



Regular Meeting Revised Agenda
Environment Advisory Committee
The Corporation of the City of Brampton

Date: Tuesday, October 13, 2020
Time: 6:00 p.m.
Location: Council Chambers - 4th Floor, City Hall - Webex Electronic Meeting

Members:

Preethi Anbalagan (Co-Chair)
Akeem Gardner (Co-Chair)
Harripaul Bridgemohan
Rajbalinder Ghatoura
Malcolm Hamilton
Jafir Jaferi
David Laing
Ken Lauppe
Tamsen Metcalfe
Davika Misir
Amandeep Purewal
Sherry-Ann Ram
Vipul Shah
Stacey Wilson
Kayla Wong
City Councillor D. Whillans - Wards 2 and 6

For inquiries about this agenda, or to make arrangements for accessibility accommodations for persons attending (some advance notice may be required), please contact:
Chandra Urquhart, Legislative Coordinator, Telephone 905.874.2114, TTY 905.874.2130
cityclerksoffice@brampton.ca

Note: Meeting information is also available in alternate formats upon request.

1. Call to Order

2. Approval of Agenda

3. Declarations of Interest under the Municipal Conflict of Interest Act

4. Previous Minutes

4.1. Minutes - Environment Advisory Committee - February 11, 2020

The minutes were considered by Committee of Council on February 19, 2020, and were approved by Council on February 26, 2020. The minutes are provided for Committee's information.

5. Presentations\Delegations

5.1. Presentation by Stavroula Kassaris, Policy Planner - Environment, Public Works and Engineering, re: Brampton Grow Green Environmental Masterplan (EMP) Refresh Update

To be received

5.2. Presentation by Pam Cooper, Policy Planner - Environment, Public Works and Engineering, re: Community Energy and Emissions Reduction Plan (CEERP)

To be received

5.3. Presentation by Michael Hoy, Supervisor, Environmental Planning, Public Works and Engineering, re: Centre for Community Energy Transformation (CCET)

To be received

5.4. Presentation by Zoe Milligan, Policy Planner - Environment, Public Works and Engineering, re: Eco Park and One Million Trees Update

To be received

6. Reports/Updates

- 6.1. Verbal Update from Rajbalinder Ghatoura, Committee Member, re: Delegation to Committee of Council - Development of a Waste Diversion Strategy

7. Sub-Committees

- *7.1. Grow Green network Sub-Committee Report

8. Other New/Business

- 8.1. Verbal Advisory from the City Clerk's Office, re: Resignation of Environment Advisory Committee Members - Malcolm Hamilton, Ken Lauppe and Kayla Wong

Recommendation

- 8.2. Discussion Item at the request of Stavroula Kassaris, Policy Planner - Environment, Public Works and Engineering, re: Request for Environment Advisory Committee Representation on the River Walk Area Urban Design Master Plan Community Liaison Team
- 8.3. Discussion Item at the request of Akeem Gardner, Co-Chair, re: Implications of the Provincial Government's Environment Assessment (EA) Process on Environmental Protection.

9. Correspondence

10. Question Period

11. Public Question Period

12. Adjournment

Tuesday, February 11, 2020

Members Present: Preethi Anbalagan – **Co-Chair**
Harripaul Bridgemohan
Rajbalinder Ghatoura
Malcolm Hamilton
Jafir Jaferi
David Laing
Davika Misir
Vipul Shah
Stacey Wilson
Kayla Wong
City Councillor Doug Whillans

Members Absent: Akeem Gardner – Co-Chair (regrets)
Ken Lauppe (regrets)
Tamsen Metcalfe (regrets)
Amandeep Purewal
Sherry-Ann Ram (regrets)

Staff Present: Michael Hoy, Supervisor, Environmental Planning, Public
Works and Engineering
Stavroula Kassaris, Policy Planner, Environment, Public
Works and Engineering
Zoe Milligan, Environmental Planning Student
Sonya Pacheco, Legislative Coordinator, Office of the
Chief Administrative Officer

**Minutes
Environment Advisory Committee**

The meeting was called to order at 6:10 p.m. and adjourned at 8:20 p.m.

1. Approval of Agenda

The following motion was considered.

EAC001-2020 That the agenda for the Environment Advisory Committee Meeting of February 11, 2020, be approved, as amended to add the following:

- 7.1. Discussion at the request of Malcolm Hamilton, Committee Member, re: **Incentives for Planting Trees on Private Property.**
- 7.2. Discussion at the request of Malcolm Hamilton, Committee Member, re: **Environmental Planning Funding and Staff Resources.**

Carried

2. Declarations of Interest under the Municipal Conflict of Interest Act – nil

3. Previous Minutes

3.1. Minutes – Environment Advisory Committee – December 10, 2019

The minutes were considered by Committee of Council on January 29, 2020 and the recommendations were approved by Council on February 5, 2020. The minutes were provided for Committee's information.

In response to questions from Committee, staff provided information regarding the ACER (Association of Canadian Educational Resources) organization and clarified the City will partner with various agencies in the One Million Trees program.

4. Delegations/Presentations

4.1. Presentation by Andrew McNeill, Strategic Leader, Policy Planning, Planning and Development Services, re: **Brampton 2040 Plan.**

Andrew McNeill, Strategic Leader, Policy Planning, provided a presentation regarding the Brampton 2040 Plan.

Committee discussion on this matter included the following:

Minutes Environment Advisory Committee

- Project Engagement Strategy
- Purpose of the Community Leader's Advisory Group
 - It was noted that the terms of reference and process for selecting members is under review.
- Changing development in Brampton (e.g. net zero developments)
- Policy directions and focus on the seven core Brampton 2040 Vision Statement Areas, including sustainability and the environment
- Collaboration between staff and the EAC to leverage networks and inform processes
- Engagement with indigenous communities on the Brampton 2040 Plan
 - It was noted that processes for proper engagement are under review.
- Brampton 2040 Speakers Series
 - Low attendance during this event and alternate tactics to engage the Brampton community

The following motion was considered.

EAC002-2020 That the presentation by Andrew McNeill, Strategic Leader, Policy Planning, Planning and Development Services, to the Environment Advisory Committee Meeting of February 11, 2020, re: **Brampton 2040 Plan** be received.

Carried

4.2. Presentation by Kayla Wong, Chair, and Stacey Wilson, Member, Work Plan Sub-Committee, re: **Environment Advisory Committee Work Plan**.

Kayla Wong, Chair, and Stacey Wilson, Member, Work Plan Sub-Committee, presented the Environment Advisory Committee Work Plan for the 2019-2022 term.

There was committee consensus regarding the Work Plan, and consideration was given to the establishment of the Grow Green Network Sub-Committee, and the membership of all four sub-committees, three of which were previously established by the EAC at the August 13, 2019 meeting.

The following motion was considered.

EAC003-2020 1. That the presentation by Kayla Wong, Chair, and Stacey Wilson, Member, Work Plan Sub-Committee, to the Environment Advisory Committee Meeting of February 11, 2020, re: **Environment Advisory Committee Work Plan** be received;

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Environment Advisory Committee

2. That the Environment Advisory Committee Work Plan for the 2019-2022 term be received;
- ;
3. That the Grow Green Network Sub-Committee be established and the following Committee members be appointed:
 - Harripaul Bridgemohan
 - Rajbalinder Ghatoura
 - Malcolm Hamilton
 - David Laing
 - Davika Misir
 - Stacey Wilson
 - Kayla Wong
4. That the Engagement Sub-Committee be renamed the Engagement/Outreach Sub-Committee and the following additional Committee members be appointed:
 - Davika Misir
 - Kayla Wong
5. That the following additional Committee members be appointed to the Events Sub-Committee:
 - Preethi Anbalagan
 - Jafir Jaferi
6. That the following additional Committee member be appointed to the Work Plan Sub-Committee:
 - Davika Misir

Carried

5. Reports/Updates

- 5.1. Verbal Update from Malcolm Hamilton, Committee Member, re: **Opportunity for Input from Dr. Ellsworth LeDrew, Geography and Environmental Management Professor, University of Waterloo.**

Malcolm Hamilton, Committee Member, provided an overview of his discussions with Dr. Ellsworth LeDrew, and highlighted the following topics:

- Importance of networking
- Measuring progress on Brampton's 2040 Vision
- Building capacity to manage extreme weather events
- Potential value in obtaining comparative analysis of similar municipalities
- Potential funding opportunities

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Committee discussion on this matter included the following:

- Purpose, composition and efforts of the Global Covenant of Mayors for Climate and Energy, and collaboration with municipalities across Canada, including the Federation of Canadian Municipalities (FCM)
- Importance of community and stakeholder participation in the Brampton 2040 Plan and forums for providing input, including delegations to standing committees and Council when reports are presented

The following motion was considered.

EAC004-2020 That the verbal update from Malcolm Hamilton, Committee Member, to the Environment Advisory Committee Meeting of February 11, 2020, re: **Opportunity for Input from Dr. Ellsworth LeDrew, Geography and Environmental Management Professor, University of Waterloo** be received.

Carried

5.2. Verbal Update from Stavroula Kassaris, Environmental Planner, Public Works and Engineering, re: **Earth Day 2020**.

Stavroula Kassaris, Environmental Planner, advised that the Earth Day 2020 event is taking place on Sunday, April 26, 2020 at the Gore Meadows Community Centre. Ms. Kassaris provided details regarding this event and indicated that an email communication would be sent to all Committee members seeking volunteers for various activities.

The following motion was considered.

EAC005-2020 That the verbal update from Stavroula Kassaris, Environmental Planner, Public Works and Engineering, to the Environment Advisory Committee Meeting of February 11, 2020, re: **Earth Day 2020** be received.

Carried

6. **Sub-Committees**

6.1. **Minutes – Work Plan Sub-Committee – January 26, 2020**

The following motion was considered.

**Minutes
Environment Advisory Committee**

EAC006-2020 That the **Minutes of the Work Plan Sub-Committee Meeting of January 26, 2020** to the Environment Advisory Committee Meeting of February 11, 2020, be received.

Carried

7. Other/New Business

7.1. Discussion at the request of Malcolm Hamilton, Committee Member, re: Incentives for Planting Trees on Private Property.

Malcolm Hamilton, Committee Member, introduced the following motion:

Whereas Brampton City Council has declared a climate state of emergency;

Whereas trees are the most effective tool available to draw down CO₂ and that CO₂ is a significant contributor to climate change and extreme climate events;

Whereas the City of Brampton is implementing a million tree planting program;

Whereas many trees are improperly planted or neglected and do not survive; and

Whereas the involvement of citizens is essential to the success of Brampton's 2040 Vision;

That the City of Brampton implement an incentive to reduce municipal taxes by \$20 for residents in the second year of planting a tree through this program on their property.

Staff advised Committee that, as the EAC is an advisory committee of Council, it is not in a position to direct Council/staff on matters which may have financial or other implications for the City.

Committee discussion on the above-noted motion included the following:

- Suggestion that a financial (cash) incentive would be more feasible than a tax reduction
- Indication from staff that the One Million Trees program includes the establishment of incentives for tree planting
- Possibility of monitoring the survival rate of new trees and the need to educate the public on new tree maintenance
- Community outreach strategy for the One Million Trees program

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Environment Advisory Committee**

The above-noted motion was not voted on.

The following motion was considered, voted on and carried unanimously.

EAC007-2020 That, it is the position of the Environment Advisory Committee, that the City prioritize establishing a financial incentive for tree planting on residential properties as part of a one million trees program.

Carried

7.2. Discussion at the request of Malcolm Hamilton, Committee Member, re:
Environmental Planning Funding and Staff Resources.

Malcolm Hamilton, Committee Member, introduced the following motion:

Whereas Brampton is in a state of climate emergency;

Whereas a large part of the City successfully meeting climate goals requires an immediate and thorough response;

Whereas the City, as yet, does not have someone to coordinate and monitor environmental sustainability across City departments; and

Whereas the Environmental Planning group of three full-time staff and two students is too small a workforce to meet the demands of implementing the 2040 Vision for a city of 640,000;

That the City of Brampton hire four additional employees to work in Environmental Planning;

That the City assign a coordinator of sustainable planning; and

That the City structure this group so that the group reports to a City oversight body entrusted to the long-term planning and goals in the best interests of the present and future citizens of Brampton.

Staff advised Committee that the subject matter is not within the Committee's mandate. Committee was also advised that, as the EAC is an advisory committee of Council, it is not in a position to direct Council/staff on matters which may have financial or other implications for the City.

Committee discussion on the above-noted motion included the following:

- Acknowledgement that the EAC cannot advise Council on staffing matters
- Concerns regarding the potential impact of the subject motion and the lack of information to support this request

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- Opinion that additional staff resources are needed in Environmental Planning
- Information from staff that members of the public may delegate Budget Committee on budget-related matters (e.g. staff resources)

The following motion was considered, voted on and lost.

*EAC008-2020 Whereas Brampton is in a state of climate emergency;
Lost*

Whereas a large part of the City successfully meeting climate goals requires an immediate and thorough response;

Whereas the City, as yet, does not have someone to coordinate and monitor environmental sustainability across City departments; and

Whereas the Environmental Planning group of three full-time staff and two students is too small a workforce to meet the demands of implementing the 2040 Vision for a city of 640,000;

That, it is the position of the Environment Advisory Committee, that the City of Brampton hire four additional employees to work in Environmental Planning;

That the City assign a coordinator of sustainable planning; and

That the City structure this group so that the group reports to a City oversight body entrusted to the long-term planning and goals in the best interests of the present and future citizens of Brampton.

