



City of Ottawa
Sustainable Debenture Framework
December 2023

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About Ottawa

The City of Ottawa (“Ottawa” or the “City”) is the National Capital of Canada and is the fourth largest city in Canada and second largest in the Province of Ontario. Ottawa is committed to advancing “a more sustainable, resilient, and liveable future,” as well as promoting environmentally sustainable development.

Sustainability is at the core of the City’s operations which span family and social services, health and public safety, recreation and culture, arts and heritage, parks, roads and travel, garbage and recycling, urban planning and economic development. As a municipal government, the City is responsible for public programs and services that over a million residents rely on every day, and many projects funded by the City seek to advance social, green, or both objectives. The City became the first Canadian municipality to issue a Green Bond in November 2017, and has since issued four Green Bonds totaling C\$1.027 billion.

In January 2020, the City approved its Climate Change Master Plan, which aims to take unprecedented collective action to transition Ottawa into a clean, renewable and resilient city by 2050. In order to mitigate and adapt to climate change over the coming decades, the following ambitious intermediate targets have been set:

- Reduce greenhouse gas emissions from the community by 43% by 2025, 68% by 2030, 96% by 2040 and 100% by 2050 (compared to 2012 levels)
- Reduce greenhouse gas emissions from City operations by 30% by 2025, 50% by 2030 and 100% by 2040 (compared to 2012 levels)

The Climate Change Master Plan identifies eight priority actions for the 2020-2025 period:

1. Implement Energy Evolution, an action plan for how Ottawa will meet greenhouse gas emissions reduction targets
2. Undertake a climate vulnerability assessment and develop a climate resiliency strategy
3. Apply a climate lens to the new Official Plan and its supporting documents
4. Apply a climate lens to asset management and capital projects
5. Establish a carbon budget and accounting framework and explore the feasibility of including embodied carbon
6. Explore carbon sequestration methods and the role of green infrastructure
7. Encourage community action through education, incentives, support and advocacy to senior levels of government
8. Develop a governance framework to coordinate stakeholder efforts and mobilize the community

The City publishes an annual status update on corporate and community greenhouse gas emissions, progress towards the targets and the eight priority actions on its [website](#).

- The City has created, developed and implemented ambitious initiatives in order to achieve its sustainability objectives, such as: Loan Programs for energy efficiency retrofits that aims to support local residents and businesses to reduce energy consumption and greenhouse gas emissions
- Commitment to supporting the transition to electric vehicles: Ottawa’s public transportation subsidiary, OC Transpo, is targeting a zero-emissions bus fleet by 2036

- Ottawa Public Health’s free drop-in services to all residents of Ottawa at accessible Neighborhood Health and Wellness Hubs, which services include vaccination, employment and social services, dental screening, mental health, addictions and substance use health, parenting, and diabetes screening
- Municipal affordable housing programs such as Action Ottawa, Ontario Renovates Program and Homeownership Down Payment Assistance to improve housing affordability for eligible low-income families in subsidized housing and helps eligible low and moderate income households with housing costs
- The Water Utility Deferral Program for low-income seniors and people with disabilities which allows eligible individuals to have their water bill payments deferred

Sustainable Debenture Framework

Building on the Green Debenture Framework first published in 2017, the City has developed an updated Sustainable Debenture Framework (“Framework”) under which it may issue three types of debentures (“Debentures”):

1. Green Debentures – debenture instruments where the proceeds will be exclusively applied to finance or refinance, in part or in full, new and/or existing Green Projects (as defined in “Use of Proceeds” below) and which are aligned with the four core components of this Framework.
2. Social Debentures – debenture instruments where the proceeds will be exclusively applied to finance or refinance, in part or in full, new and/or existing Social Projects (as defined in “Use of Proceeds” below) and which are aligned with the four core components of this Framework.
3. Sustainability Debentures – debenture instruments where the proceeds will be exclusively applied to finance or refinance, in part or in full, new and/or existing Green Projects and Social Projects (as both terms are defined in “Use of Proceeds” below) and which are aligned with the four core components of this Framework.

