DECARBONIZING AND EXPANDING DISTRICT ENERGY WORKSHOP

FEBRUARY 1ST
Agenda

1. INTRODUCTION + TECHNICAL DETAILS + BACKGROUND  
   10 Minutes

2. BREAKOUT WORKING GROUPS  
   40 Minutes

3. DEBRIEF + CLOSING  
   10 Minutes
Introductions

Community Energy and Emissions Plan

Project Team

STAFF PROJECT TEAM

• Christine Newbold, Community Planning
• Trevor Imhoff, Air Quality & Climate Change
• Tom Chessman, Office of Energy
• Spencer Skidmore, Community Planning
Decarbonizing and Expanding District Energy

To decarbonize these systems, the Community Energy and Emissions Plan calls for:

1. upgrading the downtown system to enable the use of industrial waste-heat instead of natural gas (which Hamilton has in abundance), then, based on reliable industrial waste heat supply, expanding the system to serve a larger portion of the downtown, and for;

2. the McMaster Innovation Park to fuel its natural gas system with green hydrogen or renewable natural gas.
Modelling Inputs

The low-carbon model includes the following inputs:

The Downtown District Energy System:

• Additional 25.4 MW of industrial waste heat for heating
• Additional of 7.1 MW of industrial waste heat for cooling
• Corresponding expansion of the downtown DE network to service an additional 464,000 m² of commercial floor space.

McMaster Innovation Park System:

• Decarbonize using fuel switching (RNG or hydrogen)

Decarbonizing and expanding DE systems accounts for ±0.15% of total emissions reductions in the low-carbon scenario.
Focusing On ‘The How’

*How* to move forward and expand local energy solutions and innovative carbon-free technology that has positive local economic impacts.

Some Suggestions:

1. Create DE-Ready initiatives
2. Review Municipal Barriers to DE
Decarbonize & Expand District Energy
Debrief

SUMMARY OF THE DISCUSSION FOR EACH GROUP
QUESTIONS?

THANK YOU!