Lost

8. Correspondence

- 8.1. Correspondence from Central Peel Secondary School Student, dated December 19, 2019, re: **Proposal to Improve Environmental Issues Within Brampton.**

David Laing, Committee Member, acknowledged the subject correspondence and commended the student's initiative and proposal for an eco-district in Downtown Brampton. Mr. Laing added that such proposals need to be in the context of the 2040 Vision, and suggested that staff communicate with this student and provide information on the delegation process.

The following motion was considered.

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EAC009-2020 That the correspondence from a Central Peel Secondary School Student, dated December 19, 2019, to the Environment Advisory Committee Meeting of February 11, 2020, re: **Proposal to Improve Environmental Issues Within Brampton** be received.

Carried

8.2. Correspondence from David Laing, on behalf of Bike the Creek Organizing Committee, dated January 24, 2020, re: **EAC Participation in 'Bike the Creek' Event – Saturday June 13, 2020.**

David Laing, Committee Member, provided information to Committee regarding the 'Bike the Creek' event, taking place on Saturday, June 13, 2020. He advised this year's theme is "Environmentally Sustainable Communities" and outlined the opportunity for the EAC to participate and operate a booth at this event.

The following motion was considered.

- EAC010-2020
1. That the correspondence from David Laing, on behalf of Bike the Creek Organizing Committee, dated January 24, 2020, to the Environment Advisory Committee Meeting of February 11, 2020, re: **EAC Participation in 'Bike the Creek' Event – Saturday, June 13, 2020** be received;
 2. That the Environment Advisory Committee participate in the 'Bike the Creek' event taking place on Saturday, June 13, 2020; and
 3. That plans and preparations for this event be referred to the Events Sub-Committee.

Carried

9. **Question Period – nil**

10. **Public Question Period**

In response to a question from the public regarding methods for measuring sustainability in local businesses, Michael Hoy, Supervisor, Environmental Planning, provided information regarding Partners in Project Green, which has the largest eco-business zone and monitors and assists businesses with sustainable practices. In addition, Mr. Hoy provided information on the City's Community Energy and Emissions Reduction Plan (CEERP).

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Environment Advisory Committee

11. Adjournment

The following motion was considered.

EAC011-2020 That the Environment Advisory Committee do now adjourn to meet again on Tuesday, April 14, 2020, at 6:00 p.m.

Carried

Preethi Anbalagan, Co-Chair

Date: 2020-10-06

Subject: **Presentation re: Brampton Grow Green Environmental Masterplan (EMP) Refresh Update**

Contact: Stavroula Kassaris, Environmental Planner, 905-874-2083

Report Number: Public Works & Engineering-2020-248

Recommendations:

1. That the presentation from Stavroula Kassaris, Environmental Planner, to the Environment Advisory Committee of October 13, 2020 re: **Brampton Grow Green Environmental Master Plan Refresh Update** be received.

Brampton Grow Green Environmental Master Plan

Action Plan and Metric Refresh Update



Brampton Grow Green EMP Refresh: **Why**

- To deliver an updated and streamlined Implementation Action Plan that:
 - Supports the Grow Green vision, guiding principles, and goals
 - Reflects knowledge garnered from first 5 years of implementation
 - Aligns with new Term of Council Priorities
 - Connect to City's strategic documents and their long term vision
 - Integrate the community's desired direction for future of Brampton
- To refine metrics and targets



Brampton Grow Green EMP Refresh: **Process Snapshot**



Brampton Grow Green EMP Refresh: Draft Action Plan

- New Action Plan drafted based on research, benchmarking, consultation
- Removing completed actions, refining existing actions, adding new actions
- Fewer, more impactful actions that will measurably move the city forward



Brampton Grow Green EMP Refresh: Draft Action Plan

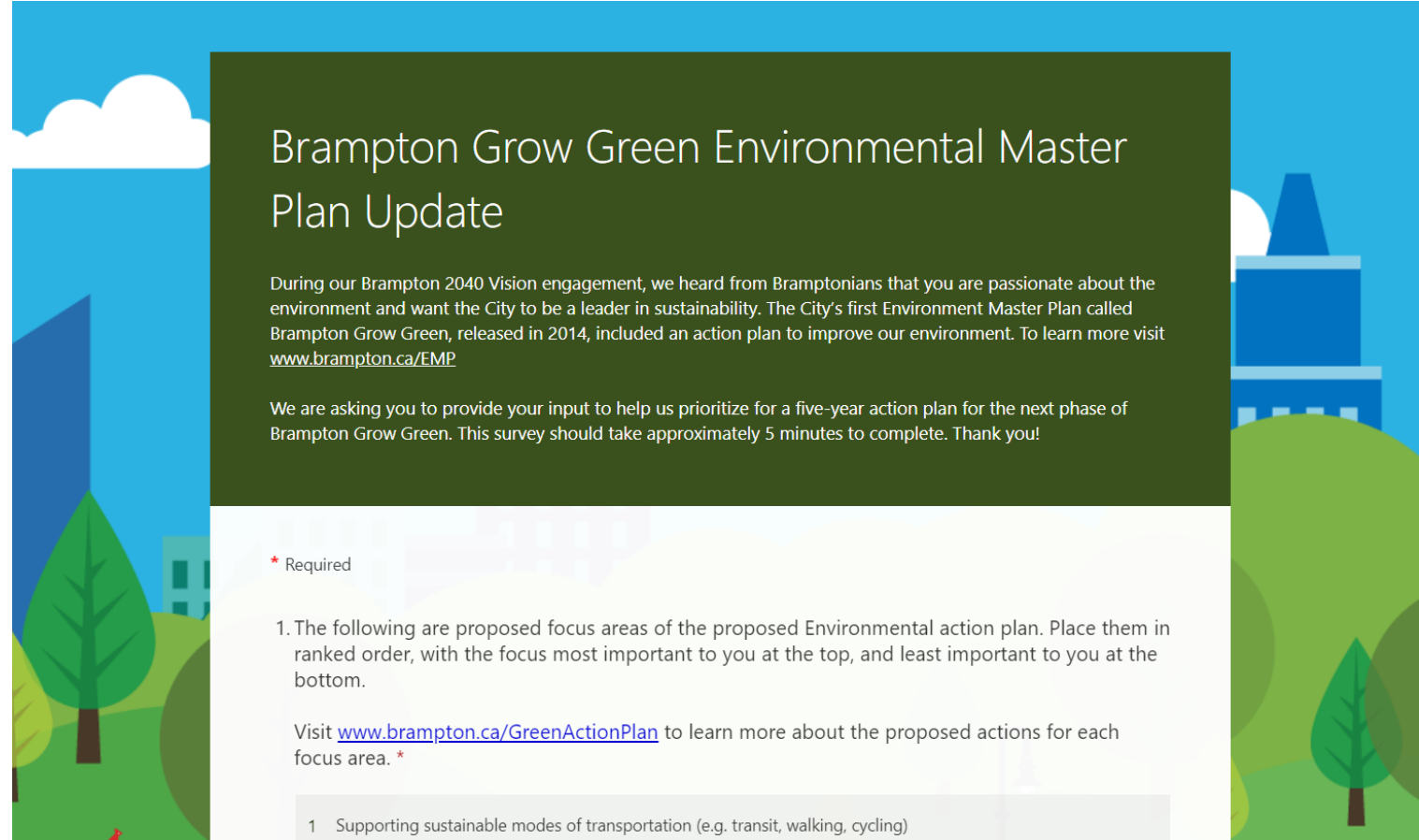
Draft Actions Plan concentrates on:

- Supporting sustainable modes of transportation
- Using water more responsibly
- Improving stormwater management and enhancing water quality in rivers and lakes
- Protecting and enhancing our natural heritage assets
- Increasing community urban agriculture opportunities
- Improving sustainable performance of new neighbourhoods, homes, and buildings
- Retrofitting existing homes, buildings, and neighbourhoods for energy conservation and GHG reduction
- Improving waste diversion at public properties
- Fostering a greener economy
- Understanding and preparing for climate change impacts
- Communicating and celebrating the EMP and environmental actions/achievements



Brampton Grow Green EMP Refresh: Draft Action Plan Survey

- Public survey developed seeking input on action prioritization
- Accessed through City's EMP and Engage Brampton webpages
- www.brampton.ca/EMP
- www.brampton.ca/engage
- Available for 4 weeks until October 16



The screenshot shows a survey titled "Brampton Grow Green Environmental Master Plan Update". The background features a stylized illustration of a cityscape with green hills, trees, and a blue building under a blue sky with clouds. The survey text is as follows:

Brampton Grow Green Environmental Master Plan Update

During our Brampton 2040 Vision engagement, we heard from Bramptonians that you are passionate about the environment and want the City to be a leader in sustainability. The City's first Environment Master Plan called Brampton Grow Green, released in 2014, included an action plan to improve our environment. To learn more visit www.brampton.ca/EMP

We are asking you to provide your input to help us prioritize a five-year action plan for the next phase of Brampton Grow Green. This survey should take approximately 5 minutes to complete. Thank you!

*** Required**

1. The following are proposed focus areas of the proposed Environmental action plan. Place them in ranked order, with the focus most important to you at the top, and least important to you at the bottom.

Visit www.brampton.ca/GreenActionPlan to learn more about the proposed actions for each focus area. *

1 Supporting sustainable modes of transportation (e.g. transit, walking, cycling)

Brampton Grow Green EMP Refresh: **How You Can Help**

- Take the survey
- Encourage your family and friends who live in Brampton to take the survey
- Promote the survey on your social media



Brampton Grow Green EMP Refresh: **Next Steps**

- Revise draft Action Plan based on survey results
- Finalize the EMP Action Plan and Metric Refresh report
- Present EMP Action Plan and Metric Refresh report to BEAC for endorsement (Dec 2020)
- Present EMP Action Plan and Metric Refresh report to Committee of Council for endorsement (Jan 2021)



Thank you: Questions?



Date: 2020-10-13

Subject: **Community Energy and Emissions Reduction Plan (CEERP)**

Contact: **Pam Cooper, Environmental Planning,**
pam.cooper@brampton.ca

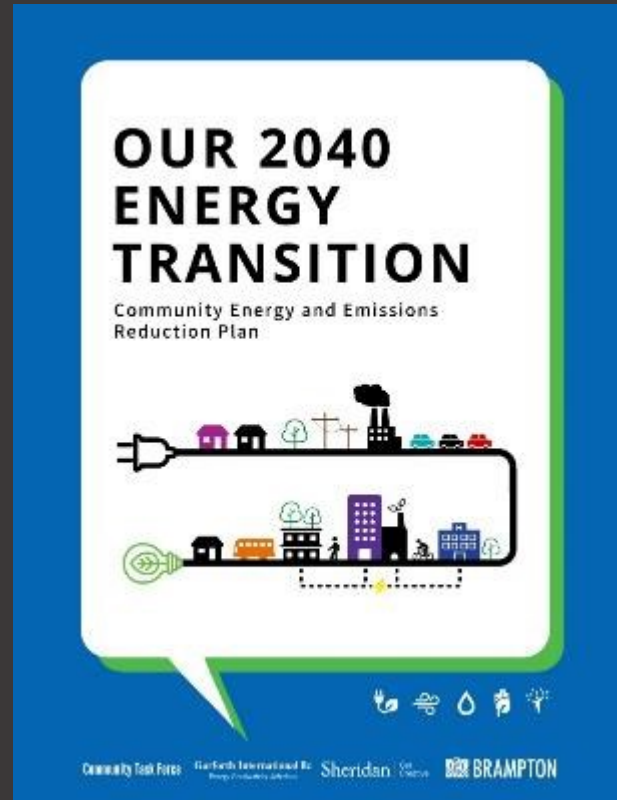
Report Number: Public Works & Engineering-2020-230

Recommendations:

1. That the presentation by Pam Cooper, Environmental Planner, Environment & Development Engineering Division, Public Works & Engineering Department, to the Environment Advisory Committee Meeting of October 13, 2020, re: **Community Energy and Emissions Reduction Plan (CEERP)** be received.

Community Energy & Emissions Reduction Plan

BEAC
October 13, 2020



CEERP

- Partnerships
- Foundational document
- History of municipal leadership on climate change



CEERP: Brampton's Response to the Climate Emergency

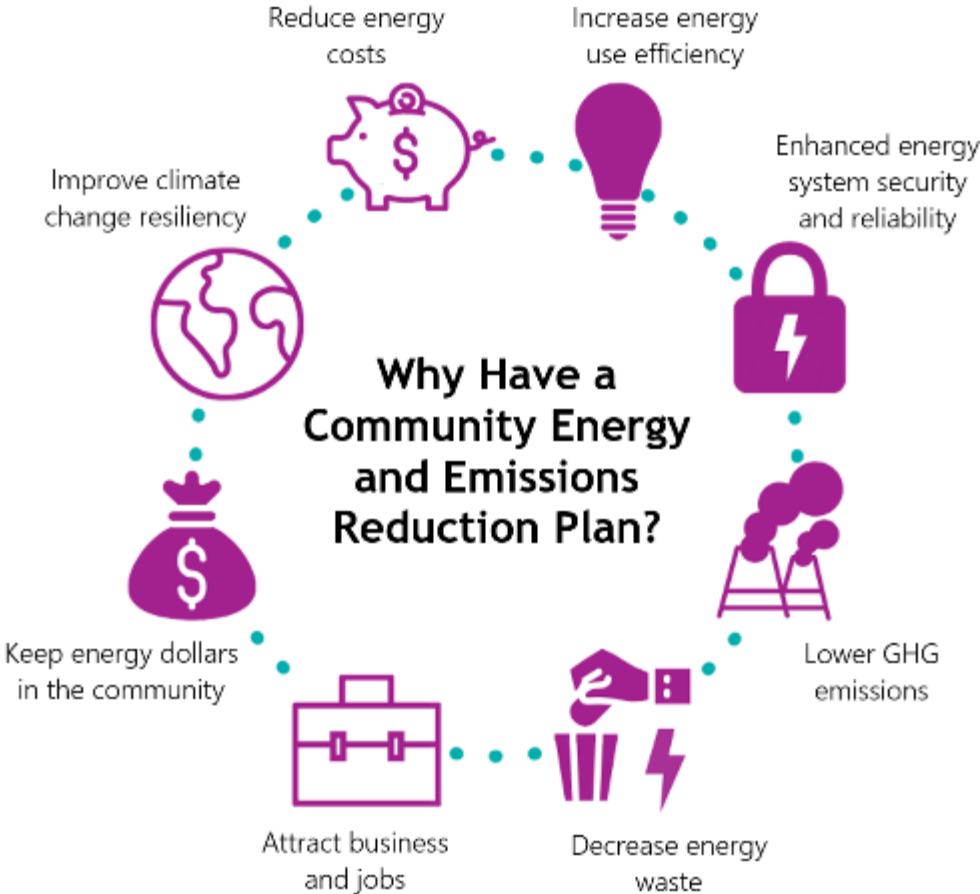
Brampton City Council Declares Climate Emergency

by Dylan Olley on June 6, 2019
In News, Hot Topics, Politics

Like Share Tweet



The Brampton City Council is looking to take action against climate change.

