STEPPING CARBON 613 **OTTAWA'S GREEN ECONOMY HUB 2018 REPORT**







ABOUT EnviroCentre | EnviroCentre is an Ottawa-based environmental non-profit which brings environmental change to life by offering people, organizations and communities practical solutions to lighten their environmental impact in lasting ways.

We believe dramatic reductions in greenhouse gas emissions are achieved through inspired environmental action and positive change. With this in mind, EnviroCentre concentrates its efforts in three areas:



HEALTHY, EFFICIENT HOMES



CONNECTED, ENVIRONMENTALLY AWARE ORGANIZATIONS



ENGAGED, SUSTAINABLE COMMUNITIES

envirocentre.ca

ABOUT CARBON 613

Carbon 613 is EnviroCentre's target-based sustainability program for Ottawa businesses and organizations. Through Carbon 613, we are convening a network of organizations and businesses to set and achieve greenhouse gas (GHG) reduction targets. Members are empowered with the guidance, resources, and expertise needed to achieve their goals, and celebrated for progress made. Together we are demonstrating that sustainability is in business' best interest.



Green Economy Canada

Carbon 613 is one of seven Green Economy Hubs across Ontario supporting networks of businesses to set and achieve sustainability targets. Together, we're demonstrating a more sustainable economy is possible.



WHAT A YEAR!

The scientific community has reached a consensus that by limiting the global increase in temperature to 1.5 degrees Celsius the risks and effects of climate change will be substantially reduced. The international community has created a framework to achieve this goal with 186 countries party to the Paris Agreement. In Canada, federal, provincial and municipal governments have all adopted targets to reduce emissions by 80% by 2050.

It's not only governments that have a role - any business that owns a building, operates an office, or uses a fleet creates greenhouse gas emissions. Organizations are recognizing that reducing their carbon footprints has many benefits, sometimes the biggest being the bottom line. "In 2017, a report from WWF, Calvert Investments, CDP & Ceres found that nearly 80,000 emission-reduction projects from 190 Fortune 500 companies delivered almost \$3.7 billion in savings for 2016 alone, due to a combination of lower energy costs and improved efficiencies." (Power Forward 3.0 report)

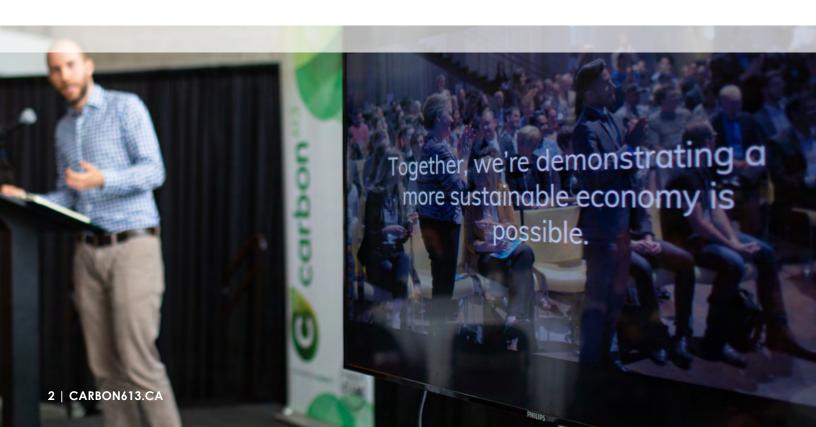
This same report also found that nearly 50% of Fortune 500 companies had set carbon reduction

targets. In Ontario, over 250 organizations have committed to set targets through Green Economy Canada. This isn't just marketing, it's a new standard that aligns a company's sustainability with an international movement.

Carbon 613 is Ottawa's target-setting program. The program is creating a network of like-minded businesses that are setting GHG reduction targets while being supported and celebrated for their efforts. EnviroCentre's Carbon 613 is one of seven Green Economy Hubs in Canada.

