

## Community Energy Plan

### Draft Terms of Reference

A Community Energy Plan (CEP) is an integrated, comprehensive, long-term plan to meet local energy needs while improving energy and water efficiency, reducing greenhouse gas (GHG) emissions and fostering local sustainable and community supported energy solutions in a municipality. Community Energy Planning takes an integrated approach to local energy planning by aligning energy, infrastructure and land use planning to help meet community energy goals and reduce GHG emissions. As part of the City of Hamilton’s strategic priority to become a clean and green city that is environmentally sustainable, and as part of the City’s Community Climate Change Action Plan to reduce GHG emissions and adapt to a changing climate, the City has initiated a process to develop a CEP with the input of energy stakeholders and the community.

By year 2041, the City is expected to grow to achieve a population of 780,000 and 350,000 jobs. Most of this growth will be achieved through intensification; as such, by 2031, and for each year thereafter, a minimum of 60 per cent of all residential development will occur within the built-up area. The intent of the CEP is to develop an action plan based on community priorities around energy and water with a goal to improve efficiency, cut GHG emissions, increase the use of renewable energy, achieve energy security, and drive economic development. Through the implementation of the CEP, Hamilton is expected to benefit from establishing a healthier community; supporting the development of complete, compact and healthy communities; keeping energy investments local; supporting local businesses to reduce energy costs and encourage new investments; contributing to local job creation and energy costs savings; and, reducing energy spending for residents while increasing property values.

#### 1. **Background:**

The City undertook Community Energy mapping in 2011, and there are a number of energy-related initiatives being undertaken locally by the City of Hamilton (with respect to its corporate assets) and by utilities, and local groups to improve energy conservation. Still, Hamilton does not have a comprehensive city-wide, community based (i.e. non-City assets in the residential, commercial, health care and industrial sectors) energy plan to achieve established targets.

Hamilton City Council passed a motion on July 7, 2015, directing “That Planning and Public Works staff investigate and report back on the feasibility and Terms of Reference for a Community Energy Plan including but not limited to Renewable Energy Projects;

appropriate planning policies; methods and uses, in consultation with Hamilton Utilities Corporation”.

In October 2015, Council endorsed the Community Climate Change Action Plan, which was developed as a collaborative effort from multiple City departments and community partners through extensive community consultation. This Action Plan outlines an approach to address climate change by the Hamilton community and establishes long-term goals and directions within nine themes to guide the community on taking action on climate change. Ten priority actions were identified for community action in the short term (1-3 years), including to “Develop a Community Energy Plan to guide the Hamilton community’s energy future”.

This Terms of Reference for a CEP responds to Council’s direction, and to the City of Hamilton’s Community Climate Change Action Plan (2015) priority action.

*Policy Direction:*

Provincial planning policies include an emphasis on energy conservation, air quality and climate change adaptation. The 2014 Provincial Policy Statement (PPS) requires planning authorities to support energy conservation and efficiency, improved air quality, reduce GHG emissions, and climate change adaptation through land use and development patterns that create compact urban forms. Municipalities shall promote design and orientation which maximizes energy efficiency and conservation, and maximizes opportunities for the use of renewable energy systems and alternative energy systems.

Similarly, the recently updated Growth Plan for the Greater Golden Horseshoe (Growth Plan, 2017) mandates local municipalities to coordinate the planning for new or expanded infrastructure with land use planning through the development of integrated plans including community energy plans. Municipalities will also develop and implement official plan policies and other strategies to support water conservation, energy conservation, air quality improvement and protection, and integrated waste management. In order to achieve energy conservation for existing buildings and planned developments, municipalities will identify opportunities for conservation, energy efficiency and demand management, as well as district energy generation, renewable energy systems and alternative energy systems and distribution through community, municipal and regional energy planning.

