



FOODCYCLER™ MUNICIPAL FOOD WASTE DIVERSION PILOT PROGRAM



Municipality of Brockton
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Tuesday, May 14, 2024

The FoodCycler™ Food Waste Diversion Municipal Pilot Program

Dear Municipality of Brockton Staff and Council,

Thank you for your interest in food waste diversion in your community. Food Cycle Science (FCS) is an organization born from the alarming fact that 63% of food waste is avoidable and responsible for about 10% of the world's greenhouse gas emissions. FCS has developed an innovative solution that reduces food waste in landfills, takes more trucks off the road, reduces infrastructure and collection costs, and contributes to a 95% reduction in CO₂E compared to sending food to landfills. We deploy our patented technology to households around the world, helping them take ownership of their food waste and environmental impact.

In partnering with municipalities, we are committed to creating accessible food waste solutions for all people and changing the way the world thinks about food waste. The purpose of the FoodCycler™ Pilot Program is to measure the viability of on-site food waste processing technology as a method of waste diversion. By reducing food waste at home, you can support your environmental goals, reduce residential waste, reduce your community's carbon footprint, and extend the life of your community's landfill(s).

Based on several factors, we believe the Municipality of Brockton would be a great fit for the benefits of this program, and we are proposing a study involving 100 households in the Municipality of Brockton.

The **FoodCycler FC-30** and **Eco 5** devices can process 2.5 L and 5 L (respectively) of food waste per cycle and converts it into a nutrient-rich by-product that can be used to enrich your soil. Power consumption per cycle is ~0.8 kWh (FC-30) / ~1.3 kWh (Eco 5) and takes less than 8 hours to complete (overnight).

Every FoodCycler deployed is estimated to divert at least 2 tonnes of food over its expected lifetime. Based on market rates of \$100 per tonne of waste (fully burdened), 100 households participating would divert 200 tonnes of food waste and save the municipality an estimated \$20,000.00 in costs. Please note that this analysis is based on market rates and depending on remaining landfill lifespan and closure costs, local rates for waste disposal may vary.

Every tonne of food waste diverted from landfill is estimated to reduce greenhouse gas emissions by 1.5 tonnes of CO₂e before transportation emissions. Based on this, 100 households could divert approximately 300 tonnes of greenhouse gas emissions.

Food Cycle Science is excited to have you on board for this exciting and revolutionary program. The FoodCycler™ Municipal Solutions Team is always available to answer any questions you might have.

Warm regards,

The FoodCycler™ Municipal Team



Impact Canada/AAFC Food Waste Reduction Challenge

Food Cycle Science is a finalist of Impact Canada's Food Waste Reduction Challenge, which is a three-stage initiative from the Government of Canada through Agriculture and Agri-Food Canada to support business model solutions that prevent or divert food waste at any point from farm to plate. FoodCycler has been chosen as a finalist for our project titled: "Residential On-Site Food Waste Diversion for Northern, Rural, and Remote Communities".

The challenge objectives and assessment criteria are for solutions that:

1. **Can measurably reduce food waste** – in dollars and metric tonnes;
2. **Are innovative and disruptive to the status quo** – the old way of doing business is out;
3. **Are ready to scale up** – it is time to deploy high-impact and wide-reaching solutions across the Canadian food supply chain;
4. **Have a strong business case** – there is a demand for your solution;
5. **Make a difference to our communities** – creating jobs and increasing access to safe, nutritious, and high-quality food is a priority; and,
6. **Improve our environment** – reducing food waste means shrinking our GHG footprint and conserving natural resources.

As a finalist, Food Cycle Science is the recipient of a \$400,000 grant that is being 100% redistributed to our Canadian municipal partners in support of their FoodCycler initiatives and pilot programs. Based on several factors, FoodCycler believes the Municipality of Brockton would be an ideal *"Implementation Partner"* for this stage of the challenge and we are proposing a study involving 100 households in the Municipality of Brockton, wherein Food Cycle Science will contribute a portion of this grant money towards offsetting the costs of your program.