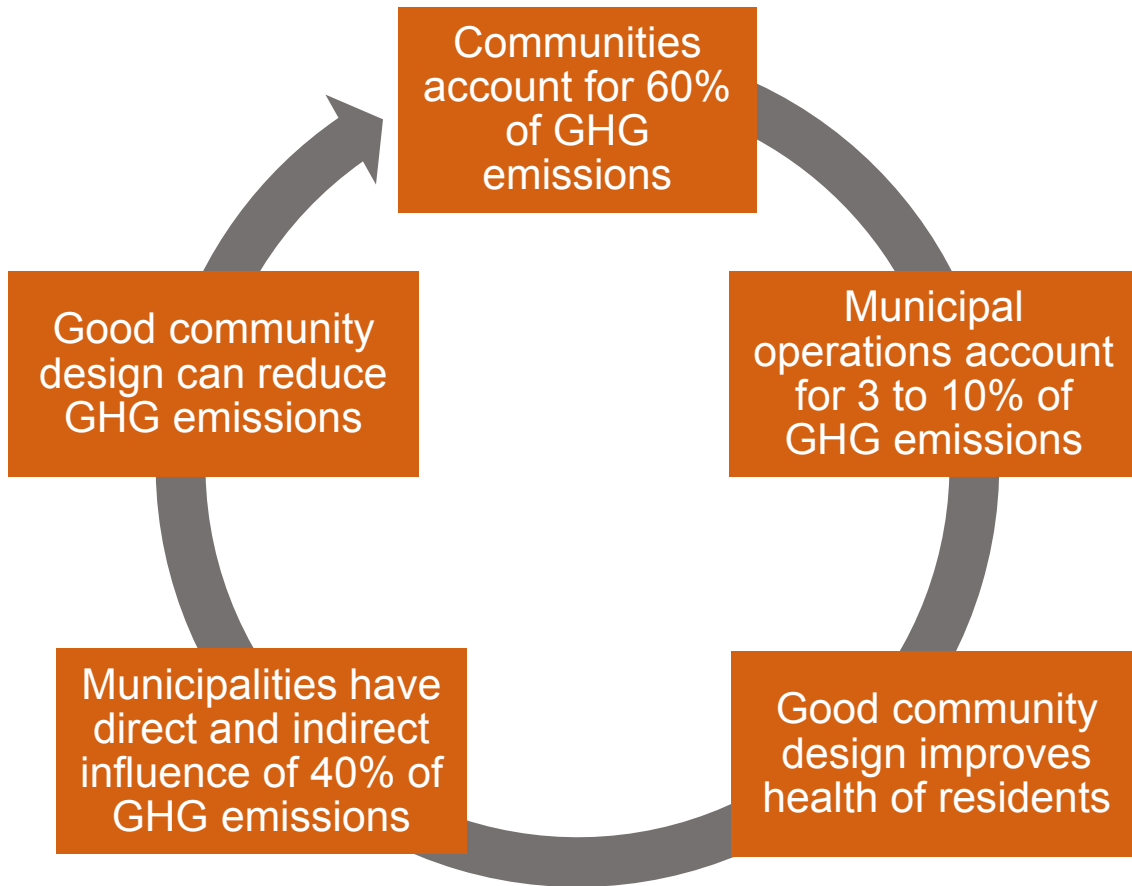


Co-Benefits

- Environmental
- Social
- Health
- Economic



Local Planning Matters



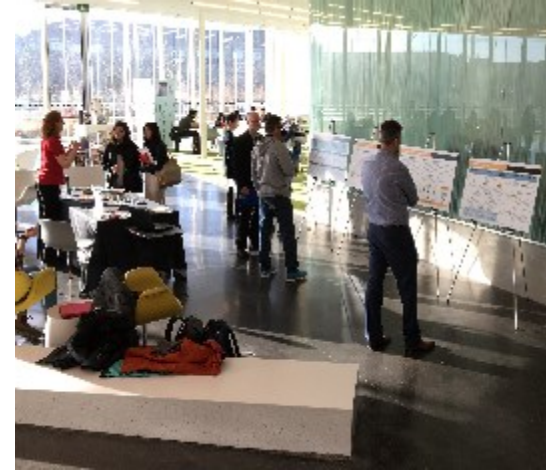
- Economic, environmental, social, and cultural outcomes:
- Healthier communities, denser, convenient, more housing choices, local jobs
- More transit, cycling, and walking
- Reduced energy costs
- Attract new business and create green jobs
- Improve building energy efficiency
- Achieve international GHG reduction targets
- Increase energy security
- Enhance climate change resilience

Community Task Force

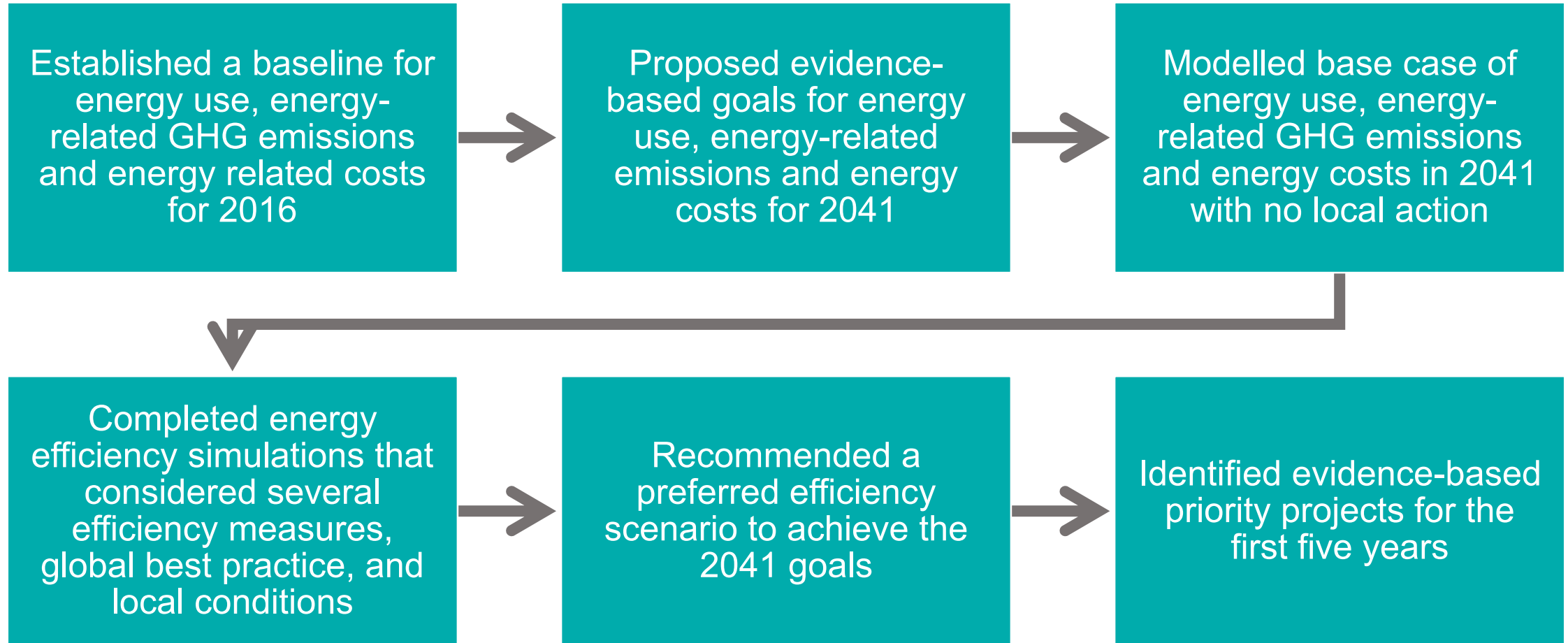


Engagement

- Council workshops
- Departmental/divisional consultations
- Environment Advisory Committee meetings
- Stakeholder presentations (Association of Energy Engineers, Partners in Project Green, BILD, York University)
- CEERP Task Force meetings
- Nordic City Solutions workshop
- Grow Green Team meetings
- Community Survey
- Mapping workshop
- Public events (tree plantings, open houses, Vision Celebration, Public Works week, Heart Lake Run, Farmers Market)
- Public information sessions
- Social media (Twitter, Instagram, Facebook)

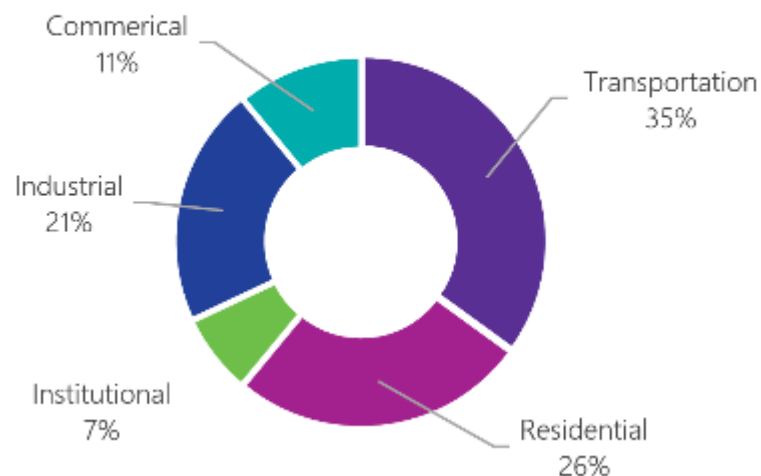


Evidence Based Process

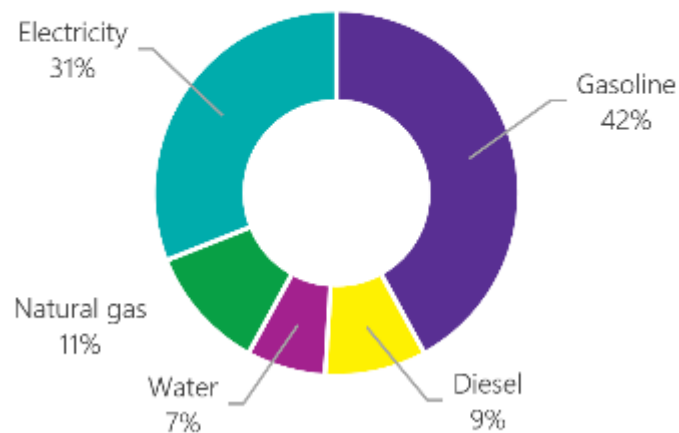


2016 Base Case

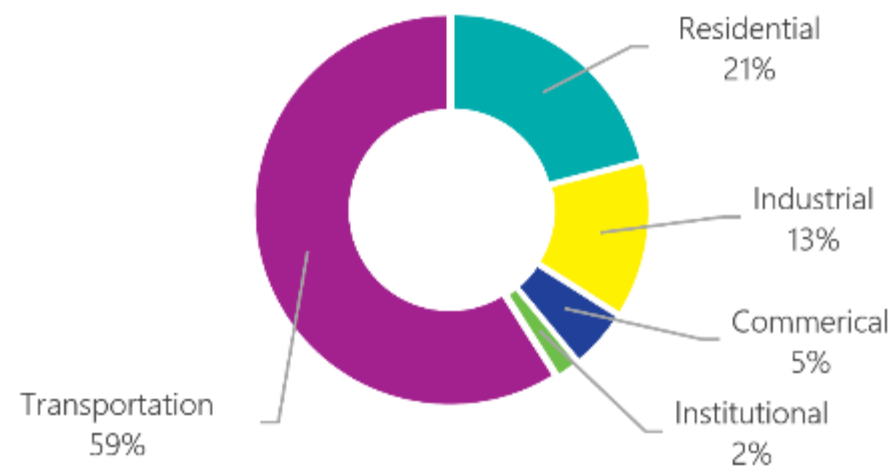
Brampton Source Energy Use by Sector, 2016



