REPORT FOR INFORMATION

Chief Executive Officer's Report

Date: April 12, 2024
To: Board of Directors of the Toronto Atmospheric Fund
From: Chief Executive Officer

GOVERNANCE MATTERS

Board Appointments
On March 20, 2024, City Council appointed Graysanne Bedell, Andrew Dooner, Wayne Miranda and Parminder Sandhu for a second term on TAF's Board of Directors. A report recommending Appointment of Officers of the Corporation is on the agenda for Board approval (Item TA 6.9). We are grateful for the continued interest and involvement of returning members.

Board Evaluation
A range of perspectives and recommendations were provided by Board members on February 28 regarding TAF's governance practices including the quality and sufficiency of materials, how Board functions are supported, and the recruitment of members, the selection of Board Chair. Further engagement and identification of best practices will be undertaken, and results and recommendations will be brough to the Board at the fall meeting.

Risk Register
Based on senior management's quarterly analysis, the following highlights the most notable risks for this period and our mitigation responses. There is no material non-compliance in respect of The Atmospheric Fund's (TAF) legislative, regulatory or contractual obligations of which I am aware.

- Financial: The Investment Committee flagged concerns with over-concentration of public equities with one of the four managers, albeit within the established guidelines. A re-balancing and diversification plan is being implemented in phases including shifts to the other managers, into the two Alternatives funds and existing Private Equity funds as capital is called, and into Direct Investments as they close.
- Program: Debate regarding the carbon price and rebate is both a challenge and elevating consideration of climate change and the need for solutions. TAF is staying focused on our established priorities by continuing to demonstrate the business case and co-benefits (e.g. of retrofits, EV adoption, efficient new construction) for climate action and working with aligned stakeholders in various sectors.

- Financial/Operational: To reduce potential mistakes and administrative load, TAF has integrated the payroll system with the HRIS platform used for managing employee data. Minor issues were experienced and resolved in the first quarter, and enhanced payroll oversight will continue.

TO/TAF Governance

A Debt Policy will be brought to the July 18 meeting for Board consideration and approval, and then to Council. The requirement to develop this new policy stems from updates to the TAF/City Relationship Framework approved by the TAF Board and City Council in July 2022.

ON/TAF/TO Transfer Payment Agreement (TPA)

As required in the TPA, TAF provides a report on the annual activities and outcomes supported by the Ontario endowment. As is customary, a draft will be presented to and discussed with Ministry of Municipal Affairs and Housing (MMAH) colleagues before the April 30 submission deadline. The TPA requires a review of its provisions seven years after its execution to determine whether any modifications are required. In 2023, TAF indicated that we did not see the need for any changes, and in February 2024, MMAH indicated that its review led to the same conclusion. To the best of my knowledge, this confirms that TAF is in compliance with the terms of the TPA.

FCM/TAF/TO Funding Agreement (FA)

Updates to this agreement have been developed through a consultative process between FCM and the seven Low Carbon Cities Canada centres; see Item TA 6.8.

STAFF AND OPERATIONAL MATTERS

This month we bid farewell to Ariel Sharir, Senior Analyst with the Impact Investing team and thank him for the enthusiasm and skills he brought to advancing TAF's objectives. Ariel's contributions over the past three years included due diligence on a range of investment opportunities, financial modeling of TAF's portfolio, and market research related to accelerating the adoption of EVs and EV charging. His jump to a private equity firm focused on climate solutions demonstrates his commitment to the cause and we're sure our paths will continue to cross.

Recruitment is underway for several positions on the staff team.

- Technical Services Manager – a new full-time role that will increase the Retrofit Accelerator team's capacity to oversee and manage retrofit projects.
- Impact Investing Analyst – to fill the vacancy left by Ariel Sharir.
- Short-term contracts – we will be recruiting to fill three six-month placements with the Impact Investing, Research and Innovation, and Communications and Campaigns teams. This builds on past success including great value for the hires who receive meaningful work experience in the sustainability field and added short-term capacity for TAF.

STRATEGIC PROGRAMS

Accelerating Retrofits (including TAF's Retrofit Accelerator)

TAF's Retrofit Accelerator is collaborating with Efficiency Capital on the conversion and decarbonization of two large single-family homes in Hamilton into ten fully-electric homes. The project is getting some attention with profiles in Real Estate News Exchange and Toronto Sun. This is an interesting and hopefully accelerating opportunity bringing together retrofits and new housing supply which we hope to see more of in the future.

A Contribution Agreement with NRCan for our Deep Retrofit Accelerator Initiative (DRAI) funding was signed in March; public communication of all the DRAI recipients will happen at a later date. To meet our ambitious retrofit support goals, the team is already ramping up the work with building owners, incrementally increasing the team (see Technical Services Manager above) and refining the efficiency of our processes to handle much more volume and team.

A case study of a heat pump retrofit in a nine-storey apartment building on Eglinton Ave East in Toronto was recently published, profiling our first use of a packaged terminal heat pump, which is a self-contained heat pump mounted inside of a building. The Innova 2.0 system was installed in existing air-conditioning sleeves which created some unique challenges that hampered performance and required optimization work. From this and other retrofit projects we've learned that monitoring post-retrofit performance and optimizing systems is key to achieving (and maintaining) retrofit performance goals.

