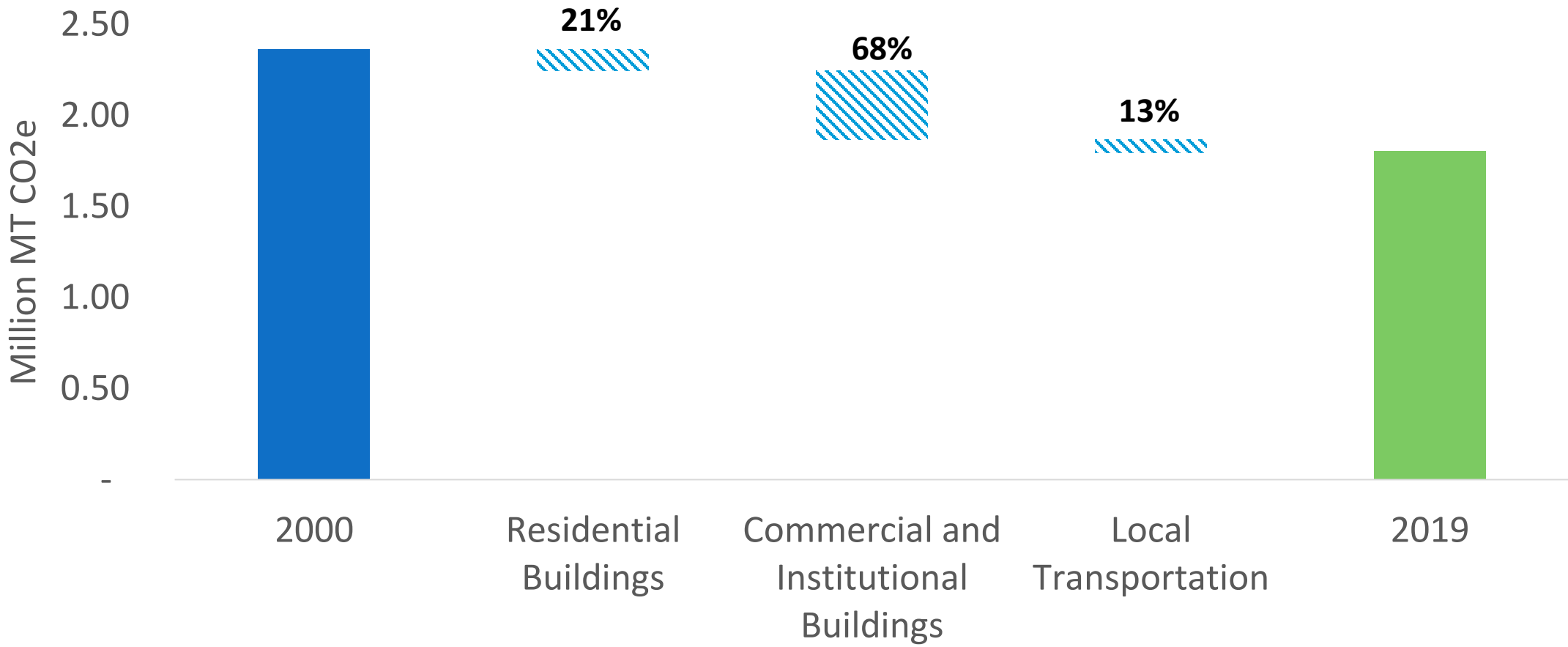
Greenhouse gases included:

1. CO_2
2. N_2O – 28x more potent
3. CH_4 – 265x more potent

Simple Inventory Emission Trends Since 2000



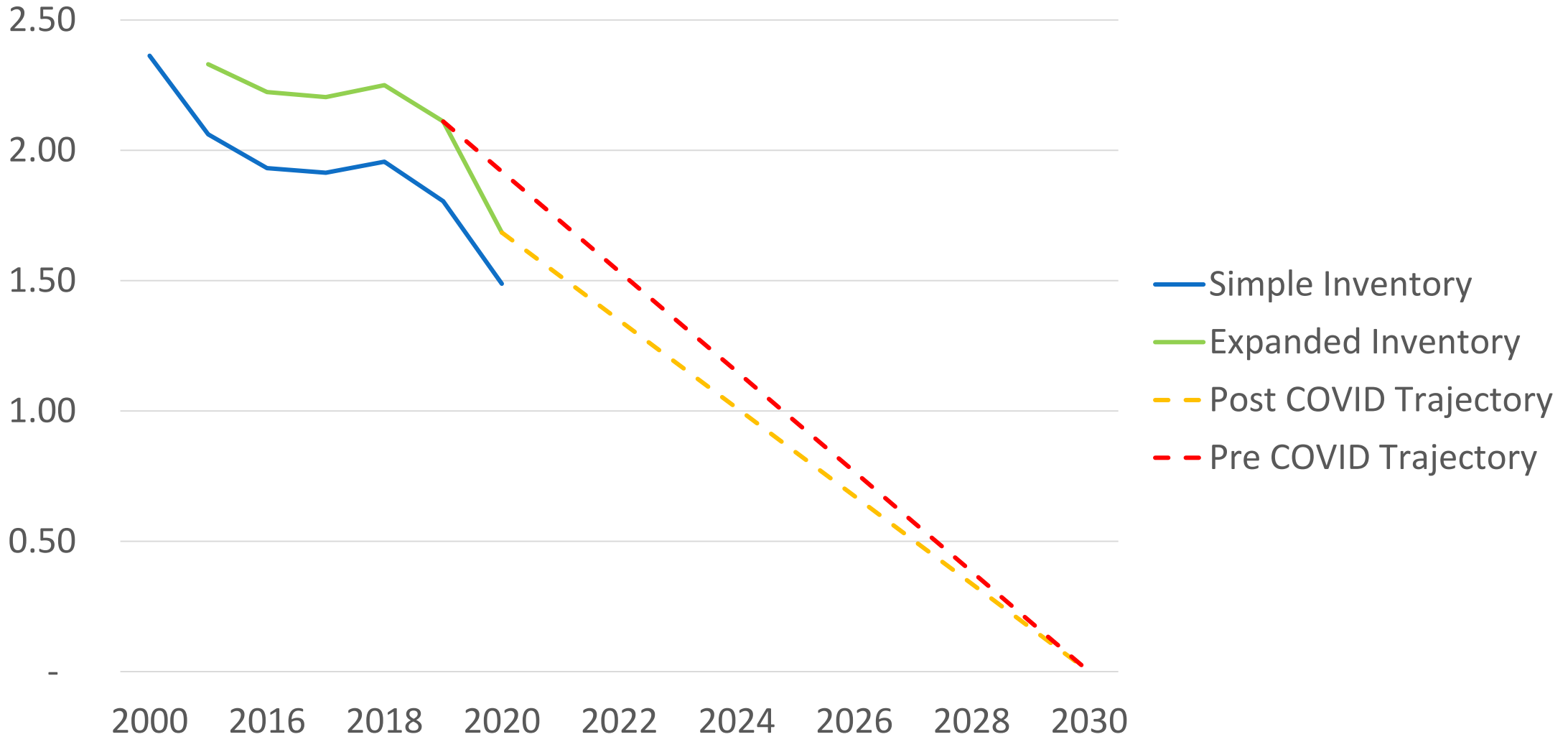
Changes from 2000 to 2019



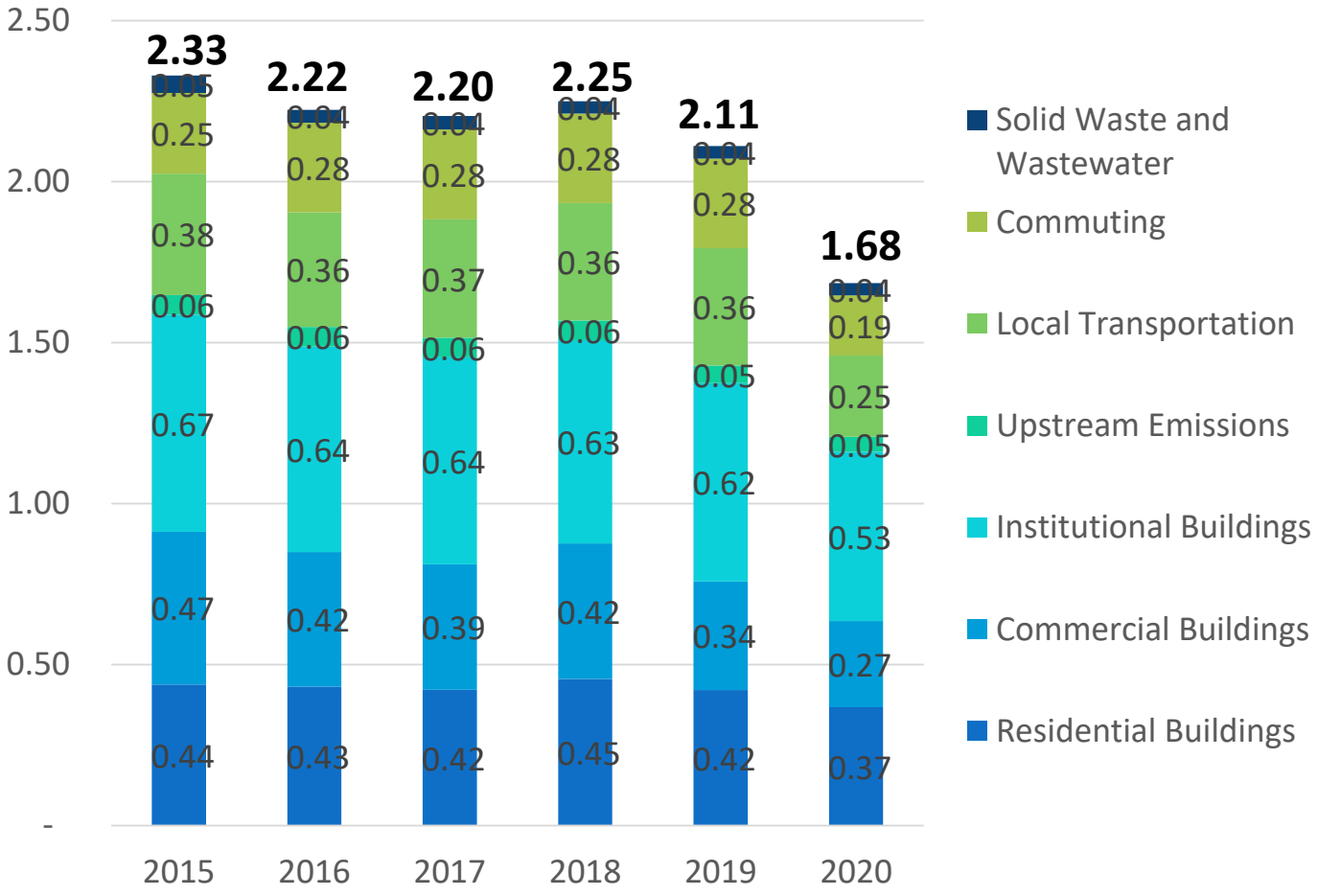
Simple vs. Expanded Inventory