On the following pages you will see how Carbon 613 member organizations are leading the way, particularly this year's Sustainability Award winners on page 4. On pages 5 to 14, as you look at members in different program milestones, take a look at the diversity of their sustainability projects. This report also takes a look at Carbon 613 through the year, our events, our impact, our sponsors and funders.

- ANGELA PLANT | Program Manager | Carbon 613



ACROSS THE NETWORK

CARBON 613 IN 2018



33 MEMBERS in the Ottawa Network



2.991.57 TONS CO2e GHG REDUCTION **COMMITMENTS** – the equivalent of taking over 637 cars off the road for one year



7 MEMBERS set a reduction target

THE GREEN ECONOMY CANADA NETWORK







221 GREEN Economy Leaders

53 GHG Targets Set

200.000 **TONNES OF GHGs** Collectively Reduced



AROUND THE WORLD

186 COUNTRIES are party to the Paris Agreement



9000 CITIES have joined the Global Covenant of Mayors for Energy & Climate



48% OF FORTUNE 500 COMPANIES have carbon reduction targets (Power

Forward Report 3.0)



536 GLOBAL COMPANIES

have committed to Science-Based Targets

SUSTAINABILITY AWARDS

TRAILBLAZER AWARD (Sustainability Leadership)

Awarded to the Carbon 613 member who shows the greatest commitment to improving sustainability within the community and across the network, as well as in their own operations.



Angela's B&B | Angela is very involved in the community and is one of the most vocal

advocates for greenhouse gas reductions in the city. She is constantly sharing her experience and regularly implements new sustainability projects. She champions the Carbon 613 program and helps others understand its importance and benefits. She has set a baseline year and GHG target, and has tracked her emissions consistently since joining the program.

ROCKET LAUNCH AWARD (Best Sustainability Project)

Awarded to the Carbon 613 member who implements the year's best sustainability project in their own operations.

OpenConcept | OpenConcept set their penConcept reduction target and began action-planning within 1 year of joining the program, jumping to milestone 4 faster than anyone else. They were chosen because of their enthusiasm and eagerness to stay on track with projects that have tangible benefits. This year they renovated their basement with new insulation and energy-efficient windows.

ROOKIE OF THE YEAR (Emerging Excellence Award]

Awarded to a Carbon 613 member who joined the program within the past year and has shown the greatest enthusiasm, leadership and engagement on sustainability issues **IKEA** | Ikea joined Carbon 613 with a mandate of sustainability and reducing overall consumption

already in place. Several implemented projects, both corporatelevel and Ottawa store-specific, aim to offset energy use, reduce food waste, and improve water quality. Their Sustainability Challenge and other wellness initiatives are great examples of how to embed sustainability into the workplace culture. They even hosted a sustainability tour for Carbon 613 members and the public - check out our events section for details!



From an environmental perspective, 2018 was about stepping up: Individuals, organisations, and businesses choosing to take a concrete step towards a more sustainable future. Stepping up is less about arriving at the destination, and more about the momentum required to take that first conscious movement forward. It's about making a choice and deciding to stick to it. Stepping up is something anyone can do, no matter what their starting point or their target. It is what our planet requires us to do - we are all part of the solution.

Here in Ottawa we saw our Carbon 613 members stepping up, and we're excited to share some of their journeys with you. This is why we have chosen Stepping Up as the theme of the 2018 annual report.



CARBON 613 MILESTONES

The steps to becoming a green economy leader.

These are the key milestones that represent different phases of the Carbon 613 program. As organizations move through these milestones they get closer to integrating sustainability into their operations, eventually demonstrating the business case for sustainability.

MILESTONE 2

MILESTONE 1

BECOME A MEMBER

At this step, members are deciding how they want to tell their sustainability story.

PAGE 14

COMPLETE

EMISSIONS INVENTORY

This is the data discovery phase. Members get set up in the carbon accounting tool, and establish their baseline year.

