



Agenda  
Committee of Council  
The Corporation of the City of Brampton

**Date:** Wednesday, September 23, 2020  
**Time:** 9:30 a.m.  
**Location:** Council Chambers - Webex Electronic Meeting

**Members:**

|                                  |                |
|----------------------------------|----------------|
| Mayor Patrick Brown (ex officio) |                |
| Regional Councillor R. Santos    | Wards 1 and 5  |
| Regional Councillor P. Vicente   | Wards 1 and 5  |
| Regional Councillor M. Palleschi | Wards 2 and 6  |
| Regional Councillor M. Medeiros  | Wards 3 and 4  |
| Regional Councillor P. Fortini   | Wards 7 and 8  |
| Regional Councillor G. Dhillon   | Wards 9 and 10 |
| City Councillor D. Whillans      | Wards 2 and 6  |
| City Councillor J. Bowman        | Wards 3 and 4  |
| City Councillor C. Williams      | Wards 7 and 8  |
| City Councillor H. Singh         | Wards 9 and 10 |

NOTICE: In consideration of the current COVID-19 public health orders prohibiting large public gatherings and requiring physical distancing, in-person attendance at Council and Committee meetings will be limited to Members of Council and essential City staff.

As of September 16, 2020, limited public attendance at meetings will be permitted by pre-registration only (subject to occupancy limits). It is strongly recommended that all persons continue to observe meetings online or participate remotely. To register to attend a meeting in-person, please contact the City Clerk's Office at [cityclerksoffice@brampton.ca](mailto:cityclerksoffice@brampton.ca) or 905-874-2101.

For inquiries about this agenda, or to make arrangements for accessibility accommodations for persons attending (some advance notice may be required), please contact:  
Sonya Pacheco, Legislative Coordinator, Telephone 905.874.2178, TTY 905.874.2130  
[cityclerksoffice@brampton.ca](mailto:cityclerksoffice@brampton.ca)

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



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1. Call To Order

2. Approval of Agenda

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

4. Consent

The following items listed with a caret (^) are considered to be routine and non-controversial by the Committee and will be approved at this time. There will be no separate discussion of any of these items unless a Committee Member requests it, in which case the item will not be consented to and will be considered in the normal sequence of the agenda.

(9.2.1, 9.2.5)

5. Announcements

6. Government Relations Matters

6.1 Staff Report re: Government Relations Matters

*To be distributed prior to the meeting*

6.2 Update from Mayor P. Brown re: COVID-19 Emergency

*To be received*

7. Public Delegations

7.1 Delegation from Shoaib Ahmed, CEO, SCOOTY (Scooty Mobility Inc.) re: e-Scooter Micropilot held at Chinguacousy Park on August 28-30, 2020 and September 3-7, 2020

7.2 Delegation from Yvonne Robinson, National Director, STEM Montessori Academy of Canada, re: Acquisition of Central Public School for Educational and Economic Development Advancement



- 7.3 Delegation from Gideon Forman, Climate Change and Transportation Policy Analyst, David Suzuki Foundation, re: Community Energy Plan and Greenhouse Gas Reductions Targets
- 7.4 Delegation from Divya Arora, Co-Founder, Board Member and Political Advocacy Strategy Lead, Community Climate Council, re: Community Energy and Emissions Reductions Plan
- 7.5 Delegation from Asela and Inoka Unantenne, Residents of Brampton, re: Garbage Bin Storage on Residential Property
- 7.6 Delegation from Sylvia Roberts, Brampton Resident, re: COVID-19 Recovery
- 7.7 Delegation from Terrie O'Leary, Executive Vice President, Business Strategy, and Daniel Hengeveld, Senior Director, Investment Attraction, Toronto Global, re: Toronto Global Update
- (See Item 8.2.1)
- 7.8 Delegation from Pam Banks, RIC Centre, Shahzeb Rizvi, Toss Down, and Shawn Larkin, North American Dealer Parts Exchange Inc., re: RIC Centre - Growth and Relocation into Brampton's Innovation District