*Municipal Initiatives and Partnerships:*

Although the City of Hamilton does not have a formal Community Energy Plan, the City has demonstrated municipal leadership in addressing climate change, energy conservation and renewable energy. The City’s first Corporate Energy Policy, passed by Council in 2007, called for targeted energy reductions in energy intensity of City-owned facilities and operations of 20% by year 2020. The Corporate Energy Policy was updated in 2014 with new targets, including the reduction of energy intensity in City-owned facilities by 60% by 2050; 20% improvement of corporate average fuel efficiency (CAFÉ) in City fleet vehicles by 2030; reduction of 80% Greenhouse Gas emissions by 2050; and track energy intensity by Hamilton Water.

The City of Hamilton has established GHG emissions reduction targets of 2006 baseline GHG emissions in the community. These targets are:

- 20% by 2020;
- 50% by 2030; and,
- 80% by 2050.

Currently the community has achieved the 2020 emissions targets and are aiming to progress towards achieving the 2030 and 2050 targets. In addition, the City has been a member of the Federation of Canadian Municipalities’ Partners for Climate Protection (PCP) program since 1996. The PCP program is a network of Canadian municipal governments that have committed to reducing GHG and to acting on climate change. Hamilton completed the PCP program’s 5-milestone process in 2013 and has become one of the leading Canadian municipalities taking action to mitigate and adapt to climate change. The City is also a member of the Compact of Mayors since 2015. The Compact of Mayors is the world’s largest cooperative effort among mayors and city officials to reduce greenhouse gas emissions and climate risks in cities.

More recently, in June 2017, the City of Hamilton, City of Burlington and Mohawk College formed the Bay Area Climate Change Partnership. The three organizations will share resources and coordinate efforts to reduce greenhouse gas emissions. The goal of the partnership is to create a Centre for Climate Change Management within the next two years and establish a Campus Carbon Management Office, an Industry Partnerships Office and a Bay Area Climate Change Coordination Office and modelled after the successful Bay Area Restoration Council.

## **2. Goal:**

To develop a meaningful CEP that guides Hamilton towards the creation of a healthy, reliable and sustainable energy future by continually increasing water and energy conservation, improving energy efficiency and reducing GHGs emissions while meeting Hamilton’s energy needs.

## **3. Objectives:**

The objectives of the plan are:

- To reconnect with stakeholders, agencies, landowners, and the public.
- To confirm community-wide energy consumption and GHG emissions.
- To identify opportunities for energy and water conservation, generation, efficiency as well as sustainable, cleaner and energy efficient transportation throughout the City of Hamilton.
- To develop community priorities for implementation around renewable energy and other energy infrastructure, including a HERO/LIC program for the City.
- To develop actionable items for economically viable and environmentally sustainable energy solutions.
- To support sustainable energy policies, climate change initiatives, and practices in Hamilton.
- To identify appropriate planning policies to support sustainable growth and compact urban forms, energy consumption reduction, sustainable transportation solutions, and renewable energy generation.
- To ensure that the energy system in Hamilton assists the City and community in reaching carbon reduction targets.

## **4. CEP Scope:**

The Community Energy Plan will be developed in three phases as follows:

### **Phase 1: Confirming the Baseline**

- i. Prepare Community Energy Plan Advisory Team Terms of Reference.
- ii. Develop Engagement Plan drawing on engagement work already completed during the Community Climate Change Action Plan and Our Future Hamilton. The Engagement Plan will be executed throughout the three phases of the CEP development.
- iii. Complete background research:
  - a. Review of existing conditions, including land use patterns and growth, planning regime, building stock, energy use from all sources (e.g., residential, commercial, industrial, transportation, City operations, landfills,

water treatment and infrastructure, goods movement, etc.), current energy sources, current and past initiatives, and actions taken from the Community Climate Change Action Plan.

- b. Update the 2011 Energy Mapping based on current GHG emissions and energy consumption, prepare an emissions profile, and model scenarios.
  - c. Inventory of existing federal, provincial and local energy, climate change and planning policies and regulations, including any relevant Council motions and approved recommendations.
  - d. Inventory of initiatives in Hamilton and Ontario (e.g., Official Plan framework, conservation and demand management programs, use of renewable energy, local generation).
- iv. Goals and Principles
- a. Define Goals and Principles for energy planning.
  - b. Define sector based targets based on best practices, provincial and City targets.

