

## Community Energy Plan Policy Analysis

### ***Provincial Policy Statement (2014)***

The Provincial Policy Statement directs municipalities to provide opportunities for energy supply, energy conservation, and promotion of renewable and alternative energy systems, as discussed below:

#### “1.6.11 Energy Supply

1.6.11.1 Planning authorities should provide opportunities for the development of energy supply including electricity generation facilities and transmission and distribution systems, to accommodate current and projected needs.

1.6.11.2 Planning authorities should promote renewable energy systems and alternative energy systems, where feasible, in accordance with provincial and federal requirements.”

The City will outline, through the CEP, any opportunities that exist for the development of energy supply. These opportunities will include electricity generation facilities as well as transmission and distribution systems. These opportunities will accommodate existing and future energy needs. The CEP will also promote renewable and alternative energy systems while providing a framework for evaluating energy generation proposals in the City of Hamilton.

#### “1.8 Energy Conservation, Air Quality and Climate Change

1.8.1 Planning authorities shall support energy conservation and efficiency, improved air quality, reduced greenhouse gas emissions, and climate change adaptation through land use and development patterns which:

- a. promote compact form and a structure of nodes and corridors;
- b. promote the use of active transportation and transit in and between residential, employment (including commercial and industrial) and institutional uses and other areas;
- c. focus major employment, commercial and other travel-intensive land uses on sites which are well served by transit where this exists or is to be developed, or designing these to facilitate the establishment of transit in the future;
- d. focus freight-intensive land uses to areas well served by major highways, airports, rail facilities and marine facilities;

- e. improve the mix of employment and housing uses to shorten commute journeys and decrease transportation congestion;
- f. promote design and orientation which:
  - 1. maximizes energy efficiency and conservation, and considers the mitigating effects of vegetation; and
  - 2. maximizes opportunities for the use of renewable energy systems and alternative energy systems; and
- g. maximize vegetation within settlement areas, where feasible."

The CEP will support energy conservation and efficiency, improved air quality, reduced greenhouse gas emissions, and climate change adaptation through land use and development patterns by:

- 1) confirming community-wide energy consumption and Green House Gas emissions;
- 2) identifying energy and water conservation, generation, efficiency, and sustainable, cleaner and energy efficient transportation opportunities throughout the City;
- 3) developing community priorities for implementation around renewable energy and other energy infrastructure;
- 4) developing actionable items for economically viable and environmentally sustainable energy solutions;
- 5) supporting sustainable energy policies, climate change initiatives, and practices in the City; and,
- 6) by identifying appropriate planning policies to support sustainable growth and compact urban forms, energy consumption reduction, sustainable transportation solutions, and renewable energy generation.

***Ontario's Green Energy and Green Economy Act (2009),  
Ontario Regulation 397/11 (2011)***

The Ontario Green Energy and Green Economy Act (GEA) provides a Province-led, coordinated approvals framework for renewable energy projects, with clear provincial rules and transparent decision-making. The approvals framework established through the GEA and related regulations exempts most renewable energy developments from the Environmental Assessment Act process and, with some exceptions, the Planning Act process.

- “O.Reg 397/11, Section 4.1      A public agency shall prepare, publish, make available to the public and implement energy conservation and demand management plans or joint plans in accordance with sections 6 and 7 of the Act and with this Regulation.
- 4.2      An energy conservation and demand management plan is composed of two parts as follows:
1.      A summary of the public agency’s annual energy consumption and greenhouse gas emissions for its operations.
  2.      A description of previous, current and proposed measures for conserving and otherwise reducing the amount of energy consumed by the public agency’s operations and for managing the public agency’s demand for energy, including a forecast of the expected results of current and proposed measures.”

The CEP will be an energy conservation and demand management plan, which is a public document, and as such will be published and made available to the public. It will reflect the goals and objectives of the City’s Corporate Energy Policy.

The CEP will include a summary of the City’s annual energy consumption and greenhouse gas emissions for its operations; as well as a description of previous, current and proposed measures for conserving and reducing the amount of energy consumed by City operations and managing the City’s demand for energy.

