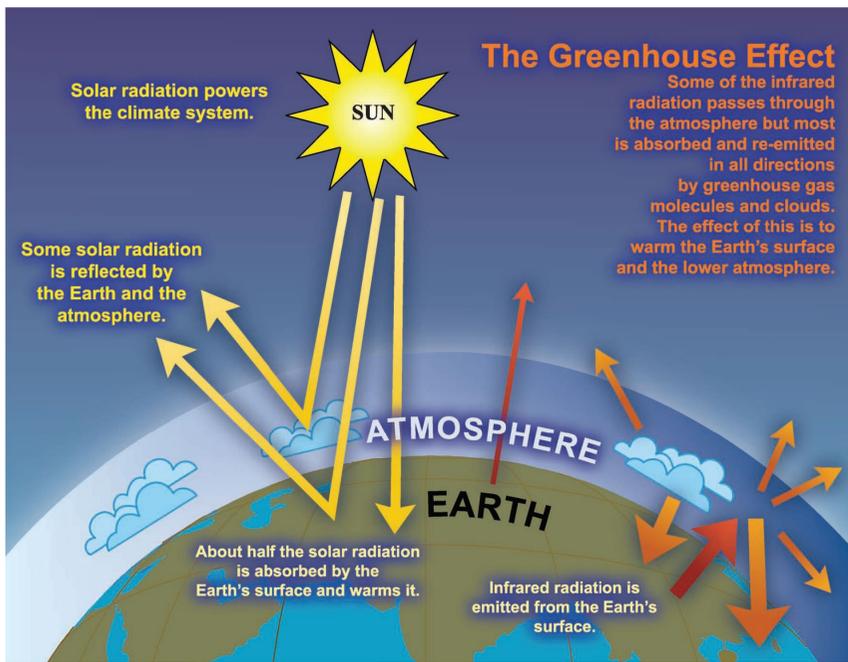


CITY OF EDMONDS

Climate Action Plan and Greenhouse Gas Inventory Update

The City of Edmonds recognized the need to address climate change in 2008 and in response produced a **2009 Greenhouse Gas Inventory** and a **2010 Climate Action Plan**.



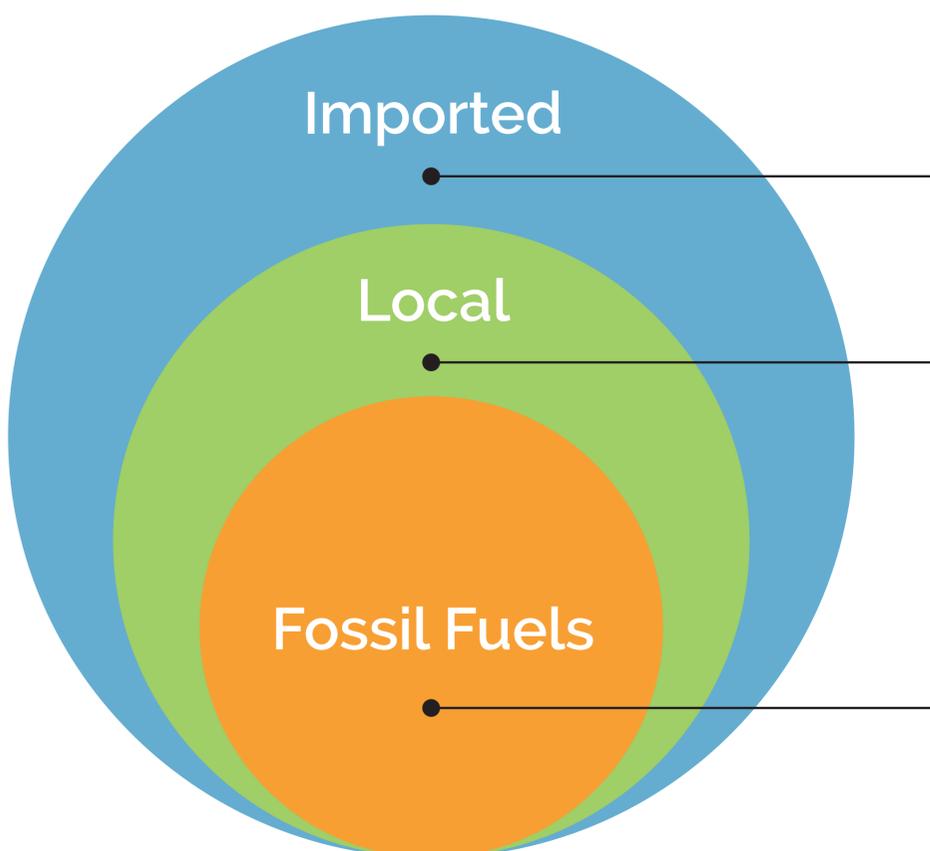
Green House Gases (GHGs)