Brampton Energy Costs by Utility, 2016



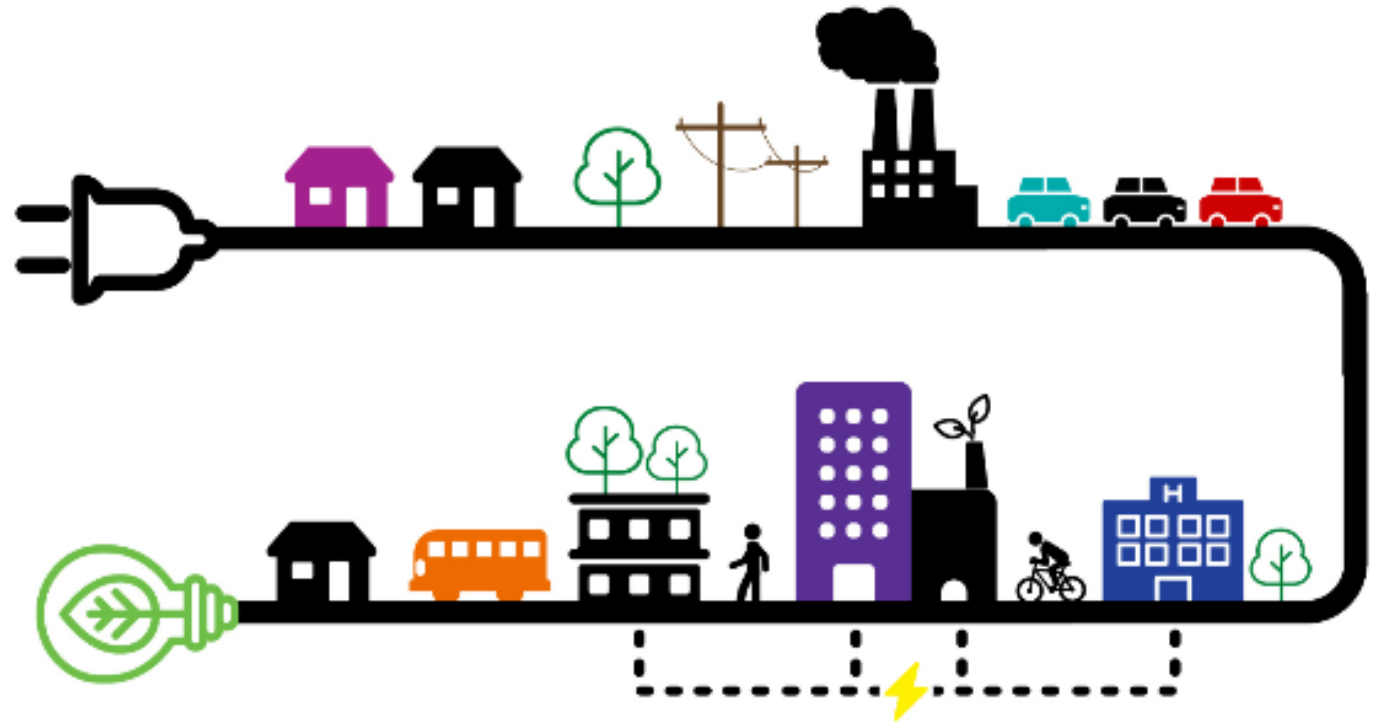
Brampton Emissions by Sector, 2016



CEERP Framework

Addressing the Climate Change
Emergency requires:

- Urban transition
- Energy transition
- Community commitment and collaboration



ENVIRONMENTAL

Work towards climate neutrality

ENERGY

Benchmark energy performance
against global best practice

ECONOMIC

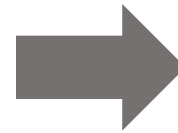
All energy related public and private
sector investments will meet
acceptable risk-adjusted returns

Energy costs will be competitive
compared to comparable North
American communities

Local employment will be generated

RELIABILITY

Energy systems will be designed to
meet the challenges of changing user
expectations, climate uncertainty and
new technology options



Energy

Based on global best-practices, reduce
community-wide energy end use by at
least 50% from 2016 levels by 2041.

Emissions

Reduce community-wide emissions by
50% from 2016 levels by 2041, and
establish a pathway to reduce emissions
by at least 80% by 2050 to meet or
exceed federal and provincial targets.

Economic

Retain at least \$26 billion in
cumulative energy costs within the
community by 2041.

Strategic Directions



**GREEN
COMMUNITIES**



**TRANSPORTATION
EFFICIENCY**



**HOME AND BUILDING
EFFICIENCY**



**LOCAL ENERGY SUPPLY
AND DISTRIBUTION**



**INDUSTRIAL
EFFICIENCY**



**GREEN
INFRASTRUCTURE**



**COMMUNICATION,
ENGAGEMENT, AND
MONITORING**

2041 Targets

Green Communities

- Attain near net-zero GHG emissions for new communities in Heritage Heights, and new buildings in Town Centres and Major Urban Growth Areas

Home and Building Energy Efficiency

- **Retrofit 80% of homes to achieve a 35% efficiency gain**

Transportation

- Reduce trip lengths by 3.75%
- Increase Active Transportation to 7%
- Increase trips using Brampton Transit to 9%
- Increase trips using GO transit to 8.5%



2041 Targets

Industrial Efficiency

- Achieve a 20% industrial sector efficiency gain from 2016 levels

Energy Supply and Distribution

- Increase solar energy by 8%
- Serve 80% of new growth areas with district energy
- Serve 70% of existing high growth areas with district energy

Green Infrastructure

- Plant 1 million trees by 2040
- Increase restoration and enhancement management to 45 ha/year
- Determine dollar value for the city's natural assets



Priority Projects

1. Ensure City of Brampton policies and programs are aligned with supporting the CEERP objectives and targets;
2. **Establish a system to deliver standardized retrofits to Brampton homes;**
3. Update the Transportation Master Plan (TMP) to reflect complete streets and the integrated nature of mobility and built form;
4. Integrate District Energy Systems in appropriate locations within Brampton;
5. Develop Integrated Energy Master Plans for public facilities and private development; and
6. Establish a Community Organization to lead the development and implementation of select priority projects (CCET).

Action Plan

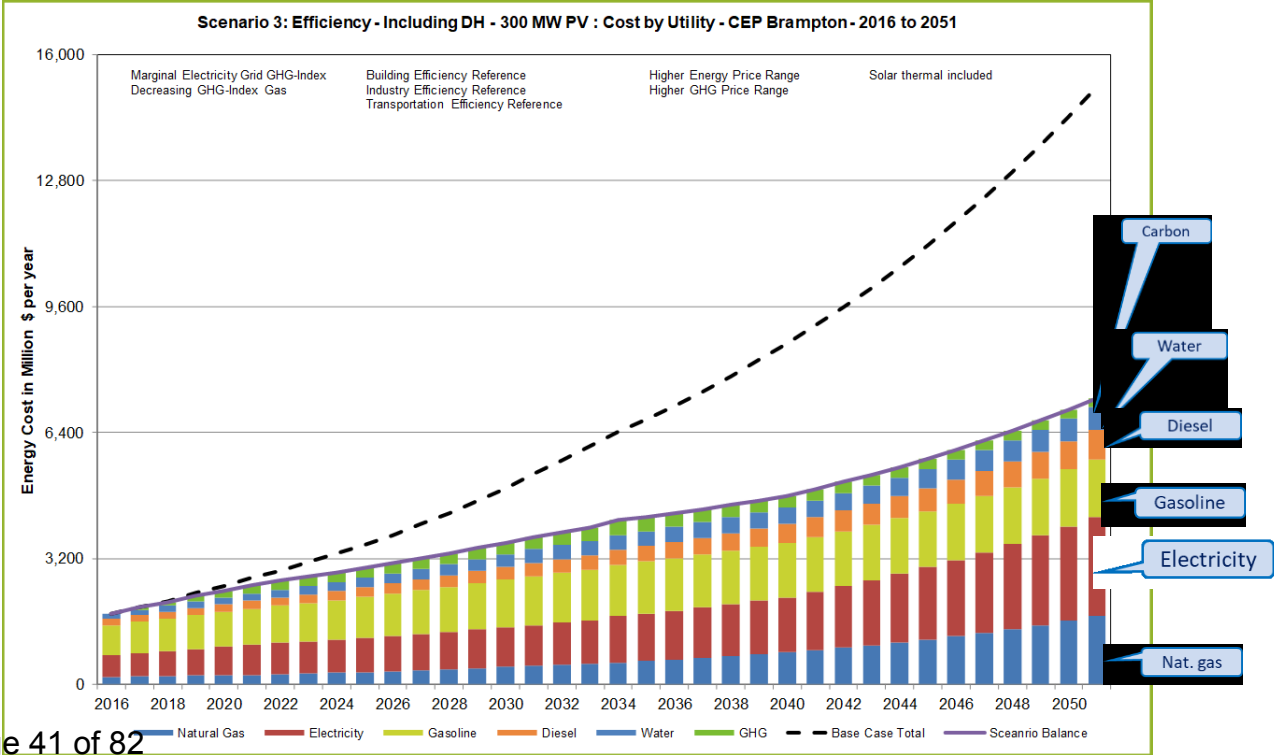
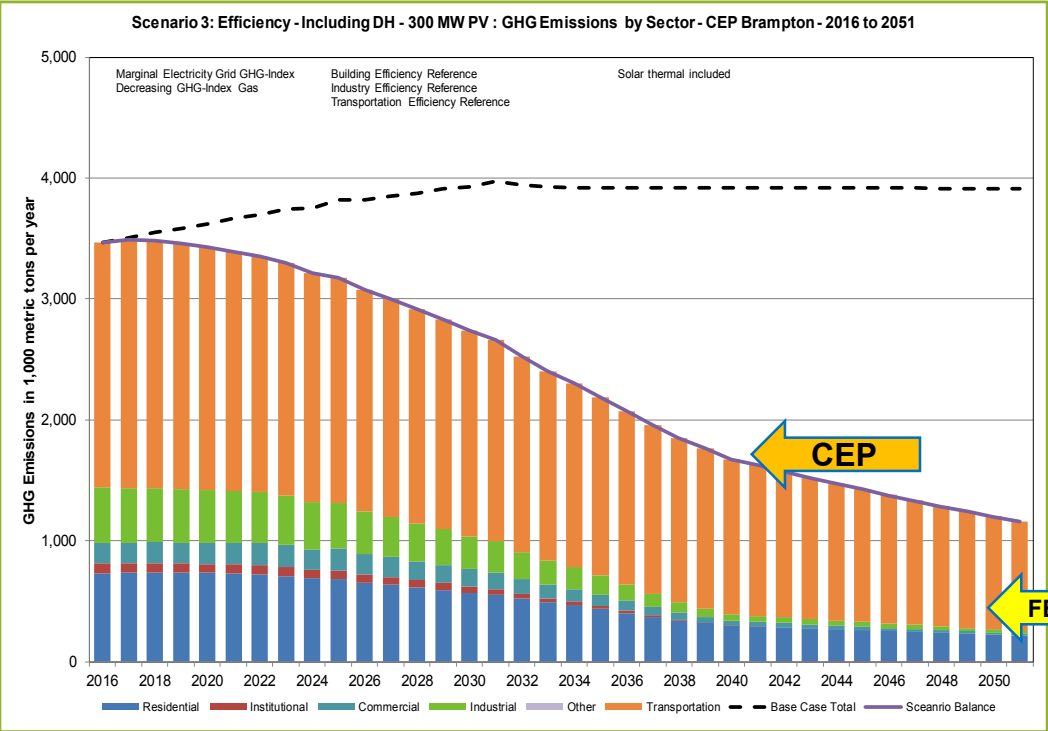
- Five year action plan
- Actions for each strategic direction
- Identifies leads and partners
- Example actions:
 - Implement Active Transportation Master Plan
 - Integrated Energy Plan for Shoppers World redevelopment
 - Launch electric buses and charging stations
 - Grow City-owned EV Charging stations
 - Update City's Sustainability Metrics
 - Undertake Heritage Heights Community Energy Plan

Local Energy Supply and Distribution				
#	Action	Lead	Partner(s)	Timeline
Corporate				
5.1.1	Complete Integrated Energy Management Plans for priority municipal facilities to align with the targets of the Corporate Energy and Emissions Management Plan 2019-2024: A Zero Carbon Transition and the CeEMP. ¹²	COB	COMM, DEV	Medium-term
5.1.2	Investigate distributed energy options for City facilities, including solar, geothermal, and waste heat recovery.	COB	COMM	Medium-term
District Energy				
5.2.1	Develop business cases for District Energy System, including but not limited to, low carbon fuel options (e.g. geothermal, heat recovery, wastewater heat recovery, solar PVT, and hybrid of PV and thermal) in areas identified in the CEEEP energy district mapping. ¹³	COMM	COB, DEV, ROP, BUS	Short-term
5.2.2	Investigate the requirements for the use of City road right-of-ways for the purposes of installing district energy infrastructure. ¹⁴	COB	ROP	Medium-term
5.2.3	Develop a Business Case for establishing a district energy company to distribute thermal energy to homes and buildings. ¹⁵	COM	COB, ROP, UI	Short-term
5.2.4	Identify and pursue opportunities for combined heat and power (CHP) partnerships for district energy. ¹⁶	COB	COMM	Medium-term

Industrial Efficiency				
#	Action	Lead	Partner(s)	Timeline
Corporate				
6.1.1	Implement an economic development marketing campaign highlighting Brampton energy advantages as an incentive to locate business in this city.	COB	COMM	Medium-term
6.1.2	Establish or join an existing community of practice for facility energy managers from public and private sectors to share local industrial energy management expertise.	COMM	BBOT, DEV, APG	Short-term
6.1.3	Develop a comprehensive inventory of large energy users in Brampton.	COMM	COB	Medium-term
6.1.4	Develop a comprehensive inventory of "green" employers in Brampton.	COMM	COB	Medium-term

CEERP: Energy and Emissions

- GHG Emission reduction of 50% by 2041
- Potential cumulative energy savings of \$26 billion by 2040