Following the International Capital Market Association (“ICMA”) Green Bond Principles (2021), Social Bond Principles (2023) and Sustainability Bond Guidelines (2021), the Framework is based on four core components:

1. Use of proceeds
2. Process for evaluation and selection
3. Management of proceeds
4. Reporting

The Framework also describes the manner in which the City’s Green, Social and Sustainability Debentures support and contribute towards meeting the United Nations Sustainable Development Goals (SDGs). Upon issuance, additional details regarding the objective of the Debenture and Eligible Projects (defined below) may be disclosed.

Use of Proceeds


The City intends to allocate an amount equivalent to the net proceeds from the sale of any green, social or sustainable debenture issuances to finance or refinance, in whole or in part, one

or more new or existing Eligible Green and/or Social Projects in the following Eligible Categories (the “Eligible Projects”).





The lookback period to allocate debenture proceeds to Eligible Projects is 3 years from the time of issuance. In accordance with Ontario Municipal Act, debenture proceeds must be fully allocated to specific capital projects at the time of issuance and included in the certified debenture by-law.





Eligible Green and Social projects are outlined below:


Green Categories

Eligible Project category	Eligible Categories	UN SDG Alignment
Renewable Energy	<p>Construction, development, acquisition, maintenance, connection, transmission and distribution of renewable energy generation sources such as:</p> <ul style="list-style-type: none"> a) Wind b) Green Renewable Natural Gas c) Hydrogen (>36.4g CO₂e/MJ) d) Solar e) Geothermal with direct emissions less than 100gCO₂/kWh f) Wastewater energy transfer g) Waste biomass with direct emissions less than 100g of CO₂/kWh h) Run of river and small-scale hydroelectricity less than 25 MW; Hydroelectricity projects greater than 25 MW must meet power density or lifecycle emissions thresholds¹ 	


¹ For hydropower projects greater than 25 MW, emissions intensity threshold of 100g CO₂e/kWh and a power density threshold of 5 W/m² must be met for facilities initially operational prior to 2020, and thresholds of 50g CO₂e/kWh and 10 W/m² respectively for facilities initially operational during or after 2020

Eligible Project category	Eligible Categories	UN SDG Alignment
Energy Efficiency	<p>Construction, development, acquisition and maintenance of products and systems (excluding fossil-fuel powered equipment) that increase energy efficiency and/or reduce energy consumption or mitigate greenhouse gas (GHG) emission intensity by 30% or more over the baseline, including any of:</p> <ul style="list-style-type: none"> a) Energy efficient heating and cooling systems, lighting, technologies and equipment b) Energy storage, energy management and reduction systems such as smart grids, demand response units and associated infrastructure that enables more efficient monitoring transmission and distribution of energy, facilitation of adding renewable electricity to the grid c) Building energy retrofit projects and building control optimization projects that reduce energy consumption or increase energy efficiency 	 
Pollution Prevention and Control	<p>Construction, development, acquisition and maintenance of land, facilities, systems or equipment used for activities such as:</p> <ul style="list-style-type: none"> a) Development and enhancement of waste management activities such as waste prevention, diversion, reduction, recycling and recovery b) Collection, treatment/remediation, recycling or reuse of emissions, waste, hazardous waste, or contaminated soil c) Collecting, transporting, and processing of recyclables, composting, and household hazardous waste for the public 	 