PAGE 11

MILESTONE 3

DEVELOP AN ACTION PLAN AND SET A TARGET

Members then create a 5-10 year roadmap and announce publically their GHG reduction target.

PAGE 10

MILESTONE 4

EXECUTE ACTION PLAN

Members put their plan into action and submit annual data so we can all celebrate their progress.

PAGE 6

FEATURE STORIES





ALT HOTEL OTTAWA

MEMBER SINCE: 2017

- Started a green team
- Installed new water meters on their laundry machines to reduce energy consumption
- Maintained their Green Key certification

Angela's Bed & Breakfast Ottawa

ANGELA'S BED AND BREAKFAST

MEMBER SINCE: 2016

- Installed an electric vehicle charger
- Replaced 10 windows and front door with Energy Star Most Efficient models
- Completed lifecycle replacement of stove with an Energuide top-rated induction-range stove
- Sponsored several environmental community events including PowerShift and the Old Homes Earth Day



DELPHI

MEMBER SINCE: 2016

- Renovated office space to improve insulation, increasing energy efficiency
- Replaced air conditioning unit with a more energy efficient model
- Installed new triple-pane windows, improving temperature control



OTTAWA-CARLETON DISTRICT SCHOOL BOARD

MEMBER SINCE: 2015

- Installed 4 additional net-metered Solar PV Systems
- Board includes 56 Eco-schools with 3 Platinum schools (2018-2019 school year)
- Modernizing building automation systems to achieve better building controls



SMARTERSHIFT

MEMBER SINCE: 2015

 Publishes a free e-digest on the latest in climate change, energy, and post-carbon solutions, called "The Energy Mix"



YOUR CREDIT UNION

MEMBER SINCE: 2016

- Installed a new building automation system which amounted to a reduction of 130,000 kWh annually
- Continued LED lighting upgrades for a savings of 40,000 kWh/year
- Reduced office supplies and stationery by almost 50%
- Introduced the first Green Home Mortgage in Canada to encourage consumers to offset their carbon footprint with Bullfrog Power

penConcept

OPENCONCEPT CONSULTING

MEMBER SINCE: 2017

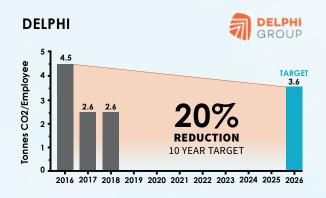
- Replaced existing basement insulation to increase energy efficiency
- Participated in the development of a Sustainable Web Manifesto
- Hosted a B Corp meet-up in Ottawa to discuss sustainability initiatives

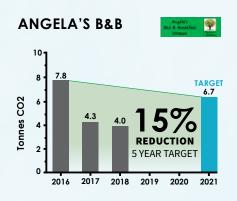
"Since joining Carbon613 we have had an increase in employee engagement, and our staff are even encouraging us to do better. They are identifying opportunities for reductions in the workplace and taking action to reduce our carbon footprint."

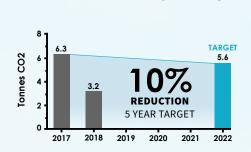
JOEL LALONDE
YOUR CREDIT UNION

MILESTONE 4 | MEMBERS ON TRACK TO MEET TARGETS

Members at Milestone 4 have set their public reduction targets, and report annually on their sustainability achievements.

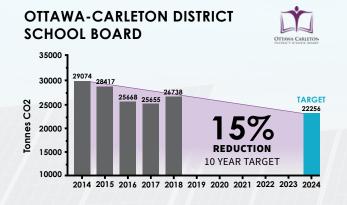






penConcept

OPEN CONCEPT





MILESTONE 4

EXECUTE ACTION PLAN





ANGELA'S B&B

BIG REDUCTIONS, SMALL BUSINESS

Think that large projects are only viable if you are a large business? Think again! Angela, owner of Angela's Bed & Breakfast, is continually proving just how wrong that thinking is. Long touted as "Ottawa's Greenest Bed & Breakfast", the list of projects she has undertaken since becoming a member is extensive - there are very few areas of carbon emissions Angela has not yet targeted. In 2018 she looked to new opportunities, like having an EV charger installed - thanks to the Electric Vehicle Council of Ottawa. She then upgraded to an Energuide top-rated induction range stove, replaced 10 windows, and replaced her front door with an insulated fibreglass model. For this business, it is all about "living in better balance with the land, water, air and having good relations with all the people and creatures sharing the planet with us present and future".

