



# Annual Report for 2022

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## Letter from CEO

*TAF's "follow-the-carbon" strategy is paying dividends with increased year-over-year impact. As we deepen our multi-solving commitment and expertise to achieve community benefits, our impact is multiplying further. The results can be seen in multi-residential towers and townhomes as TAF's Retrofit Accelerator supports building owners to achieve deep energy and carbon reductions, improve resident health and comfort, make housing more affordable, and stimulate the retrofit goods and services market. Results are also materializing in underground garages and parking lots with over 200 new stations on track to installation in condominiums, apartments, and publicly accessible locations through our EV Station Fund rebate program.*

*We supported five more municipalities in adopting or updating green development standards, which will ensure millions of square feet of housing are efficient and affordable to operate. We are broadening discussion beyond operational emissions to embodied carbon of construction materials. Although desired outcomes are still elusive vis-à-vis the Ontario electricity system, our contributions to research and communications on the affordability and reliability of a net-zero grid are helping to spark important dialogue and insights outside our usual networks, including that distributed energy resources are key to solving local and provincial constraints.*

*In the face of market turmoil, we refined our direct investment strategy, advanced two mandate-aligned investments, rebalanced our bonds and recouped some of the equity losses, with the expert advice from two committees, which continue to be sources of expertise and discipline.*

*In keeping with TAF's strategic directions, collaboration and partnerships underpinned our successes. We sought a wide range of perspectives before developing positions and communications, including focus-testing intersectional issues related to the electricity system and co-developing policy submissions with municipalities, industry and business associations and non-profit organizations such as Electric Mobility Canada, Efficiency Canada, and Ontario Public Health Association. Our integrated approach to retrofit design includes input from social housing providers, building residents, and others. And the value of the seven Low Carbon Cities Canada (LC3) centres is being realized as we start actively collaborating, including exploring several co-investment opportunities and making our first shared grant.*

*Our pragmatic, solutions-focused publications and communications earned significant media and social media coverage and made TAF a go-to for reporters seeking reliable analysis and commentary on climate policies and programs. This year alone we've appeared in 42 national and local media stories, including in-depth interviews, quotes and references to our carbon emissions inventory, green development standards, retrofits and other aspects of low-carbon solutions. Popularizing the messaging related to the inventory, policy advocacy, case studies, and recruitment on social media has helped to increase engagement and advance objectives.*

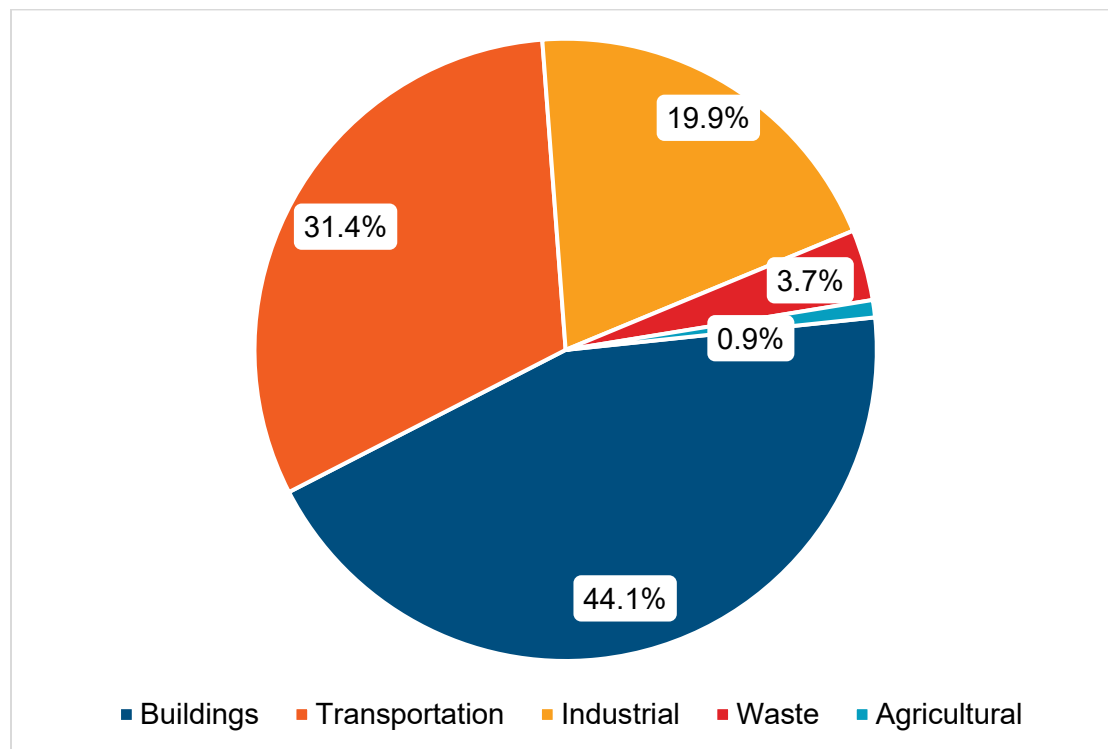
*TAF's small (growing)-but-mighty team is ready to lean into the challenges still to come. Cross-team integration continues to serve us, as we combine internal and external expertise on technical, policy, campaigns, engagement and investing knowledge and approaches. Our multidisciplinary work is essential to scaling emissions reduction and community benefits. It's the only path to securing the necessary alignment of social, political, and financial capital.*

## Tracking and reporting progress and insights

TAF uses various approaches to plan, evaluate and report on our work. This includes regular program and team debriefs and retrospectives to understand and refine strategies and workplans; quantitative analysis of KPIs including the financial performance, capital mobilization and greenhouse gas reduction potential; qualitative analysis of newer KPIs including scaling potential, community benefits and equity; due diligence and evaluation of all grant applications and program funding requests; thrice-yearly organization-wide status updates; and year-end evaluation. Leveraging all of the above, this report summarizes results against TAF's [2022 Annual Plan](#)).

We continue to invest and develop our measurement and evaluation approaches to ensure evidence-led innovation – it's a core part of how we advance our work.

This report is organized in three sections: results from our four Focus Areas, results by functional team, and the performance metrics for greenhouse gas emissions reductions, financial capital mobilized and air pollution reductions.



## Focus Area Objectives and Outcomes for 2022

TAF had four primary foci in 2022, informed by the GTHA emissions inventory ([www.carbon.taf.ca](http://www.carbon.taf.ca)), namely:

- Accelerate EV Uptake
- Accelerate Deep Retrofits
- Accelerate Near-Zero New Construction
- Advance Modernization of Ontario’s Electricity System

The Focus Areas do not generally change year to year, however their context and our priorities within them are defined and updated annually.

### ACCELERATE EV UPTAKE

We launched EV Station Fund and it was quickly oversubscribed due to clear need and demand for support. Several new installations are on track in the GTHA. We are using parking policy to advance charging, and have made progress on municipal pathways, including tools and studies that will be leveraged by LC3 and other municipalities across Canada.

