

January 17, 2023

Mayor and Members of the General Issues Committee
City of Hamilton
71 Main Street West
Hamilton, Ontario
L8P 4Y5

RE: HCE Written Delegation to:

Agenda Item 10.15 – Draft Terms of Reference for a Climate Change Advisory Committee - PED20328

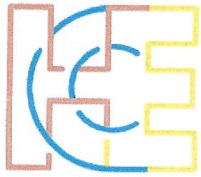
HCE is pleased to support Hamilton's Climate Action Strategy and the Draft Terms of Reference for a Climate Change Advisory Committee (CCAC) that is being presented to Hamilton City Council's General Issues Committee (GIC) on January 18, 2023.

The report outlines the engagement activities conducted by City staff with the Community regarding the implementation of Hamilton's Climate Action Strategy with the establishment of a CCAC. This engagement highlighted Hamilton's interest in:

- Prioritizing implementation of climate actions;
- Meaningful and transparent reporting;
- Engaging and employing the right expertise on the CCAC;
- Removing barriers to participating in the CCAC; and,
- Insurance of an equal and diverse representation on the CCAC.

HCE supports the establishment of a *Community Advisory Committee* to facilitate the flow of information and ideas among stakeholders. HCE has offered to be either part of this committee or provide consultancy to this committee on an as needed basis.

HCE was founded in the early 2000s with the deregulation of Ontario's electricity sector with a mandate to reduce Green House Gas emissions ("GHGs"). HCE is owned by the City of Hamilton and governed by an independent Board of Directors and has grown to become a utility solutions provider in the non-regulated energy and telecommunications markets. HCE designs, builds, operates and maintains critical community infrastructure, including energy



networks, renewable energy systems, and internet and metro area fibre networks.

HCE has become an expert in delivering kilowatts, kilojoules, and kilobytes — the currency needed to power our lives in the digital age and is well-placed to play an increasingly active role in climate change mitigation and adaptation.

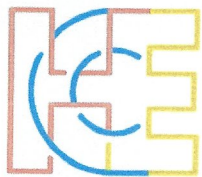
Well-defined, low-carbon transformations to reach short- and long-term targets are a critical component of Hamilton's Climate Action Strategy. HCE supports these transformations, including those HCE can lead and help drive, such as harvesting industrial residual heat to fuel an expanded district energy network and increasing the use of renewables.

As a leader in high-efficiency, low-carbon building heating, HCE looks forward to the ability to work alongside others with specialized skills, knowledge and community involvement in the CCAC. It will be an effective way to engage partners in what they do best.

HCE believes it's all about minimizing the impact of climate change by maximizing the value of every unit of energy, and this is only made possible through collaboration and connectivity.

Presently, GHGs attributable to buildings account for 28% of Hamilton's emissions profile. This comparatively low value is a function of the massive GHG emissions associated with Hamilton's industry and, unfortunately, is not a result of better buildings. As Hamilton's industry decarbonizes (as it is committed to doing), if nothing is done to address building-related emissions, GHGs attributable to buildings in Hamilton will grow to roughly 45% ~ typical of other GTHA cities and be the single largest source of GHGs. Building heating in Hamilton and elsewhere must be decarbonized to meet Canada's climate action goals.

A study performed by the Hamilton Chamber of Commerce released in 2021 identified enough residual/waste thermal energy from Hamilton's industrial bayfront to reduce Hamilton's building sector carbon footprint by 200,000 tCO₂e/year through an expanded district energy system. The study affirmed that key local stakeholders — including leading manufacturers, developers, and the municipality — are keen to explore this pathway to transform Hamilton's energy landscape, create a market for residual/waste heat, and significantly lower regional GHG emissions in Hamilton's building sector. Communities must harvest these large quantities of industrial residual/waste heat routinely released to the atmosphere and watersheds (studies show that upwards of 60% of industrial energy is "wasted," including energy produced by burning fossil fuels).



Cities must use this heat to reduce GHGs as well as the added burden on electrical generation, local and regional power grids and distribution systems, as markets "electrify."