Resolution

- Community Energy and Emission Reduction Plan and its Priority Projects be endorsed by Council;
- commit staff resources and capital funding towards the immediate development and implementation of the Community Energy and Emissions Reduction Plan's six priority projects, which include:
 - Ensuring the City of Brampton policies and programs align with supporting the CEERP Objectives and Targets;
 - **Establishing a system to deliver standardized retrofits to Brampton homeowners;**
 - Updating the Transportation Master Plan (TMP) that prioritizes safer, healthier and more environmentally efficient movement of people which also reflects complete streets and the integrated nature of mobility and built form;
 - Integrating District Energy Systems in appropriate locations within Brampton;
 - Developing Integrated Energy Master Plans for public facilities and private development; and
 - Establishing a community organization to lead the development and implementation of select priority projects.
- That the following interim and total targets be approved:
 - to reduce greenhouse gas (GHG) emissions by 30% from 2016 levels by 2030;
 - to reduce greenhouse gas (GHG) emissions by 50% from 2016 levels by 2040, and
 - to establish a pathway to reduce greenhouse gas (GHG) emissions by at least 80% by 2050; and
- That staff be directed to update the Official Plan, as part of the Brampton 2040 Official Plan Review, to reflect the principles, goals, strategic directions and targets of the Community Energy and Emissions Reduction Plan

Moving Forward

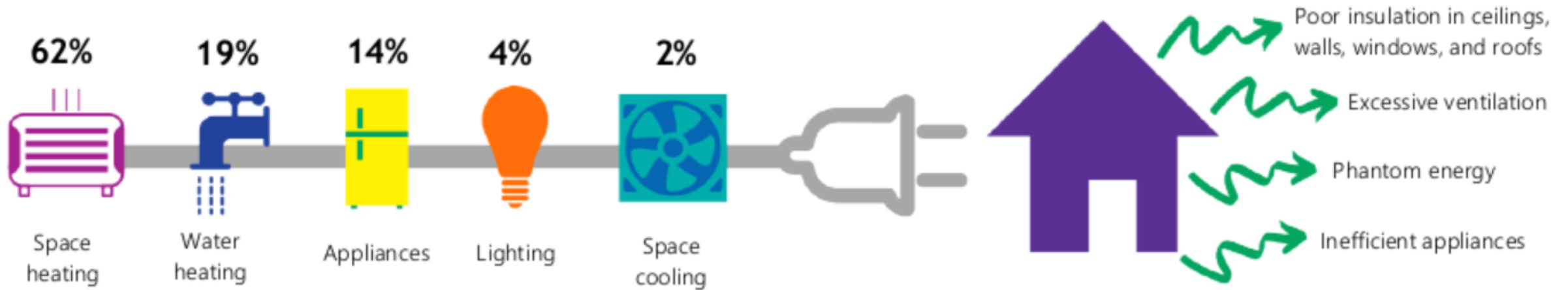
- Municipal resources through corporate Green Team
- Implement Action Plan
- Implement Priority Projects
- Ensure municipal policy/program alignment
- Work to establish CCET
- Develop District Energy Business Case
- **Continue to develop Home Retrofit Business Case**
- Monitor progress/report back
- Communication/outreach



Home Energy

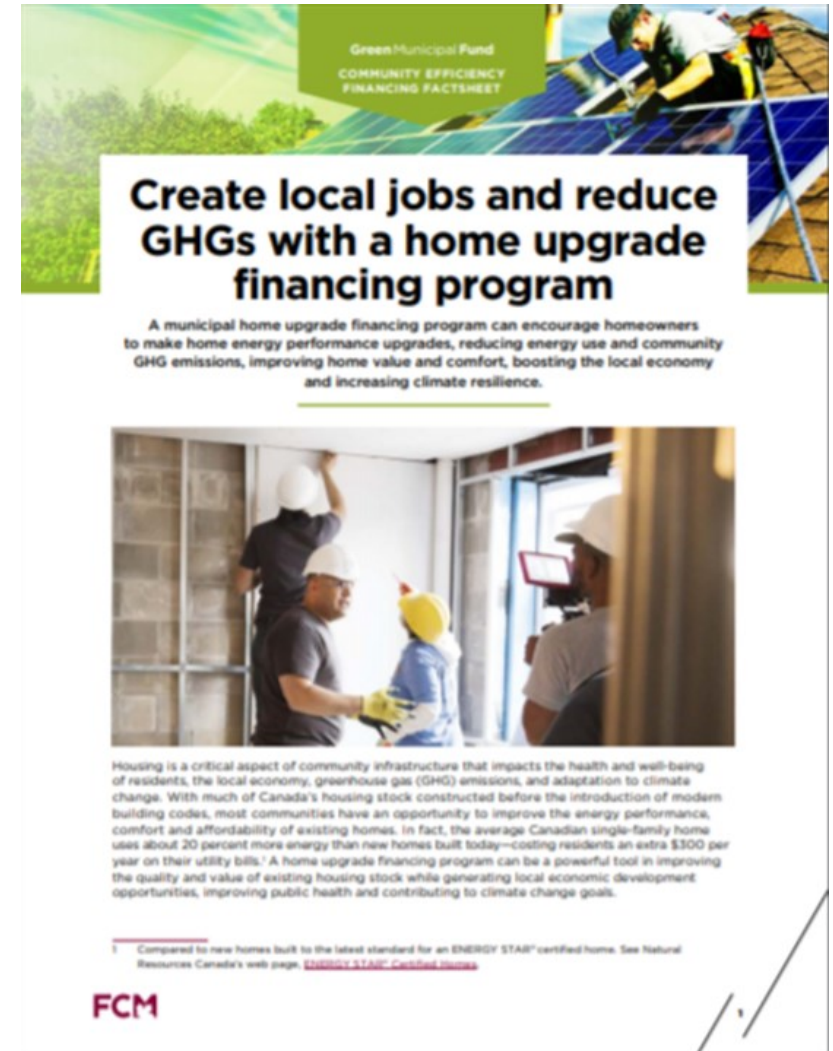
How Do Canadian Homes Use Energy?⁹

How Do Canadian Home Lose Energy?



Residential Energy Efficiency Program

- On average, homes and buildings in Brampton are approx. half as efficient as global benchmarks
- Residential buildings: 2nd highest energy use, energy cost and emissions
- Funding Opportunity with the Federation of Canadian Municipalities (FCM) to design a home retrofit program
- Brampton, in partnership with Mississauga and Caledon, is submitting a funding application to complete a **design study in 2021**.
 - The **Design Study** will use market information and research to advance the design of a home retrofit program to meet the needs and priorities of the three regional partners




Home Retrofit Program

What is a home retrofit program?

- A financial program that drives investment in home energy performance upgrades

Three main types:

- 
- **Property Assessed Clean Energy (PACE)** - most popular option. Uses a municipality's local improvement charge (LIC) mechanism for loan repayment. In this program, a homeowner hires a contractor to upgrade their home and the contractor invoice amount is financed with an annual charge on the property tax bill.
 - **On-bill repayment financing** - allows the cost of the home energy upgrade to be repaid via the homeowner's utility bill. This type of program requires the close participation and partnership of a utility company.
 - **Direct lending** - occurs when a municipality works with a credit union or bank to offer a financial product customized for home energy upgrades. Municipalities can often offer a partial loan guarantee to a lending institution in exchange for attractive rates, good terms, and a convenient homeowner application process.

Benefits of a Home Retrofit program



Value for homeowners

- An energy-efficient home is more **comfortable, healthier and affordable**
- A well-designed financing program can offer a comprehensive suite of services **to make upgrading a home simple and easy**
- Municipalities are uniquely positioned to offer services and programs that give homeowners **confidence and peace of mind to undertake a home energy retrofit**



Climate action and economic recovery

- Home retrofit programs can have deep **and lasting environmental and economic benefits**
- They can **drive significant investment in the local economy** by engaging local energy advisors, suppliers, and contractors to help homeowners save energy



Community resiliency

- A home retrofit program can encourage homeowners to invest in measures that will **protect homes from extreme weather events** like wind storms, heavy rain, flooding and heat waves **while improving energy efficiency**

Value Proposition

A **HOME RETROFIT PROGRAM** that can reduce energy consumption and GHG emissions while addressing a number of other public policy goals:

- **Economic development and job creation:** Local contractors complete the home energy upgrades, which means more money circulates in the community.
- **Addressing energy poverty and social equity concerns:** Programs can target low-income homeowners, offering an opportunity to lower energy bills.
- **Neighbourhood revitalization:** Programs can focus on improving the health and vitality of specific neighbourhoods, achieving savings on energy upgrades by targeting groups of homes to create economies of scale.
- **Public health:** Retrofitted homes have better comfort and indoor air quality, improving the health and well-being of residents.

How can BEAC help ?

- Support and promote the CEERP benefits to your networks
- Support the establishment of a Residential Energy Efficiency Program (REEP)
- Promote the REEP and its benefits to Brampton to your networks
- Participate in engagement activities in establishing the REEP

Thank you

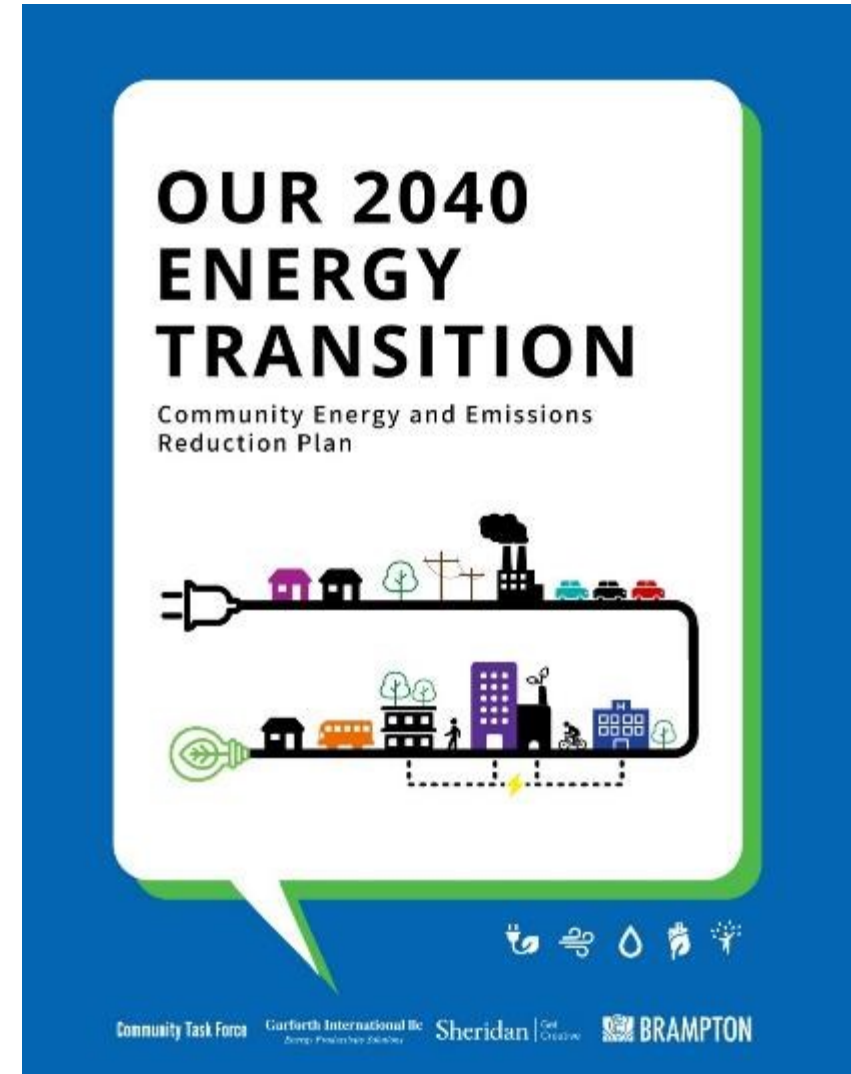
Pam Cooper

Senior Environmental Planner

Public Works and Engineering

pam.cooper@brampton.ca

905.874.2265



Date: 2020-10-13

Subject: Centre for Community Energy Transformation (CCET)

Contact: Michael Hoy, Supervisor, Environmental Planning,
michael.hoy@brampton.ca

Report Number: Public Works & Engineering-2020-217

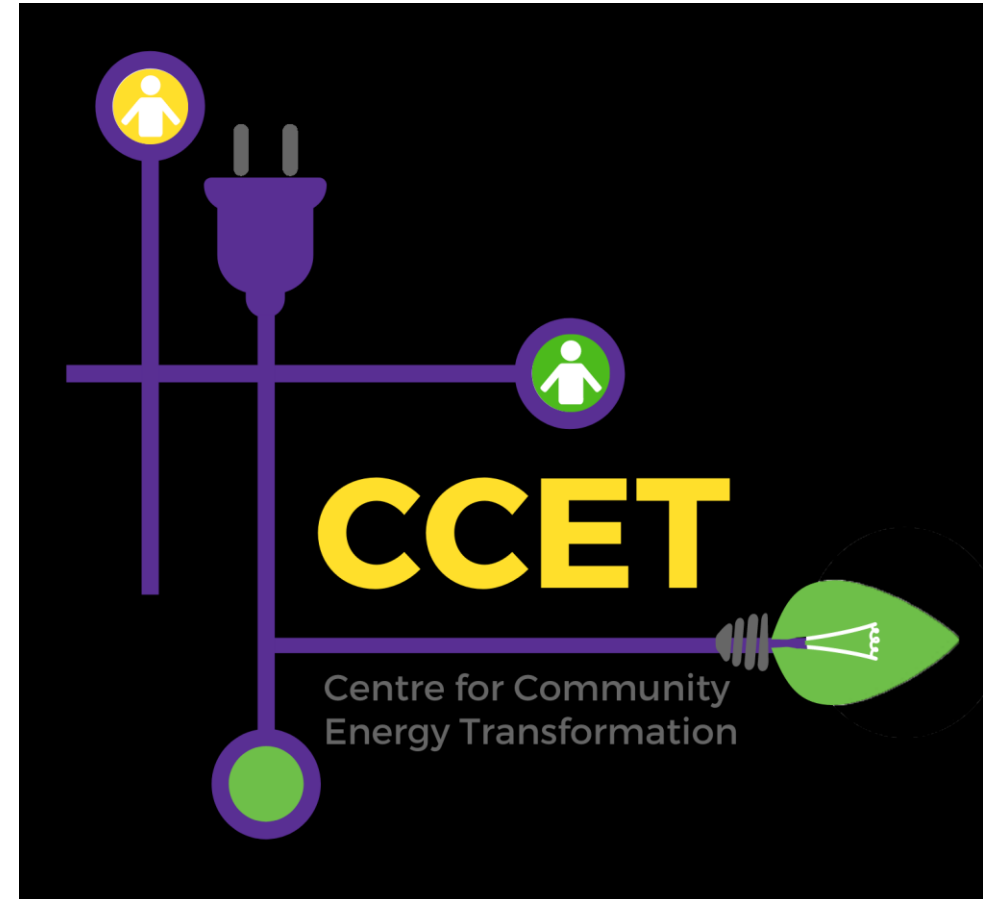
Recommendations:

1. That the presentation by Michael Hoy, Supervisor, Environmental Planning, to the Environment Advisory Committee Meeting of October 13, 2020, re: Centre for Community Energy Transformation (CCET) be received.