Gases that trap heat in the atmosphere

The Climate Action Plan focuses on these four:

- ➔ Carbon Dioxide
- ➔ Methane
- ➔ Nitrous Oxide
- ➔ Fluorinated hydrocarbons

Greenhouse Gas Inventory



INCLUDES:

Fossil fuel emissions + local emissions +

Emissions from imported food, goods and use of services (fertilizers, production, transportation)

Upstream fuel production

INCLUDES:

Fossil fuel emissions +

Imported electricity

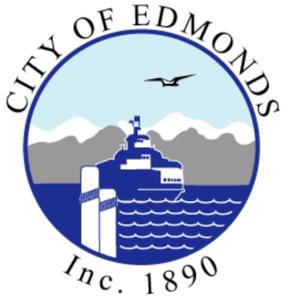
Waste emissions

Fugitive emissions (refrigerant gases, local natural gas loss)

INCLUDES:

Local fossil fuel combustion

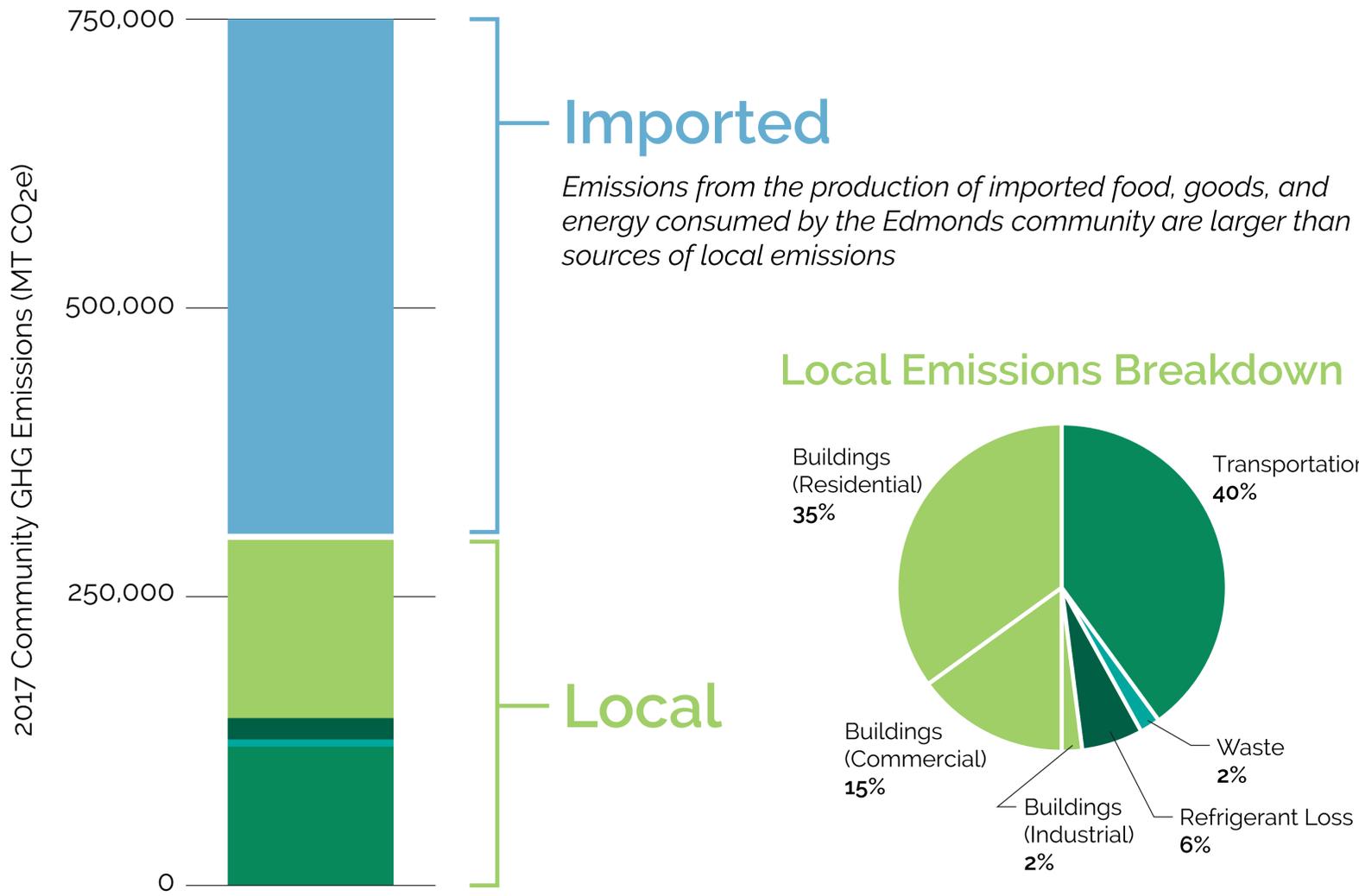




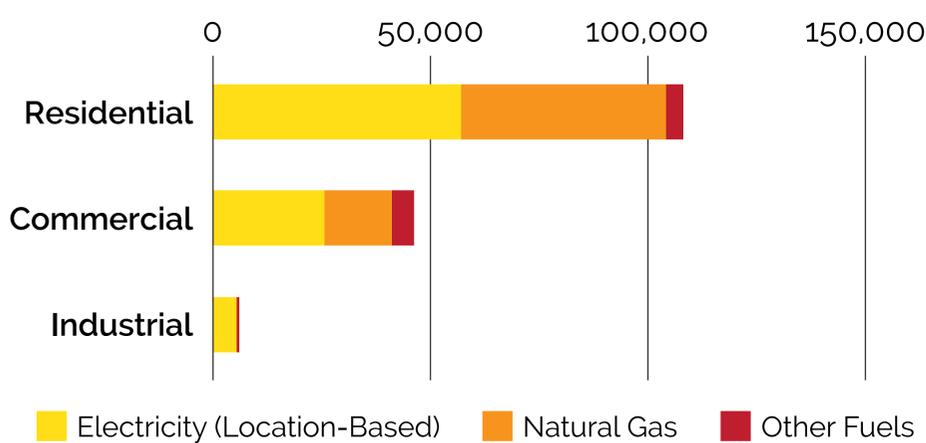
CITY OF EDMONDS

Climate Action Plan and Greenhouse Gas Inventory Update

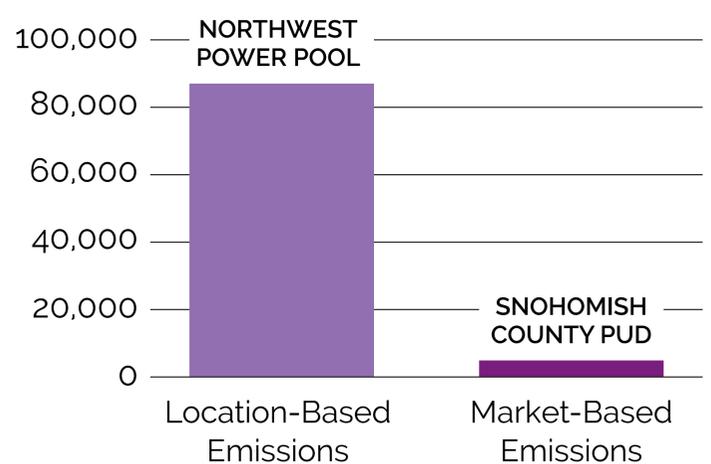
Greenhouse Gas Inventory RESULTS



GHG from Energy Consumed Buildings

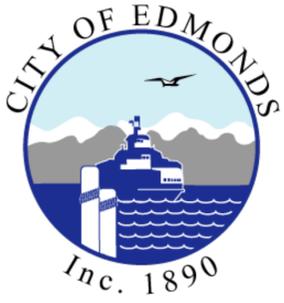


Electricity Emissions



MT CO₂e = Metric tons of CO₂ equivalent





CITY OF EDMONDS

Climate Action Plan and Greenhouse Gas Inventory Update

TARGETS

- Setting a Target
- Rates of GHG Reduction Needed
- How Urgent is Our Situation?

Rates Required for GHG Reduction

Target			
	+1.0°C 350 ppm	+1.5°C 400 ppm	+2.0°C 450 ppm
Average Annual Rate of Reduction to Meet Target (rounded)			
	8%	5%	2%