Objectives	Targets for 2022	Status and Outcomes
EV charging infrastructure deployed strategically and equitably to help unlock at-scale installations in the GTHA.	Detailed applications equivalent to the full EV Station Fund budget approved, with at least 80% aligning with TAF’s priority use cases of multi-family homes, on-street and other public places; at least 120 chargers installed	Partially completed. Applications equivalent to the full EV Station Fund budget were approved with 100% aligning with priority use cases; 67 chargers have been installed with the remaining installations expected to be completed in 2023.
	1-2 systemic barriers to scaling EV charging in the GTHA identified for future programming	Completed. Barriers to accelerating EV-readiness in MURBs and making EV charging publicly accessible (including vehicle-for-hire fleets) will be a focus in 2023.
	Proposals submitted for at least \$1M in additional funding to accelerate TAF’s EV charging efforts in priority areas	Completed. Proposal for a \$3M recapitalization of EV Station Fund prepared for submission January 2023. A \$2.5+ million proposal for an EV-ready in MURBs proof-of-concept initiative submitted.

	One high-impact financing opportunity under development to accelerate uptake of EV charging in key GTHA markets, for implementation in 2023	Ongoing. A collaborative TAF/LC3/GMF project initiated to identify the optimal approach to enabling EV-ready retrofits in MURBs, due for completion by mid-2023.
GTHA municipalities have the necessary policies and programs in place to accelerate local EV uptake.	Draft strategy finalized for achieving an equitable, net-zero-goal for Toronto's vehicle-for-hire industry by 2030	Ongoing. TAF advised on development of Toronto's Vehicle-for-Hire Net Zero Strategy through the City's internal team and external stakeholder Working Group; the strategy is due for completion in Q2 2023.
	Strong incentives to purchase EVs over internal combustion engine vehicles incorporated into the City of Toronto's 2023 budget	Ongoing. City of Toronto initiated consultation on a list of incentives for spurring EV adoption, which TAF helped develop, and is developing recommendations for Council consideration.
	At least two GTHA municipalities (in addition to Toronto) initiate development of 100% EV-ready parking requirements for new residential construction	Completed. Ajax and Pickering now have 50% EV-ready requirements. We have also supported Brampton and Mississauga in advancing requirements which are expected in 2023.
Priority federal and provincial drivers of electrified transportation are advancing.	The Clean Fuel Regulation (CFR) is strengthened and passed	Completed. The CFR was passed in July and will come into effect July 1, 2023.
	Draft regulation finalized which mandates at least 50% of light-duty vehicles (LDVs) sold by 2030 be zero emission vehicles (ZEVs) and 100% by 2035	Completed. The federal government published a draft Regulation in December proposing that at least 60% of light-duty vehicle sales must be ZEVs by 2030 and 100% by 2035.
	Regulated sales mandate in development for medium and heavy-duty vehicles (MHDVs), requiring that 100% of MHDVs be zero emission by 2040	Ongoing. The regulatory development process for mandating medium- and heavy-duty ZEV sales is expected to begin in 2023.

	Provincial commitment to introduce EV incentives	Partially completed. Provided advice on strategic design of EV incentives, made recommendations on how to allocate the \$91M committed for EV charging in Ontario, and initiated collaboration with organizations who can support rollout of these incentives; however no provincial commitment made for EV purchase incentives.
	Preferential/time-of-use rates introduced for EV charging	Completed. TAF advocacy and submission to the Ontario Energy Board in support of a preferential rate for EV charging helped secure the new optional Ultra-Low Overnight Price Plan. A grant to Environmental Defence also supported this objective.

## ACCELERATE DEEP RETROFITS

TAF continues to lead, be sought after, and participate in knowledge exchange and advisory settings, including this year’s [United Way Greater Golden Mile](#). We have added new roles to Retrofit Accelerator. A major win was seeing a dedicated funding stream of \$200 million in the federal budget. Our public launch event for 840 Eglinton, including federal involvement and [press coverage](#) supported momentum for community housing retrofits. This section is in conjunction with the Retrofits Team results that follow this section.

Objectives	Targets for 2022	Status and Outcomes
Funding for Canada-wide retrofit market acceleration in place.	Canada’s 2022 Budget includes \$100M per year in Federal funding to support retrofit market development activities across Canada	Completed. \$200M over 5 years Retrofit Accelerator Fund announced in Budget 2022 and expected to launch in early 2023.

	<p>Secure 5-year funding for TAF's Retrofit Accelerator</p>	<p>Ongoing. Retrofit Accelerator has a base of funding for the next 2 years. A proposal to close the funding gap (\$8M for 5 years) has been developed and will be submitted to the Retrofit Accelerator Fund.</p>
<p>Increase market and public policy drivers to accelerate the pace and scale of deep retrofit activity.</p>	<p>Carbon standards for existing buildings in development in at least two GTHA municipalities</p>	<p>Ongoing. TAF advocated for Building Performance Standards (BPS) which were adopted in the City of Toronto Existing Buildings Strategy, is working with the City of Toronto on this file and commissioned a draft BPS.</p>
	<p>Increased market capacity for implementation of deep retrofits in GTHA (design, construction, products)</p>	<p>Partially completed and ongoing. Integrated Project Delivery (IPD) process underway with Toronto Community Housing Corp. (TCHC) for the Sparroway buildings deep retrofit. The Region of Durham considering IPD for to improve outcomes for their retrofit(s). Developed draft technical requirements and procurement guidance for prefabricated overcladding which will be initially tested in Retrofit Accelerator supported social housing retrofits. Determination of opportunities and challenges of bulk procurement and/or aggregation of heat pumps underway.</p>
	<p>TAF benefitting from and contributing to strong community of practice informing TAF Retrofit Accelerator</p>	<p>Ongoing. TAF engaged with many players interested in retrofit market development via formal and informal networks, who are interested in our expertise related to the federal Retrofit Acceleration Fund, market development strategies, retrofit implementation and streamlining, and opportunities for collaboration/synergy.</p>



	<p>A multi-solving approach enables policy advocacy for retrofits to also address housing affordability and other intersecting issues</p>	<p>Ongoing. TAF participated with United Way and others on an affordability working group focused on the ‘golden mile’ neighbourhood; supporting ACORN’s advocacy for access to cooling; and collaborating with Toronto Community Benefits Network to explore opportunities in context of the St. James Town retrofit.</p>
	<p>At least \$200M in new capital funding and financing available for deep retrofits in the GTHA, including funding that is easily accessible and rapidly deployable, decarbonization focused and social benefit oriented</p>	<p>\$349M in new funding commitments were made available for the GTHA, including pro-rated portion of funding through federal and provincial budgets, Canada Infrastructure Bank funding for TAF-incubated Efficiency Capital, and enhancements to rate-based electricity and gas conservation programs. TAF activities in support of this outcome included advocacy to the federal and provincial governments and the Ontario Energy Board, and grant-funded advocacy on gas conservation through Pollution Probe.</p>
<p>Shift Retrofit Accelerator into higher gear as part of our ramp-up strategy.</p>	<p>Retrofits of 5,000 suites completed or in design with support from TAF’s Retrofit Accelerator</p>	<p>Ongoing. 3,000 suites currently in the funnel; retrofit volume is limited by team capacity to engage with and support building owners.</p>
	<p>Incorporate three new technologies into Accelerator retrofits to continue to advance knowledge, standards and outcomes</p>	<p>Partially completed. Installed Mitsubishi ATW heat pump at FQSF condominium. Considering Piranha wastewater heat pump for the 840 Eglinton retrofit. Prefabricated exterior insulation panels are in consideration at the design stage of the 575 Danforth Retrofit.</p>