### ***Province of Ontario’s Climate Change Action Plan (2016 - 2020)***

In 2016, the Province’ Climate Action Plan (2016 - 2020) was released. The intent of the plan is to help Ontario fight climate change over the long term. Several Areas of Action were set out in the plan and are broadly defined. One such Area is related to the rise in building related emissions.

Land Use Planning policies are set out in the Action Plan and will: help fight climate change; assist in the strengthening of local energy planning and mapping; and work to generally reduce traffic congestion and transportation emissions:

#### **“2.2      Support community energy planning**

Ontario intends to fund the development of Community Energy Plans and Climate Action Plans (and their supporting data) with greenhouse gas pollution inventories for municipalities and First Nation and Métis communities that currently do not have these plans. These programs would include training and

guidance to help communities access energy use data for their community energy planning and mapping.”

Through the CEP process staff will seek funding and support from the Province through their Climate Change Action Plan as it pertains to energy.

It is noted that under Bill 139 the Province has amended the Planning Act to give other Provincial Plans the same status as the Growth Plan and the Greenbelt Plan.

### ***Growth Plan for the Greater Golden Horseshoe (2017)***

One of the Guiding Principles of the Plan is to integrate climate change considerations into planning and managing growth such as planning for more resilient communities and infrastructure – that are adaptive to the impacts of a changing climate – and moving towards low-carbon communities, with the long-term goal of net-zero communities, by incorporating approaches to reduce greenhouse gas emissions.

The Growth Plan intends to accommodate projected growth within complete communities. These communities will support climate change mitigation by increasing the opportunities for transit and active transportation and by minimizing land consumption through compact built form.

Building compact and complete communities, and protecting agricultural lands, water resources and natural areas will help reduce greenhouse gas emissions and ensure communities are more resilient to the impacts of climate change.

With respect to energy efficiency, the Growth Plan directs the following:

#### “3.2.1 Integrated Planning

2. Planning for new or expanded infrastructure will occur in an integrated manner, including evaluations of long-range scenario-based land use planning and financial planning, and will be supported by infrastructure master plans, asset management plans, community energy plans, watershed planning, environmental assessments, and other relevant studies where appropriate, and should involve:
  - a) leveraging infrastructure investment to direct growth and development in accordance with the policies and schedules of this Plan, including the achievement of the minimum intensification and density targets in this Plan;
  - b) providing sufficient infrastructure capacity in strategic growth areas;
  - c) identifying the full life cycle costs of infrastructure and developing options to pay for these costs over the long-term; and
  - d) considering the impacts of a changing climate.”

The CEP will support the Growth Plan through the review of existing and planned municipal infrastructure as it will consider the impacts of climate change.

#### “4.2.9 A Culture of Conservation

1. Municipalities will develop and implement official plan policies and other strategies in support of the following conservation objectives:
  - b. energy conservation for existing buildings and planned developments, including municipally owned facilities, including through:
    - i. identification of 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 processes, and in the development of conservation and demand management plans;
    - ii. land use patterns and urban design standards that support energy efficiency and demand reductions, and opportunities for alternative energy systems, including district energy systems; and
    - iii. other conservation, energy efficiency and demand management techniques to use energy wisely as well as reduce consumption.”

Energy Efficiency, Increased Energy Supply, and Renewable Energy and Alternative System Locations are all addressed in Section B.3.7 of the UHOP. The CEP will review these policies to ensure that they are consistent with the Places to Grow (2017) Plan and provide a Culture of Conservation in Hamilton. Any necessary policy updates to the UHOP will be made through an Official Plan Amendment.