Centre for Community Energy Transformation

BEAC

2020.10.13



Impetus for Centre for Community Energy Transformation (CCET)

- Grow Green: Environmental Master Plan
- 2040 Vision
- 2019 ISB Task Force Council Delegation
- Community Energy and Emission Reduction Strategy



Why a CCET? Brampton's Climate Emergency













Brampton City Council Declares Climate Emergency

by Dylan Olley on June 6, 2019
in News, Hot Topics, Politics

Like Share Tweet



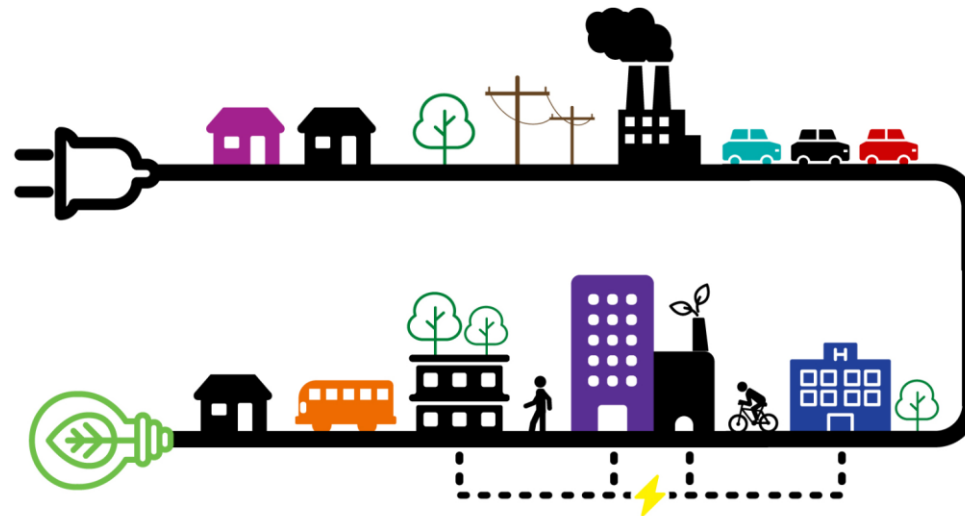
The Brampton City Council is looking to take action against climate change.

Changes	Effects	Community Impact
 Increase in average summer temperatures More frequent and longer heat waves	 Heat islands Health issues	Increased costs to cool buildings Increased healthcare costs Increased socioeconomic disparity
 Increase in rainfall More intense storms	 Flooding Erosion	Cost of disaster relief Cost of infrastructure upgrades Decrease in water quality Potential for loss of land Displacement of residents
 More unpredictable seasons	 Disrupted growing season Desertification of agricultural fields Disrupted season-dependent industries	Increased cost of food Increased food insecurity Reduced equity and health Disrupted economy More economic uncertainty
 Increase in winter storm severity	 Snow dumps Cold snaps	Cost of snow removal Higher infrastructure and maintenance costs Less economic activity Increase in social disparity Increase in energy use and associated costs
 Milder winters	 More disease-spreading pests survive More invasive species survive	More human diseases and illnesses Negative economic impact for industries (e.g. agriculture, lumber)
 Increase in average temperatures Changes to local climate	 Displacement and changes to geographic range of wildlife Changes in distribution of resources Changes in how species interact	More suitable habitat for invasive species Species extirpation or extinction Loss of ecosystem services Increase cost of local infrastructure and city services More human-animal interactions More disease outbreaks

CEERP Framework

Addressing the Climate Change Emergency requires:

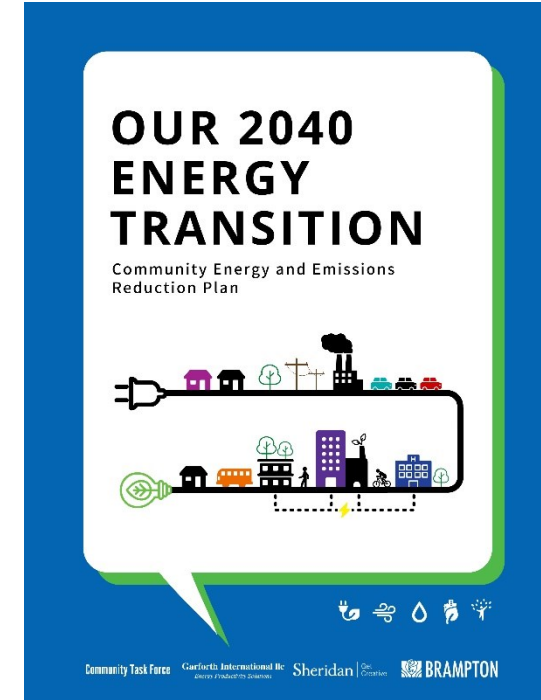
- Urban transition
- Energy transition
- Community commitment and collaboration



Brampton's Approach to Mitigating Climate Change



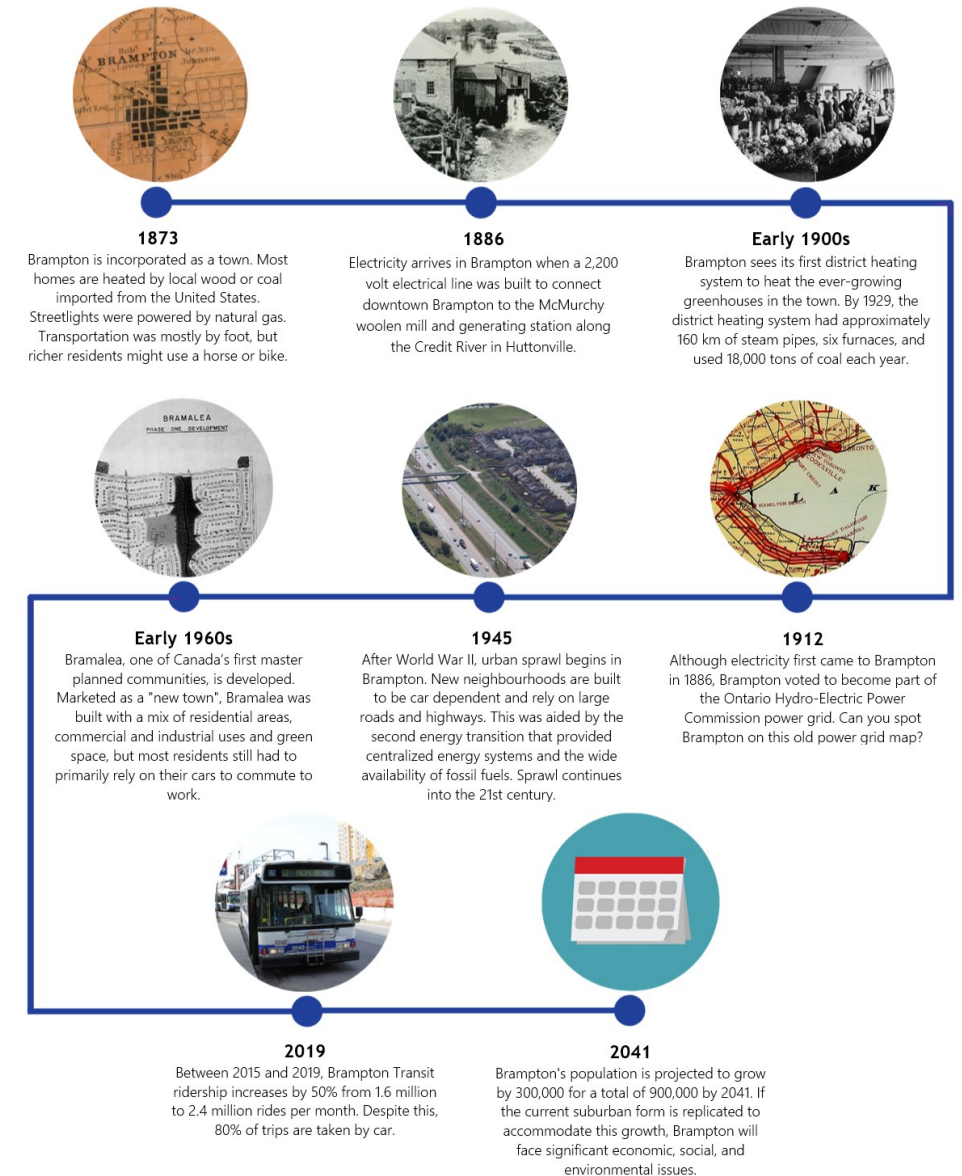
Urban transition =
Brampton 2040 Vision



Energy Transition =
Community Energy &
Emissions Reduction Plan

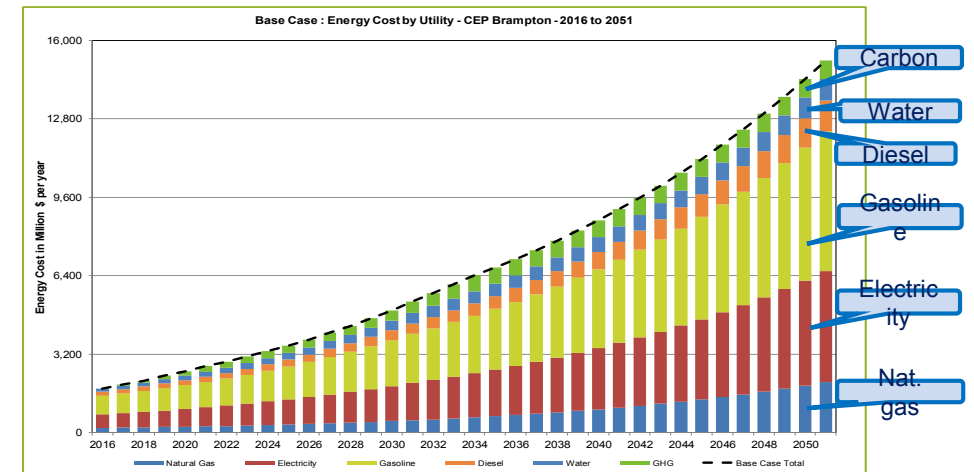
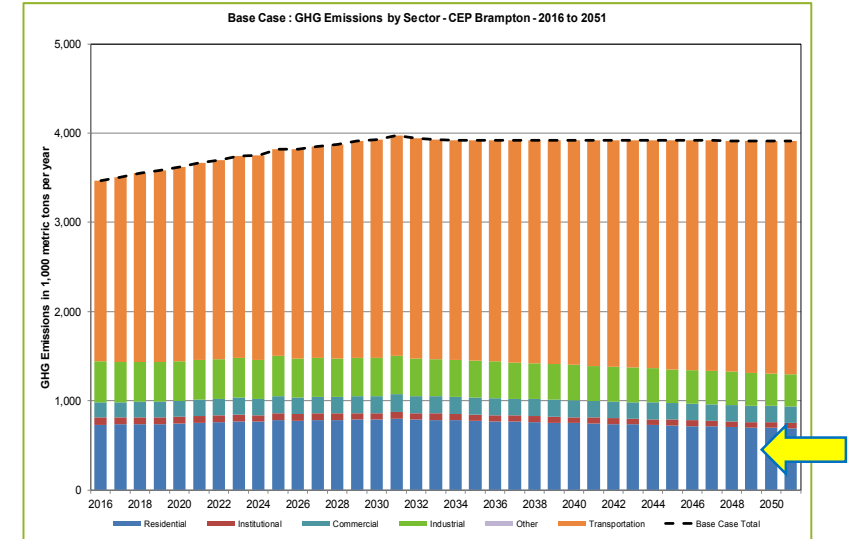
Energy Transitions

- Two previous energy transition in the last 100 years
 - 1st: wide scale use of coal and steam power
 - 2nd: move to centralized energy systems and use of fossil fuels
- Current transition involves:
 - Decarbonization of energy
 - Distributed energy generation
 - Deep building retrofits