	<p>At least \$300M cumulative mobilized for investment in Accelerator-supported retrofits, including at least \$20M in public funding secured with TAF’s assistance</p>	<p>Partially completed. Mobilized \$88M for retrofits through building owner, public, and TAF funding. The 13.6M in public funding secured (primarily from FCM, NRcan, and DRC funds) supported retrofits of eight buildings.</p>
	<p>Benchmarks, indicators and methodology for measurement to assess cost, speed, and public benefits are finalized and strategies for improving in each benchmark category are in place</p>	<p>Partially completed and ongoing. Finalized indicators and metrics focused on community benefits, retrofit capital mobilized, emissions reductions, and retrofit delivery efficiency.</p>
	<p>Draft decarbonization plan for TCHC’s portfolio is complete</p>	<p>Not completed. TAF and TCHC agreed on project approach and scope and selected the consultant who will undertake feasibility studies for four building archetypes. These will inform the overall NZ strategy, to be developed in 2023.</p>
	<p>New portfolio-scale partnership formalized with a social housing provider</p>	<p>Partially completed. An agreement in principle signed with City Housing Hamilton, starting with one retrofit. A draft agreement with Durham Housing for four retrofits advancing.</p>

## Retrofits Team

Objectives	Status and Outcomes
Participate actively in community of practice with other retrofit players	Completed. Engagement and alignment with Toronto Community Benefits Network (TCBN) on goals for community benefits and workforce development for deep retrofits. Convening national community of practice on retrofit market development via grant to Pembina Institute.
Finalize Retrofit Accelerator indicators and benchmarks and implement strategies to drive continuous improvement	Completed. KPIs finalized and included in Salesforce for ongoing monitoring and evaluation.
Continue to refine business processes including project screening, procurement, contracting, certification, and quality assurance to reduce costs, compress schedules, and ensure quality outcomes	Completed and ongoing. As part of continuous improvement process, retrofit phases formally defined and being measured and analyzed for time-compression and standardization opportunities. All project workflows incorporated into Salesforce, Teamwork and SharePoint.
Build up agile team culture to enable strong capitalization of learning-by-doing strategy	Not initiated. None this year; lessons from 445 Eglinton retrofit debrief be incorporated into project workflows and processes.
Collaborate with Efficiency Capital to originate, finance and document the benefits of deep retrofits; collaborate with Greater Montreal Climate Fund to support their retrofit program objectives	Completed and ongoing. Bilateral TAF/Greater Montreal Climate Fund heat pump program launched, consultant secured to support implementation, and formal partnership with Efficiency Capital established.
Strengthen monitoring and evaluation of Indoor Environmental Quality outcomes from Accelerator retrofits to demonstrate the benefits of and improve the case for retrofits	Not completed. Challenges finding partners and/or service providers to support data analysis and usage/reporting, and to document protocols and processes for evaluating retrofit IEQ data.
Explore potential for developing Community Benefits Agreement for St. Jamestown project	Completed and ongoing. St. James Town feasibility study completed; detailed study in 2023. Project partners receptive to integrating community benefits into project design, potentially with TCBN as a partner.

<p>Work with regional municipalities to include Retrofit Accelerator in municipal climate plans and initiatives</p>	<p>Partially completed and ongoing. Strong interest in the concept. Opportunity for collaboration with City of Toronto leveraging the Green Will and other initiatives being explored. Engagement with other cities in progress.</p>
<p>Continue using Retrofit Accelerator-supported projects to demonstrate and stimulate the market for innovative products/technologies, including pre-fabricated over-cladding</p>	<p>Completed and ongoing. Activity focused on prequalifying overcladding providers resulting in: a draft Request for Supplier Qualifications (RFSQ) document and final technical requirements, and two regional housing providers (TCHC and Durham Regional Local Housing Corporation) participating in our prequalification work. TAF and the housing providers will consult the final prequalified roster for future retrofit projects.</p>

## ACCELERATE NEAR-ZERO NEW CONSTRUCTION

TAF supported five municipalities in adopting or updating local green development standards (GDS), and we were successful in strengthening higher tiers in two municipalities to include embodied carbon of construction materials. We were able raise broad awareness of the merits of green development standards during the introduction of Bill-23.

Objectives	Targets for 2022	Status and Outcomes
<p>Effective Green Development Standards adopted across the region with a stronger building code as a foundation.</p>	<p>At least 4 additional cities adopt new or updated standards</p>	<p>Completed. Ajax, Brampton, Pickering, Vaughan and Markham adopted new or updated standards.</p>
	<p>At least two cities have leading-edge standards designed to transition to near-zero by-or-before 2030 and include embodied carbon requirements</p>	<p>Completed. Toronto and Brampton have council-approved policies to transition their GDS to near-zero by 2030. Both standards also have embodied carbon requirements in higher tiers, expected to have mandatory embodied carbon elements by 2030.</p>

	<p>Ontario Building Code (OBC) harmonization with the new national code results in stronger energy efficiency requirement</p>	<p>Not achieved. Despite advocacy by TAF and others, the OBC is being harmonized with the lowest national model code option, which keeps efficiency requirements at 2017 (current) levels. However, TAF-funded advocacy through Efficiency Canada has secured a federal commitment to establish a net zero emissions national code by 2024, which could create an accelerated pathway for strengthening the Ontario Code.</p>
<p>The development industry and regulators have the necessary capacities to enable a rapid transition to near-zero new construction.</p>	<p>At least two new tools and/or funding sources are available or in development to support municipal implementation of green development standards</p>	<p>Completed. Toronto has adopted enhanced incentives for Toronto Green Standard (TGS) Tiers 2/3 and Durham Region is developing an incentive program with funding via a TAF grant.</p>
	<p>Industry needs for the near-zero transition (e.g. financing and technologies/products) are identified and strategies developed to meet them</p>	<p>Not completed. This objective is carried forward to 2023.</p>

## ADVANCE MODERNIZATION OF ONTARIO'S ELECTRICITY SYSTEM

This is a new area of concerted activity at a critical time. TAF played a unique role in supporting grassroots advocacy with direct government relations. TAF provided evidence-based planning insights to support net-zero electricity at a time where province is facing shortages as soon as 2026. New stakeholders were engaged, new organizing is underway with a shift in the program's focus in 2023 and beyond to align more closely with TAF's urban climate mandate.

