The City of Hamilton
Transitioning to a Low Carbon Economy

Presentation to the Senate Standing Committee on Energy, the Environment and Natural Resources

November 16, 2016
Corporate Energy Costs

City of Hamilton

2015 Utility Costs
Total: $48.1 Million

- $28.12M
- $13.23M
- $3.12M
- $3.65M

Electricity
Natural Gas
Fuel
Water
Emission Reduction Targets

The City’s Corporate & Community Emission Reduction Targets

20% by 2020  50% by 2030  80% by 2050

22% Corporate emission reductions in 2015 achieved from the base reporting year of 2005.
LED Lighting

LED Lighting: Facilities
Completed several LED upgrades in facilities across the City including Arenas & Pools, Parking Garages, Police Services, Entertainment Facilities.

LED Lighting: Street Lighting
In 2015, 10,000 street lights were converted to LED’s.
The City received $3.4 million in incentives from the IESO for this project.
Woodward High Lift Project

Hamilton Water’s High Lift Pumping Station located at its Woodward site was granted Project of the Year in 2011. This significant award was provided by the industry leading Pumping & Systems Magazine.

The award recognizes the unique process and the highly successful design that incorporates new pumps, use of Variable Frequency Drives and operational changes.

- This project saves about $400,000 annually.
- Received Save On Energy incentives of $2.3 million.
Hamilton Renewable Power

- The City of Hamilton created Hamilton Renewable Power Inc. (HRPI) in 2005.

- The City is the sole shareholder of HRPI, which operates 4.8 MW (megawatts) renewable gas-fueled units.

- The feedstock or fuel for 3.2 MW of generation is landfill gas while the other 1.6 MW of generation uses methane produced in water treatment.

- Overall Financial Benefits to the City from 2006 to 2016 is estimated at $15.3 million.
Biogas Purification Unit

- Ability to process up to 10,000 cubic meters renewable natural gas (RNG)/day (equivalent of heating 1,200 homes).
- Injected to Union Gas distribution grid.
- Gas quality monitored at the Biogas Purification Unit (BPU) and Union Gas meter station.
Cost of Cap & Trade

- For 2017 the direct cost of Cap & Trade (C&P) for the City of Hamilton is est. at $1 million (fuel and natural gas).
- Indirect costs are difficult to determine.
- C&T increases will have direct impacts the municipal tax levy and the water rate budgets.
- Many areas of the community are already struggling with high energy rates.
- Ontario, has seen major increases in electricity pricing over the last several years. Affordability concerns.
- Important to demonstrate the “value” or the “ROI” of investments made into C&P at the local level. How does it benefit the municipality and its community?
Hamilton Looking Forward

- Barriers for moving forward:
  - Stable/long term energy prices e.g. RNG.
  - Cost differential of newer technologies.
  - Available infrastructure.
  - New and yet to be proven technologies that support a move to a low-carbon economy.
  - Lack of expertise internally and in the marketplace (High learning curve and associated risks).
  - Lost or missed opportunities (life cycle/contract renewals).

- The City of Hamilton has demonstrated municipal leadership in its transition to a Low Carbon Economy, through its ongoing management of its energy costs and consumption and by reducing its corporate emissions by 22% since 2005.

- The City looks forward to opportunities/initiatives that support the City and its communities ongoing health and safety, along with its continue commitment to meeting its defined environmental and energy targets as part of its transition to a low carbon economy.