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**

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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

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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.

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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.

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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

3. Establish Targets for District Energy Uptake. Track and Report on Set Targets.

4. Review City/Public Assets, Like Land and Public Buildings for DE Expansions.

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Debrief

SUMMARY OF THE DISCUSSION FOR EACH GROUP

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QUESTIONS?

THANK YOU!