

CITY OF BARRIE COMMUNITY ENERGY & GHG REDUCTION PLAN

General Committee Presentation



Date: March 29, 2021



Objectives of Today's Presentation

- ✓ Provide an update on work completed to date
- ✓ Presentation of energy and greenhouse gas baseline and business as planned forecast
- ✓ Presentation of draft vision, principles and preliminary strategy directions
- ✓ Discussion of next steps & engagement plans

Barrie's Changing Climate



Temperature

- Increase of 3 degrees Celsius by 2050
- Increase in "hot days"
- More frequent and prolonged heat waves
- More freeze/thaw in winter



Precipitation

- Increased precipitation in winter, spring, fall
- Decreased precipitation in summer
- Increased incidents of freezing rain



Extreme Weather

- Increased occurrences of storms
- Increased intensity, duration, frequency of extreme rainfall events

The Cost of Energy

In 2018, the community of Barrie spent approx. **\$596 million** on energy

Population	Municipal Corporate Energy Expenditures	Community-Wide Energy Expenditures
0 – 9,999	\$700,000	\$12M
10,000 – 49,999	\$1.6M	\$71M
50,000 – 99,999	\$2.3M	\$243M
100,000 – 299,999	\$12M	\$780M
300,000+	\$24.5M	\$2.7B

Source: Partners for Climate Protection (PCP), [National Measures Report 2015](#)



Council Support for Climate & Energy Action

Council motion March 2018

- Council adopted motion to develop a Community Energy and Greenhouse Gas (GHG) Reduction Plan

2018 – 2022 Council Strategic Priorities

- “while mitigating and adapting to climate change”
- added to the priority of Building a greener Barrie

