



Pre-budget Submission House of Commons Standing Committee on Finance

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The Atmospheric Fund (TAF)

The Atmospheric Fund, a non-profit corporation, was created in 1991 and endowed with \$23 million by the City of Toronto. TAF's mandate is to advance urban solutions to climate change and air pollution. For 25 years TAF has been **innovating, incubating and investing in** low-carbon solutions, playing a key role in helping Toronto reduce its greenhouse gas emissions by 25 percent since 1990.

This year, the Ontario Government contributed \$17 million to TAF's endowment as part of its landmark Climate Change Action Plan. This new capital expands TAF's reach to the Greater Toronto and Hamilton Area (GTHA). As Canada's largest urban region, the GTHA is a key economic hub, and the source of 60% of Ontario's GHG emissions generated in Ontario. With cities being significant contributors to Canada's emission profile, urban solutions are integral to local, provincial and national climate objectives.

While the GTHA is TAF's focus area for undertaking intensive, practical work, we engage organizations, businesses and municipalities across the country to share experiences, expertise and solutions. TAF also has international connections, receiving Special Commendation for Innovative Finance from the Financial Times/International Finance Corporation (2014) and was a finalist for the prestigious C40 City Climate Leadership Award at COP21.

Our national vision focuses on developing world-leading climate-smart cities that function within their environmental means. We seek livable, prosperous cities that embrace the green economy, where people spend less time commuting, less money on energy costs, and breathe cleaner air. We mobilize cities and their local communities and champions, offering support through **community grant-making**. We **collaborate with a broad range of stakeholders** to realize common goals, understanding that clean air and GHG reductions benefit our health, economy and the sustainability of our cities. We develop innovative financing tools and **finance entrepreneurs** whose product or service can significantly cut emissions and property developers and owners who are making their buildings more energy efficient. And we invest our capital strategically to achieve a **triple return on investment**: financial return to fund our operations; significant GHG reductions; and mobilization of additional public and private capital through demonstration/de-risking of viable investment opportunities.

TAF has earned its reputation as one of Canada's first and most successful climate change innovators and impact investors, is proud of its strong governance, and has a record of achievement that includes:

- Helping **reduce Toronto's GHG emissions by 25%** below 1990 levels
- Generating over **\$60 million in energy cost savings** for the City of Toronto
- Investing **\$58 million in grants and loans**
- Mobilizing **\$160 million in public and private contributions** to co-fund low carbon solutions,
- Operating at **no cost to Toronto taxpayers** by using the return from TAF's investments to support operating and granting expenses.



Urban Climate Solutions and Canada's Clean Economy

Canada has demonstrated leadership on climate change at COP21 in Paris last year, joining international partners with a commitment to an aggressive 30 percent reduction target by the year 2030, compared to 2005 levels. The commitment to a clean economy reflected in the 2016 Budget is commendable, with landmark investments including in transit and green infrastructure.

Given that up to half of all Canada's GHG emissions originate in our cities, achieving excellence in implementing urban climate action should be a primary component of Canada's climate action plan and future budgets.

Not only does urban climate action help with Canada's GHG targets, it also helps to drive new economic competitiveness. According to Canada's Ecofiscal Commission, we lag on innovation and environmental performance, missing out on the \$816B annual value of global clean-tech markets. Urban climate actions like retrofitting building creates local prosperity, with every dollar invested in Canadian efficiency programs delivering \$3-\$5 in savings that can be recirculated into the local economy. Investment in urban transit solutions that reduce key transportation emissions also reduce congestion and boost local productivity, attracting foreign business investment.

We are excited to join other Canadians in providing this committee and the Government of Canada with guidance on how we can work together to **mobilize community innovators, businesses and financial capital** to realize opportunities to reduce GHGs while expanding the clean economy.

Our Proposal: Empowering TAF

To achieve the results that Canadian cities need, TAF is proposing that the Government of Canada join the governments of the City of Toronto and the Province of Ontario in recognizing TAF's unmatched capability to drive high-impact, low-carbon solutions. A federal investment in TAF's endowment will boost capacity to drive and demonstrate emission-reducing innovations in the buildings and transportation space. Canada can achieve lasting climate change mitigation impacts as we scale up GTHA low-carbon solutions and share them nation-wide.

An Expanded, Strategic, Urban-Focused Endowment

The Atmospheric Fund (TAF) is seeking a **legacy investment of \$40 million** from the Government of Canada, **matching the endowments** provided by the City of Toronto (\$23 million) and the Province of Ontario (\$17 million)

While modest compared to the overall scale of green infrastructure investment planned by the Federal government, this strategic endowment will boost TAF's ability to **demonstrate and de-risk innovative financing approaches, technologies and practices** to share with any other Canadian city seeking to significantly reduce local emissions and reap benefits of a low-carbon economy.

The endowment will be dedicated to investing and delivering programs that support local champions and **incubate the next generation of urban climate innovations** in the GTHA, leveraging partnerships to share resulting knowledge across Canada.

The Impact of Canada's Investment

TAF will incubate and advance measurable low-carbon solutions for cities across Canada. It will use TAF's established tools and methods, including strategic grant-making, impact investing, technology and program pilot testing, policy research, and multi-sectoral convening to:

- Undertake **research and convening** of thought-leaders to assess climate solutions in a regional context, rather than on a city-by-city basis, and help identify and promote partnerships with multiple benefits.
- Provide **strategic grant resources** to community and municipal innovators to explore and test new climate action ideas.
- Support and expand existing efforts to **transfer best practices among Canadian cities**, drawing on best practices from cities and regions worldwide.
- Identify and **advance low-carbon investment opportunities** and support efforts to position Canada as a low-carbon business leader globally.
- **Promote open data access methods** to allow public information concerning air pollution and GHG emissions that can be accessed in usable forms by multiple users, benefiting regional program design and evaluation.