Eligible Project category	Eligible Categories	UN SDG Alignment
Clean Transportation	<p>Construction, development, acquisition and maintenance of low carbon transportation assets, including:</p> <ul style="list-style-type: none"> a) Fully electric, hydrogen, or other zero-direct emissions transport including private vehicles, public transit such as public bus fleet and the light metro transit system, and their directly supporting infrastructure b) Cycling and walking infrastructure c) Electric charging and hydrogen fuelling infrastructure 	
Sustainable Water Management	<p>Construction, development, acquisition and maintenance of infrastructure for:</p> <ul style="list-style-type: none"> a) Sustainable infrastructure for clean water and water efficiency b) Wastewater treatment and management c) Drainage, water collection and management systems and other forms of flooding mitigation including nature-based solutions for stormwater management and hard infrastructure d) Flood mitigation for riverine, urban and overland flooding 	
Environmentally Sustainable Management of Natural Resources and Land Use	<p>Construction, development, acquisition and maintenance of infrastructure for:</p> <ul style="list-style-type: none"> a) Conservation, restoration and ongoing management of forests, wetlands, watercourses (stream bank stabilization or naturalization) and other natural habitats and landscapes across the City, including parks, forests, islands, wetlands, woodlands and Conservation Areas b) Projects that support, protect or restore biological diversity in urban areas such as green roofs, parks and other green spaces 	 


Eligible Project category	Eligible Categories	UN SDG Alignment
<p>Climate Change Adaptation and Resilience²</p>	<p>Construction, development, acquisition and maintenance of infrastructure for:</p> <ul style="list-style-type: none"> a) Designing, retrofitting, installation and/or upgrading of buildings, berms, pumping stations, transit, transportation and other infrastructure to mitigate physical impacts of climate change and build resilience to extreme weather events such as high wind, flooding, extreme temperatures, ice storms or extended power outages b) Climate risk information and communication systems (e.g., climate observation, early-warning systems) and related projects, including risk and preparedness assessment and monitoring; heat/air quality mapping; integrated water-drainage modelling; Climate Lens approach development. c) Community outreach and capacity building to support climate risk mitigation and preparedness d) Distributed energy generation and storage and other electrical back-up power systems 	

² Need and applicability to be further informed by a climate vulnerability assessment




Eligible Project category	Eligible Categories	UN SDG Alignment
<p>Green Buildings</p>	<p>Construction, development, operation, acquisition and maintenance of buildings that meet at least one of these criteria:</p> <p>a) Received, or expect to receive based on their design, construction and operation plans, certification according to the following third party verified building standards:</p> <ul style="list-style-type: none"> • LEED Gold or Platinum • BOMA BEST Gold or Platinum • ENERGY STAR (score >85) • BuiltGreen High Density Gold or Platinum • NovoClimat Big-Multiple Unit Building • Passive House Classic, Plus or Premium • CaGBC Zero Carbon Building Standard (Flexible, Passive or Renewable³) <p>b) Buildings that align with the criteria set out in the City's High Performance Development Standard, Tier 2</p>	

³ CaGBC Zero Carbon Building Standard Passive and Renewable Certification approaches must achieve a 20% improvement over The National Energy Code of Canada for Buildings (NECB) 2015 or later in order to qualify

Social Categories

Eligible Project category	Eligible Categories	UN SDG Alignment
Affordable Basic Infrastructure	<p>Funding of facilities, services, systems or equipment that enhance the affordability of basic municipal infrastructure, examples of which include clean drinking water, sewers, sanitation, transport, energy.</p> <ul style="list-style-type: none"> a) Safe, affordable and universal accessibility improvements to transportation infrastructure, such as pedestrian crossovers, audible traffic and crosswalk signals, and improving accessible public transportation b) Providing sustainable water and wastewater management such as clean and sustainable drinking water to the public, including those in rural areas⁴, as well as storm water management, sustainable urban drainage systems and flood mitigation measures to the public 	




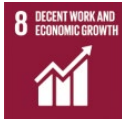

⁴ NTD: Ottawa Rural Clean Water Program provides funding for projects that protect water and groundwater quality for properties in rural Ottawa. Urban and rural boundaries mapped on website: <https://ottawa.ca/en/city-hall/budget-finance-and-corporate-planning/funding/rural-funding/ottawa-rural-clean-water-program>