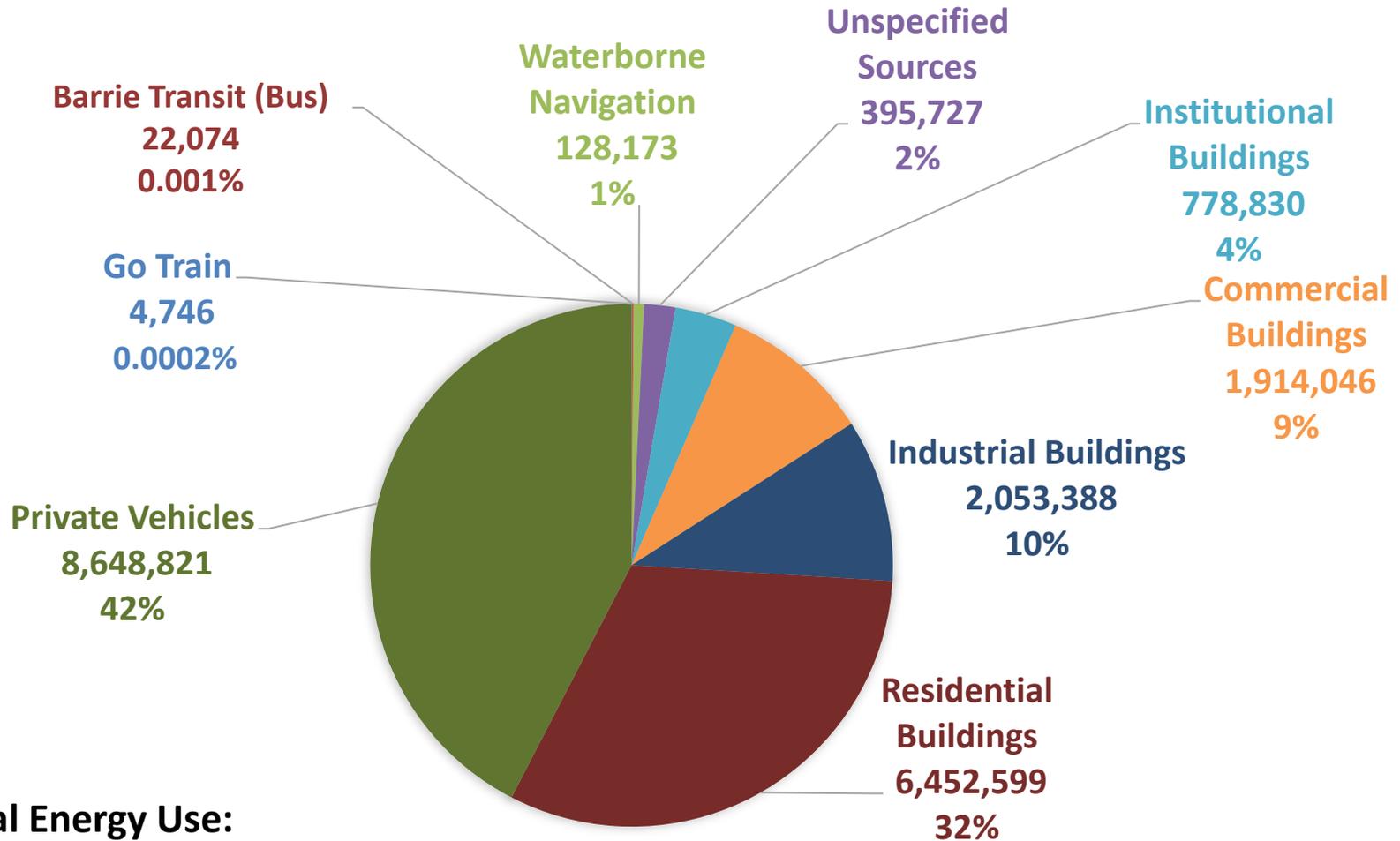
Climate emergency October 2019

- Goal of net-zero carbon emissions by the year 2050