Electrification of Transportation
TAF's EV Station Fund continues to support the rollout of electric vehicle (EV) charging infrastructure across the Greater Toronto and Hamilton Area (GTHA) by providing rebates for up to 50% of project installation costs. Both the initial $2M funding tranche and second $3M tranche received from Natural Resources Canada have been fully allocated and will result in the installation of 886 chargers by fall 2024. TAF is actively exploring opportunities to leverage the learnings and successes from the EV Station Fund to deepen its efforts to scale up EV charging across the region.

Progress is being made to develop an affordable financing solution to accelerate EV adoption among high-milage vehicle-for-hire drivers; the aim is to launch this year, subject to all the pieces being in place. We are working with partners to finalize the financing structure, refine and test the product offering, develop a marketing plan, raise financing, and procure a servicer to manage the program.

Decarbonizing the Grid
TAF has selected Dunsky Energy + Climate Advisors through a competitive procurement to support the design of a distributed solar and storage program for the GTHA. The design work, which incudes all aspects of the program from intake, equipment and installation, financing, monitoring/evaluation, will inform TAF's role and

those of other players, procurement(s) and fundraising efforts needed to launch and operate the program.

TAF provided an open letter response to proposed changes to the federal Clean Electricity Regulations, making recommendations for cities to support a firm commitment to carbon reduction, and earning media coverage from the Energy Mix and The Pointer.

Climate Policy

In response to Bill 165 which overturns the Ontario Energy Board's (OEB) order that new gas connections must be paid up front, not over 40 years given the risk of stranded assets, TAF has engaged with the Minister of Energy's office and will be submitting comments via the official ERO process and at the Standing Committee of the Interior. The focus will be on the OEB review and approval process and supporting the OEB's ability to respond to and proactively address emerging issues which affect ratepayers, including climate change and electrification.

Mississauga Council unanimously approved a Green Development Standards (GDS) earlier this month. TAF has been supporting the technical aspects of its development, and local organizations who have championed its passage. We are also encouraged by the ambitious GDS that is heading to Caledon Council in May. Support is also being provided for the update of Whitby's GDS and for East Gwillimbury and King Township as they advance adoption of GDSs similar to other York Region municipalities.

With the new City of Toronto Energy and Water Reporting by-law now in place, TAF and the City of Toronto will be working together to advance an emission performance standard for existing buildings. This work will leverage the experiences of dozens of US jurisdictions and the City of Vancouver and includes supporting the consultation and stakeholder mobilization process, contributing to the development of technical terms including targets & metrics, compliance pathways, and alignment of performance and affordability objectives. TAF will also be supporting mechanisms for sharing information best practices regarding this important policy with stakeholders and municipalities across the GTHA.

Research & Innovation

Data gathering has started for the 2023 carbon inventory. Meanwhile, the team has continued to present the findings of the 2022 GTHA Carbon Emissions Inventory including to organizations (Climate Advisory Group, Toronto Climate Action Network), TAF committees (Grants and Programs Committee, Investment Committee, Direct Investment Committee) and municipalities (Durham Regional Council).

The GHG reduction potential of nine Expressions of Interest and three applications received in the first grants intake of 2024 were evaluated, including projects related to the potential carbon impacts of deploying thermal energy networks, advancing green development standards in the cities of Hamilton and Burlington, and advancing a medium- and heavy-duty zero-emission vehicle mandate.

The new 2023 Impact Report which summarizes our performance across key performance indicators (potential emission reduction, financial capital mobilized) and several other metrics (economic co-benefits, equity co-benefits, health co-benefits, and scale pathways) is presented in Item TA 6.2. TAF tracks these indicators to help inform and guide our work, ensuring we focus on the most impactful programs, grants, investments, and policy development. The KPIs were previously included in TAF's Annual Reports. This new format was designed to enable greater analysis of results and outcomes achieved.

Communications & Campaigns
See Focus Areas for campaigns and communications results. TAF blogs continue to be well-read including a perspective on the performance gap found in new construction and the urgency of electricity Conservation Demand Management in Ontario.

Impact Investing
A substantial and granular rebalancing exercise across our investment holdings has been implemented which has brought our portfolio closer to the asset class targets set out in the Statement of Investment Objectives and Principles (SIOP) (including starting to advance capital to our two new Alternatives managers), reduced concentration in one of the public equity funds, and helped align the asset mix of each of the three endowments.

Our investment in Assembly Corp. was announced, receiving media coverage from industry publications such as Energy Mix and Climate Tech Canada (Substack). The post also generated interest from a range of stakeholders for this GTHA-based company's prefabricated mass timber, highly energy-efficient, medium density residential buildings.