## **Phase 2: Finding Efficiencies**

- i. Define energy efficiency improvements to achieve the defined sector-based targets, including:
  - a. Explore optimal land use planning, net zero communities, smart grid communities.
  - b. Building design - explore improvement beyond the building code, efficiencies related to electricity, gas and water consumption, and infrastructure to support electric vehicles.
  - c. Improvements to industrial and institutional energy practices.
  - d. Sustainable transportation initiatives – public and private.
  - e. Corporate improvements – identify additional strategies.
  - f. Ensure compatibility with corporate and community carbon reduction targets and timelines.
  - g. Explore potential community based programs such as Home Energy Retrofit Opportunity (HERO) and / or Local Improvement Charges (LIC) programs for the City.
- ii. Renewable energy planning, including:
  - a. Best practices for renewable energy planning.
  - b. Opportunities and feasibility to increase the use of renewable sources of energy.
  - c. Review opportunities for community or district energy plants and energy cogeneration.
  - d. Identify suitable areas for locating renewable energy (small and large scales).

- e. Recommend planning policy updates.
- f. Prepare Terms of Reference to evaluate renewable energy projects.

### **Phase 3: Taking Action**

- i. Develop the Action Plan
  - a. Prioritize actions – short, medium and long term.
  - b. Implementation – identify community leaders, responsibilities and resources.
  - c. Monitoring – establish a monitoring plan, including performance measures, reporting schedule, and CEP update.
- ii. Raise community awareness
  - a. Identify community, industry and non-profit energy champions.
  - b. Develop awareness campaign and outreach beyond CEP adoption.
  - c. Celebrate successes.

## **5. Engagement**

The CEP will include an Engagement and Communications Plan outlining innovative ways to consult with stakeholders and engage the public, which will build upon the extensive consultation undertaken for the Community Climate Change Action Plan and Our Future Hamilton. The development of the Engagement and Communication Plan will happen in Phase 1 of the project. The community and stakeholders will be engaged through:

- A Community Advisory Committee, which will provide representation of different stakeholders within the City of Hamilton and will be created under the Bay Area Climate Change Partnership.
- Use of wide range of engagement tools, including at least two rounds of community meetings in at least 4 locations throughout the City, stakeholders workshops, surveys, special events, one-on-one stakeholder meetings, on-line engagement, and social media communications.
- Key points for engagement in the plan development process include:
  - Review baseline and development of goals, principles and targets
  - Exploration of actions, initiatives and setting of priorities
  - Reviewing draft and recommended CEP

### **Community Energy Plan Advisory Committee:**

An Advisory Committee will provide support to the Steering Committee (see Section 7 of the Terms of Reference) during the preparation of the Community Energy Plan. This committee will be created as an Energy Implementation team under the Bay Area Climate Change Partnership. The Advisory Committee will provide input and perspective of residents, property owners, industries, business, and other stakeholders into the CEP. This input will assist Staff in preparing recommendations for City Council’s approval of the CEP. The Advisory Committee will be comprised of individuals or organizations with energy industry knowledge or an interest in the energy industry or as a resident in the City. Membership will be on a voluntary basis and subject to the needs of the CEP. To have a better alignment with previous City’s initiative, it is anticipated that some of the stakeholders involved in the development of the Community Climate Change Action Plan will be also part of the CEP Advisory Committee.

The Community Energy Plan Advisory Committee will be responsible for:

- Assisting in the identification of the energy vision for the community, mission statement, goals and principles;
- Assisting in the identification of the community priorities and needs;
- Identifying energy efficient improvements, energy conservation and generation, water efficiency, and transportation opportunities to achieve the goals;
- Providing input during the assessment of available resources and potential partners;
- Providing input on the potential short, medium and long term actions;
- Providing input on the development of the draft implementation plan, including monitoring and reporting processes;
- Providing information to their stakeholder organization about the CEP; and,
- Helping create awareness and be agents of change.