Developing the Plan



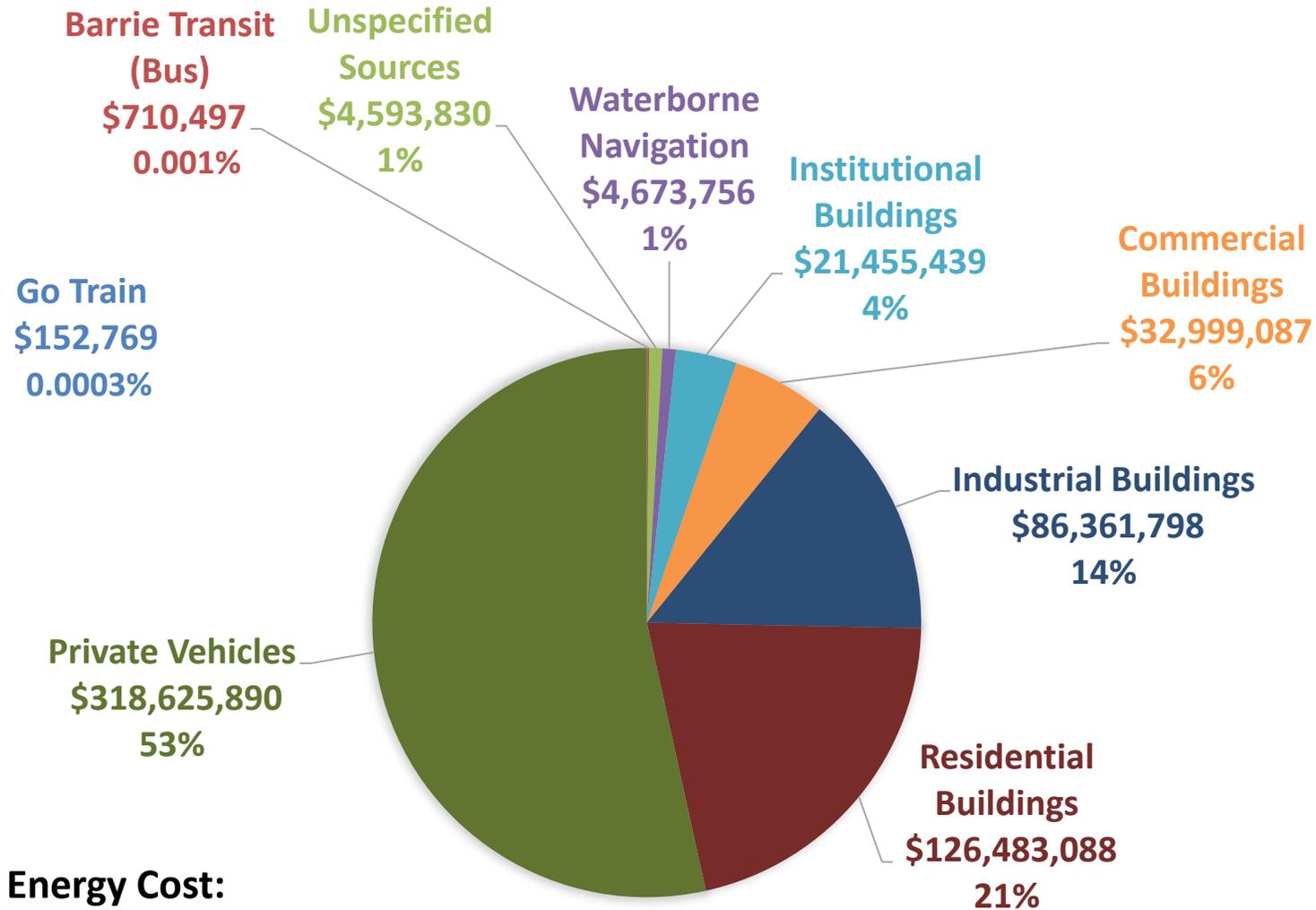
Barrie's Energy Use (2018)