Eligible Project category	Eligible Categories	UN SDG Alignment
<p>Access to Essential Services</p>	<p>Funding of assets in support of publicly available, free or subsidized essential services, including any of:</p> <ul style="list-style-type: none"> a) Education (including public universities, colleges, schools and training centres) b) Healthcare (including public hospitals, medical equipment, dental programs, mental health and addiction facilities and programs, homes or health facilities for the general public) c) Essential Health and Social Supports program made available to people with a low income and limited assets⁵ d) Care Centres (including EarlyON childcare centres⁶, recreation and community centres, seniors' centres, and support for organizations that provide similar services to target populations such as newcomers, homeless and survivors of domestic abuse) e) Residential Care (domiciliary hostel) program that provides financial support for housing to adults who cannot live on their own and need some help with daily living activities⁷ 	  

⁵ NTD: Eligibility criteria based on maximum asset levels and low-income cut-offs (LICO) as defined in: <https://ottawa.ca/en/family-and-social-services/financial-and-social-assistance/apply-financial-assistance/essential-health-and-social-supports-ehss>

⁶ NTD: families with children from 0-6 years eligible

⁷ NTD: eligible residents are those typically living with a psychiatric, developmental or physical illness or disability

Eligible Project category	Eligible Categories	UN SDG Alignment
Social and Affordable Housing	<p>Construction, development, purchase, and maintenance of new or existing buildings that provide housing that meet the affordable housing definitions in the City of Ottawa’s 10-year Housing and Homelessness Plan 2020-2030, which includes:</p> <ul style="list-style-type: none"> a) Housing for households or individuals whose rents are <30% median income b) No-cost housing solutions such as homeless shelters and transition housing for homeless families and individuals c) Delivery of federal, provincial and municipal affordable housing programs such as: Action Ottawa, Ontario Renovates Program, Homeownership Down Payment Assistance d) Provision of the City’s Rent Supplement or Housing Allowance programs for low-income individuals and families, such as Housing First Program, Rent-Geared-to-Income (RGI) and Below Market Rent Program⁸ 	 
Socioeconomic Advancement and Empowerment	<p>Funding of assets in support of publicly available, free or subsidized services that promote socioeconomic advancement and empowerment, including any of:</p> <ul style="list-style-type: none"> a) Providing employment and social supports to youth, new immigrants, social assistance recipients, low income individuals⁹ and other underserved populations b) Providing free and equitable access to public library services c) Support for micro, small- and medium-sized enterprises¹⁰ where at least one of the owners is from a historically underrepresented group¹¹ has at least a 51% share of ownership d) Shelter homes, economic support and counselling for gender-based violence survivors e) Anti-racism projects including: capacity building of service providers, education campaign, community houses, and skill development for racialized communities 	  

⁸ Eligibility is determined by: Asset limit of \$50,000 for a single person household and \$75,000 for households with two or more people; and/or Income limit depending on the number of bedrooms in subsidized house (see table in <https://housingregistry.ca/the-process/#eligibility>). Priority given to: Homeless households: defined as households staying in a City of Ottawa emergency shelter or who are living unsheltered in Ottawa; Life threatening medical households: where a member has a terminal illness or a life-threatening medical condition made worse by their current housing situation; Urgent safety households: where a member is subject to abuse from a family member or former partner

⁹ NTD: eligibility criteria based on maximum asset levels and low-income cut-offs (LICO)

¹⁰ For purposes of this Framework, the City defines micro/small and medium enterprises as those that have fewer than 100 and 100 to 499 employees, respectively.

¹¹ Historically underrepresented groups include Women, Black, Indigenous and People of Colour (BIPOC), LGBTQ+ and/or persons with disabilities.

Process of Project Evaluation and Selection

The selection of Eligible Projects is the responsibility of the Finance and Corporate Services Department (FCSD) in consultation with internal and external expert stakeholders, this may include the combined effort of Planning, Real Estate and Economic Development Department, Infrastructure and Water Services Department, Community and Social Services Department, Public Works Department, Transit Services Department, Legal and other departments, as required. The FCSD will select the eligible capital project(s) that meet the guidelines set out above.