The very first Energy Savings Performance Agreement (ESPA) -- an investment in a multi-measure retrofit of Robert Cooke Cooperative Homes – reached its full term in December. The project delivered significant energy and water savings and the associated carbon emissions reductions water savings and achieved the projected net revenues and approximately ~7.1% IRR over the life of the investment. The performance contact model allowed this affordable housing organization to undertake much-needed renewal of their building's heating, lighting and water equipment which they did not have the capital for. We deeply appreciate the collaboration with the Robert Cooke cooperative team as we field-tested the value proposition, legal structure and functional implementation of TAF's innovative financing approach.

The current investment pipeline includes 12 prospects. The team declined four investments during the due diligence process and reviewed 30 other opportunities (spanning funds, direct investments, and projects) that will not be progressed because of misaligned timelines or a lack of fit with TAF's investment thesis. We are enthusiastic about our effort with the Electrification of Transportation Focus Area and the progress toward an innovative financing structure to support high-mileage vehicle-for-hire drivers.

Grants, including summary of completed Grants
The Grants and Programs Committee's recommendations from the first grants intake of 2024 are included in Item TA 6.7. The second grants intake of 2024 is currently underway, with proposals due May 10.

A summary of recently completed grants is provided below.

Toronto and Region Conservation Authority (TRCA) – Communications Campaign for Hybrid Heating Systems and Heat Pumps in the GTHA
$88,725 over 24 months, approved in November 2021

The objective of this project was to increase installations of air source heat pumps (ASHPs) by documenting their real-world performance and building awareness of their benefits among homeowners, contractors, and energy advisors. The project team conducted a performance analysis of eight homes participating in a smart hybrid heating pilot conducted by Enbridge Gas and London Hydro in London, Ontario. The results of the study combined with a survey of 22 homeowners that installed ASHPs demonstrated that these are high-performance devices that can reduce carbon emissions and homeowner utility costs. The team also developed educational materials including video testimonials of homeowners with ASHPs and case studies detailing the benefits, utility impacts, and costs associated with heat pump retrofits. TRCA's engagement with contractors and energy advisors has also helped to address information gaps through guidance documents that support homeowners in undertaking retrofits. All of the resources generated by the project have been shared publicly through a dedicated online portal which includes a section for homeowners to submit their questions on heat pumps. The knowledge resources were promoted across 29 in-person events or virtual webinars with a total attendance of over 2,200 individuals and have been featured in different major media outlets –CBC, Corporate Knights, and Chatelaine. The findings of this project and the knowledge materials continue to be promoted through dedicated websites developed by the cities of Toronto and Mississauga.

Building Up – Building a Green Construction Workforce in Toronto
$300,000 over 36 months, approved in November 2020

This grant supported Building Up (BU) in developing and implementing a 16-week pre-apprenticeship training program to upskill participants in low-carbon construction and retrofit techniques. Designed for individuals facing barriers to employment in the building trades, participants received both in-class instruction and on-site experience to build their skills, in addition to support for securing employment upon graduation. In collaboration with the Endeavour Centre, BU developed a curriculum focusing on green construction theory and best practices with a focus on windows, heating systems, and building design. Over the three-year period, the project supported over 250 participants across BU's annual training cohorts, with 246 program graduates placed in jobs with local unions and private contractors. During the project, BU's cohorts supported the delivery of retrofit projects on properties owned by Toronto Community Housing Corporation, and BU continues to support green construction and retrofits of nearly 700 properties owned by their partners, the Parkdale Neighbourhood Land Trust and Circle Land Trust. Additionally, BU built the capacity of private contractors seeking to adopt green construction practices by providing training and upskilling workshops for them and creating employment opportunities for their trainees. BU's work through this grant was highlighted by the media as an example of sustainable improvements to affordable housing. The training developed through this grant will continue to support the growth of tradespeople with green skills in the coming years.

Toronto Metropolitan University - Embodied Carbon Metrics & Guidance for Building Envelope Design
$130,712 over 20 months, approved in July 2021

This grant supported Toronto Metropolitan University (TMU) in developing an industry and municipally accepted methodology for calculating the embodied carbon of building enclosure assemblies used in Part 3 buildings. As part of the project, TMU reviewed existing building lifecycle assessment methodologies and tools and held consultations with multiple industry stakeholders such as the City of Toronto and Ontario Building Envelope Council to help refine the methodology. Based on their input, TMU applied the methodology to assess 26 enclosure systems, including their embodied carbon intensity (ECI), and thermal performance. Their analysis breaks down emissions by material layer, identifying components that have the most negative impact, and where opportunities to reconsider material choice are available. These findings were added to an online database and shared with industry professionals and municipalities to guide their material use. The project findings have received support from industry and the project team is looking at expanding the database to include a wider range of enclosure systems and working with specific manufacturers to assess enclosures using their products. This methodology will enable building design teams to make informed decisions early in the building design process and meet embodied emissions targets outlined in municipal guidelines such as the Toronto Green Standard. Based on the project's outputs, designers will be able to choose optimum envelope designs before project specifications and detailed drawings for buildings are developed, and materials priced.

CONTACT

Julia Langer, Chief Executive Officer, jlanger@taf.ca

SIGNATURE

Julia Langer
Chief Executive Officer