## 8. **Economic Development and Culture Section**

(Regional Councillor P. Vicente, Vice-Chair)

- 8.1 Staff Presentations
- 8.2 Reports
  - 8.2.1 Staff Report re: Toronto Global Re-Investment
- Recommendation*
  - (See Item 7.7)
- 8.3 Other/New Business
- 8.4 Correspondence
- 8.5 Councillors Question Period



8.6 Public Question Period

5 Minute Limit (regarding any decision made under this section)

During the meeting, the public may submit questions regarding recommendations made at the meeting via email to the City Clerk at [cityclerksoffice@brampton.ca](mailto:cityclerksoffice@brampton.ca), to be introduced during the Public Question Period section of the meeting.

9. **Corporate Services Section**

(City Councillor H. Singh, Chair)

9.1 Staff Presentations

9.2 Reports

9.2.1 ^ Staff Report re: Tax Adjustments, Cancellations and Reductions Pursuant to the Municipal Act, 2001

*Recommendation*

9.2.2 Staff Report re: Capital Project Financial Status Report – Q2 2020

*Recommendation*

9.2.3 Staff Report re: 2020 Second Quarter Operating Budget and Reserve Report

*Recommendation*

9.2.4 Staff Report re: Review of Tax Fairness for the Villages of Rosedale Residents

*To be received*

9.2.5 ^ Staff Report re: 2020 Levy By-law per Section 323 of the Municipal Act, 2001 - Annual Levy on Universities/Colleges, Correctional Institutions, and Public Hospitals

*Recommendation*

9.2.6 Staff Report re: Relief Measures for Overdue Property Taxes

*Recommendation*



9.3 Other/New Business

9.3.1 Discussion Item at the request of Regional Councillor Fortini, re: Rat Infestation

9.4 Correspondence

9.5 Councillors Question Period

9.6 Public Question Period

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**10. Public Works and Engineering Section**

(Regional Councillor P. Vicente, Chair)

10.1 Staff Presentations

10.1.1 Staff Presentation by P. Cooper, Policy Planner - Environment, Public Works and Engineering, re: Brampton's Community Energy and Emissions Reduction Plan (CEERP) Presentation

(See Item 10.2.1)

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

(See Item 10.2.2)

10.2 Reports

10.2.1 Staff Report re: Brampton's Community Energy and Emissions Reduction Plan (CEERP)

*Recommendation*

(See Item 10.1.1)



- 10.2.2 Staff Report re: Centre for Community Energy Transformation (CCET) (formerly known as the Institute for Sustainable Brampton) (RM 26/2019)

*Recommendation*

(See Item 10.1.2)

- 10.3 Other/New Business

- 10.4 Correspondence

- 10.5 Councillors Question Period

- 10.6 Public Question Period

5 Minute Limit (regarding any decision made under this section)

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**11. Community Services Section**

(Regional Councillor R. Santos, Chair)

- 11.1 Staff Presentations

- 11.2 Reports

- 11.2.1 Staff Report re: COVID-19 Relief Funding for Brampton Transit

*Recommendation*

- 11.2.2 Staff Report re: Electric Bus Status Update

*Recommendation*

- 11.2.3 Staff Report re: Update on Transit Services

*Recommendation*



11.3 Other/New Business

11.3.1 Discussion Item at the request of Regional Councillor Fortini, re: Park Naming (Goreway Drive and Queen Street East) - Ward 8

11.4 Correspondence

11.5 Councillors Question Period

11.6 Public Question Period

5 Minute Limit (regarding any decision made under this section)

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12. **Referred Matters List**

Note: In accordance with the Procedure By-law and Council Resolution, the Referred Matters List will be published quarterly on a meeting agenda for reference and consideration. A copy of the current Referred Matters List for Council and its committees, including original and updated reporting dates, is publicly available on the City's website.

12.1 Referred Matters List - 3rd Quarter 2020

*To be received*

13. **Public Question Period**

15 Minute Limit (regarding any decision made at this meeting)

14. **Closed Session**

Note: A separate package regarding these agenda items are distributed to Members of Council and senior staff only.