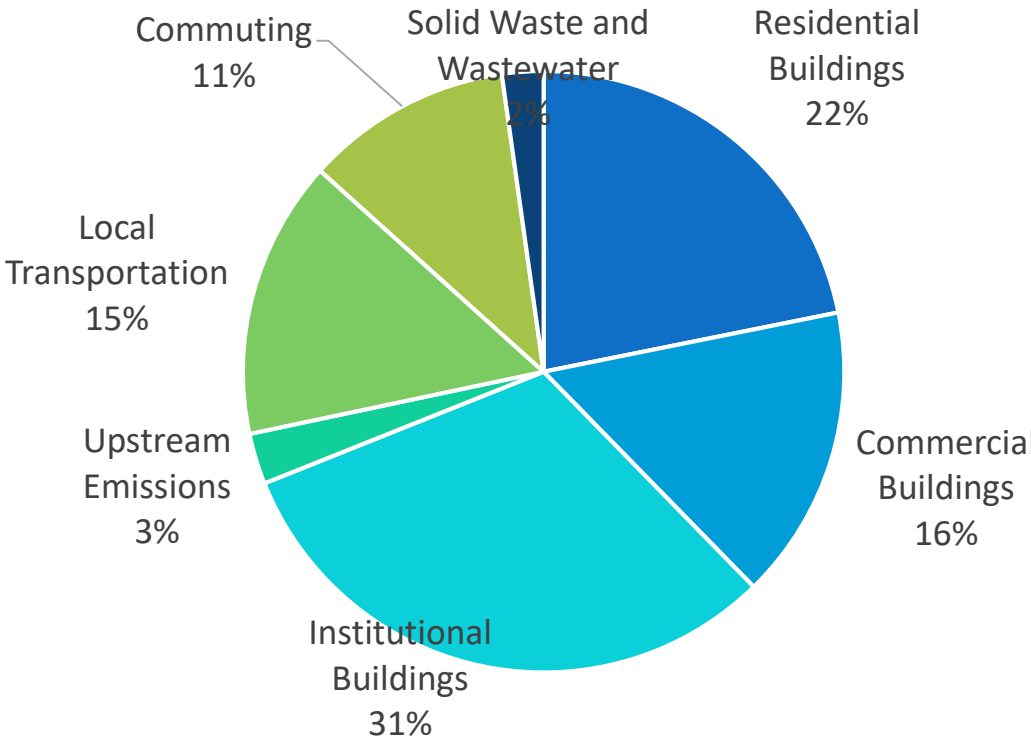
Emission Source	Simple Inventory	Expanded Inventory
Electricity used in buildings	•	•
Transmission and distribution losses	•	•
Natural gas used in buildings	•	•
Local fugitive natural gas leaks		•
Additional stationary energy emission sources		•
Local passenger and commercial vehicles	•	•
Commuting passenger vehicles		•
Rail and aviation		•
Generated solid waste	•	•
Additional solid waste emission sources		•
Wastewater processing		•