**Total Energy Use:
~20.4 million GJ**



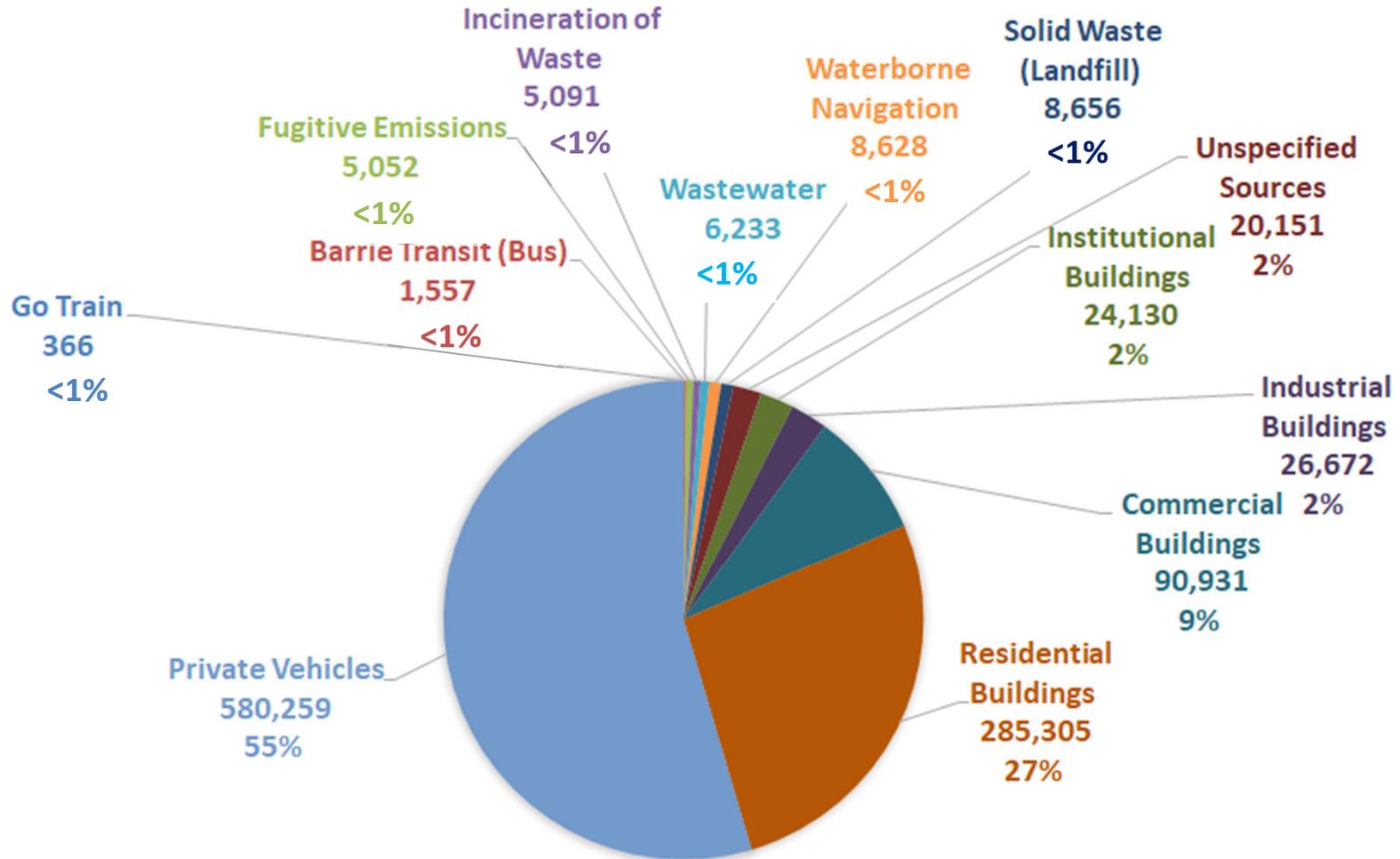
Barrie's Energy Cost (2018)