As a small business owner, she believes that businesses must "do their bit – and their best – to contribute to solutions to this big problem". And by doing so herself, she has reduced her carbon emissions and her costs of operation.

ANGELA'S 2018 UPGRADES:

- An Energuide top-rated induction range stove
- · Replaced 10 windows
- Replaced her front door with an insulated fibreglass model



OCDSB

CREATING A CULTURE OF SUSTAINABILITY

The 2015-2019 Ottawa Carleton District School Board's Strategic Plan puts a focus on "stewardship", challenging OCDSB to "model sustainability, smart energy use and sound environmental practices for students". In testament to this are their 9 net-metered Solar PV systems, ambitious energy management plans and a variety of waste diversion programs in schools.

Support for sustainability often comes from the top-down because it's about energy savings and capital projects, but in order to create a culture of sustainability in the workplace, you need support at the ground level. That's why the OCDSB encourages and supports schools to become EcoSchools. More than one third of District schools chose to certify through the EcoSchool Program in 2018-2019, getting points for their sustainability efforts. For example, Manordale Public School runs recycling and environmental



Photo courtesy of Ontario EcoSchools

education events with their ECO Club. In 2018 the school won a \$10,000 grant to plant trees and create an outdoor classroom in a playground that had no shaded areas.



CITY OF OTTAWA

ACHIEVES CORPORATE TARGET

Calculating greenhouse gas (GHG) emissions can be complicated. Globally, different organizations use different data sets and have different standards for reporting and target-setting. In 2016, the City of Ottawa stepped up by voluntarily joining both Carbon 613 and the Global Covenant of Mayors for Climate and Energy, two third-party organizations with reporting frameworks and requirements to set public GHG reduction targets. Carbon 613 focuses on corporate emissions, whereas the Global Covenant addresses their community emissions. Their membership in these networks has an impact.

In June 2018, the City set a corporate target to reduce GHG emissions by 20% below 2012 levels by 2024, as part of Carbon 613. Emissions from municipal operations are broken down into four sectors: facilities, fleets, solid waste, and wastewater treatment. In

November 2018, the City announced that it achieved its target of 20% reductions, the first Carbon 613 member to achieve a target! Through a combination of major energy changes at the provincial level (coal phase-out), increased efficiency of the landfill gas capture system at the Trail Road Waste Facility, and energy efficiency upgrades within City facilities, the City's corporate carbon footprint decreased by 25% in 4 years. The City will set a new more ambitious target later in 2019 and their journey to reduce GHG emissions continues.

Membership in both networks has drawn attention to the importance of measurement and public reporting. In fact, the City will start publicly reporting both corporate and community emissions annually in 2019! By getting serious about reporting, the City is getting serious about climate change!

CITY OF OTTAWA | MEMBER SINCE: 2016



Installed Solar PV pre-heating of domestic hot water system at Plant Recreation Centre, resulting in reductions of 18,000 kWh/year.



Completed an Alternative Electric Heating Strategy to supplement natural gas heating with electric heating and reduce costs.



The Lansdowne redevelopment is the first neighborhood in Canada to achieve LEED silver certification.

MILESTONE 3 **DEVELOP AN ACTION PLAN** AND SET A **TARGET MILESTONES**



MUSEUM OF NATURE

MEMBER SINCE: 2016

- Performed a detailed waste audit of the site
- Conducted a building energy performance audit through "Trane" to assess the building's energy conservation
- Set a baseline year



HYDRO OTTAWA

MEMBER SINCE: 2016

- Established a Green Team
- Implemented new programs related to waste management, recycling, and green commuting



CANADIAN MUSEUM OF NATURE

USING NEW TECHNOLOGY TO RETROFIT A HISTORIC BUILDING

Retrofit projects are a challenge in any building, especially for one that is 109 years old.