More information can be found here: <https://impact.canada.ca/en/challenges/food-waste-reduction-challenge>



As of the date of this proposal, there are a total of 137 Canadian municipalities who have signed on to participate in a FoodCycler program. Through this partnership, the Municipality of Brockton can achieve immediate and impactful benefits, acquire valuable insight about food waste diversion in your region, and showcase itself as an environmental leader and innovator in Canada.

Food Cycle Science is looking to achieve the following through this proposed partnership:

- 🌱 Receive high-quality data from pilot program participants regarding food waste diversion
- 🌱 Receive high-quality feedback from residents, staff, and council regarding the feasibility of a FoodCycler food waste diversion program for the Municipality of Brockton and similar communities
- 🌱 Demonstrate the viability of our technology and solutions in a municipal setting so the model can be re-deployed in other similar communities in Canada
- 🌱 Demonstration of a program regarding food waste diversion in small/rural Canada to support Phase 3 of Impact Canada’s Food Waste Reduction Challenge

The Municipality of Brockton would receive several benefits through this partnership:

- 🌱 Opportunity to trial a food waste diversion solution at a cost well below market prices utilizing federal funding intended for food waste reduction in our country
- 🌱 Reduced residential waste generation thus increasing diversion rates
- 🌱 Reduced costs associated with waste management (collection, transfer, disposal, and landfill operations)
- 🌱 The reduction of greenhouse gas (GHG) emissions from transportation and decomposition of food waste in landfills
- 🌱 Extend the life of your landfill(s)
- 🌱 Opportunity to support Canadian innovation and clean tech
- 🌱 Opportunity to provide residents with an innovative solution that reduces waste and fights climate change, at an affordable price
- 🌱 Obtaining data that could be used to develop a future organic waste diversion program

Residents of the Municipality of Brockton would receive several benefits through this partnership:



- 🌱 Opportunity to own an at-home food waste diversion solution at a cost well below market prices
- 🌱 Support climate change goals by reducing waste going to landfill
- 🌱 Ability to fertilize their garden soil by generating a nutrient-rich soil amendment
- 🌱 Reduce the “ick factor” of garbage to keep animals and vermin away
- 🌱 Reduce trips to the waste site and save on excess waste fees where applicable

In the pages that follow, we will offer a pilot program recommendation for consideration.



The FoodCycler Product Family

The FoodCycler product family offers closed-loop solutions to food waste, with zero emissions or odours. This sustainable process reduces your organic waste to a tenth of its original volume. Small and compact, FoodCycler products can fit anywhere. They operate quietly and efficiently, using little energy.

<p>FOODCYCLER™ FC-30</p> 	<table border="0"> <tr> <td style="background-color: #4a697d; color: white; padding: 5px;">2.5 L</td> <td style="padding: 5px;">VOLUME CAPACITY</td> <td style="background-color: #4a697d; color: white; padding: 5px;">5.0 L</td> </tr> <tr> <td style="background-color: #4a697d; color: white; padding: 5px;">30.5 L</td> <td style="padding: 5px;">UNIT VOLUME</td> <td style="background-color: #4a697d; color: white; padding: 5px;">28.9 L</td> </tr> <tr> <td style="background-color: #4a697d; color: white; padding: 5px;">4-8 HOURS</td> <td style="padding: 5px;">PROCESSING TIME</td> <td style="background-color: #4a697d; color: white; padding: 5px;">6-8 HOURS</td> </tr> <tr> <td style="background-color: #4a697d; color: white; padding: 5px;">0.8 kWh</td> <td style="padding: 5px;">POWER CONSUMPTION PER CYCLE</td> <td style="background-color: #4a697d; color: white; padding: 5px;">1.3 kWh</td> </tr> <tr> <td style="background-color: #4a697d; color: white; padding: 5px;">2 REFILLABLE FILTERS</td> <td style="padding: 5px;">ODOUR CONTROL</td> <td style="background-color: #4a697d; color: white; padding: 5px;">1 REFILLABLE FILTER</td> </tr> <tr> <td style="background-color: #4a697d; color: white; padding: 5px;">BACK</td> <td style="padding: 5px;">VENT LOCATION</td> <td style="background-color: #4a697d; color: white; padding: 5px;">TOP</td> </tr> </table>	2.5 L	VOLUME CAPACITY	5.0 L	30.5 L	UNIT VOLUME	28.9 L	4-8 HOURS	PROCESSING TIME	6-8 HOURS	0.8 kWh	POWER CONSUMPTION PER CYCLE	1.3 kWh	2 REFILLABLE FILTERS	ODOUR CONTROL	1 REFILLABLE FILTER	BACK	VENT LOCATION	TOP	<p>FOODCYCLER™ Eco 5</p> 
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Recycle Your Food Waste in 3 Easy Steps

