

Responding to
climate change:

Local
challenges

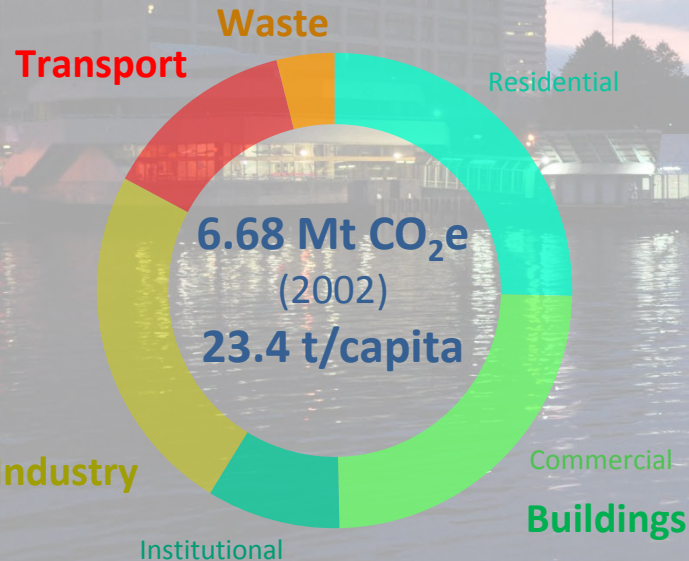
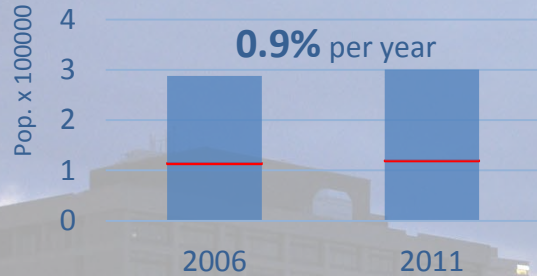


Warren Mabee
warren.mabee@queensu.ca

What are cities doing?

- Some cities have declared climate emergencies (e.g. Vancouver, Halifax)
- Many cities have developed climate action plans (e.g. Transform TO)
- There are many related types of plans:
 - ▶ Transportation plans and Active Transport Plans
 - ▶ Infrastructure plans (roads, sewers, etc.)
 - ▶ Community energy plans (Local Action Plans) – over 170 cities, 50% of Canada's population

Halifax, NS



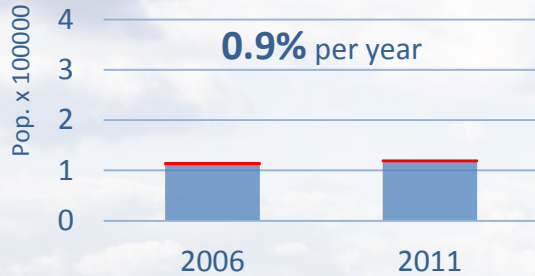
- Helped develop the template for Community Energy Plans with NRCan (2006)
- Original plan (2007) set 7 goals, each supported with actions and specific timelines
- Many actions recommended not within the power or authority of the Municipality
- CEP lost momentum after initial plan completed
- Key lessons:
 - Reconsider inclusion of actions beyond Municipal power in CEPs
 - Target municipal barriers to renewable power use to reduce GHGs
 - Set clear economic objectives – incentivize participation, track success

Guelph, Ontario



- Focus on per capita energy use and emissions, with equal focus on renewables and efficiency measures
- Very informed stakeholder engagement and process for developing the CEP
- Very strong in setting baseline – informs future actions and provides benchmarks
- No timelines set and no detailed sectoral breakdown of how to achieve overall goals
- Considered but did not include leakage (could raise emissions by 6.5 t/capita)

Kingston, Ontario



- Kingston's emissions are dominated by workplaces
- GHG reduction targets (from 2011):
 - 15% reduction by 2020
 - 30% reduction by 2030
- Actions are focused on reducing energy use (short-term) and addressing transportation (after 2020)
- Need for integration with other plans – Climate Action Plan, Master & Active Transportation Plans, etc.
- Key issues:
 - Aging infrastructure (particularly commercial space) presents a challenge
 - Less population growth presents an opportunity

Key lessons

- Every city is very different in terms of population
- Transport emissions can be similar on a per capita basis
 - 3.73 t CO₂e/cap/y Guelph, 3.83 t CO₂e/cap/y Kingston, 3.08 t CO₂e/cap/y Halifax
 - Tends to not include commercial vehicles that service the city
- Residential emissions can vary
 - 2.22 t CO₂e/cap/y Guelph, 2.28 t CO₂e/cap/y Kingston, 5.85 t CO₂e/cap/y Halifax
 - Different methodologies to collect data and often different baseline years
- Big difference: commercial/industrial emissions
 - 2.75 t CO₂e/cap/y Guelph, 6.46 t CO₂e/cap/y Kingston, 13.34 t CO₂e/cap/y Halifax
 - Regional centres have much bigger footprints
 - Key national economic hubs are bigger yet again