CEERP: Energy and Emissions

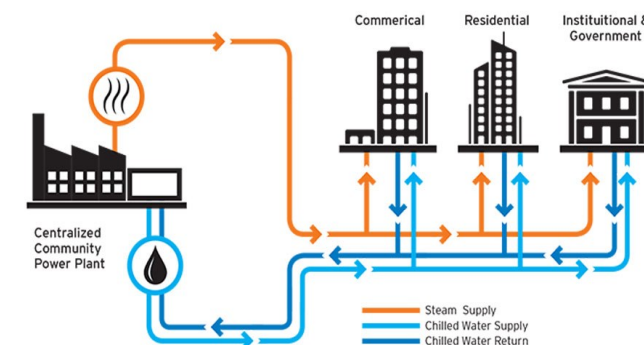
- Brampton spends +\$1.8 billion on energy
- ~ 80% of those energy dollars leave the city
- Energy costs projected to quadruple by 2050
- 5.6 tonnes CO₂e of GHG per resident (Ontario = 3.7t /capita)
- Brampton buildings ½ as efficient as global best practices
- Transportation sector almost 60% of GHGs



CEERP Priority Projects

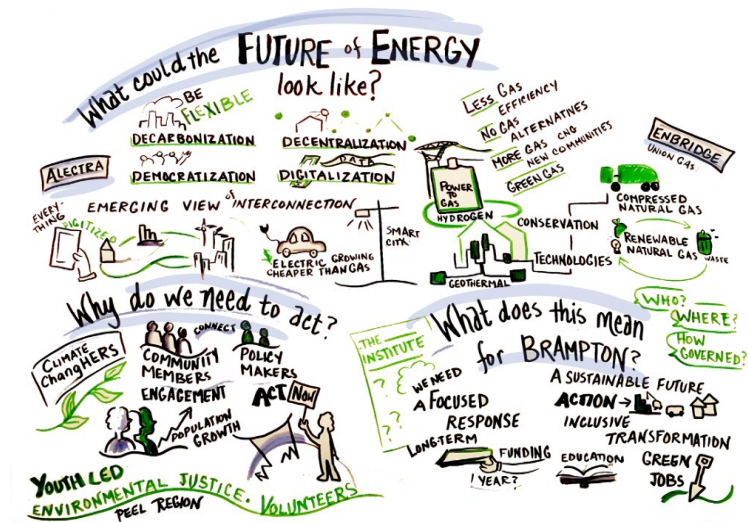
Implement in the next 5 years:

- Align City policies/programs to support CEERP targets
- Establish a standardized Home Retrofit Program
- Update Transportation Master Plan
- Integrate District Energy Systems into City/Town Centres
- Develop Integrated Energy Master Plans
- Establish a Community Organization



Establish a Community Organization

- Brampton 2040 Vision and 2019 Council direction to investigate establishing a Institute for Sustainable Brampton
- Project Team established with representatives from City, Region, and Sheridan
- Community Workshop held in November 2019 with 50 stakeholders:
 - Focus on energy transition
 - Arms-length from the City
 - Action-oriented
 - Broad support



- CEERP assigns select priority actions to a Community Organization

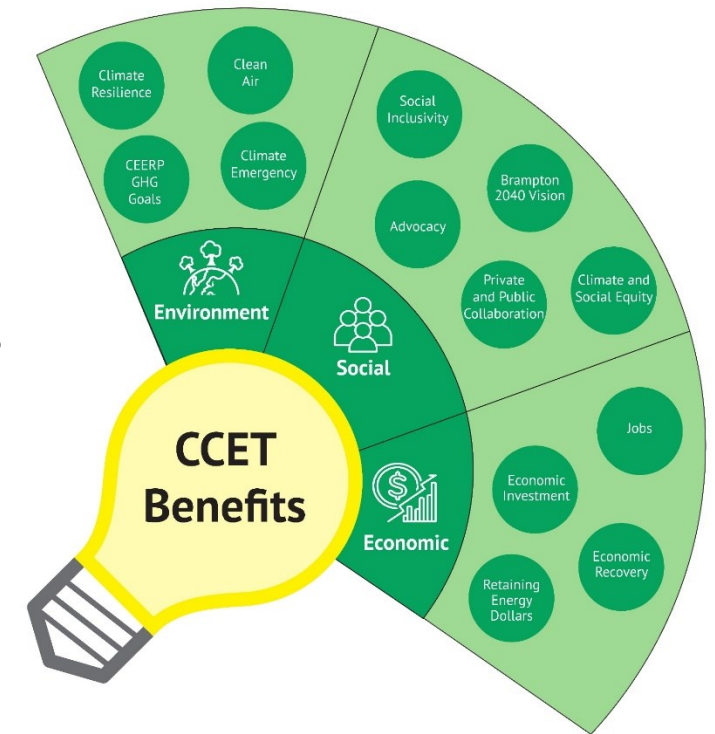
What is the Centre for Community Energy Transformation (CCET)?

- Non-profit community organization
- Focused on becoming a centre of excellence in energy
- Support Brampton in meeting its climate change targets
- Facilitate community actions to accelerate Brampton's energy transformation
- Collaborate with businesses, developers, utilities, governments, institutions, non-profits, and homeowners
- Develop and deliver energy transformation projects



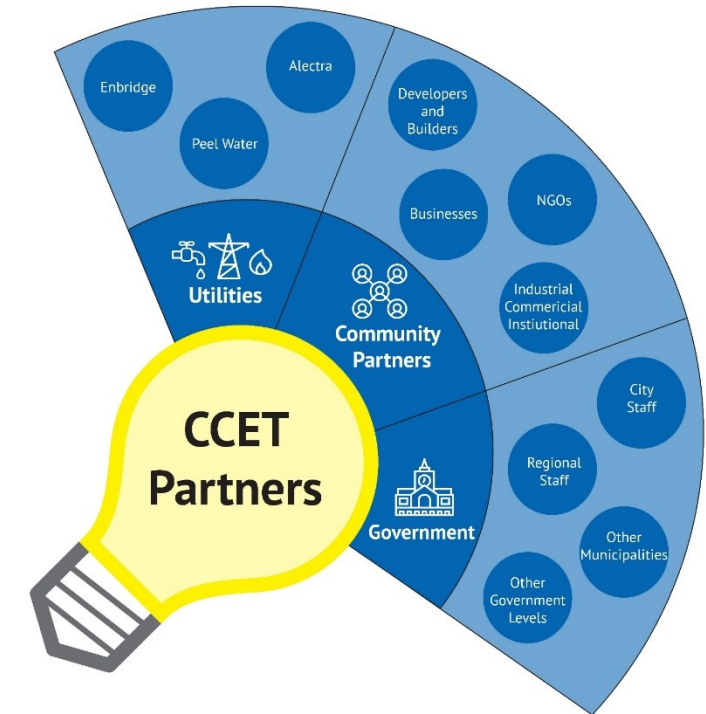
CCET: Potential Community Benefits

- Coordinated action to catalyze the energy transformation in Brampton
- Measurable GHG reductions and traceable results
- Green job creation
- Partnerships between governments and other organizations
- Alignment of local efforts
- Community engagement and education
- Opportunity to inspire other (suburban) communities
- Showcase ongoing work
- Learn from each other



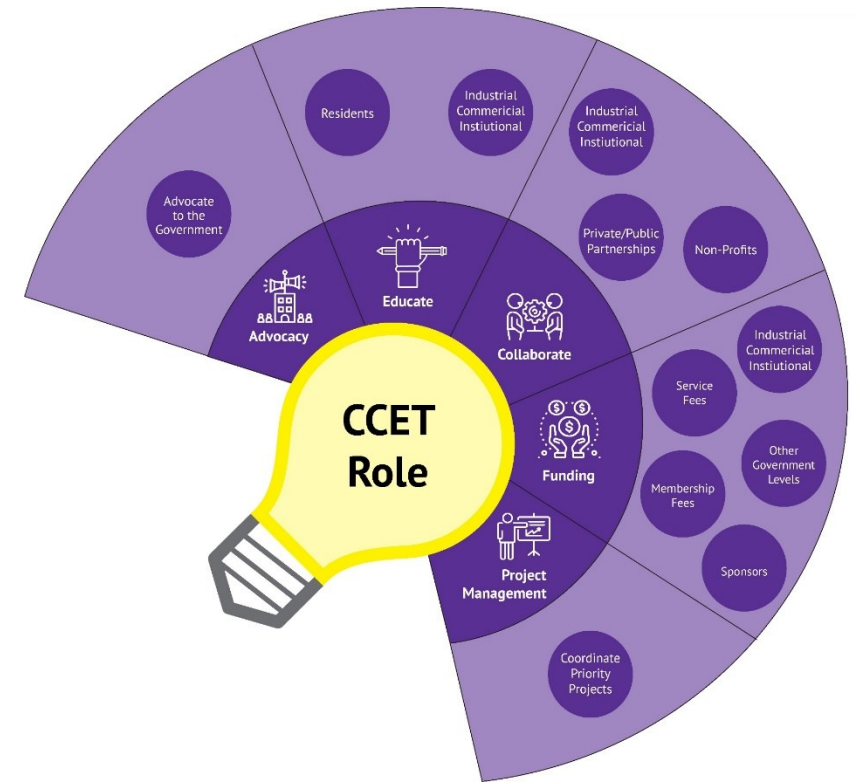
CCET is About Collaboration

- Working for Brampton's community
- Build network of cross-sector stakeholders and partners
- Secure funding opportunities for private and public sector
- Seek integrated solutions with multiple benefits
- Develop a brand and virtual presence



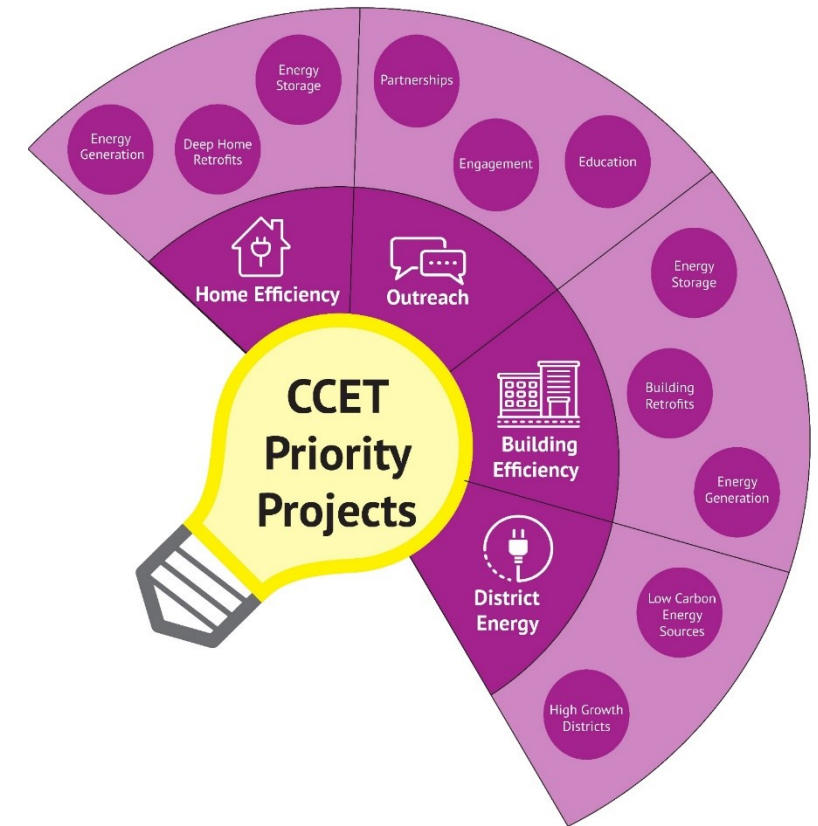
Role of CCET in Brampton's Energy Transition

- Plan, coordinate, and deliver select 2020-2025 CCERP priority projects
- Advocate for energy investment
- Secure funding opportunities from private and public sector
- Communicate and engage regularly
- Community hub for energy excellence



CCET Priority Projects

- Home Retrofit Program
- Establish District Energy nodes
- Improve building efficiencies
- Outreach and engagement



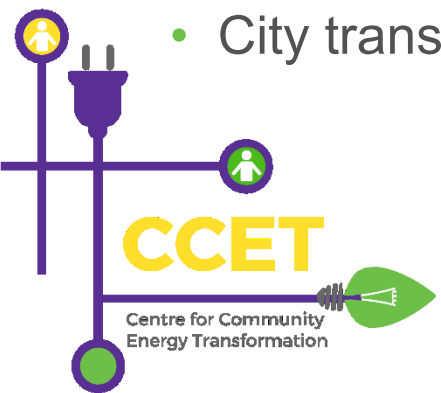
Establishing CCET: Community Task Force



Establishing the CCET: 2020-2022

Pending Council approval, CCET Project Team will undertake the following steps:

- Establish community CCET Advisory Task Force from representatives from the CEERP Task Force
- Work on developing a CCET funding model → \$1.1 million over 5 years:
 - \$300,000 in the first year
 - \$200,000 in each of the remaining four years
- Develop organization framework (by-laws, Board manual, ED job description, etc)
- Initiate process to incorporate the CCET as a non-profit organization
- Recruit permanent Board members
- Draft Service Level Agreement
- Hire Executive Director
- City transitions out of its coordination role



CCET and BEAC

- Support the establishment of CCET
- Promote the CCET and its benefits to Brampton to your networks
- Participate in engagement activities in establishing the CCET



Thank you

Michael Hoy
Supervisor, Environmental Planning
Public Works & Engineering
City of Brampton
905-874-2608
michael.hoy@brampton.ca



Date: 2020-10-13

Subject: **Eco Park and One Million Trees Update**

Contact: **Zoe Milligan, Planner I, zoe.milligan@brampton.ca**

Report Number: Public Works & Engineering-2020-226

Recommendations:

1. That the presentation by Zoe Milligan, Planner I, Environment & Development Engineering Division, Public Works & Engineering Department, to the Environment Advisory Committee Meeting of October 13, 2020, re: Eco Park and One Million Trees Update be received.

