



## FAQ – Low Carbon Cities Canada

The Government of Canada has allocated \$183 million to endow Low Carbon Cities Canada (LC3) centres, in tandem with a \$167 million enhancement to the Federation of Canadian Municipalities' Green Municipal Fund.

### 1. What is Low Carbon Cities Canada?

The mission of LC3 is to help cities reach their full carbon emissions reduction potential while unlocking co-benefits such as improved public health, increased mobility options, local job creation, and economic value.

LC3 is a partnership between the Federation of Canadian Municipalities (FCM) and seven urban climate centres (LC3 Centres) in the Vancouver region, Edmonton, Calgary, Greater Toronto & Hamilton Area, Ottawa, Montreal area and the Halifax region.

The partnership was developed through a national consultation led by The Atmospheric Fund (TAF) and funded by the Clean Economy Fund and the Canadian Urban Sustainability Practitioners to consider how to strengthen the capacity of Canadian cities to scale-up urban climate solutions.

Under the LC3 proposal, each LC3 Centre will have an endowment enabling it to invest in demonstrating, de-risking and scaling up local solutions to climate change to meet Canada's 2030 and 2050 carbon reduction targets.

LC3 works with many stakeholders, both inside and outside of local municipalities, mobilizing new resources and working collaboratively to design climate solutions that create many valuable local benefits. Positioned in alignment with, but outside of, local government will allow LC3 centres to take on a nimble, accelerator role that complements and advances leadership work undertaken by municipalities.

### 2. Why is urban carbon reduction a target?

Canada cannot reach its climate targets without reducing emissions from its cities. About half of Canada's carbon emissions originate from cities (from sources such as buildings, transportation, small/medium industry and waste) and climate impacts are being felt most acutely in cities.

While local municipal governments are already leading the charge on climate action in many cities, much broader community support is needed to create and accelerate local solutions. LC3 will be supporting and engaging a broad range of community players in their work.



### **3. What level of carbon reductions will LC3 support?**

We estimate that LC3 could help achieve at least 9 million tonnes of GHG reduction per year by 2030. This is approximately 5 per cent of the reduction required to meet the Pan-Canadian 2030 emissions target.

### **4. How will LC3 reduce emissions?**

LC3 will use various strategies and tools to access the best ideas in the public, private and non-profit sectors and help them get to scale:

- Follow the carbon: identify key GHG sources that need to be addressed and track results
- Impact investing: direct investment in local carbon reduction projects and ventures, that both demonstrate innovative financing and earn a return to fund programs
- Seed funding: Grants to non-profit organizations to build community capacity, test new ideas, engage diverse stakeholders and prepare proven solutions for implementation
- Demonstration and de-risking: internally led initiatives, with partners, to implement and showcase technology, financial, policy and social solutions
- Convening and knowledge-transfer: Capture insights and lessons to accelerate the next low-carbon solutions, and share them locally and nationally

### **5. What kind of solutions will LC3 be advancing?**

LC3 will focus on advancing solutions related to the key sources of urban Greenhouse Gas (GHG) emissions, including:

#### Energy Efficiency: Creating High-Performance Buildings

- Build affordable housing retrofit capacity
- Demonstrate deep energy retrofits
- Develop the workforce for high-performance buildings
- Speed up the transition away from fossil fuels for space heating
- Support Indigenous energy efficiency efforts
- Leverage new financing tools
- Strengthen green building code standards
- Advance critical energy performance and renovation standards
- Quantify the value of co-benefits

#### Energy Systems: Supporting District Energy and Distributed Renewables

- Promote geothermal systems in existing neighbourhoods
- Help develop natural gas-free new neighbourhoods
- Combine geothermal expansion with infrastructure
- Advance renewable thermal energy networks



- Demonstrate the profitability of rooftop solar systems
- Convert organic waste to renewable natural gas

#### Transportation Solutions: Driving Down Fossil Fuel Use

- Increase shared mobility
- Accelerate the electrification of transportation
- Expand active transportation
- Make commutes car-free through first/last mile solutions
- Reduce urban trucking emissions

### 6. How is LC3 structured?

LC3 is modeled on The Atmospheric Fund which invests, provides grants, and advances policies and programs to reduce carbon emissions in the Greater Toronto and Hamilton Area.

LC3 Centres will be operated by organizations with the ability and capacity to invest its working capital, manage LC3 operating funds, and secure local matching funds and co-investment.