**Total Energy Cost:
Almost \$600 million**



Barrie's Emissions (2018)

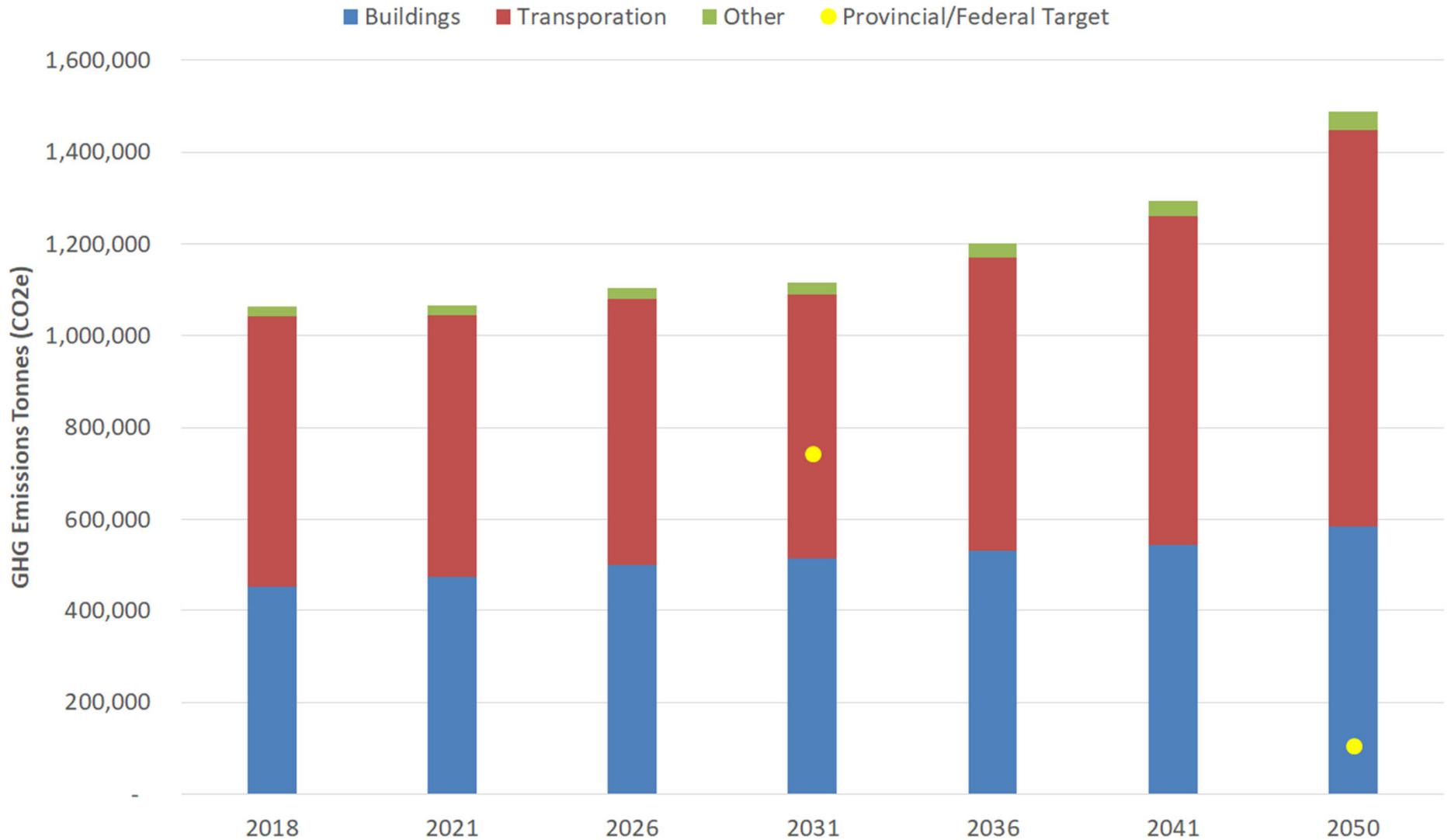


Total GHG Emissions:
~1.06 million tCO₂e



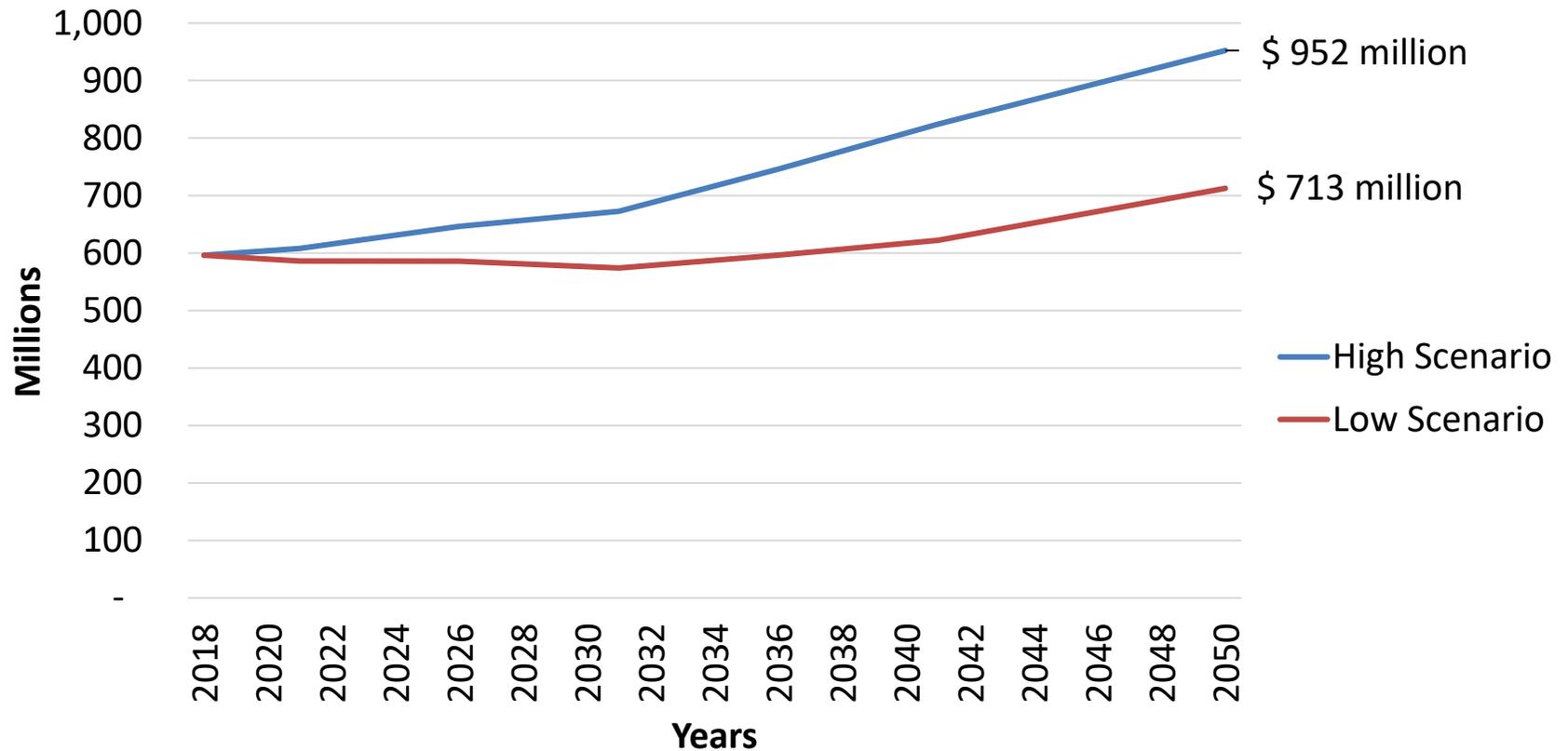
Business-as-Planned Scenario

Projected GHG Emissions to 2050

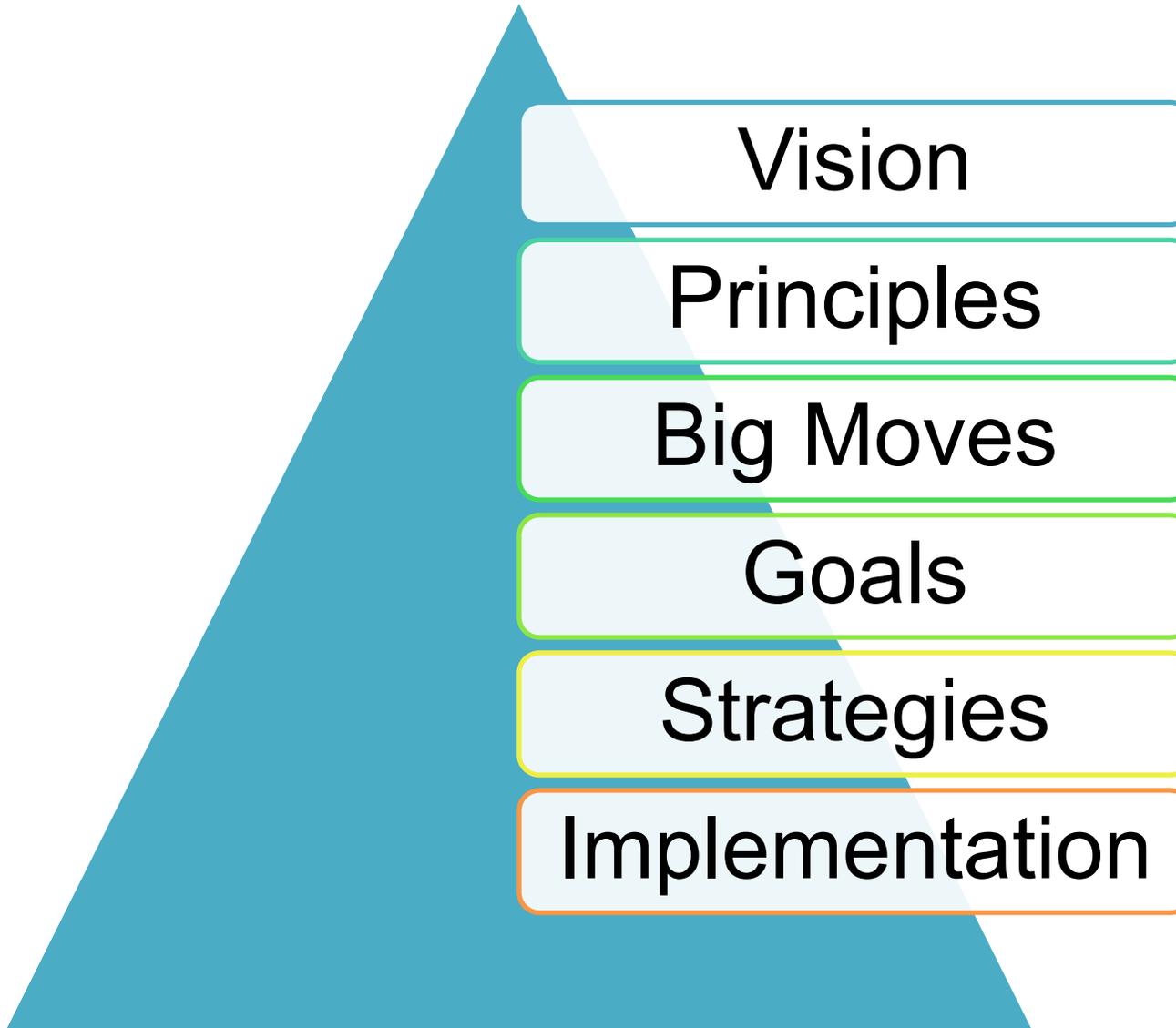


Business-as-Planned Scenario

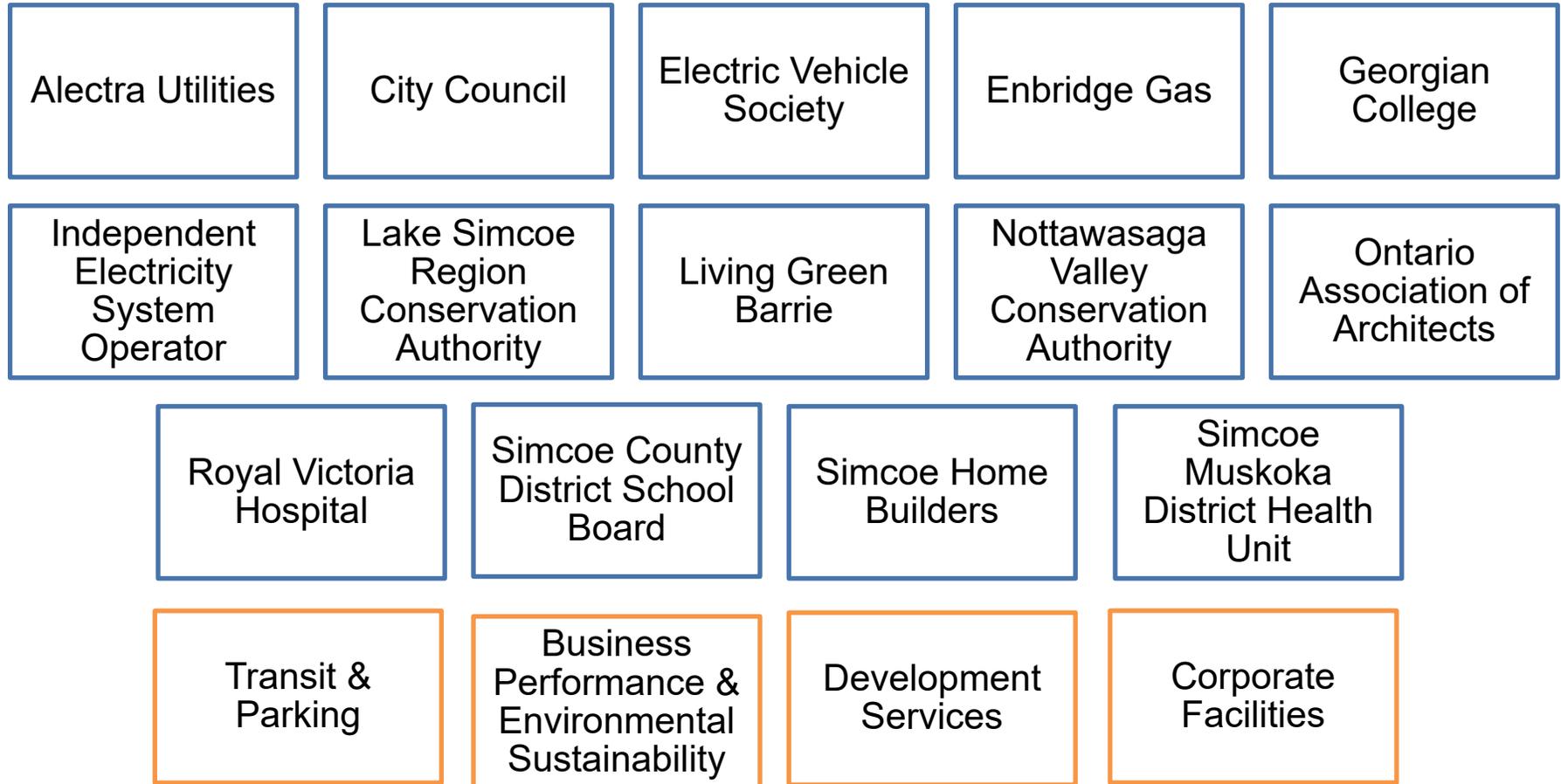
BAP Projection of Energy Cost



Plan Framework



Stakeholder Advisory Group



Vision & Principles

Vision

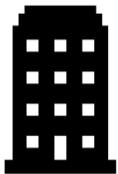
The City of Barrie is taking an integrated, ambitious and action-oriented approach to climate action, which provides positive environmental, social, economic and health outcomes for all.

Principles

