



Hamilton

Energy and Climate Change Assessment Report (Urban Boundary Expansion Application)

PURPOSE:

This document explains the process for the completion of an Energy and Climate Change Assessment Report which is a requirement for the submission of an urban boundary expansion application under the *Planning Act*. The Report builds upon Hamilton's Climate Action Strategy which was approved by Council in August 2022 and includes the Community Energy and Emissions Plan (CEEP) that outlines the goal of achieving net zero emissions (carbon neutrality) by 2050, and the Climate Change Impact Adaptation Plan. All Energy and Climate Change Assessment Reports shall follow the requirements in this guideline.

The purpose of the Energy and Climate Change Assessment Report is to provide the City with applicable information to evaluate a number of criteria related to climate change adaptation and mitigation, including Greenhouse Gas (GHG) emission reductions. Based on this information, the Report must assess whether the proposed boundary expansion adversely impacts the ability of the City to achieve carbon neutrality and identify any specific land use policies, measures or actions proposed for the expansion area to mitigate climate change impacts.

The Energy and Climate Change Assessment Report is a critical component of an urban boundary expansion application which, together with other submission requirements including the Subwatershed Study (Phase 1), Financial Impact Analysis, Housing Assessment and Agricultural Impact Assessment informs the City of the long term environmental, social, and financial implications to the City.

PREPARED BY:

Where an Energy and Climate Change Assessment Report is required, the required information should be incorporated into a Planning Justification Report as a separate section. Energy and Climate Change Assessment Reports are required to be prepared by a Registered Professional Planner (RPP), Certified Energy Manager (CEM) or Certified Energy Auditor (CEA).

CONTENTS:

A preliminary consultation with staff may be required prior to preparing an Energy and Climate Change Assessment Report to confirm the terms of reference for the report. The contents of this Report shall be based on the information provided in support of the urban boundary expansion application including Concept Plan, Planning Justification Report, Subwatershed Impact Study (Phase 1) and Housing Assessment. An Energy and Climate Change Assessment Report shall include:

1. **Site Design** – The Report shall assess if/how the site design elements for the potential expansion and/or proposed concept will mitigate urban heat island effect and preserve or protect natural heritage. Information related to natural heritage is to be based on the applicant's Subwatershed Impact Study (Phase 1) and should include a list of natural assets and planned management, retention, expansion, or enhancement of existing features and/or addition of new features.
2. **Land Use Patterns** – The Report shall assess the transportation related impacts of the proposed urban expansion on GHG emissions. Referencing or building upon the information submitted as part of the Transportation Impact Study, Transit Assessment and Pedestrian Route and Sidewalk Analysis, this study shall provide modelled GHG emissions based on vehicle kilometres travelled to key destinations. The Report shall identify opportunities related to land use patterns and transportation and would ideally provide information on active and sustainable transportation opportunities within and connecting to the potential boundary expansion from abutting urban areas.
3. **Building Design and Use** – The Report shall identify how the proposed urban boundary expansion will allow for energy efficient low carbon building design (e.g., LEED rating system, passive housing). This includes information on the feasibility of providing Electric Vehicle Supply Equipment, climate resilient building design (e.g. air source heat pumps, building orientation to facilitate solar panels) to the entire boundary expansion area (as informed by proposed Concept Plan). This section can reference requirements from the City's Green Building Standards which would be implemented through subsequent planning approvals.
4. **Overall GHG Emissions** – The Report shall include analysis of the overall GHG emission impacts of the proposed urban boundary expansion to model and demonstrate how the expansion will impact the City's net-zero goal as identified in the CEEP. The assumptions used in the modelling shall be based on key assumptions included in the information submitted as part of the complete urban boundary expansion application (e.g. population, employment, dwelling units, industry type, transportation modal split, energy impacts, etc). This analysis shall include any measures planned for that would reduce emissions (e.g., building design, energy sources, etc.) and identify how/where they would be incorporated into planning approval.

5. **Renewable Energy Feasibility Review** – The Report shall assess whether the potential urban boundary expansion could feasibly be serviced or is planned to be serviced by renewable energy, alternative energy systems, or district energy and why. Details on how/why energy supply options are feasible should be provided (e.g., site size, design, study that has been conducted, assessments that will be conducted, etc.). Detail should be provided on whether energy providers have been contacted or engaged with as part of this consideration. If renewable energy systems are proposed, the Applicant's Planning Justification Report shall discuss how these would be incorporated into subsequent planning approvals (e.g. Secondary Plan, Draft Plan of Subdivision).
6. **Water Conservation and Management** – The Report shall provide information within the EEA Report regarding the approach to water conservation, stormwater management, and low impact design. The report should demonstrate how the potential urban boundary expansion will consider stormwater management and promote green infrastructure and low impact development. It should also demonstrate the feasibility and potential opportunities for water conservation at a strategic level. It is noted that this could overlap with the Functional Servicing Report and Subwatershed Impact Study (Phase 1) submission requirements.
7. **Energy and Climate Change Targets** – The Report shall include targets and objectives as it pertains to energy and climate change within the Report. These targets/objectives shall form part of the Planning Justification Report and Draft Official Plan Amendment(s). The above Report requirements are assumed to be based, at a minimum, on the Concept Plan. However, it is recognized that an Official Plan Amendment for urban boundary expansion may be a first step in the application process whereby further assessment and more detailed planning is completed for a subsequent Secondary Plan. As such, the analysis and feasibility demonstrated within the Report in regard to site design, GHG emissions, land use efficiency patterns, building design, and energy would ideally result in targets/objectives that would guide the secondary planning for the urban boundary expansion as part of implementation.

OTHER INFORMATION:

City of Hamilton - Community Energy & Emissions Plan
City of Hamilton - Climate Change Impact Adaption Plan
City of Hamilton - Better Homes Hamilton Program
City of Hamilton – Green Development Standards

REVIEWED AND APPROVED BY: Planning Division, Planning and Economic Development Department

A peer review of an Energy and Climate Change Assessment Report may also be required.

CONTACT:

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