### **6. Project Process and Timeline:**

It is estimated that the CEP will be completed within 12 - 18 months following the selection of a consultant or consultant team, as follows:

<b>Key Milestone</b>	<b>Task/Action/Deliverable</b>
Q2 2018	CEP draft work plan approved Prepare Request for Proposal with the Steering Committee
Q2 2018	Selection of consultant or consultant team
Q2 - Q3 2018	CEP Phase 1: Establishing the Baseline: <ul style="list-style-type: none"> <li>• Prepare Community Energy Plan Advisory Committee Terms of Reference, recruit members and start meetings</li> <li>• Develop Engagement Plan and start executing</li> </ul>

	<ul style="list-style-type: none"> <li>• Background research and energy mapping update</li> <li>• Goals and principles</li> </ul>
Q4 2018 – Q1 2019	Phase 2: Finding Efficiencies: <ul style="list-style-type: none"> <li>• Finding efficiency improvements</li> <li>• Renewable energy planning</li> </ul>
Q1 – Q2 2019	Phase 3: Taking Action: <ul style="list-style-type: none"> <li>• Action plan development</li> <li>• Raise community awareness</li> </ul>
Q2 2019	Council approval
Following CEP approval	Implementation

## **7. Community Energy Plan Steering Committee:**

A Steering Committee will govern the delivery of the CEP. The Steering Committee will take the input and feedback from the Advisory Committee and City-wide engagement and will be responsible for:

- Identifying the community energy vision, mission statement, goals and principles;
- Identifying the community priorities and needs;
- Assessing the proposed energy efficient improvements and renewal energy planning;
- Assessing the available resources and potential partners;
- Preparing short, medium and long term actions;
- Developing a draft implementation plan; and,
- Monitoring and evaluating the progress of the action plan and periodically reviewing the CEP.

The Steering Committee will be comprised of:

- City of Hamilton, Community Planning, Planning and Economic Development;
- City of Hamilton, Office of Energy Initiatives, Public Works Department;
- City of Hamilton, Air Quality & Climate Change, Public Health Services; City of Hamilton, Geomatics and Corridor Management Office, Public Works Department;
- City of Hamilton, Transit Planning, Planning & Infrastructure Office, Public Works Department;
- City of Hamilton, Transportation Planning, Planning and Economic Development Department;
- Alectra Utilities; and,
- Enbridge/Union Gas.



## **8. City Staff – CEP Technical Team**

The CEP will be coordinated by Community Planning with the collaboration of staff from multiple departments. The City’s CEP Technical Team will be comprised of the following sections/divisions (tentative):

- Community Planning and GIS Division, Planning and Economic Development Department;
- Development Planning and Design Division, Planning and Economic Development Department;
- Urban Renewal Division, Planning and Economic Development Department;
- Growth Management Division, Planning and Economic Development Department;
- Office of Energy Initiatives, Public Works Department;
- Transportation Planning Division, Planning and Economic Development Department;
- Public Works - Hamilton Water;
- Air Quality & Climate Change, Public Health Services Department; and,
- Neighbourhoods and Community Initiatives Division, Community Services Department.

## **9. Tentative List of Stakeholders and Indigenous Communities:**

<b>Category</b>	<b>Organization/ Affiliation</b>
Elected Officials	Mayor and Councillors
City Sub-Committees	Hamilton Renewable Power Inc. Board of Directors Hamilton Utilities Corporation
Indigenous Communities	Mississaugas of the New Credit First Nation Haudenosaunee First Nations Six Nations of the Grand River Métis Nation of Ontario Hamilton Regional Indian Centre
Environmental Organizations	Environment Hamilton Clean Air Hamilton GTA Clean Air Council Hamilton Industrial Environmental Association (HIEA) Hamilton Wentworth Green Venture
Agencies	Hamilton Port Authority Hamilton International Airport Metrolinx
Academic Institutions	McMaster University Mohawk College Hamilton Public School Board

	Hamilton Separate School Board Reedemer College City Labs
Community Groups	Neighbourhood Associations/ Hubs (City Wide) Local Business Improvement Area Associations (BIAs)
Utilities	Alectra Energy Enbridge Gas (Union Gas) Hydro One Hamilton Community Energy
Industry	Hamilton-Halton Homebuilders' Association Development Industry Liaison Group (DILG) Chamber of Commerce Major energy consumers (e.g., still industries)