An aerial photograph of a park area. In the foreground, there's a paved path and a playground with colorful equipment. A small building with a red roof is near a lake. The lake is surrounded by dense green trees. In the background, several tall apartment buildings are visible against a blue sky with scattered clouds.

Brampton One Million Trees & Eco Park Update

Brampton's Environmental Advisory Committee
October 13th, 2020

Brampton One Million Trees

- Vision 1: Sustainability & the Environment
 - **Action 1: One Million Trees** ←
 - **Action 2: Brampton Eco Park** ←
 - Action 3: Institute for Sustainable Brampton
- One million new trees in the public and semi public realm by 2040

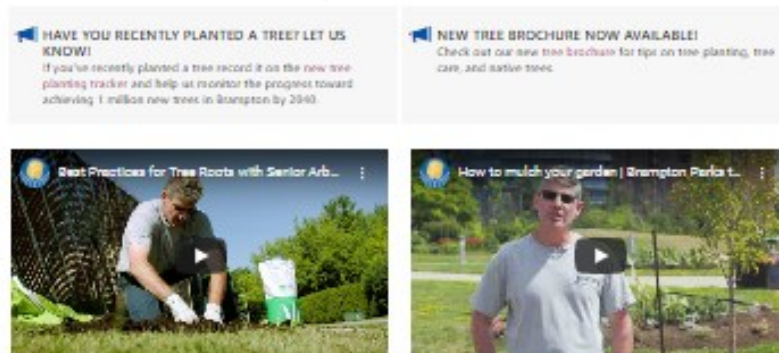




LEARN MORE



ANNOUNCEMENTS



Update


- 2019
 - 10 pilot park plantings
- 2020
 - Covid 19
 - Websites: www.brampton.ca/trees
 - [Online Tree Planting Tracker](#)
 - Tree information brochure
 - Tree month (September)
 - Tree care videos
 - Urban Forest Management Plan (UFMP)

What's Next

- Fall 2020 plantings
 - 15 parks
 - Street trees and blvds.
- UFMP: Engagement Stage
 - Internal and external stakeholders
 - General public engagement

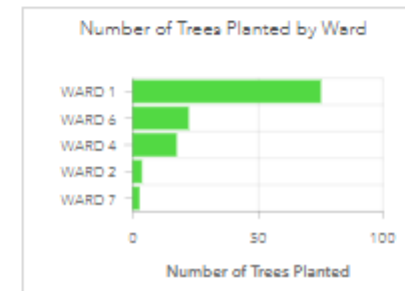
Have You Recently Planted a Tree? Let us Know!

The City has launched an online tree planting tracker tool to help monitor and report progress toward achieving the one million new tree goal. If you've recently planted a tree, record it on our tree planting tracker.

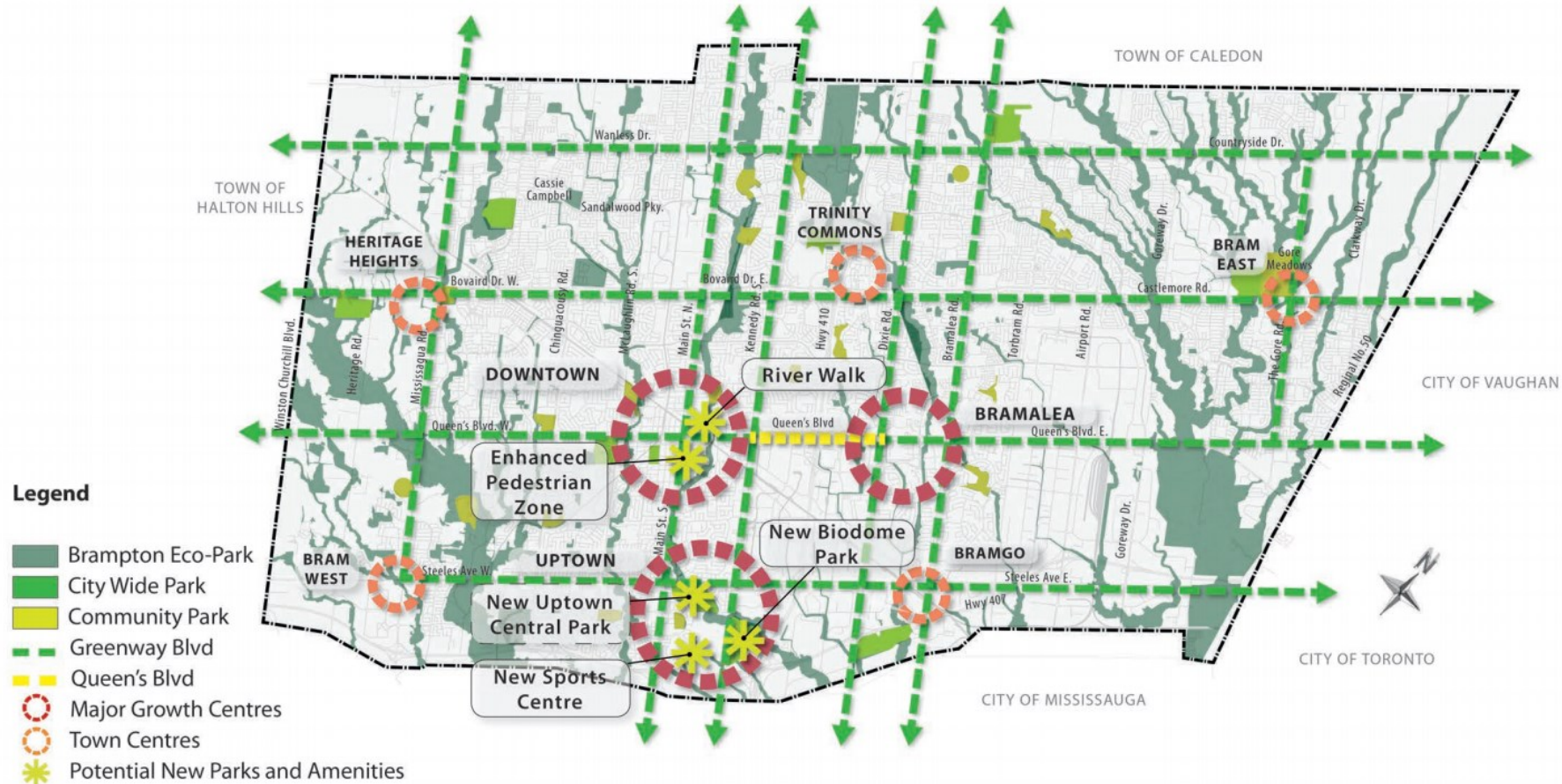
Count My Tree 



 **119**
Trees Planted



Brampton Eco Park



***Brampton Eco Park** is a network of sustainable urban spaces that reflects Brampton's character, provides unique social opportunities, and supports city infrastructure while enhancing, re-naturalizing and conserving Brampton's natural landscapes.*

Eco Spaces

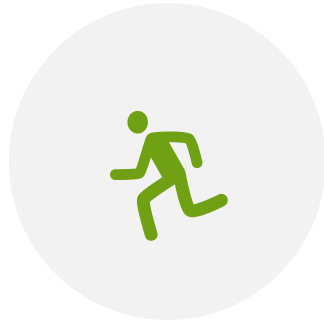


Nature + People + Principles = Eco Space

Principles



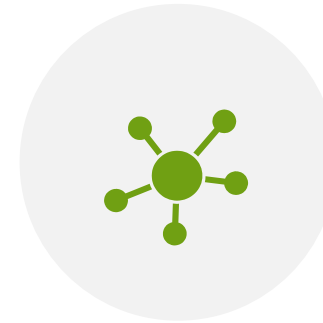
*Maximize
ecological value*



*Make nature
visible*



*Design with
nature*



*Integrate with the
surrounding
community*



*Provide
opportunities for
social services*



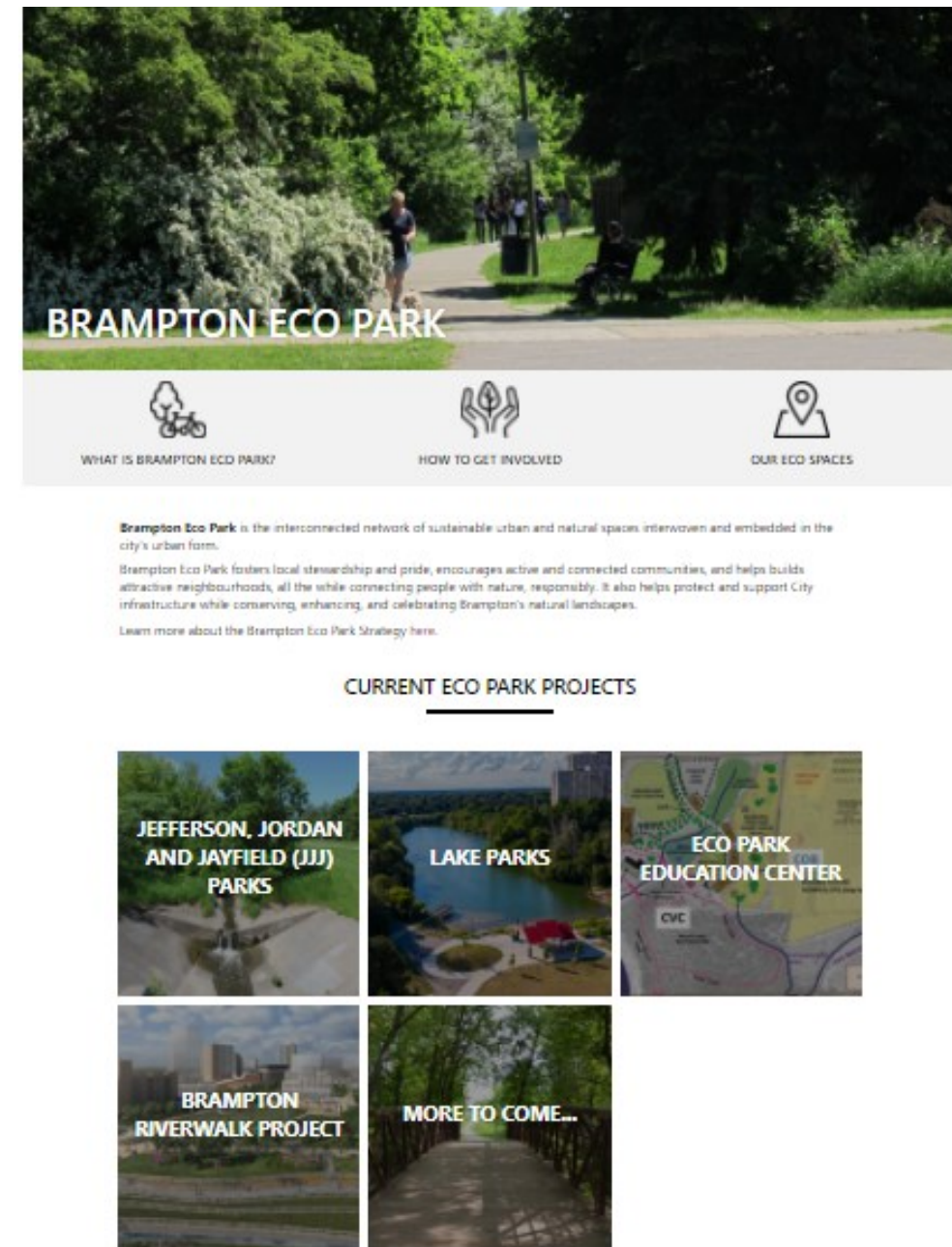
Support innovation



*Reflect local
identity*

Update

- New website:
 - www.brampton.ca/EcoPark
- Jefferson, Jordan Jayfield Park
- Lakes Improvement Report
- Education Centre
- Easy Wins – No mow and tree plantings
- Naturalization - Park retrofits - update



Jefferson, Jordan Jayfield Park Revitalization



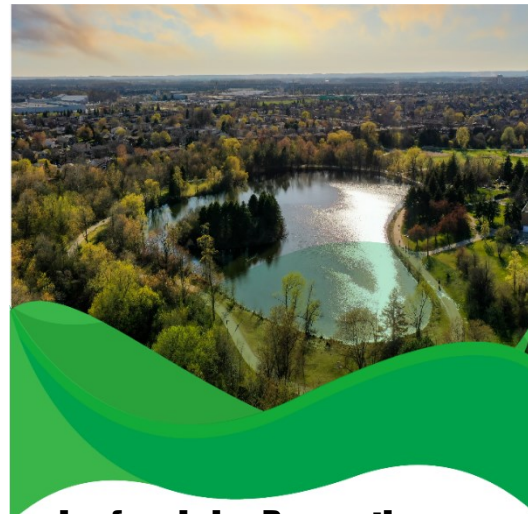
Lake Enhancement Report



Professor's Lake: A Day at the Beach



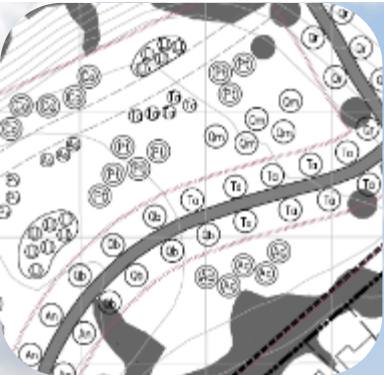
Norton Park : The Hidden Gem



Loafers Lake: Recreation Meets the Lake



Donnelly Ponds: A Natural Oasis



Update

- New website:
 - www.brampton.ca/EcoPark
- Jefferson, Jordan Jayfield Park
- Lake Enhancement Report
- CVC Trailhead Education Centre
- Naturalization Program
 - Starting to include tableland parks
- Easy Wins
 - Continued No Mow and tree plantings



Thank You!

Zoë Milligan
Environmental Planning
City of Brampton