Simple and Expanded Inventory

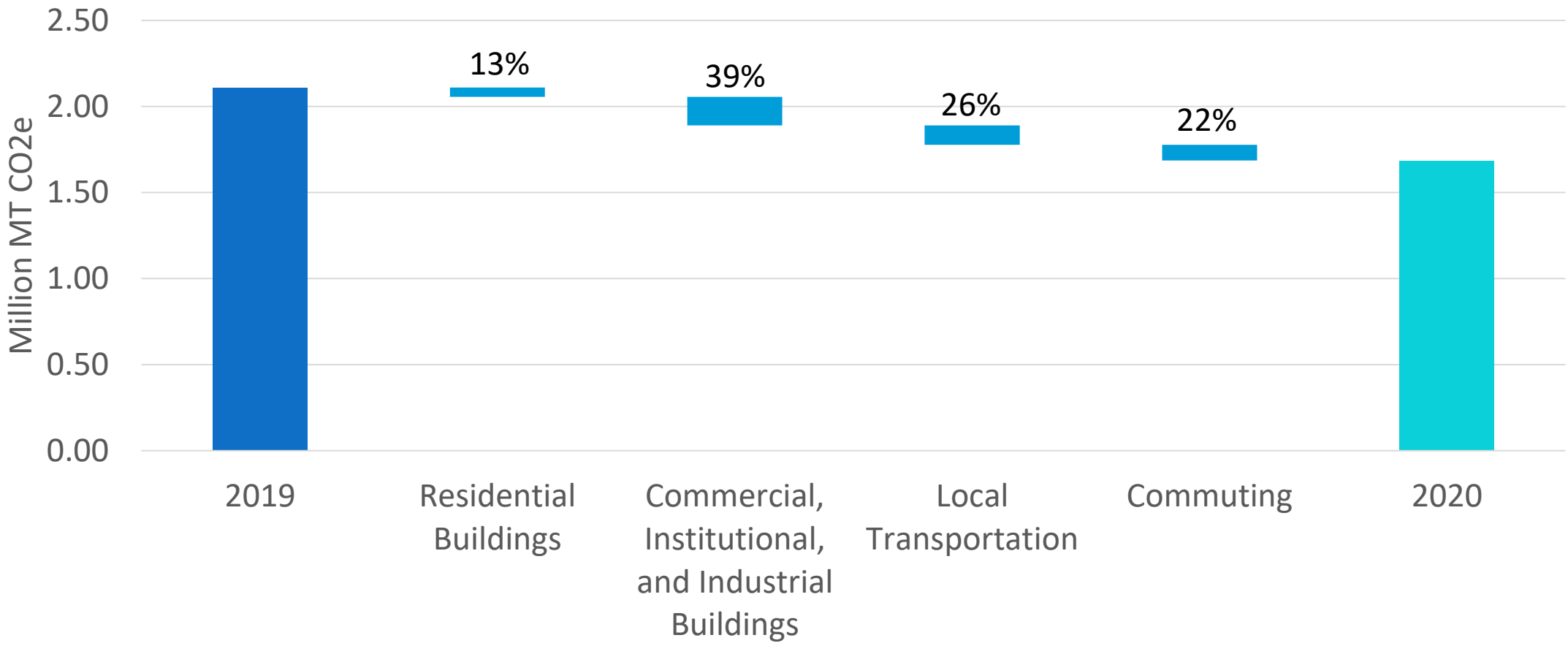


Expanded Inventory Trends

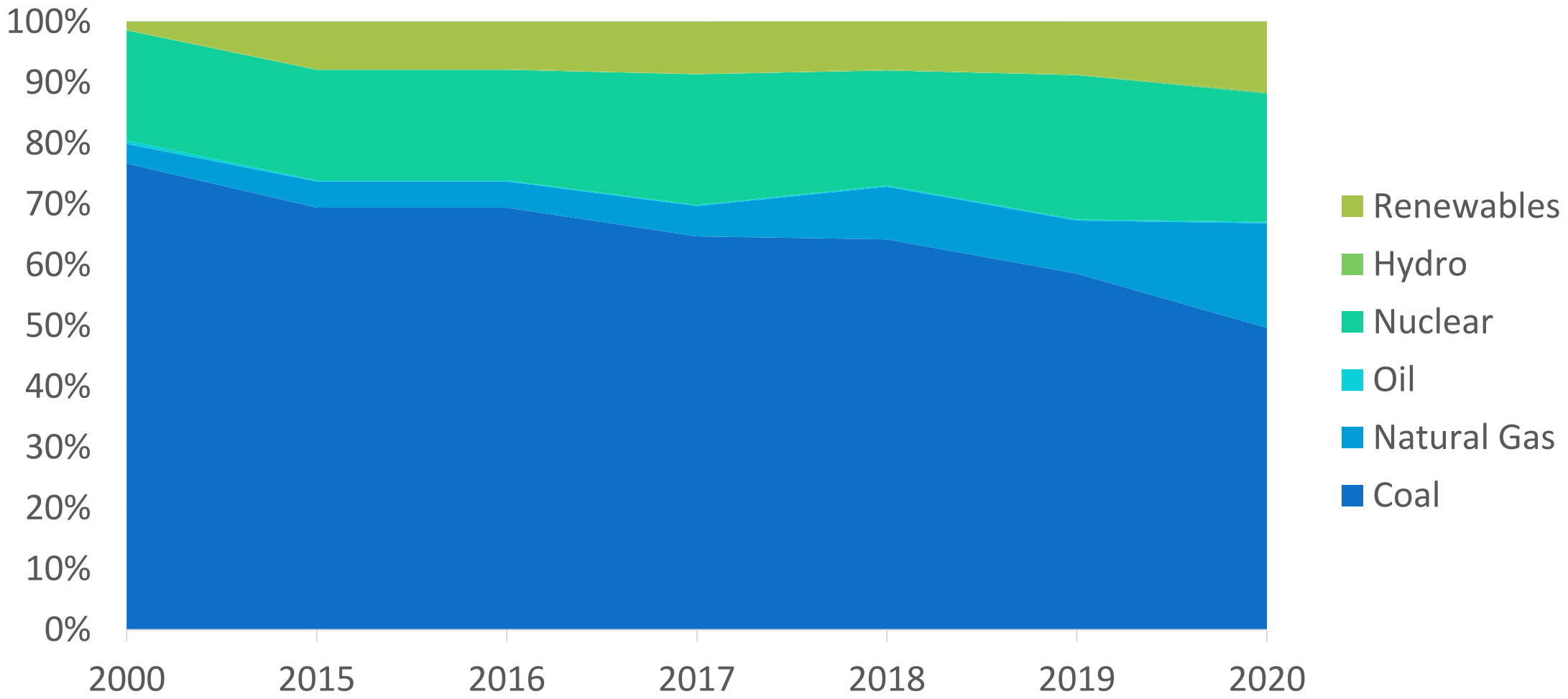




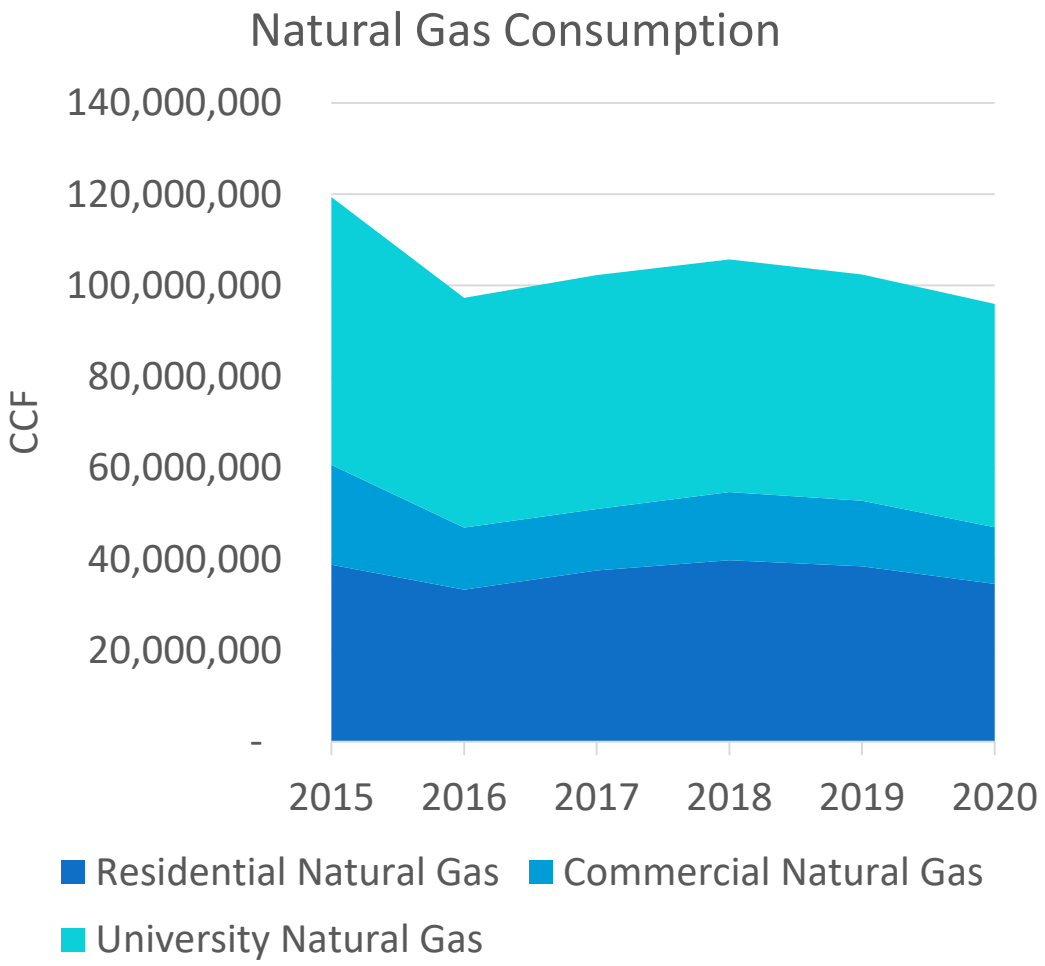
2020 Emissions Reductions