Cumulative GHG Reduction compared to 2010 (values are rounded for simplicity)			
By 2020	15%	13%	10%
By 2030	70%	50%	35%
By 2050	100%	100%	80%

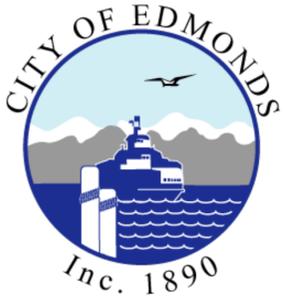
How Urgent is Our Situation and What Can We Expect?

Physical Conditions

+1.0°C	+1.5°C	+2.0°C
7-ft sea level rise globally	9.4-ft sea level rise globally	15-ft sea level rise globally

Physical Conditions	+1.5°C	+2.0°C
	Ocean acidity increase 9%	Ocean acidity increase 24%
	Frequency of warm extremes over land (PNW) increase 131% Extreme heat: 14% of global population exposed to severe heat at least once every 5 years	Frequency of warm extremes over land (PNW) increase 350% Extreme heat: 37% of global population exposed to severe heat at least once every 5 years
	Population exposed to water scarcity worldwide: 271 million	Population exposed to water scarcity worldwide: 388 million
	Sea-ice-free arctic: at least 1 summer every 100 years	Sea-ice-free arctic: at least 10 summers every 100 years
	Species loss: 4% of vertebrates lose at least half of their range 8% of plants lose at least half of their range 6% of insects lose at least half of their range	Species loss: 8% of vertebrates lose at least half of their range 16% of plants lose at least half of their range 18% of insects lose at least half of their range





CITY OF EDMONDS

Climate Action Plan and Greenhouse Gas Inventory Update