#### “4.2.10 Climate Change

1. Upper- and single-tier municipalities will develop policies in their official plans to identify actions that will reduce greenhouse gas emissions and address climate change adaptation goals, aligned with the Ontario Climate Change Strategy, 2015 and the Climate Change Action Plan, 2016 that will include:
  - a. supporting the achievement of complete communities as well as the minimum intensification and density targets in this Plan;
  - b. reducing dependence on the automobile and supporting existing and planned transit and active transportation;
  - c. assessing infrastructure risks and vulnerabilities and identifying actions and investments to address these challenges;

- d. undertaking stormwater management planning in a manner that assesses the impacts of extreme weather events and incorporates appropriate green infrastructure and low impact development;
  - e. recognizing the importance of watershed planning for the protection of the quality and quantity of water and the identification and protection of hydrologic features and areas;
  - f. protecting the Natural Heritage System and water resource systems;
  - g. promoting local food, food security, and soil health and protecting the agricultural land base;
  - h. providing direction that supports a culture of conservation in accordance with the policies in subsection 4.2.9; and
  - i. any additional policies to reduce greenhouse gas emissions and build resilience, as appropriate, provided they do not conflict with this Plan.
2. In planning to reduce greenhouse gas emissions and address the impacts of climate change, municipalities are encouraged to:
- a. develop strategies to reduce greenhouse gas emissions and improve resilience through the identification of vulnerabilities to climate change, land use planning, planning for infrastructure, including transit and energy, green infrastructure, and low impact development, and the conservation objectives in policy 4.2.9.1;
  - b. develop greenhouse gas inventories for transportation, buildings, waste management and municipal operations; and
  - c. establish municipal interim and long-term greenhouse gas emission reduction targets that support provincial targets and reflect consideration of the goal of low-carbon communities and monitor and report on progress made towards the achievement of these targets.”

The UHOP contains policies on Climate Change and as part of the City’s Municipal Comprehensive Review the current UHOP / RHOP policies will be reviewed / assessed and updated as required. A creation of a CEP will enable the City to review these policies and implement modifications if required.

### ***Greenbelt Plan (2017)***

An element of the vision of the Greenbelt Plan is to build resilience to and mitigate climate change.

Furthermore, the goals of the Plan include the enhancement of urban and rural areas and the overall quality of life by promoting the Climate Change issues within the Protected Countryside, specifically:

- “1.2.2.6 a) Integrating climate change considerations into planning and managing the Agricultural System, Natural Heritage System and Water Resource System to improve resilience and protect carbon sequestration potential, recognizing that the Natural Heritage System is also a component of green infrastructure; and
- b) Integrating climate change considerations into planning and managing growth that includes incorporating techniques to reduce greenhouse gas emissions, and increasing the resilience of settlement areas and infrastructure within the Greenbelt.”

“2.4.2 For lands within the Protected Countryside, the following policies shall apply:

5. Municipalities shall integrate climate change considerations into planning and managing growth in settlement areas in accordance with the policies in subsection 4.2.10 of the Growth Plan.”

The CEP will works towards developing policies that will address growth management as it pertains to the reduction of greenhouse gas emissions.

***Community Emissions Reduction Planning: a Guide for Municipalities (Draft 2017)***

In January 2018, the Ministry of Environment and Climate Change (MOECC) released a draft of the document: Community Emissions Reduction Planning: A Guide for Municipalities on the Province’s EBR Registry. These guidelines are intended to help municipalities develop long term strategies for supporting their communities in making the transition to a low carbon future.

The Guidelines are intended to support Ontario municipalities for two purposes:

- 1) to support action under Ontario’s Five Year Climate Change Action Plan. This Plan envisions a significant role for municipalities in the fight against climate change with two new funding programs: i) the Municipal Action Plan Program which supports municipal GHG reduction planning, and ii) the Municipal GHG Challenge Fund which supports municipal GHG reductions projects.
- 2) New Policy direction in the Growth Plan for the Greater Golden Horseshoe, 2017 has been made under the Coordinated Provincial Plans Review. This direction encourages municipalities to develop GHG reduction plans, through Official Plan conformity, complete GHG inventories, and to establish interim and long-term GHG reduction targets.

The Guidelines provide an overview of how municipalities can develop community energy and emissions plans and strategies.

1) Preparation:

The plan objectives, partners, data sources, and process approach are identified.

2) Inventory:

An energy use and emissions production inventory (sources, amounts) is completed for a base year, providing the basis of future scenarios development, and creating a reference against which future inventories and policy and action affects can be measured.

3) Target Setting:

Energy and emissions reduction targets are established.