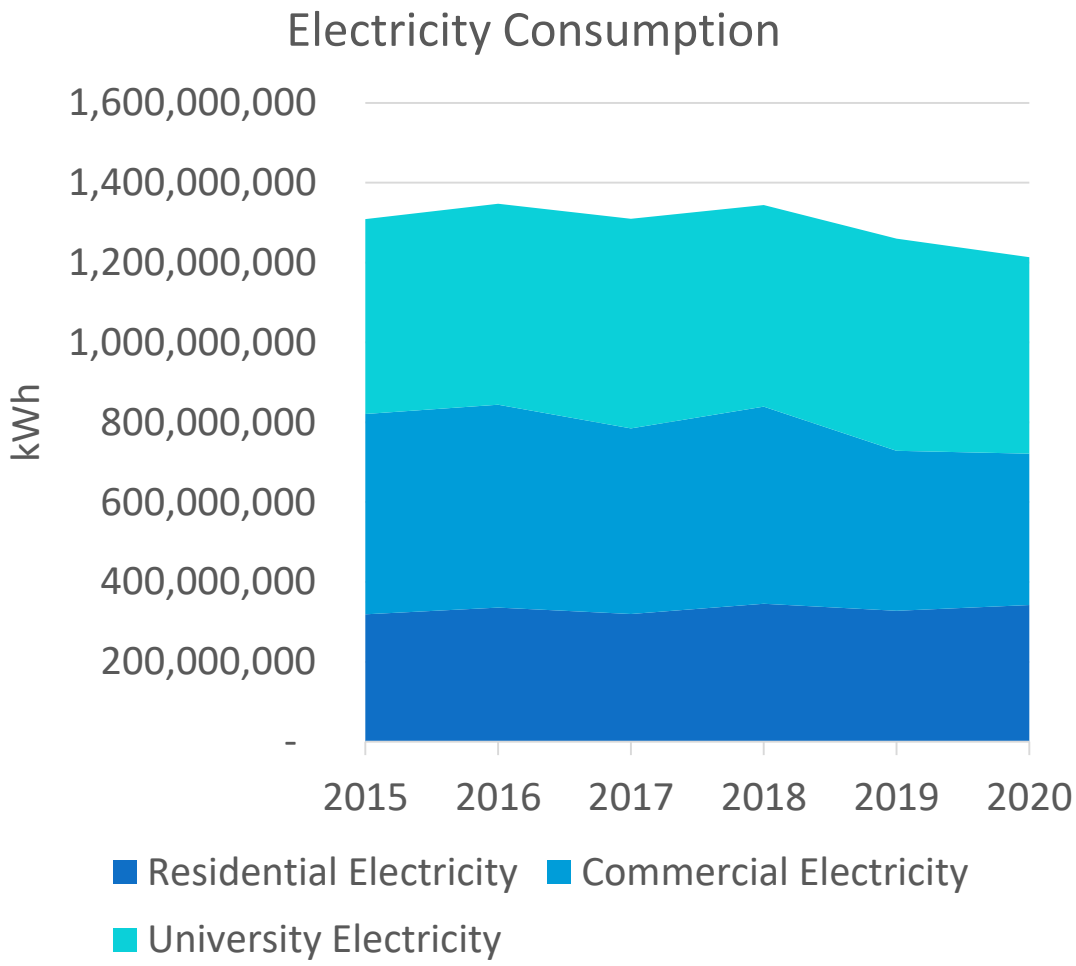


DTE Fuel Mix

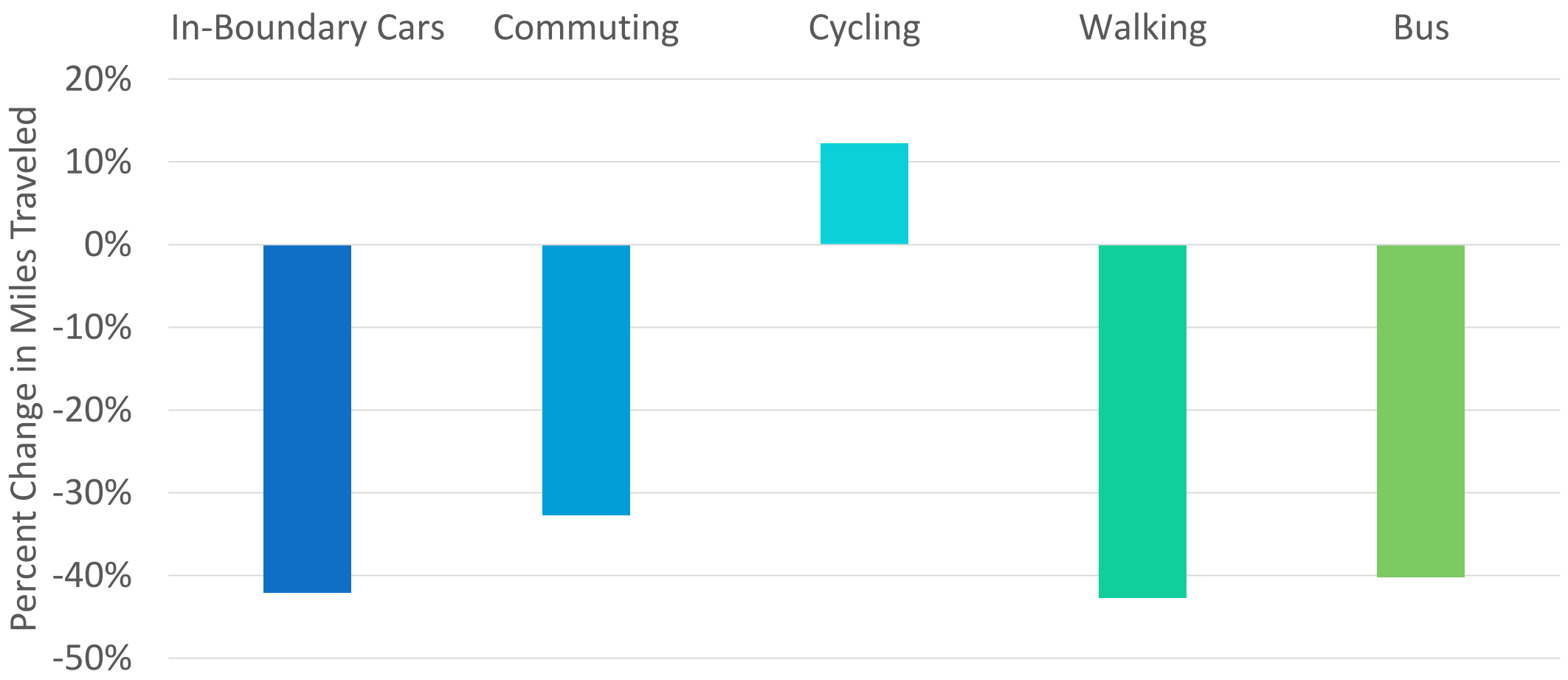

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
2000
2015
2016
2017
2018
2019
2020
Renewables
Hydro
Nuclear
Oil
Natural Gas
Coal

Stationary Energy Consumption





Transportation



Looking Forward

Simple Inventory

- Evaluate long-term progress

Expanded Inventory

- A better understanding of where we are now

Expanded+ Inventory

- **Next steps:** Include consumption-based emission sources
  - More transportation activities (flights)
  - Food, goods, and services
  - Embodied carbon in buildings
  - RECs and offsets