Specifically:

- EfficiencyOne in the Halifax region
- The Trottier Family Foundation is leading a process to establish the LC3 centre in the Montreal area
- The Ottawa Community Foundation in Ottawa
- The Atmospheric Fund in the Greater Toronto & Hamilton Area
- Alberta Ecotrust Foundation, in both Edmonton and Calgary
- The City of Vancouver is leading a process to establish an independent LC3 centre for Vancouver & the Lower Mainland

FCM serves as the liaison with the federal government on behalf of the local LC3 Centres, providing robust risk management, investment and accountability services, and supporting convening, collaboration and knowledge-sharing. Each local LC3 Centre will operate independently, providing a locally relevant mix of community grants, direct investment, and programming. Lessons learned in local centres will be synthesized into knowledge and shared to help support advancements in all Canadian cities.

### 7. What are the benefits of investing \$183 million in LC3?

Here are the key value propositions and rationale for federal government's visionary investment:

- **LC3 fills a local capacity gap** -- barriers to low-carbon solutions need to be addressed locally in order to accelerate urban emission reductions
- **LC3 offers purpose-built tools and strategies** to bring proven carbon solutions to scale through



impact investment, seed funding, and, as a trusted local player, through collaboration with multiple stakeholders

- **LC3 will drive multi-benefits approaches** linked to key issues of concern in Canadian cities, effectively linking climate solutions with strategies that create expanded public benefits like improved public health and local jobs
- **LC3 is self-financing** -- reducing carbon emissions needs to be sustained, independent and business-like and a long-term financing model achieves this
- **LC3 will deliver results** -- the proponents are mission-driven, expert and have line-of-sight to achieving 5% of the Pan-Canadian Framework target by 2030, and to helping achieve Canada's 2050 targets

## 8. What is The Atmospheric Fund (TAF) model?

LC3 is based on the proven model of The Atmospheric Fund which invests, provides grants and advances policies and programs to reduce carbon emissions in the Greater Toronto and Hamilton Area. TAF was created in 1991 with an endowment from the City of Toronto. It expanded to the Greater Toronto and Hamilton Area in 2016 with an endowment from the Province of Ontario.

Since its inception, TAF has invested three times its original capital and financed all its operations without depleting the asset or any draw on the City or Provincial tax-base, while helping Toronto reduce its carbon emissions by 33% below 1990 levels.

## 9. How will LC3 make a difference?

Citizens, businesses and municipalities strive to be climate leaders, yet good ideas and one-off pilots often fail to reach mainstream, at-scale implementation for various reasons including risk aversion, challenges accessing capital and markets, and policy barriers.

LC3 will change that. LC3 will help commercialize urban low-carbon solutions that would otherwise not get off the ground. The result will be investment-ready projects that can be taken to the next level by public and/or private investors and organizations including commercial banks, pension funds, specialized funds, and the Canada Infrastructure Bank.

LC3 will focus on taking proven low-carbon solutions to full-scale adoption by supporting and undertaking incubation, demonstration, and de-risking of low-carbon solutions and by working with diverse partners within urban areas. Each LC3 centre will be responsive, stable, and independent, allowing the risk tolerance necessary to remove implementation barriers for technologies, policies and financial tools.

For example, local testing of advanced energy systems in new condo buildings in Toronto, undertaken in partnership with a leading local developer and financed by TAF's "Green Condo Loan," helped prove the case that higher energy performance standards for new buildings was technically feasible and financially viable. This finding supported advancement of the Toronto Green Standard which now requires all new buildings in the City of Toronto to meet stringent energy standards.



## 10. What socio-economic benefits can LC3 deliver?

Unlocking low-carbon solutions can have multiple benefits including improving public health, local job creation, better mobility options, and for the local and Canadian economy.

For instance, achieving the energy efficiency objectives outlined in Canada's Pan-Canadian Framework would result in 118,000 jobs and boost Canada's GDP by 1% by 2030, according to Efficiency Canada. Carbon reduction can also achieve financial savings. For instance, TAF's investment in just three energy conservation projects has shaved \$60 million off City of Toronto energy bills.

As lead investors and through commercialization, LC3 will help mobilize capital for low carbon solutions. For instance, TAF has mobilized \$160 million in public and private contributions to co-fund about two dozen projects.