Objectives	Targets for 2022	Status and Outcomes
Expand understanding of the opportunities and challenges, ecosystem and stakeholders associated with shifting to a clean, modern, affordable, resilient electricity system.	Articulate clear problem statements informed by key stakeholders	Completed and ongoing. A stakeholder mapping tool was developed that can be used to identify stakeholders and capture their ongoing interests and concerns.
	Identify major policy and other trends and inflection points for 2022-24, and beyond	Partially completed. Stakeholder mapping and interventions engagement were completed with external consultant.
Identify resonant and compelling narratives that increase mass support for advancements to Ontario's electricity system.	Identify critical audience segments, their priorities, and pathways to reach and engage them	Partially completed. Stakeholder mapping data was used to identify areas of concern shared among multiple stakeholders and some approaches for addressing them.
	Develop and test messages with key audiences to inform future activity	Completed. Leveraging previous engagements and research, TAF established key messages focused on achieving an affordable, resilient, fair and decarbonized electricity system, which was used for media and stakeholder outreach for the release of TAF's system scenarios and response to the IESO's reports.

<p>Co-create and begin to advance short/reform and longer-term/transformational approaches to advancing the desired electricity system.</p>	<p>2-3 strategies are co-created focused on transformative change to the Ontario electricity system to achieve climate, equity and other desired outcomes</p>	<p>Completed. A TAF-commissioned study outlining scenarios for a net-zero grid was published, earning media coverage from a variety of outlets and positioning TAF as expert commentators in the net-zero electricity transition. The study, in combination with the narratives research TAF commissioned, highlighted the importance, feasibility and value of distributed energy resources (DERs).</p>
	<p>2-3 strategy-aligned local initiatives with or by partners are advanced with TAF grant(s) and/or investment(s)</p>	<p>Not completed. A project was cultivated but did not proceed, and other opportunities, including to build broader, influential engagement, are being pursued.</p>
	<p>Federal Clean Electricity Standard regulation process initiated and carbon price exemption for electricity generation phased out</p>	<p>Completed and ongoing. TAF staff engaged with ECCC staff directly on this issue with a focus on addressing the increasing carbon intensity of Ontario's grid, recommending interim targets, ensuring any carbon offsets are high quality and advocating for a life cycle assessment of hydrogen in the regulation. The proposed Federal Clean Electricity Regulation (CER) is expected in Spring 2023.</p>

## Functional Team Objectives and Outcomes for 2022

In addition to supporting and contributing to Focus Area activities, TAF teams ensure day-to-day processes and productivity. The 2022 priorities and results accomplished are summarized below.

### Communications & Campaigns

This year, Campaigns was added to this team's mandate, codifying the role of designing and implementing advocacy and influence strategies and tactics. This has led to stronger integrated teams, new processes, use of new tools including CRM and MailChimp integration, and significantly increased reach and uptake for our recommendations and thought leadership. This year saw an increase in quality of media coverage and established TAF as a go-to source on urban climate issues, cementing relationships with leading climate journalists and major media outlets.

Annual objectives	Status and Outcomes
Launch TAF's EV Station Fund in collaboration with NRCan and other stakeholders.	Completed. The successful launch and promotion of TAF's EV Station Fund brand and website resulted in a fully subscribed program. We achieved high engagement on municipal EV recommendations from municipal and target audiences - via webinars, emails and published articles in industry news.
Produce Retrofit Accelerator collateral to support origination of new projects and generate more demand among building and portfolio owners.	Partially completed. TAF staff delivered key messages and value of retrofit accelerators at Retrofit Canada Conference to key audiences. Collateral development was postponed due to funding and prioritization.
Lead effort to identify audience segments and insights, develop and test narratives to increase reach and influence.	Completed. Narrative research including multi-solving perspectives was completed, with learnings integrated into the electricity modelling report campaign - resulting in media coverage from Toronto Star, Globe and Mail, The Pointer, and CBC radio, and meetings with the IESO and Ministry of Energy staff.



<p>Monitor emerging campaigns and resources related to electricity grid advancements, including benefits of community-owned energy and renewables.</p>	<p>Completed. Developed and executed letter campaign in response to IESO long term procurement framework which secured over 50 signatures from companies and organizations; while the effort may have impacted the IESO's report on NG moratorium (more transparency, more storage), new gas expansion is proceeding.</p>
<p>Collaborate on briefings and strategy for research and innovation. Identify strategic opportunities and coordinate cross-team meetings as needed, publish and promote work products as needed.</p>	<p>Completed. Media outreach, including research report publications resulted in 42 media hits, many of which included high quality interviews with TAF staff. TAF's GTHA Carbon Emissions Inventory was fully redesigned <a href="#">as an interactive website</a> and achieved 63% higher engagement than the previous year. Newsletter subscribers grew 21% YOY and 67% growth in followers outside of Toronto. TAF also achieved 37% growth in LinkedIn followers, with a 40% increase in average monthly post impressions.</p>

### EDI Working Group

Membership has grown each year, with some returning members. More integrated every year, this team sent informative emails to staff, organized educational lunch and learns including staff-led cultural focused lunches, formalized Truth and Reconciliation Day and was involved in the staff retreat.

Annual Objectives	Status and Outcomes
<p>Ensure all staff have basic knowledge on Indigenous Cultural Competency and on Anti-Racism/Anti-Bias action.</p>	<p>Not initiated; deferred to 2023. Focused on creating a repository of foundational resources to ensure staff have a current and common base of understanding.</p>
<p>Support ongoing learning program and inspire greater dialogue among TAF team by creating annual calendar of important days and events to increase awareness.</p>	<p>Completed. Hosted 8 well-attended “lunch n’ learn” sessions. Informed all staff about important days and events. Adopted September 30 National Truth &amp; Reconciliation Day with office closure to allow staff to engage in reconciliation learning and action.</p>
<p>Standardize an annual EDI survey and report on our Board, Committee and Staff make-up.</p>	<p>Ongoing. Retained a consultant to support this work, who analyzed TAF’s 2021 EDI data survey to collect EDI data in 2023 in development, along with a process for updating the data.</p>

Plan and organize management training on policies relating to workplace harassment and discrimination, and how to handle issues and concerns.	Not initiated. A workshop on creating a safe and inclusive workspace is scheduled for Q1 2023.
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## Finance

Annual Objectives	Status and Outcomes
Support the Investment Committee (IC) and execute their re-balancing directions.	Completed. Incremental rebalancing undertaken based on IC direction and paid down Line of Credit with underperforming fixed income, saving approximately \$100K.
Establish credit analysis standards and process, including with external support.	Not initiated. Nevertheless, robust credit analysis undertaken in the context of due diligence for all direct investment investments. Standard development deferred to 2023.
Refine and streamline financial and program audits and reporting to all stakeholders.	Refinement is on-going process but in 2022 substantial progress has been made to endowment reporting and audit preparation

## Governance

TAF updated our relationship framework and other key governance documents to reflect all three endowments and current needs to fulfil mandate. We continued to support board and committee work and ensure strong reporting and oversight of TAF activity, including program and campaign approaches, grants, investments and financials.