- There are **economic** benefits in pursuing climate action at the local level.
- Recognize and promote the inextricable link between the natural and built environments, climate change and our communities' **health and wellbeing**, and foster the health co-benefits of climate action.
- Pursue **innovative** solutions and an **evidence-based** approach to climate action.
- Educate** and inspire residents and business to make positive environmental change, building on the City's leadership.
- Develop strategies that are **equitable** and enhance **quality of life** for all residents.
- Benchmark against **best practices** and look for continuous improvement.
- Enable positive environmental actions amongst Barrie's residents.
- Advance Barrie's climate and energy goals in **partnership** with residents, organizations and businesses.



Big Move - Buildings



Goal: Near zero emissions in new and existing building stock

- Deep energy retrofit program
- Green development standard
- Energy management and benchmarking
- District energy
- Rooftop/ground mounted solar
- Larger renewable energy infrastructure projects

Big Move – Transportation



Goal: Near zero emissions from transportation

- Local transit options
- Increased GO Train use
- HOV lane on Hwy 400
- Adoption of electric vehicles
- Active transportation
- Car sharing programs and networks

Big Move – Waste



Goal: Waste reduction through a circular economy

- Specialized collection weeks
- Circular economy culture
- Commercial, institutional, and multi-use residential buildings recycling practices and procedures

Big Move – Natural Environment & Land Use



Goal:
Livable neighbourhoods that support energy efficiency, mixed-use, complete communities & protection of the natural environment.

- Higher density, mixed-use developments
- Zero emissions neighbourhood
- Growing and buying locally grown food
- Carbon sequestration through trees, wetlands and other nature-based solutions

Next Steps

- Engagement
 - Stakeholder Advisory Group
 - Targets Stakeholder Sessions
 - Virtual Public Engagement
 - Council Presentation (Fall 2021)
- Developing the Energy & GHG Emissions Reduction Plan
 - Further Developing Strategies
 - Implementation Planning
 - Plan Preparation
 - Plan Approval by Council

THANK YOU

Questions?