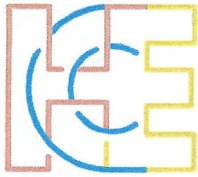
While the shift to decarbonization has many challenges, it will also provide opportunities, especially on two related fronts:

- Building *smart*, low-carbon integrated energy networks needed to support mass electrification destined to transform the GTHA and beyond; and,
- Harvesting industrial residual/waste energy so we can put it to use heating homes, businesses and institutions.

HCE has a vision that by 2050, Hamilton and other parts of the GTHA will have a low-carbon green thermal corridor that transports industrial residual/waste heat harvested across Hamilton's Bayfront Industrial Area to densely populated demand nodes in Hamilton and beyond for building heating. This green thermal corridor will be a vital component of an innovative, next-generation Integrated Community Energy (ICE) network — *smart*, innovative, digitally-enabled, and efficient. This network, designed to scale up in multiple phases, will grow to serve existing and new buildings. It will offset the need for incremental electrical generation capacity and the associated electrical transmission and distribution upgrades that would otherwise be required to decarbonize space heating through electrification. It will also help ensure that the expansion of low-carbon district energy serves the building boom in Hamilton and other parts of the GTHA. This initiative will create a market for industrial residual/waste heat, an enduring by-product of steelmaking and other manufacturing processes in the industrial zone. Best practices from Scandinavia and other regions will be incorporated to ensure the viability of large-scale district energy systems fueled by industrial residual/waste heat. Hamilton will become a lighthouse example of this sustainable approach to decarbonizing space heating and cooling in Canada.

HCE has been and will continue to be a champion of Hamilton's Climate Action Strategy and will contribute in many ways, including:

- Being a leader in fit for purpose, high-efficiency, low-carbon building heating solutions (from premise based systems to large scale networks, and everything in between);
- Helping the City of Hamilton and its partners achieve aggressive GHG reduction targets, especially in the buildings sector;



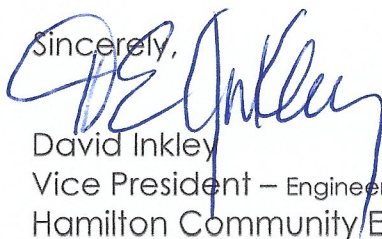
- Local, regional and global partnerships in thought leadership as well as best practices in Net-Zero and the integration of energy and data networks;
- Working arm in arm with manufacturers, the lifeblood of our local and regional economies, supporting their march toward a low-carbon future;
- Engaging multiple parties, including utility providers, to imagine and implement integrated energy systems designed to effectively meet tomorrow's energy needs without burning more fossil fuels;
- Developing and promoting policies, standards and opportunities that support Net-Zero in the buildings sector, including options to connect to integrated thermal and data networks;
- Partnering with manufacturers to harvest their industrial residual (waste) heat as the backbone of a low-carbon thermal network designed to drive sustainable development and ensure energy resilience and security; and,
- Involvement with the CCAC through membership or consultation.

Hamilton has tremendous potential on the path to a decarbonized world - **The Hamilton Advantage**. This advantage will allow Hamilton to compete and win as a prosperous Net-Zero community with:


- ✓ An engaged and supportive council and citizenry that understands the need to act on a growing climate emergency;
- ✓ A diversified economy led in large part by a manufacturing cluster committed to decarbonization;
- ✓ Ownership of a non-regulated integrated utility (HCE) dedicated to the decarbonization of building heating in Hamilton;
- ✓ A vast industrial residual (waste) heat renewable resource; and,
- ✓ A growth trajectory that will create a viable energy innovation and investment market.

We encourage councillors to accept the recommendations offered by city staff. Adoption of this report will continue Hamilton's commitment to be a leader in decarbonization and climate resiliency, and most importantly, it will set the stage for immediate tangible action.

Sincerely,



David Inkley
Vice President – Engineering & Development
Hamilton Community Enterprises



Jeffrey Cowan
President and CEO
Hamilton Community Enterprises