Annual Objectives	Status and Outcomes
Renew our asset mix to include Alternatives and make progress towards Target Portfolio.	Ongoing. Search for an infrastructure manager in progress and selection committee established with aim of hiring Q2 2023.
Launch a new Direct Investment Committee and Investment Committee to promote greater oversight and strategic deployment of TAF funds in service of achieving carbon, social and financial targets.	Completed. Separate Direct Investment and Investment Committees established, and members appointed. Successful recruitment of additional members with expertise in responsible investing, policy and valuation on track for appointment Q1 2023.

Hold 1-2 investment-focused Board meetings per year, if needed, to facilitate rebalancing and approvals.	Completed. Special meeting held in August to consider a direct investment opportunity. No additional meetings were required.
Review 2019-2022 organization-wide progress, insights and context and, as needed, coordinate a new strategic planning process to guide the work of future years.	Not initiated; deferred to 2023 Annual Plan.

## Grants

The grants team has integrated new metrics and improved resources and capacity for program design and evaluation for staff and grantees.

<b>Annual Objectives</b>	<b>Status and Outcomes</b>
Incorporate new community benefits and scaling metrics into the grants and internal project application processes.	Completed. The new metrics were added to the application process and grant applications assessed accordingly. We are in the process of adding a social equity-focused metric for the grant intakes of 2023.
Build grantee and staff capacity specifically to identify scaling pathways (or barriers) and community benefits, in addition to carbon reductions.	Completed. TAF grantees and staff were introduced to these new metrics as part of the 2022 grants intake rounds. We also added these metrics as new components of TAF's online program design and evaluation course, to help build grantee understanding of their importance and how to embed them effectively into program design. Key pointers were added to the internal evaluation form to assist staff in their evaluation of grant applications.
Participate in our first (and at least one) collaborative granting project with an LC3 partner.	Completed. The LC3 network, including TAF, provided collaborative funding to Efficiency Canada to increase municipal knowledge and capacity to adopt Net Zero Energy Ready Codes and, through consultation, to provide the municipal perspective in Net Zero Emissions Code Development for new buildings as well as Retrofit Code and Building Performance Standards for existing buildings. We also collaborated with other LC3 centres and the National Office to define the key parameters and mechanisms for delivering a collaborative grant in the near future. The process, objectives, and governance structure for collaborative granting are still being refined and are likely to be finalized in 2023.

## Impact Investing

The impact investing team updated TAF's direct investment strategy, incorporated new evaluation criteria, and advanced two mandate-aligned investments.

Annual Objectives	Status and Outcomes
Incorporate new evaluation criteria for community benefits and scale into investment processes and support refinement of financial capital mobilization metric to increase measurability.	Implemented and ongoing. The community benefits weighting criteria was determined and will be applied to each new investment proposal going forward. Scale criteria and refinement of capital mobilization metric is in progress.
Support re-balancing the TAF portfolio to mitigate risk, secure performance and return, and maximize impact.	Ongoing. SIOP was updated to better reflect the desired asset mix and allocation targets. Based on committee input, shifts in TAF's internal processes, reporting, and asset mix are in progress.
Hit Direct Investment core performance targets including: <ul style="list-style-type: none"> <li>a. Maintain a qualified pipeline of 3-5 projects and companies</li> <li>b. Secure approval for at least 3 transactions (project or enterprise)</li> <li>c. Advance between \$1-2 million and increase gross revenue by 5-10% by year end</li> <li>d. Attract (leverage) co-investment in transactions and/or funds at a ratio of at least 1:3 of TAF's own investment</li> </ul>	<ul style="list-style-type: none"> <li>a. Complete. More than 5 qualified investments underwent due diligence.</li> <li>b. Partially complete. Two transactions were approved.</li> <li>c. Complete. More than \$1.5 million was advanced on new commitments. Challenges existed in measuring gross revenue for 2022 and target is redefined for 2023</li> <li>d. Partially complete. The target leverage was achieved for one new ESPA transaction, but not across all investments, although this may change as investees attract more capital.</li> </ul>
Undertake a search for aligned Alternative Investments (once SIOP approved) and add at least one manager to the portfolio.	Ongoing. The Investment Committee approved the manager search to focus on Infrastructure Funds. HUB Proteus is leading the work, with results expected to be available for presentation to the Board in Q2 2023.
Develop an Impact Investing plan to achieve the Target Portfolio, including an updated direct investment strategy reflecting the current context, the focus, impact, and risk/return expectations, and roles geared to achieving the 30% target.	Complete. Informed by the members of the Investment and Direct Investment Committees, the Impact Investing Strategy was finalized in Q2.

<p>Participate with key stakeholders on development of financing approaches and project origination to assist GTHA municipalities in upgrading wastewater facilities to include anaerobic digestion and renewable natural gas production.</p>	<p>Not complete. Despite positive early conversations with the City of Petawawa and the Ontario Clean Water Agency about potential investment approaches, investment opportunities did not materialize.</p>
<p>Based on consultation with LC3 colleagues, identify and initiate our first (at least one) mutually beneficial investment-related opportunity for collaboration, either network-wide and/or with a subset of centres.</p>	<p>Not completed. Several potential opportunities were identified and conversations with LC3 centres initiated. No investment opportunities reached full due diligence due to factors external to TAF control. This objective is carried forward and reflected in TAF's 2023 Annual Plan.</p>

## People & Operations

In 2022, supported by HR Committee, this team managed two major projects: succession planning and executive recruitment for a new VP Impact Investing, and also a major compensation adjustment across the organization. This team also led the planning and design of an overnight retreat for TAF staff and continues to work on evolving TAF to a strong hybrid culture. We continue to improve policies and processes.

Annual Objectives	Status and Outcomes
<p>Ensure all staff are fully trained on SharePoint and Salesforce and support the roll-out and adoption of these tools over the year.</p>	<p>Completed and ongoing. All TAF teams are using Sharepoint and TAF's in-house server is planned to be shut down in Q1 2023. The roll-out of Salesforce is progressing smoothly, with reporting, lead generation and KPI integration being key areas of focus in 2023.</p>
<p>Reduce total costs for legal services and improve legal process to help us work faster and more cost-effectively.</p>	<p>Not initiated. This objective is carried forward and reflected in TAF's 2023 Annual Plan.</p>
<p>Update TAF's purchasing practice, through staff training and improved supporting process documentation.</p>	<p>Ongoing. An RFP for a consultant to develop new policies and templates is in development, and this objective is carried forward to 2023.</p>