4) Action and Scenario Development:

Potential actions and policies that reduce energy and emissions are identified and bundled into scenarios. A preferred scenario that achieves the target is selected and the actions within the scenario are prioritized.

5) Implementation:

The policies and actions developed are implemented by the municipality and its partners.

6) Monitoring and Evaluation:

Implementation of the policies and actions are monitored for their effectiveness. Feedback is applied to the next iteration of the planning process.

As outlined in the CEP Terms of Reference (attached to Report PED18057 as Appendix “A”) staff have developed a system which is consistent with the process suggested by the Province. In Phase 1 of the City’s CEP work plan baseline emission levels will be determined, background research will be completed including inventories, and targets will be set. In Phase 2 of the CEP, energy efficiency improvements will be defined as well as the evaluation of renewable energy planning and generally renewable energy planning. Phase 3 of the CEP will develop an action plan and raise community awareness.

Stakeholder and public engagement will be an important part of developing the City’s CEP. It will build upon the extensive consultation undertaken for the Hamilton Community Climate Change Action Plan (2011) and Our Future



Hamilton. This effective public engagement will ensure information exchange, discussion, ownership, and successful implementation.

### ***Our Future Hamilton***

The proposed CEP aligns with the City’s Community Vision Statement (Our Future Hamilton), which includes advancing environmental sustainability and stewardship through the Clean and Green community priorities:

- “- Reduce and eliminate pollution so that everyone has clean air, water and land;
- Use clean energy to protect our air quality and reduce our contributions to global climate change;
- Improve public transportation and active transportation options to reduce our impact on the environment; and,
- Improve buildings and operations to reduce energy use.”

The extensive engagement undertaken during the development of Our Future Hamilton revealed that top priorities for Hamilton residents included: the advancement of environmental responsibility and stewardship, including the reduction of contribution to climate change; to strive to be a zero waste community; the protection and improvement of water and air quality; the preservation and rehabilitation of the City’s natural ecosystems; and the transition to more sustainable practices (“Our Future Hamilton: Communities in Conversation”, Appendix “A” to Report CM15001(a) / CES15010(a)). A CEP will guide the community efforts towards achieving these components of the Vision.

### ***City of Hamilton Urban Official Plan***

Directions from the Urban Hamilton Official Plan (UHOP) on energy efficiency indicate that:

- “B.3.7.1 The City supports energy efficient land use patterns. The policies of this Plan, in particular, Policy B.3.3.2.8, C.4.2.8 – Urban Design and Complete Streets, and E.2.0 – Urban Structure, support:
- a) a compact urban form with a nodes and corridors urban structure;
  - b) development of mixed use urban environments that support public transit and active transportation;
  - c) employment opportunities in proximity to housing thereby reducing commuting distances and traffic congestion; and,
  - d) designs that facilitate the establishment or expansion of public transit in the future.

"B.3.7.2 The City shall support energy efficient and environmental designed development through:

- a) approval of planning applications, including applications for zoning by-law amendments, site plan approval, and plans of subdivision or condominium, as appropriate;
- b) the use of environmental building rating systems such as certification under the Leadership in Energy and Environmental Design (LEED) program or an equivalent rating system for upgrading/retrofitting of existing development and new development;
- c) designs which use renewable energy systems or alternative energy systems;
- d) designs which use cogeneration energy systems;
- e) designs which minimize building heat loss and capture or retain solar heat energy in winter, and minimize solar heat penetration in summer. Consideration shall be given to such measures as green roofs or reflective roofs, discouraging excessive surface parking, allowing direct access to sunlight, and effective landscaping;
- f) building or structure orientations that maximize solar or wind energy;
- g) designs that encourage sustainable forms of transportation, including active transportation, transit, and energy conserving vehicles;
- h) designs that facilitate cooperation/joint energy efficiency between developments to optimize the efficient use of resources;
- i) energy conservation initiatives, including energy demand management;
- j) water and storm water conservation/management practices such as green roofs, water recycling systems, urban storm water swales, etc.;
- k) encouraging the use of reclaimed building materials as appropriate;
- l) pilot projects and community energy plans as appropriate; and,
- m) other environmental development standards that encourage energy efficiency and environmental design as contained in the City's

approved engineering policies and standards and master planning studies, and are supported by the City’s financial incentive programs.”