The Canadian Museum of Nature has good reason to monitor energy use and improve efficiency: it is a necessary task for the sustainability of the business. Through their energy audit, they were able to identify how to most efficiently manage the ventilation, heating, and cooling systems in the building. With the detailed analysis done, they got to work right away, installing Adaptive Frequency Drives on the existing chillers.

The building uses software that tracks the building's energy use in great detail, which has shown tens of thousands of dollars in savings already. More recently, they pressurized the museum overnight and used a drone and infrared camera to determine the thermal performance of the heritage stone of the building.

The work doesn't stop there, though. Further projects they aim to complete include increasing staff training during onboarding to promote their organizational goals, continuing with their greening of operations policies established in 2016, reducing/eliminating singleuse plastics in their cafeteria, a composting program, a complete recycling program, a museum-wide lighting retrofit and controls, and water bottle filling stations throughout the building.

MORE FEATURE STORIES

OPENCONCEPT

OpenConcept EMISSIONS ARE SNEAKIER THAN WE THINK!

When it comes to carbon emissions, we all know the most famous culprits - transportation, heating, and waste to name a few. However, as technology is evolving, so are our emissions sources, and unfortunately technology is not always environmentally benign. In fact, the amount of CO2 emitted to power all of the world's computers is about equal to that emitted by the airline industry. The world's use of electronic technologies is rising exponentially every year, and therefore so is its carbon footprint.

As an organization, there is a lot you can do to reduce your digital CO2 footprint, an opportunity that was seized upon by OpenConcept Consulting Inc. OpenConcept recently migrated their data servers to Amazon Web Services in Montreal, a carbon neutral host. This move was made for four main reasons:



DATA SECURITY Providing the premium service of hosting data in Canada for their clients.



SUSTAINABILITY Promoting the renewable energy economy in Quebec.



CARBON NEUTRAL HOSTING

This allows them to provide the premium service of carbon neutral hosting to their clients.



HELPING THE CANADIAN ECONOMY

By moving their servers to a Canadian location, they are supporting the Canadian economy and creating more jobs for Canadians.



EDI

IMPROVING THE PLANET AND YOUR BUSINESS' BOTTOM LINE

EDI is a leader in the electronics recycling marketplace, recycling electronics, hazardous materials, batteries and more. This means that not only are EDI's operations incredibly environmentally sustainable (their waste diversion rate is 96%), they are helping their clients achieve the same results. In 2018, they relocated to the Kanata North Technology Park after they identified that 80% of their current client base was located there. This has made their operations more efficient and reduced the GHG emissions associated with business travel.

To understand the endless benefits and opportunities of recycling business materials, EDI provided Carbon613 with data from a recent client. Over the course of 6 months, EDI recycled the equivalent weight of 26 full-grown African elephants, a project resulting in credits totalling over \$100,000 for the client. Not only was this client able to boast an enormous GHG reduction from recycling these products, they made money doing it!

Over the course of 6 months, EDI recycled the equivalent weight of

26 full-grown
African elephants

The project resulted in credits totalling over \$100,000 for the client.