Achieving Real Results for Canada's Clean Economy

TAF will deploy our expertise, networks, and expanded capital to incubate, demonstrate and de-risk innovative solutions including technologies, policies financing and capacity, and then document, communicate and ensure that effective solutions are widely shared and implemented. We understand that meeting Canada's international GHG targets and building a robust clean economy will not be possible without mitigating the key contributors to climate change in our urban communities: buildings and transportation.

Buildings

- Energy efficiency in buildings is the biggest, fastest and cheapest approach to reducing GHG emissions in cities. TAF has demonstrated significant cost-effective energy and water efficiency opportunities in large buildings, financing dozens of retrofits and achieving over 30% energy, water and GHG reductions as well as utility cost savings for owners.
- TAF draws on decades of experience in the social housing sector using innovative approaches to finance much-needed retrofits while attracting private capital investment to leverage public funding. With additional capital, this work can be expanded to more sectors with the key goal of mobilizing private capital into low-carbon investment opportunities.
- TAF can also build on our specialized capacities and relationships to formulate, pilot and then mainstream policies and programs that drive energy efficiency. Toronto's innovative green building standard and the Province of Ontario's energy/water reporting requirement (underpinned by the federal database and benchmarking tool) are key examples.

Transportation

- GHG emissions from transportation continue to rise in Canada's urban communities. TAF supports alternative approaches to mobility, investment in public transit and micro-transit, exploration of new fuel-efficient and low-carbon technology, and behavior change. TAF provided start-up finance for Canada's first auto-sharing enterprise and Canada's first transportation demand management agency.
- TAF draws on decades of experience of grant-making in the low-carbon transportation sector including early demonstration of electric vehicles in GTHA fleets; development of policies to improve urban goods movement through alternative freight approaches like smart logistics, delivery and parking practices, and vehicle right-sizing; and consideration of the critical interplay between land use planning policy and transportation policy.
- TAF has anchored a multi-stakeholder regional collaboration to build public support for public investment in regionally-integrated public transit, and has partnered with Montreal's Coop Carbone to explore the potential of "micro-transit" to reduce emissions.

Why Should Canada Invest in TAF?

TAF's mission reflects Canada's priorities

- TAF is mission-driven, tightly focusing our efforts on reducing key sources of urban emissions. A federal legacy investment will not only help enshrine this government's commitment to **practical action to address climate change**, it will also improve the **health & well-being** of millions of Canadians, spur **innovation**, and help create clean economy **jobs and economic development** across the country.

TAF is unique

- The TAF model is one-of-a-kind in Canada. We work closely with city government, but maintain arms-length independence and a separate funding resource that allows innovation to flourish. We straddle the municipal, financial, business and broader community to build multi-sectoral partnerships that contribute to innovative solution-building. Our investments support GHG reduction while also generating financial returns to fund research, technology deployment, policy reform, and collaborations to reduce GHGs in cities.

TAF is innovative

- TAF was a leading incubator and impact investor well before these terms became trendy. We use our capital, not just the investment returns, to advance our climate action mandate.
- TAF helped incubate many of Toronto's success stories including AutoShare, deep-lake water cooling, the Toronto Green Standard, SolarShare, Smart Commute, the Green Condo Loan, and non-debt financing for social housing retrofits – practical innovations and successful businesses that have created jobs and made a difference in helping Toronto fight climate change.

TAF is fiscally responsible

- TAF **hasn't cost Toronto taxpayers a single cent**. The original endowment from the City of Toronto in 1991 has been **re-invested three times over**, with the returns **covering TAF's expenditures**, including its strategic programs, policy initiatives and innovation grants.
- TAF has earned a **15.7% average annual rate of return** over the past three years – ranking it in the top quartile of comparable institutional quality balanced fund managers.
- This was achieved while **investing 80% of TAF's total endowment** in high-impact low carbon solutions and change-agents, benefitting residents across the city.

TAF gets results

- The following projects, incubated by TAF, include many of Toronto's leading climate change mitigation and emission reduction successes, several of which have evolved into cutting-edge leaders of Canada's clean economy.
 - **TowerWise - \$4.2 million in financing and grants - 0.9 megatonnes GHG reduction** - energy efficiency retrofits for Toronto Community Housing highrise residential apartments – reduced GHG emissions by 30% and utility costs by 20% - model was adopted by new private company Energy Efficiency Capital providing retrofit finance throughout the GTHA
 - **AutoShare – \$20K start-up loan - 0.5 megatonnes GHG reductions** - Canada's first automobile sharing program, now 50,000 users in the GTHA using multiple car-sharing operations.
 - **FleetWise EV300 – \$115K grants – 0.3 megatonnes GHG reductions** – early large-scale technical demonstration and monitoring of electric vehicles in 16 fleets across the GTHA generated key knowledge of real-life usage patterns and spun off development of new software tools with partner CrossChasm Technologies.
 - **Deep Lake Water Cooling - \$150K in financing – 1.8 megatonnes GHG reductions** – supported early concept development of a new renewable energy approach which ultimately scaled to provide service throughout Toronto's downtown core through Enwave Energy Corporation.
 - **Green Condo Loan - \$2.09 million in financing + \$75K in grants – GHG reductions of 1.6 megatonnes** – innovative financing created in partnership with Tridel Corp helped developers finance advanced energy systems in new buildings – creating key business cases to support introduction of new Toronto-wide high energy efficiency standard for new construction.

For more information:

Julia Langer
CEO
The Atmospheric Fund
jlanger@taf.ca
416 392 0253
TAF.ca