15. **Adjournment**

**Next Regular Meeting: Wednesday, October 7, 2020**





## Delegation Request

For Office Use Only:  
Meeting Name:  
Meeting Date:

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Attention: City Clerk's Office, City of Brampton, 2 Wellington Street West, Brampton ON L6Y 4R2

Email: [cityclerksoffice@brampton.ca](mailto:cityclerksoffice@brampton.ca) Telephone: (905) 874-2100 Fax: (905) 874-2119

Meeting: ☒ City Council ☐ Planning and Development Committee  
☐ Committee of Council ☐ Other Committee:

Meeting Date Requested: September 16, 2020

Agenda Item (if applicable):

Name of Individual(s): Shoaib Ahmed

Position/Title:

CEO

Organization/Person  
being represented:

SCOOTY (Scooty Mobility Inc.)

Full Address for Contact: 5045 Orbitor Drive  
Mississauga, ON L4W 4Y4

Telephone: 416-294-3113

Email: [shoaib@ridescooty.com](mailto:shoaib@ridescooty.com)

Subject Matter  
to be Discussed:

e-Scooter micropilot held at Chinguacousy Park on August 28-30 and September 3-7

Action  
Requested:

Council to receive update on feedback and data from the micropilot

A formal presentation will accompany my delegation: ☒ Yes ☐ No

Presentation format: ☒ PowerPoint File (.ppt) ☐ Adobe File or equivalent (.pdf)  
☐ Picture File (.jpg) ☐ Video File (.avi, .mpg)

☐ Other:

Additional printed information/materials will be distributed with my delegation: ☐ Yes ☒ No ☐ Attached

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- (ii) the electronic file of the presentation to ensure compatibility with corporate equipment.

**Submit by Email**

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## Request for Delegation

Attention: City Clerk's Office, City of Brampton, 2 Wellington Street West, Brampton ON L6Y 4R2  
Email: cityclerksoffice@brampton.ca Telephone: (905) 874-2100 Fax: (905) 874-2119

Meeting: ☒ City Council ☐ Planning & Development Committee  
☐ Committee of Council  
☐ Other

Meeting Date Requested: Sept 9 or 16 or 23, 2020 Agenda Item (if applicable): Acquisition of Central Public School

Name of Individual(s): Yvonne Robinson

Position/Title: National Director

Organization/Person  
being Represented: STEM Montessori Academy of Canada

Full Address for Contact: Brampton,

Telephone No. 905 2166 099 Email/  
Fax No. \_\_\_\_\_

Subject Matter to  
be Discussed We wish to discuss the long term benefits to the City of Brampton and its economic  
development initiatives to acquire CPS for educational and EcDev advancement.

Action  
Requested We wish to present a 10 minute presentation on the long term benefits to the city on  
the subject cited above. An extension of 5 minutes is requested from the original 5  
minute allotment.

Note: a delegation is limited to not more than five minutes.

Attach additional page if required.

I am submitting a formal presentation to accompany my delegation: ☒ Yes ☐ No

I will require the following audio-visual equipment/software for my presentation:

☐ Computer Notebook ☐ DVD Player ☒ PowerPoint  
☐ Other - please specify \_\_\_\_\_

Note: Delegates are requested to provide to the City Clerk's Office **well in advance of the meeting date:** (i) 25 copies of all background material and/or presentations for publication with the meeting agenda and/or distribution at the meeting, and (ii) for PowerPoint and other visual presentations, an electronic copy of the presentation (e.g., DVD, CD, .ppt file) to ensure compatibility with corporate equipment.  
Once the above information is received by the City Clerk's Office, you will be contacted by a Legislative Coordinator **to confirm your placement on the appropriate agenda.**

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Meeting: ☐ City Council ☐ Planning and Development Committee  
☒ Committee of Council ☐ Other Committee:

Meeting Date Requested: Sept 23 2020 Agenda Item (if applicable): Community Energy Plan

Name of Individual(s): Gideon Forman

Position/Title:

Climate Change and Transportation Policy Analyst

Organization/Person  
being represented:

David Suzuki Foundation

Full Address for Contact: 102-179 John St., Toronto, ON  
M5T 1X4

Telephone:

Email:

gforman@davidsuzuki.org

|                                    |   |
|------------------------------------|---|
| Subject Matter<br>to be Discussed: | <u>Community Energy Plan and greenhouse gas reduction targets</u> |
| Action<br>Requested:               | <u>Speak to council</u>   |

A formal presentation will accompany my delegation: ☐ Yes ☒ No

Presentation format: ☐ PowerPoint File (.ppt) ☐ Adobe File or equivalent (.pdf)  
☐ Picture File (.jpg) ☐ Video File (.avi, .mpg)

☐ Other:

Additional printed information/materials will be distributed with my delegation: ☐ Yes ☒ No ☐ Attached

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Meeting: ☐ City Council ☐ Planning and Development Committee  
☒ Committee of Council ☐ Other Committee:

Meeting Date Requested: September 23, 2020

Agenda Item (if applicable):

Name of Individual(s): Divya Arora

Position/Title:

Co-Founder, Board Member and Political Advocacy Strategy Lead

Organization/Person  
being represented:

Community Climate Council

Full Address for Contact:

Brampton, ON

Telephone:

Email:

[divya@peelclimatecouncil.com](mailto:divya@peelclimatecouncil.com)

Subject Matter  
to be Discussed:

The Community Energy and Emissions Reductions Plan will be presented to the Committee of Council at this meeting, and we would like to participate in that discussion, as residents of Brampton.

Action  
Requested:

We are submitting this form as a request to delegate, with a presentation, in support of the CEERP that the Council will be making a decision on.

A formal presentation will accompany my delegation: ☒ Yes ☐ No

Presentation format: ☒ PowerPoint File (.ppt) ☐ Adobe File or equivalent (.pdf)  
☐ Picture File (.jpg) ☐ Video File (.avi, .mpg)

☐ Other:

Additional printed information/materials will be distributed with my delegation: ☐ Yes ☒ No ☐ Attached

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# COMMUNITY CLIMATE COUNCIL

Delegation: Committee of Council

Meeting on September 23, 2020





# Who we are and what we do



Youth-founded,  
intergenerational-focused,  
non-partisan ENGO



Promoting civic action,  
climate literacy, and political  
advocacy in Peel Region



Concerned residents of the  
Region of Peel



# Community Energy and Emissions Reduction Plan (CEERP)



Reduces greenhouse gas emissions



Supports Brampton's 2040 Vision of being a Green, Healthy, Safe and Well-Run City



Seeks to improve Brampton's inefficient energy usage and output



Benefits our local economy



# Centre for Community Energy Transformation (CCET)

- Action-oriented organization that will lead, develop, and implement selected environmental projects in accordance with the CEERP, such as:
  - *Home Retrofit Program*
  - *District Energy Systems*
  - *Integrated Energy Master Plans*
- Consists of professionals and committed community members from Peel Region
- Already has the support of local ENGOs: The CCC is available and eager to assist





**BRAMPTON**  
Flower City

**Chief Administrative Office**  
City Clerk

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Email: [cityclerksoffice@brampton.ca](mailto:cityclerksoffice@brampton.ca) Telephone: (905) 874-2100 Fax: (905) 874-2119

Meeting: ☐ City Council ☐ Planning and Development Committee  
☐ Committee of Council ☐ Other Committee:

Meeting Date Requested:

Agenda Item (if applicable):

Name of Individual(s):

Asela and Inoka Unantenne

Position/Title:

Organization/Person  
being represented:

Home Owners

Full Address for Contact

Brampton ON

Telephone:

Email:

**Subject Matter  
to be Discussed:**

Neighbour ( ) Brampton ON ) storing garbage bins on the side of the house where our home side entrance also conflicting to the legal two unit dwelling which we have only 24 inches or less walk way.  
Please see attached detailed statement submitting with this Deligation request.