The CEP will review existing UHOP policies and determine whether or not any improvements can be made to encourage, promote, and improve the existing policies which speak to land use patterns. Also, the CEP will support energy conservation and efficiency through the confirmation of community-wide energy consumption and Green House Gas emissions. It will also explore the feasibility of Renewable Energy Projects; appropriate planning policies; and methods and uses, in consultation with Hamilton Utilities Corporation.

The CEP will develop a system of community priorities for implementation around renewable energy and other energy infrastructure, including a Home Energy Retrofit Opportunity (HERO) and Local Improvement Charges (LIC) programs for the City.

### ***City of Hamilton Rural Official Plan***

Directions from the Urban Hamilton Official Plan (RHOP) on energy efficiency indicate that:

#### “Energy Efficiency

- B.3.7.1 The City shall support energy efficient, low impact, and environmental designed development through:
- a) approval of planning applications, including applications for zoning by-law amendments, site plan approval, and plans of subdivision or condominium, as appropriate;
  - b) the use of environmental building rating systems such as certification under the Leadership in Energy and Environmental Design (LEED) program or an equivalent rating system for upgrading/retrofitting of existing development and new development;
  - c) designs which use renewable energy systems or alternative energy systems;
  - d) designs which use cogeneration energy systems;
  - e) designs which minimize building heat loss and capture or retain solar heat energy in winter, and minimize solar heat penetration in summer. Consideration shall be given to such measures as green roofs or reflective roofs, discouraging excessive surface parking, allowing direct access to sunlight, and effective landscaping;

- f) building or structure orientations that maximize solar or wind energy;
- g) designs that encourage sustainable forms of transportation and facilitate transportation demand management, including active transportation and energy conserving vehicles;
- h) designs that facilitate cooperation/joint energy efficiency between developments to optimize the efficient use of resources;
- i) energy conservation initiatives, including energy demand management;
- j) water and storm water conservation/management practices such as green roofs, water recycling systems, etc.;
- k) encouraging the use of reclaimed building materials as appropriate;
- l) pilot projects and community energy plans as appropriate; and,
- m) other environmental development standards that encourage energy efficiency and environmental design as contained in the City’s approved engineering policies and standards and master planning studies, and are supported by the City’s financial incentive programs.

B.3.7.2 Corporately, the City shall support energy efficiency by:

- a) implementing the City’s approved Corporate Energy Policy;
- b) participating in energy conservation programs;
- c) supporting City and City/private partnership pilot projects which are energy efficient and have good environmental design;
- d) marketing and educational initiatives; and,
- e) advocating/lobbying senior levels of government for programs and funding to support energy efficiency and environmental design, and for changes to the Building Code Act and Regulations.”

The CEP will review RHOP policies to determine what improvements can be made to improve energy efficiency. Furthermore, there will be an opportunity to identify new programs and policies which could be adopted by the municipality, to implement RHOP policy and improve energy efficiency.

“B.3.6.2.1 The City shall partner with community groups, such as Clean Air Hamilton, to develop actions to reduce air pollutants and improve air quality.

B.3.6.2.2 The City shall partner and work with other levels of governments, other municipalities, academics, community groups, and local industries to develop:

a) actions that reduce air pollutants and greenhouse gases, improve air quality, reduce and respond to the impacts of climate change in the City; and,

b) a Hamilton Air Quality and Climate Change Plan.

The CEP will provide an opportunity to create new partnerships with stakeholders who can work with the City in order to mitigate the impacts of greenhouse gases on the community.

“B.3.6.2.5 The City may partner with other organizations to monitor, track, and assess the conditions of Hamilton’s local air quality and climate to identify local emission sources and take action to reduce air pollutant and greenhouse gas emissions at these sources.”

Finally, the CEP will establish baseline data related to energy consumption and GHG emissions. This data will allow the City monitor, track, and asses the conditions of Hamilton’s air quality and determine methods to improve these conditions.