Step 1:

Place your food waste into the FoodCycler™ bucket. The FoodCycler™ can take almost any type of food waste, including fruit and vegetable scraps, meat, fish, dairy, bones, shells, pits, coffee grinds and filters, and even paper towels.



Step 2:

Place the FoodCycler™ bucket into your FoodCycler™ machine. The FoodCycler™ machine can be used anywhere with a plug such as a kitchen countertop, basement, laundry room, heated garage, etc.



Step 3:

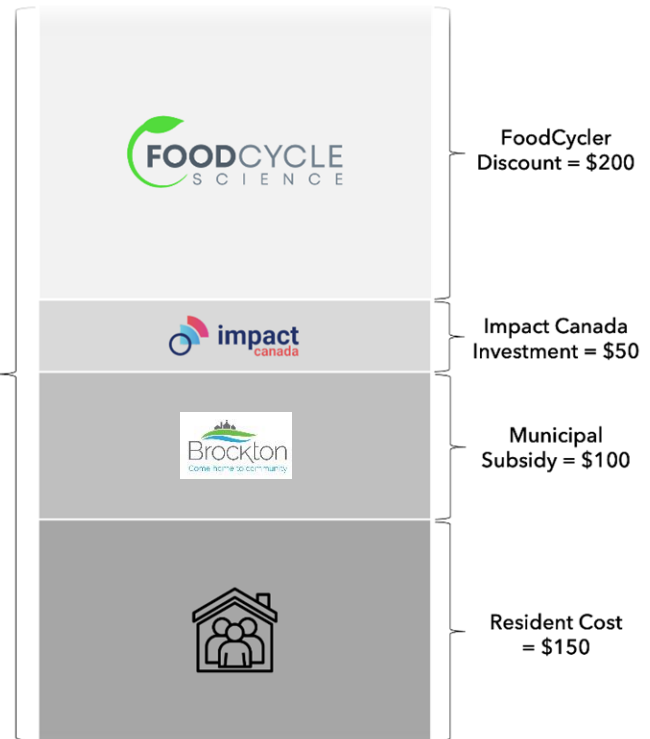
Press Start. In 8 hours or less, your food waste will be transformed into a nutrient rich soil amendment that can be integrated back into your soil. The cycle runs quietly and with no odours or GHG emissions.