Sample Community Changes

IMPACTED EMISSIONS SOURCE	CHANGE TO	THROUGH
Stationary Energy <i>(local)</i> Transportation <i>(local)</i> Other Emission Sources <i>(imported)</i>	No fossil fuel combustion	100% renewable electricity and large-scale energy storage Electrified transport
Waste <i>(local)</i> Other Emission Sources <i>(imported)</i>	Reduced consumption of goods, use of disposables, and subsequent waste	Purchase of durable goods with a focus on reuse and repair
Stationary Energy <i>(local)</i> Waste <i>(local)</i>	Reduced food waste	Reduction of waste in processing and sales (pre-consumer) Buying just what you need Composting (post-consumer)
Agriculture, Forestry & Land Use <i>(local)</i> Other Emission Sources <i>(imported)</i>	Reduction in GHG-intensive foods	More vegetables, fruits, legumes, grains, and fish Reduced meat and dairy
Stationary Energy <i>(local)</i> Transportation <i>(local)</i> Other Emission Sources <i>(imported)</i>	Decreased household consumption of goods and energy	Family education
Stationary Energy <i>(local)</i> Transportation <i>(local)</i> Waste <i>(local)</i> Industrial Process & Product Use <i>(local)</i> Agriculture, Forestry & Land Use <i>(local)</i> Other Emission Sources <i>(imported)</i>	Negative emissions actions	Mass sequestration via forests and technology