<p>Complete the Compensation Study and implement recommendations, including improving transparency, ensuring pay equity, and enabling managers to support growth of team members.</p>	<p>Completed. The plan for implementing the Compensation Study's recommendations was communicated to staff following Board approval. Year one of the adjustment has been initiated.</p>
<p>Support leadership transfer of VP Impact Investing to new hire, including onboarding, ensuring continuity of projects, supporting knowledge transfer, team engagement, and other priorities.</p>	<p>Completed. TAF's new VP Impact Investing was onboarded in August and has successfully completed his onboarding and probationary period.</p>
<p>Develop and invest in additional staff engagement activities to maintain morale, energy levels, and creative and strategic thinking, including retreats, learning/development opportunities and other unique activities (pandemic restrictions to be considered)</p>	<p>Completed. Several events were held this year which helped to build staff engagement, morale, and collaboration, including an overnight retreat and well-attended holiday party. High staff morale and engagement was evident in this year's annual reporting and planning cycles.</p>
<p>Set up new policies and practices to support TAF as a hybrid workplace in 2022 and beyond; including approaches to team meetings; HR handbook updates; right-to disconnect legislation; and other policies</p>	<p>Partially completed and ongoing. TAF's HR handbook has been updated to reflect current practices, and policies required by new legislation (e.g., right to disconnect) have been drafted and will be in place by Mar 1 deadline. Other updates to policies will be undertaken in 2023.</p>
<p>Ensure all staff have completed all Ministry-mandate training, including Accessibility Training and Workplace Harassment Training</p>	<p>Completed. All staff have completed cyber training and phishing exercise via the City. An all-staff anti-harassment training workshop will take place in Q1 2023.</p>

## Policy

New hires and new team structure; we have a new matrix to ensure strong oversight and tracking at all levels of government and all major files. The team is leveraging the carbon emissions inventory to develop relationships with new municipal leadership. Working more closely with Communications on design and delivery of strategic campaigns to advance policy priorities.

Annual Objectives	Status and Outcomes
Incorporate new community-benefits / multi-solving priority into policy advocacy efforts.	Completed and ongoing. Community and other benefits are considered in all policy development and advocacy; additional effort will be dedicated to robustly embed these priorities in policy work.
Engage the LC3 network in addressing provincial and federal opportunities that can have an impact in the GTHA.	Ongoing. Explored but rejected the Clean Energy Regulation as a focus for LC3 network advocacy; more appropriate topics are being explored. Bilateral work with Ottawa Climate Action Fund ongoing given common, Ontario-focused priorities.
Leverage CRM to improve work with existing allies, expand our outreach and network of partners, and engage regularly and effectively with stakeholders.	Completed. The CRM was used effectively and successfully to raise awareness regarding the GDS provisions of Bill 23.
Scan for upcoming urban climate policy consultations and decisions at all levels of government and evaluate/determine TAF action (including no action) based on alignment with focus areas, impact, niche/need.	Ongoing; this is a daily activity for the policy team.
Provide all TAF teams with government relations and advocacy support and provide advisory support to select grantees on climate policy work.	Ongoing; this is a daily activity for the policy team.

## Research and Innovation

Formerly known as the Quantification team, Research and Innovation continues to develop new research and evaluate greenhouse gas quantification for internal project and funding opportunities, municipalities, LC3 member, among others.

Annual Objectives	Status and Outcomes
<p>Formalize and disseminate a process for identifying and screening new research opportunities across the organization, and managing and evaluating the research TAF invests to ensure it aligns with TAF’s strategic objectives and embraces the uncertainty inherent in research and discovery.</p>	<p>Completed. Developed a research and innovation strategy brief including sections related to TAF’s grants, impact investing and retrofits accelerator.</p>
<p>Build knowledge/expertise among strategic practitioners, including LC3 and key public and private stakeholders, to quantify and understand carbon and co-benefits data.</p>	<p>Completed and ongoing. Engaged with practitioners through GTHA Carbon Inventory webinars delivered to both general and government audiences, the Carbon Data Network (CDN), and LC3 centre colleagues through group and bilateral meetings.</p>
<p>Establish an internal database to store, manage, and refine all quantification datasets and related processes.</p>	<p>Partially completed and ongoing. A database solution identified and nearly all carbon inventory related data is entered; entry of other data sets and key assumptions will be completed mid-2023.</p>



<p>Improve climate action planning through thought-leadership and strategic research including:</p> <ol style="list-style-type: none"> <li>1. Updates to the GTHA Carbon Emissions Inventory, associated Quantification Methodology, and TAF’s Marginal Electricity Emissions Factors (MEEF)</li> <li>2. White paper on the role of the natural gas grid in a low-carbon future, with a focus on dispelling common myths regarding renewable natural gas and hydrogen</li> <li>3. Synthesis of best available online tools including data visualization, inventory data sources and modeling</li> </ol>	<ol style="list-style-type: none"> <li>1. Completed and ongoing. TAF’s 2021 GTHA Carbon Emissions Inventory was published in a new interactive website format and included for the first time a section dedicated to Scope 3 emissions. The Quantification methodology and MEEF reports will be published in early 2023.</li> <li>2. Partially completed and ongoing. An internal topic explainer will be completed in 2023.</li> <li>3. Completed. The team established a robust database of tools, datasets, and software relevant to quantification work.</li> </ol>
<p>Collaborate with the LC3 network including by:</p> <ol style="list-style-type: none"> <li>1. Supporting centres with GHG quantification and reporting</li> <li>2. Supporting national office with KPI development and research</li> <li>3. Conducting assessment of LC3-relevant TAF projects to demonstrate and refine the post-hoc evaluation protocol to be used by the centres</li> </ol>	<p>Completed. The R&amp;I team supported three LC3 centres with their grants assessments and delivered a GHG quantification workshop aimed at building proficiency among LC3 members. The team will be available as needed to answer specific questions from LC3 members in 2023.</p>
<p>Update Carbon Data Network strategy to help municipalities and other decision-makers make use of best available data and methodologies for making informed climate action decisions and improve emission quantification in the GTHA.</p>	<p>Completed. TAF’s strategy around the Carbon Data Network has been updated with input from relevant TAF teams. TAF will continue to hold an annual event, planned for May 2023.</p>

## Impacts Achieved

TAF regularly measures and evaluates the impact of our work, with the goal of informing our decisions and recommendations, and monitoring our progress.

TAF has two **Key Performance Indicators (KPIs)**:

- **KPI #1 - Carbon Emissions Reduction Potential:** the cumulative total potential emissions reductions associated with projects funded by TAF over a 20-year horizon.
- **KPI #2 – Financial Capital Mobilized:** the total amount of capital invested in TAF-supported carbon reduction projects, inclusive of direct investments, grants, and program spending, as well as external contributions and co-financing.

The impact associated with each grant or project is allocated to the calendar year in which the contract is signed or in which the project is started. For impact investing projects, allocation is based on the year the first disbursement of the investment is executed. This estimate includes the expected carbon emissions reduction potential over the first 20 years, and the total investment over the lifetime of the project.