Projects must also comply with all applicable laws and regulations, and policies of the City, including on assessing social and environmental risks of projects. The FCSD will verify the suitability and eligibility with the Planning, Real Estate and Economic Development, Infrastructure and Water Services Department, Community and Social Services Department, Public Works Department, Transit Services Department, Legal and other departments as applicable. The internal or external legal representative(s) will draft a debenture by-law clearly outlining the use of proceeds, amongst other items, that includes a schedule to the by-law listing the eligible capital projects to be financed by the debenture, and the list of eligible capital projects will be shared on the City's website. A confirming by-law shall be passed by City Council authenticating the debenture by-law.

Management of Proceeds

The majority of capital projects to be funded by a debenture issued by the City have been developed and substantial completion criteria met. In these common instances the proceeds of the debenture will be applied directly to the project to repay the bridge financing position of the City.

In the rare case where substantial completion has been achieved and excess funds exist, best efforts will be made to apply to other project classified as eligible projects under this Sustainable Debenture Framework.

Reporting

The Finance and Corporate Services Department will coordinate the collective reporting requirements and provide an annual information report on its website addressing both allocation and impact reporting:

- Funds raised from each Green, Social, or Sustainability Bond
- Overview of allocated funds to each of the Eligible Project Categories
- Amount of unallocated proceeds
- Debenture By-laws with accompanying schedule A outlining the specific projects funded by the debenture
- A summary of the City's sustainable debenture related developments
- Updates with respect to distribution of unspent debenture proceeds
- Project updates and status reports for Eligible Projects when possible
- Key performance indicators (KPI) such as:

Project Category	Key Performance Indicators
Renewable energy	kWh of power generated from renewable energy GHG emissions reduced/avoided (tCO ₂ e)
Energy efficiency	Energy saved per year (kWh) GHG emissions reduced/avoided (tCO ₂ e)
Pollution Prevention and Control	Amount of emissions or pollutants reduced/avoided Amount of waste diverted from landfill Reduction in per capita waste generation Increase in cubic meter of water (m ³) treated
Clean Transportation	Estimate of annual GHG emissions reduced/avoided (tCO ₂ e) Number of passenger journeys using green transportation
Sustainable Water Management	Cubic meters of water (m ³) saved/reduced Area of land with improved stormwater management
Environmentally sustainable management of living natural resources and land use	Area of natural assets that is conserved, protected or restored
Climate Change Adaptation and Resilience	Number of retrofits designed to enhance climate resilience completed Population with access to early natural disaster warning systems
Green Buildings	List of eligible buildings that received third party-verified green building certification
Affordable Basic Infrastructure	Additional people served by infrastructure type (#) Number of audible traffic and crosswalk signals installed Rate of safety incidents occurring on the street
Access to Essential Services	Buildings/infrastructure/units built or upgraded Students supported Healthcare beds provided People reached with improved health care – Patients served Square kilometers of parks developed, redeveloped and/or enhanced
Social and Affordable Housing	Units built or refurbished Number of vulnerable people with access to safe, affordable and sustainable housing Rental costs compared to the national/regional rent index

Project Category	Key Performance Indicators
Socioeconomic Advancement and Empowerment	Number of target population individuals benefiting from training/education programs Youth unemployment rate

Compliance Review

Prior to the first anniversary of a Green, Social or Sustainability Debenture issuance, Finance and Corporate Services will review the lending financed by the City’s Green, Social or Sustainability Debenture in order to assess the compliance of the lending with the Sustainability Debenture Framework. This review will be conducted annually until full allocation of the net proceeds from the City’s Green, Social or Sustainability Debenture. The Treasurer will provide a report of the review, which the City will publish on its website. In an unlikely event that the annual review identifies allocations made to activities that do not comply with the Sustainable Debenture Framework, the City will allocate the corresponding amounts to different lending activities that are compliant with the Sustainable Debenture Framework.

The issuance of debentures pursuant to this Framework will be implemented in accordance with the Municipal Act, 2001 and directives issued by City Council as applicable.

External Reviews

The City has obtained an independent Second-Party Opinion on its Sustainable Debenture Framework, which is published on the City’s website.