

Ottawa, Canada

Project city profile

City Description

The City of Ottawa is the capital of Canada and the fourth largest municipality in the country by population. Its boundary encompasses an urban area surrounded by a large and varied countryside, including prime agricultural lands and broad plains as well as wetlands and forests. Ottawa is also known for its vast rivers and waterways, which have played a distinct role in shaping the city's history, culture and economy.

Initially, the center of Canada's timber industry, economic activity in the city has evolved over the years and is currently defined, to a large extent, by federal employment. As part of the National Capital Region, the City partners with the federal government as well as with the City of Gatineau, Quebec on a range of issues, from the health of the shared interprovincial



Sustainability Profile

The City has undertaken a variety of environmental and sustainability initiatives in the past 15 years. In 2005, Ottawa's City Council approved an Air Quality and Climate Change Management Plan that outlined specific greenhouse gas reduction targets for both the corporation and the community.

In 2014, the City Council of Ottawa in a Provincial Policy Statement stated that the "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." The Policy Background went into details on how to achieve these goals, including compact city development, low carbon development, maximize green space and design, and orientation to favor sustainable infrastructure. The below sections detail Ottawa's current sustainability initiatives.

Facts & Figures

Population / Land area
912,000 / 2,760 km²

Municipal budget
\$3.07 billion

Mayor
Mr. Jim Watson

Project partner city
Hannover

Website
www.ottawa.ca/en

Development and building sector

In 2014, the City Council of Ottawa background document, "City of Ottawa Official Plan," stated that the city will target the reduction of greenhouse gas emissions through the development and building sector, specifically through:

- Compact urban form: Building multiple unit housing, in an attempt to replace the single detached home model;
- Energy efficient patterns: Implementing grid patterns in urban design and street layouts to avoid urban sprawl;
- Mix land use: Using building space and new development for residential and commercial use;
- Sustainable sites and building design: Building and renovating buildings to adhere to LEED standards;
- Renewable sources/energy utility: Increasing use of solar panels and efficient boilers on buildings; and
- Transportation section: Increasing the use of energy efficient modes through aggressive modal split targets.

Green buildings

Approved by City Council in 2005, the Green Building Policy requires all newly constructed buildings, that are larger than 500 sq, to have minimum certification of LEED. The policy encourages the implementation of sustainable design including retrofitting, renovation, and heritage projects.

The City Council of Ottawa has taken many steps to increase the number of green buildings within Ottawa including:

- Canal Building: The 100,000 sq ft building has LEED Gold standard through its smart green roof, photovoltaic panels, water saving technology, and other features;
- Flaherty Building: The 700,000 sq ft for the Government of Canada offices has a LEED Gold Standard through its responsive material selection, green roofs, use of natural light, pedestrian environment, other features: and
- Ampersand: The mixed-use neighborhood with over 1,000 homes and 75,000 sq ft for commercial use is LEED Platinum with energy conserving features, PV panels, permeable pavements, easy access to public transit, and other features.

Carbon 613, engaging with local businesses

Carbon 613 is an initiative to engage the commercial sector to reduce greenhouse gas emissions. Carbon 613 is a target based sustainability program designed for private businesses to help achieve set sustainable goals and targets including tracking and reporting progress, access to support and collaboration with sustainable experts and leaders, identifying cost-effective reduction projects, and public recognition for achievements. Carbon 613 supports the City of Ottawa's climate change plans to reduce 20% in per capita emissions.

Project team

Lead Coordinator

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the Environment Committee,
Councillor's Row

Deputy Coordinator

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Thematic areas and goals

Ecosystem services

Ecosystem services are an important priority of the City of Ottawa. Ottawa is currently building an EcoDistrict in the city center, comprised of 300 buildings and 1,600 business, 11 hotels, 25 apartment complexes, and green spaces. The goals of the EcoDistrict are to reduce the ecological footprint of operations; to increase social vibrancy; and to attract new business to create jobs. The EcoDistrict has made community engagement a core value through the establishment of networks, community engagement sessions, and online forums.

Goals: Ottawa hopes to exchange information about different EcoDistricts and neighborhoods. Ottawa would like to learn more about how cities incorporate ecosystems into city planning and how to best combine these efforts with waste water management and resiliency to flooding. Ottawa is also interested about community involvement and political support in these projects.

Resilience and adaptation

In the 2014 “City of Ottawa Official Plan,” Ottawa made substantial commitments to adapt to the effects of climate change. The Plan seeks to do so by reducing the urban heat island effect through landscaping, tree planting, courtyards and innovative green spaces with permeable surfaces as well as through green building measures including green roofs and walls.

Stormwater management has been a high priority as floods have affected many areas of Ottawa in recent years. In the last 30 years, the City of Ottawa has greatly enhanced their policy towards stormwater management towards its current strategy of “Low Impact Development”. The main aim is to manage rain where it falls through filter, infiltration, and increasing parks and green zones. “Low Impact Development” increases resiliency to severe rainfall events and possible flooding scenarios. Green streets are implemented using soil and plants to manage runoff as well as permeable pavements to replace parking lots and spaces. The City of Ottawa also encourages home owners to incorporate front yard soak-ways to store roof runoff to avoid overflow of the storm sewer system.



Solar panels on a high school, Ottawa



Bike lanes in Ottawa



Community engagement meeting in Ottawa East

Goals: Ottawa hopes to learn from other local governments about how to best adapt and increase resiliency in storm water management. As flooding is increasing in recent years, and is a huge issue for local authorities, especially in dense neighborhoods, understanding other infrastructure to avoid these disasters is a priority. Ottawa is also interested in learning how urban design, in existing older neighborhoods closer to downtown, can be adapted to include adaptive measures and infrastructure.

Low-carbon development

Ottawa has taken a number of steps to reduce carbon emissions. The Energy Management and Investment Strategy has invested over \$14 million since 2004 to reduce utility costs, commission a landfill-gas electricity generation facility, introduce a “Green Bin” organics diversion program, and establish a municipal Green Building Policy. Other targets include reducing fossil-based energy consumption, particularly in the residential sector; and increasing local renewable energy production.

Other specific interests include:

- Long-range energy and emissions planning out to 2050 (understanding short-, medium and long-term planning horizons and implementation phases with regards to deep emissions reductions);
- Developing a roadmap for achieving a 100% renewable energy Ottawa by 2050; and
- Identifying strategies and best practices for engaging residents and community organization in the development/ownership of community-based renewable energy projects.

Ottawa is also taking steps to increase its modal shift. Bike path and ways have been built, along main roads and in parks, and a bike sharing program has recently been implemented in the downtown corridor. Current plans aim to increase bike connections to the new EcoDistricts and to nearby neighborhoods. In addition, a new light-rail transit system is being planned to reduce congestion and greenhouse gas emissions considerably within the city.

Goals: Ottawa is interested in learning about ways it might be able to reach its goal of reducing GHG emissions to 4.6 t eCO₂ per capita by 2024. Ottawa wishes to exchange on other low carbon development goals and how other cities seek to achieve these. As car ownership is high in many parts of Canada, Ottawa would like to learn how to increase use of modal forms of transport especially bicycles. Ottawa is also interested in understanding the impact of political support in reducing carbon emissions.



Representatives from the City of Hannover meet with the Mayor of Ottawa, Jim Watson, Councillor David Chernushenko, and other city officials at Town Hall in Ottawa, July 2015

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