In 2022, TAF mobilized a total of **\$9,796,273** for low-carbon solutions in the GTHA. These investments are estimated to result in total potential emissions reductions of **43,095,649 tCO<sub>2</sub>eq.**

## Appendix: Key Performance Indicators

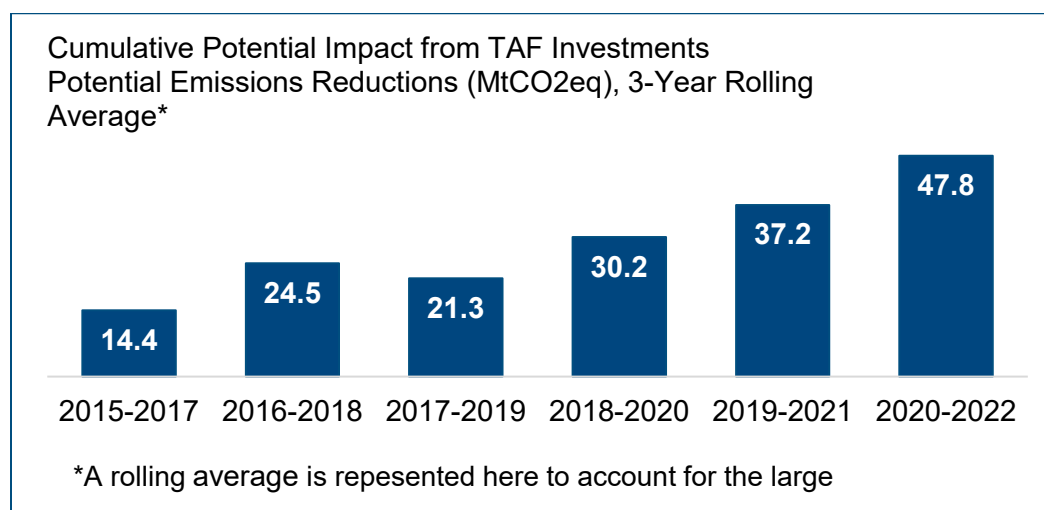
In addition to the two KPIs, TAF tracks several **Supplementary Performance Measures (SPMs)** to help guide our decision-making. These include direct emissions reductions realized through TAF investments, the estimated unit cost for both direct and potential emissions reductions, and the economic and air quality co-benefits. Details on how these estimates are derived are available in TAF's Carbon Emissions Quantification Methodology.

Indicator	Value
Potential Emissions Reductions, tCO <sub>2</sub> eq (KPI #1)	43,095,649
Cost per Potential Emissions Reduction, \$/tCO <sub>2</sub> eq	0.05
Direct Emissions Reductions, tCO <sub>2</sub> eq	30,317
Cost per Direct Emissions Reduction, \$/tCO <sub>2</sub> eq	16.57

### Potential Emissions Reductions (KPI #1)

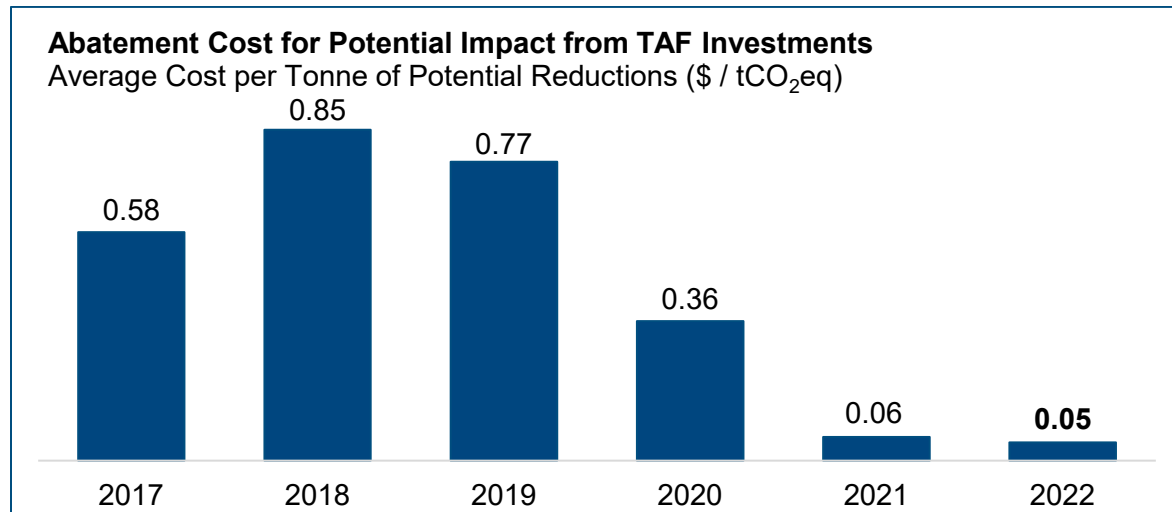
TAF measures the cumulative potential emissions reductions associated with all projects the organization funds, estimated over a 20-year period. While these emissions reductions have not yet been realized, this measure provides a valuable benchmark of TAF's potential investment impacts.

In 2022, TAF invested in projects with a cumulative potential emissions reduction of 43.1 MtCO<sub>2</sub>eq (down 26% from 58.4 MtCO<sub>2</sub>eq in 2021). Potential emission reductions in 2022 increased the 3-year rolling average to 47.8 MtCO<sub>2</sub>eq from (up 28% from 37.2 MtCO<sub>2</sub>eq). The 2022 total includes estimated reductions from four quantifiable grants, with over 80% (34.5 MtCO<sub>2</sub>eq) of impact from TAF's work supporting the improvement of space and water heating regulations in Canada. The other projects focus on district energy and building retrofits.



\*A rolling average is presented to better reflect long-term trends, filtering out the large variance that may be associated with individual projects.

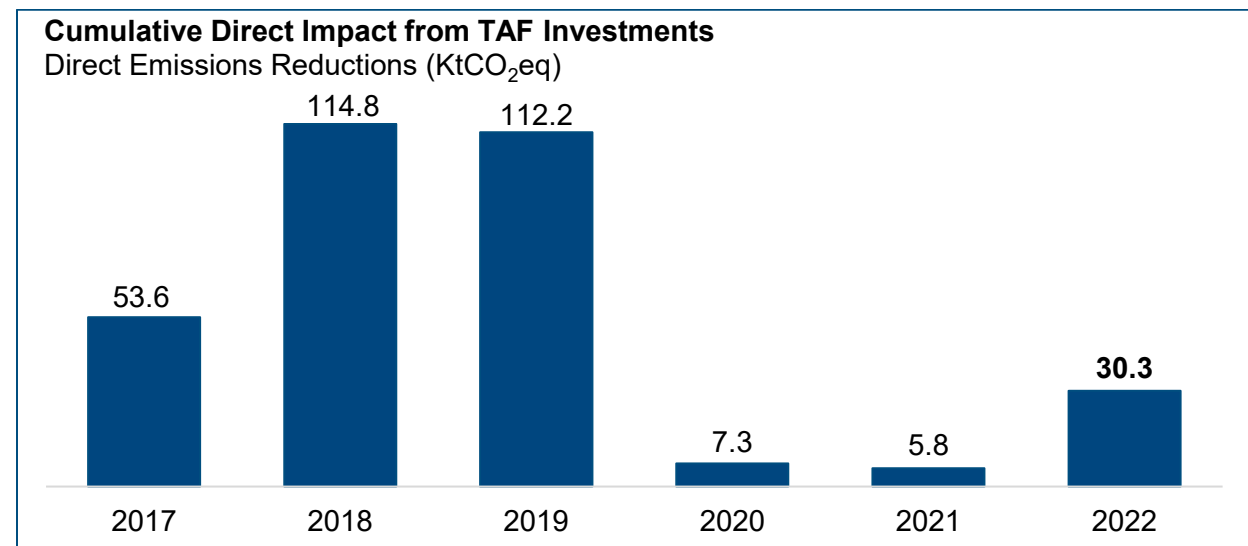
The unit cost for these cumulative potential emissions reductions is estimated to be \$0.05/tCO<sub>2</sub>eq, lower than in previous years (\$0.06/ tCO<sub>2</sub>eq in 2021 and \$0.36 tCO<sub>2</sub>eq in 2020).