MILESTONE 2

COMPLETE EMISSIONS INVENTORY





ARBORUS

MEMBER SINCE: 2015

- Collected employee commuting data to track and reduce
- Worked with landlord on expanding waste collection contract

CSV ARCHITECTS

CSV ARCHITECTS MEMBER SINCE: 2016

- Formalized a sustainability plan into the 2018 Employee Handbook
- Prioritized the search for a new office location to meet sustainability goals
- Staff underwent sustainability training through LEED certifications



CENTRETOWN CITIZENS OTTAWA CORPORATION (CCOC)

MEMBER SINCE: 2017

- Increased tenant engagement
- Expanded Green Commitments Program
- Repaired damaged weather stripping to improve air sealing

ELECTRONIC DISTRIBUTORS INTERNATIONAL



MEMBER SINCE: 2017

- Upgraded fleet to increase fuel efficiency
- Relocated office to Kanata in order to decrease carbon footprint by reducing travel time to clients



COMMUNITYWORKS NON-PROFIT HOUSING CORP

MEMBER SINCE: 2017

 Installed new makeup air unit that will be more energy efficient and provide cooling for the hallways during summer months



IKEA

MEMBER SINCE: 2018

- Achieved a waste diversion rate of 86% through programs like Waste Watchers, which optimizes the cafeteria's organic waste
- Introduced the Sell-Back program for customers to sell back their furniture for store credit
- Became a member of Travelwise and implemented OttawaRideMatch, a carpooling option for coworkers



COOPERATIVE D'HABITATION DESLOGES

MEMBER SINCE: 2017

Upgraded boiler system to increase heating efficiency



LIGHTENCO

MEMBER SINCE: 2016

- Moved into a new location and performed a technical audit
- · Implemented a lighting retrofit

COOPERATIVE D'HABITATION VOISINS

VOISINS

MEMBER SINCE: 2017



UNITY NON-PROFIT HOUSING

MEMBER SINCE: 2017



POSTERITY GROUP

MEMBER SINCE: 2017

- Implemented a low-waste and composting initiative
- Installed low-flow toilets in office bathroom facilities
- Implemented scheduled HVAC set-back using a smart thermostat
- Progressing towards carbon neutrality for 2018 through Planetair carbon offsets



S.I. SYSTEMS

MEMBER SINCE: 2017

- Switched from a single-use wasteproducing coffee maker to a machine that uses paperless filters and produces only 100% compostable organic waste
- Began using document disposal services and recycled over 1600lbs of paper, saving more than 140 trees
- Completed a building-wide waste audit with plans to undertake an office-specific audit to guide their new environmental policy



SHEPHERDS OF GOOD HOPE

MEMBER SINCE: 2017

- Began tracking energy and water consumption
- · Completed emissions inventory
- Incorporated sustainability goals into 2019 - 2023 Strategic Plan



STRATOS

MEMBER SINCE: 2016

- Underwent IT transformation which is enabling more remote work and reducing commuter emissions
- Continued implementation of Sustainable Procurement Policy and Reduction Charter
- Continued GHG emissions tracking and purchase of carbon offsets

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WHAT MOTIVATES US?
ITS BETTER BUILDINGS,
BETTER CLIENTS AND
DOING SOMETHING IN
THE BUILT ENVIRONMENT
THAT MATTERS.

STEPHEN POPE CSV ARCHITECTS

66 99

THE CARBON 613 TEAM
IS ALWAYS READY TO
HELP SUPPORT AND SET
US UP FOR SUCCESS!

STEVE HUBBARD LIGHTENCO





Carbon 613's 2018 Events

COMMUNICATING SUSTAINABILITY

Organizations choosing to implement sustainability best practices often have difficulty communicating those efforts to employees, investors and customers. This event hosted an expert panel featuring representatives from Stratos, Banfield, and Smarter shift. Attendees and panelists participated in lively discussions around the language of sustainability and setting goals, marketing vs. public relations, the risks of promoting sustainability and how to reduce those risks, and tips on increasing the effectiveness of your 'Green' initiatives.

ELECTRIC VEHICLES FOR BUSINESSES

Electric Vehicles are not just for individuals and large corporations! Small and medium-sized businesses are finding that EVs are effective and cost-friendly additions to their corporate fleet. Carbon 613 teamed up with the Ottawa Board of Trade for a discussion on how an EV can help your bottom line, and how Ottawa businesses can navigate the various incentives in place to add an EV to their fleet. This event hosted panelists from Natural Resources Canada, Lightenco, the City of Ottawa, J.J. McNeil Commercial Inc., and Hydro Ottawa.