FoodCycler Funded Pilot Program – Subsidy Model

FoodCycler FC-30



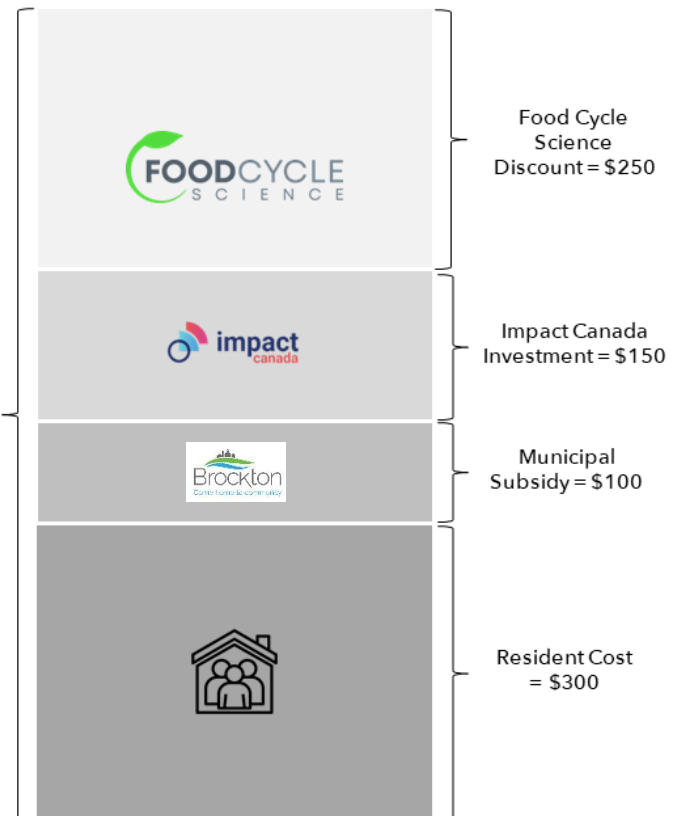
Retail Price = \$500



FoodCycler Eco 5



Retail Price = \$800



FoodCycler Funded Pilot Program

Recommendation and Details

Based on the demographics and current waste management system in place at the Municipality of Brockton, Food Cycle Science is recommending a pilot program involving 100 households.

The funded pilot program is based on a cost subsidy model where Food Cycle Science provides an initial discount, we contribute an investment from AAFC/Impact Canada, the Municipality of Brockton provides a subsidy, and the resident provides the remaining contribution. The purpose of this model is to make this technology accessible to more Canadians at an affordable price.

The total investment from AAFC/Impact Canada for a 100 household pilot would amount to **\$10,000.00¹**. The funding period for AAFC/Impact Canada ends when all funding has been fully allocated, or by December 31st 2023.

Through this partnership-based program, the **municipal investment for Municipality of Brockton is \$100.00 per household**, regardless of which device is selected. Residents will then have the option to choose the FoodCycler™ model that best suits their household and budget.

Each FoodCycler™ is estimated to divert at least 2 tonnes of food over its expected lifetime. Based on average market rates of \$100 per tonne of waste (fully burdened), 100 households participating would divert 200 tonnes of food waste and save the municipality an estimated **\$20,000.00** in costs.

Total Invoiced Amount

	Price	Quantity	Total
FoodCycler FC-30 Municipal Rate	\$250	50	\$12,500
FoodCycler Eco 5 Municipal Rate	\$400	50	\$20,000
Shipping Estimate			\$1,400
Total Invoice Amount			\$33,900

Plus applicable taxes.

Net Municipal Cost:

	Price	Quantity	Total
Total Invoice Amount			\$33,900
Less Resident Resale: FC-30	\$150	50	-\$7,500
Less Resident Resale: Eco 5	\$300	50	-\$15,000
Net Municipal Cost			\$11,400

Plus applicable taxes.

Volume Discount: Orders of 500 total units or more are eligible to receive an additional \$50.00 per unit discount on the FoodCycler Eco 5. If applicable, this discount is automatically calculated in the pricing shown above. The Municipality shall maintain a minimum of \$100.00 per household subsidy, thus passing on these savings directly to residents, reducing the resident contribution on the Eco 5 to \$250.00.

¹ Based on an estimated 50/50 split between FC-30 and Eco 5s. Will vary depending on the quantity of FoodCyclers purchased and the model ultimately selected by residents.

Purchase and Program Terms

Confirmation Deadline: Confirmation of order (Council resolution and/or signed partnership agreement) to be received no later than June 30, 2024.

Price Guarantee: Food Cycle Science will honour these rates on subsequent orders of 100 units or more, placed within the 2024 calendar year.

Shipping: Shipping estimates to your location may range from \$1,200.00 – \$1,600.00 and the \$1,400.00 quoted is an estimated average based on today's shipping rates. The Municipality may choose the shipping option that best suits their budget and needs. The higher cost shipping options will generally provide superior shipping accuracy.

FoodCycler Model Selection: During a registration period, residents will be given the option to indicate their preferred FoodCycler model. The total allotment of each FoodCycler model can be either predetermined or determined by resident selection.

Payment Terms: Payment is 100% due upon receipt of goods.

Accessories: Additional filters and other accessories may be purchased from FoodCycler at wholesale rates for resale to residents under the pilot program with no additional freight cost provided they are included in the initial order.