TAF also supported a few other projects that can have significant carbon impacts but are not included in cost per tonne metric. These include three grants that were determined to be non-quantifiable based on our analysis and impact investment loans (e.g., private equity) made outside of GTHA (in North America) whose impacts are often not possible to quantify.

### Direct Emissions Reductions

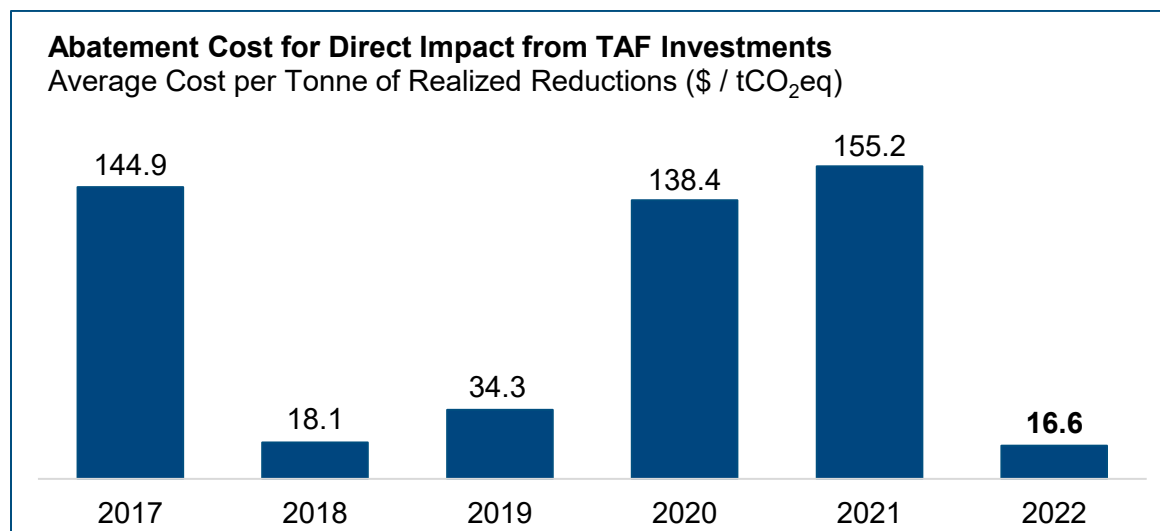
In 2022, TAF invested in projects with projected cumulative direct emissions reductions of 30,317 tCO<sub>2</sub>eq. This is significantly higher than historical benchmarks (7,300 tCO<sub>2</sub>eq in 2021 and 5,802 tCO<sub>2</sub>eq in 2020) where we observed a slowdown of carbon reduction measures as a result of the COVID-19 pandemic.



Estimated direct emissions reductions in 2022 were driven by three projects:

- Energy efficiencies realized as a result of retrofits completed in 597 units (in 6 sites) through TAF’s Retrofit Accelerator program.
- An energy audit and conservation measures implemented in a multi-unit residential building using the Energy Savings Performance Agreement (ESPA) mechanism created by TAF.

The unit cost for these cumulative direct emissions reductions is estimated to be \$16.6/tCO<sub>2</sub>eq, significantly lower than in previous years (\$155/ tCO<sub>2</sub>eq in 2021 and \$138 tCO<sub>2</sub>eq in 2020).



### Financial Capital Mobilized (KPI #2)

TAF mobilized a total of \$9,796,273 for low-carbon solutions in the GTHA in 2022. This includes direct investments, grants, and program spending, as well as external contributions and co-financing. Over a quarter of this funding was provided by external sources, including:

- \$ 500k for a retrofit project at one ESPA project
- \$ 2.1M in co-funding towards grants and Retrofit Accelerator projects

Indicator	Value
Total Financial Capital Mobilized (KPI #2)	\$9,796,273
Total Lifetime TAF Investment	\$7,167,469
Total Funding from External Sources	\$2,628,804

TAF also raised \$101,000 from external sources to advance our climate projects:

- Canada Mortgage and Housing Corporation: \$86,000 for Retrofit Accelerator (one year project)
- Eco Canada: \$15,000 for Research & Innovation (Work placement program)

## Co-Benefits of Carbon Emissions Reductions

TAF's activities have impacts beyond carbon emissions reductions, such as increased economic activity resulting from new investments and improvements to air quality through reductions in polluting fuels. These co-benefits are often substantial, and we will continue to refine them using the best available information.

### Economic Benefits

We estimate the economic benefits of our programs using job-years created and changes in GDP. Estimates are currently limited to energy efficiency projects, using multipliers derived from past research. Expanding these estimates to other types of projects, beyond energy efficiency ones, is a priority for 2023.

Impact Type	Job-Years Created	Increase in GDP (\$)
Potential	17	\$2,292,500
Direct	32	\$4,434,771

### Air Quality

TAF estimates cumulative reductions in criteria air contaminants (CACs) over a 20-year horizon resulting from changes in fossil fuel consumption. Majority of contaminant reductions occur at the site level (e.g., switching out a gas boiler), however, some contaminants also include upstream impacts at the plant level. In 2022, TAF's projects resulted in reductions in Particulate Matters (TPM, PM<sub>10</sub> and PM<sub>2.5</sub>), Sulfur Oxides (SO<sub>x</sub>), Nitrogen Oxides (NO<sub>x</sub>), Volatile Organic Compounds (VOC) and Carbon Monoxide (CO). The table below shows the direct and potential reductions.

Criteria Air Contaminant (CAC)	Emissions Reductions	
	Potential	Direct
Total Particulate Matter (TPM) (t)	4,231	2.1
Particulate Matter with diameter < 10 µm (PM <sub>10</sub> ) (t)	4,231	2.1
Particulate Matter with diameter < 2.5 µm (PM <sub>2.5</sub> ) (t)	4,231	2.1
Sulfur Oxides (SO <sub>x</sub> ) (t)	334	0.2
Nitrogen Oxides (NO <sub>x</sub> ) (t)	16,899	41.5
Volatile Organic Compounds (VOC) (t)	3,062	1.6
Carbon Monoxide (CO) (t)	13,888	14.8
Ammonia (NH <sub>3</sub> ) (t)	(259)	0.4