CARBON 613'S 3RD ANNUAL EVENING OF RECOGNITION

Carbon 613 invited over 100 members, partners, and the sustainability community to celebrate another year of success as we demonstrated that sustainability is in business' best interests. The annual Sustainability Awards went to Alt Hotel, the Ottawa-Carleton District School Board, and CSV Architects.

IKEA SUSTAINABILITY TOUR

Members of the network and general public joined us for an informal tour of IKEA's sustainability features. Highlights included: the recovery department, which has a 76% recovery goal with 25% of returns repacked; rooftop solar panels that generate the equivalent of 25% of the building's electricity consumption; the logistics dock, where we learned that recycled plastics and cardboards go back into the products that we buy instore; and the ORCA machine, which can turn up to 2400 pounds of organic waste into liquid per day, drastically reducing truck-and-bin waste collection needs.

LOOKING FORWARD WITH OUR EXECUTIVE DIRECTOR



SHARON COWARD LOOKING FORWARD WITH OUR EXECUTIVE DIRECTOR

2018 gave us examples from all over the world of people, communities, organizations and businesses stepping up for environmental action and

producing results despite their political, economic or social circumstances. 2018 showed that individuals and communities can make a difference and drive positive change with their own conviction, action, and ingenuity, to enormous effect. In 2018, EnviroCentre joined the wave by stepping up to grow and enhance the Carbon 613 sustainable business network in our great city of Ottawa, and make this one of our signature programs. We are committed to this network because we believe that growing the Green Economy is not only good for the climate, but also good for local business, and there is no better way to make this happen than by spreading the word and pointing the way to easy, simple, shared solutions. At EnviroCentre, our work is all about helping people find practical ways to reduce their environmental impact - ways that last for the long term, and ways that benefit our local communities. Carbon 613 lives out this mandate, bringing environmental change to life in our local business community through practical support including workshops, networking, target-setting, and more. We're proud to be part of the green business community, pushing the needle on sustainability and environmental action right here at home.



THANK YOU

On behalf of Carbon 613 and EnviroCentre, we would like to sincerely thank all of our members, volunteers, contributors, sponsors, funders and the Ottawa business community for your support over the last year.

CITY OF OTTAWA'S COMMUNITY ECONOMIC DEVELOPMENT FUND

In 2018, Carbon 613 paired up with the Ottawa Renewable Energy Co-op to support local organizations who don't have the upfront capital for major GHG reduction projects and planning. Through the City of Ottawa Economic Development Fund, this project supported two local recreation centres to complete energy audits, develop a comprehensive plan for energy retrofits, and begin tracking their greenhouse gas emissions.



ONTARIO TRILLIUM FOUNDATION

EnviroCentre received an Ontario Trillium Foundation Grow Grant to expand the Carbon 613 program over the next two years by hiring a dedicated Business Development Manager, and enhancing our employee engagement support.



The Ontario Trillium Foundation (OTF) is an agency of the Government of Ontario, and one of Canada's leading granting foundations. OTF awarded more than \$120 million to some 700 projects last year to build healthy and vibrant communities in Ontario.

THANK YOU TO OUR 2018 ADVISORY COUNCIL!

David Handelman
Paul Labrosse
Clem Laferriere
Brandon Malleck

Jennifer Brown Finn MacDonald Robin Hutcheson

SPONSOR





CATALYZERS









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ENVIRONMENTAL IMPACT STATEMENT

250 copies of the Year-End Report were printed using 25kg of 100% post-consumer paper.

By using environmentally friendly paper we saved: 75 kg CO2 emissions | 23 kg of solid waste | 1862 liters of water

Environmental impact estimates were made using the Environmental Paper Network Paper Calculator Version 3.2.

For more information visit www.papercalculator.org

SIGN UP FOR OUR MONTHLY NEWSLETTER!