- **RF-35 Replacement Filter Pack (Refillable):** Includes 2 refillable filter cartridges with carbon included, good for 1 filter change. One-time purchase only to convert to the refillable system. May be purchased at a price of \$22.12 + tax in increments of 18.
- **RC-35 Carbon Filter Packs:** Includes 8 carbon packets, good for 4 filter changes. Compatible only with RF-35 refillable filter system. May be purchased at a price of \$50.00 + tax in increments of 9.
- **RC-104 Carbon Filter Packs:** Includes 4 carbon packets, good for 4 filter changes. Compatible only with the Eco 5 refillable filter system. May be purchased at a price of \$50.00 + tax in increments of 9.
- **BK-30 Spare Buckets:** May be purchased at a price of \$50.00 + tax in increments of 6.
- **BK-100 Spare Buckets for Eco 5:** May be purchased at a price of \$80.00 + tax in increments of 4.
- **RF-30 Replacement Filter Pack:** Includes 2 disposable filter cartridges with carbon included, good for 1 filter change. May be purchased at a price of \$22.12 + tax and must be purchased in increments of 20.

Warranty: 1-year standard manufacturer's warranty starting on date of delivery of all FoodCycler units to the Municipality of Brockton. We will repair or replace any defects during that time. Extended warranties may be purchased at additional cost of \$25.00 per year for up to 5 years.

Buyback Guarantee: Food Cycle Science will buy back any unsold units after a period of 1 year from the delivery date. All units must be in new and unopened condition. The municipality is responsible for return shipping to our warehouse in Ottawa, ON plus a \$25.00/unit restocking fee.

Marketing and Promotion: The Municipality of Brockton and Food Cycle Science mutually grant permission to use the name and/or logo or any other identifying marks for purposes of marketing, sales, case studies, public relations materials, and other communications solely to recognize the partnership between Food Cycle Science and the Municipality of Brockton. The Municipality of Brockton staff may be asked to provide a quote / video testimonial regarding the program.

Surveys / Tracking:

- The trial / survey period will be for 12 weeks starting on or before July 31, 2024.
- Residents will be asked to track weekly usage of the FoodCycler during each week of the trial. Tracking sheets will be provided as part of a Resident Package prepared by Food Cycle Science.
- At the end of the 12 weeks, residents must report their usage and answer a number of survey questions. Survey is to be provided by Food Cycle Science and approved by the Municipality of Brockton.
- The survey is to be administered either by the Municipality of Brockton or by Food Cycle Science, by request and with permission. All survey results are to be shared between the Municipality of Brockton and Food Cycle Science. The Municipality of Brockton shall ensure all personal information of participants is removed from any data ahead of sharing with Food Cycle Science.
- The Municipality of Brockton may administer additional touchpoints with participants at their discretion.

Final Report and Feasibility Study: Food Cycle Science will prepare a final report summarizing program performance including waste diversion, potential for expansion, and other factors deemed relevant by the Municipality of Brockton. To facilitate this, the Municipality of Brockton may be called upon to provide data regarding disposal and transportation costs, landfill capacity, and other region-specific variables crucial for evaluating the viability of implementing FoodCyclers within the municipality.

Customer Support / Replacement Units:

- Food Cycle Science has a dedicated municipal support team that is available to assist residents directly with any troubleshooting, repairs, or replacement when required.
- Food Cycle Science may provide a small number of spare FoodCycler units with the initial order to be used for replacements if/when required. The Municipality of Brockton would be tasked with assisting residents with replacements where necessary. Replacement units will be supplied at no cost to the municipality and may represent up to 2% of the total initial order. This represents our anticipated/accepted failure rates.
 - Any unused spare units remaining after the warranty period shall be donated to a local school, with priority given to schools participating in EcoSchools Canada programs.

Summary and Acceptance of Terms

We respectfully ask that you confirm your participation no later than June 30, 2024 in order to respect the timeline of the Impact Canada Food Waste Reduction Challenge.

Summary of pilot program costs:

Program Recommendation	Invoice Amount	→	Net Municipal Cost
100 Households	\$33,900	→	\$11,400

Terms Accepted and Agreed by Municipality of Brockton:

Name / Title

Name / Title

Signature

Date

Signature

Date

Food Cycle Science looks forward to working with the Municipality of Brockton to reduce the amount of food waste going to landfill in a manner that is convenient and cost-effective.

Sincerely,

Jacob Hanlon

Municipal Solutions Manager

jacobh@foodcyclr.com | +1 613-316-4094



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