**Action  
Requested:**

Request city of Brampton to introduce a bylaw not to store Garbage bins on the side of the houses if the width from the property line is narrower mostly 2 feet or less on one house or both houses also not to extend the fence as it is obstruct the movements specially in an emmergency or day today use

A formal presentation will accompany my delegation: ☐ Yes ☐ No

Presentation format: ☐ PowerPoint File (.ppt) ☐ Adobe File or equivalent (.pdf)  
☐ Picture File (.jpg) ☐ Video File (.avi, .mpg)

☐ Other:

Additional printed information/materials will be distributed with my delegation: ☐ Yes ☐ No ☒ Attached

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We Asela & Inoka Unantenne Brampton are the home owners. Our home has a legal basement Two unit dwelling approved by the city of Brampton (two unit dwelling registration certificate # ) second unit main entrance is the side entrance to the house approved by the city which is on the south side of the house the narrower side which is approximately 24 inches or less in width from the wall of our house where the walkway leading to the side entrance door to our house & to the basement apartment. On the same side neighbour also the home owner of their house purposely placing their three garbage bins on the property line (their side entrance is on the other side of their house) just front of our side entrance door way which obstruct the free movements of us, our tenants their visitors, contractors & emergency personnel upon entering through this entrance, hence these bins blocking our legal side entrance as is limited to 24 inches or less in width average size person cannot comfortably walk on this without hitting the wall or the bins often hurts. During winter months walking on this side with the accumulation of snow & ice which is near impossible with these garbage bins. We have made many complaints to city of Brampton over the phone regarding this issue however this is the first time submitting in writing delegation request to the Chief administration officer city of Brampton. At present as we know unfortunately City of Brampton do not have a bylaw home owners prohibiting to store their garbage bins on the side of the house if the next door neighbour has only 2 feet or less (these homes were built around 2007/2008 and took the possession in 2009. We are the original home owner of our home that time we never had plastic garbage bins until few years ago however we always store our garbage bins at the back yard (except snowy season) inside our garage or front of the garage door as city has permitted. We humbly request City official to hear our grievances due to no bylaw yet for our issue may be many other people go through. Therefore please introduce a bylaw prohibiting home owners or the tenants to store their garbage bins on the side of their property if the passage is narrow for both houses or one house as this will eliminate unnecessary neighbour disputes fire and health hazards bodily injuries or even fatalities.

Thank you for your understanding and we hope city of Brampton will consider this request to improve the standards and maintain peaceful and good neighbourhoods.

















































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Meeting: ☐ City Council ☐ Planning and Development Committee  
☒ Committee of Council ☐ Other Committee:

Meeting Date Requested: 2020 September 23

Agenda Item (if applicable):

Name of Individual(s): Sylvia Roberts

Position/Title: Resident

Organization/Person  
being represented:

Full Address for Contact:

Telephone:

Email:

Subject Matter  
to be Discussed:

COVID-19 Recovery, Restaurants, Sign By-law 399-2002

Action  
Requested:

Exempt small signs regarding parking and loading from the limit on ground signs, allow patio sketch instead of a full property survey

A formal presentation will accompany my delegation: ☒ Yes ☐ No

Presentation format: ☐ PowerPoint File (.ppt) ☒ Adobe File or equivalent (.pdf)  
☐ Picture File (.jpg) ☐ Video File (.avi, .mpg)

☐ Other:

Additional printed information/materials will be distributed with my delegation: ☐ Yes ☐ No ☐ Attached

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# COVID-19 & Restaurants





The Canadian Chamber of Commerce estimates 60% of restaurants may close, the City has done a number of good steps to help restaurants, such as patios. Patios can be nice in late spring through early fall, but, this is Canada, and winter is coming.






While some restaurants may be able to keep patios open into the winter, this isn't going to work for a number of restaurants. But there is indoor dining right? Have you seen the case count recently? Would you be able to tell the Board of Trade with a straight face that you are confident indoor dining will be allowed for the entire winter? No? Well if they can't dine indoors, and they won't dine outdoors, what does that leave? Delivery





Delivery was rapidly growing before the pandemic, and after the pandemic started, it exploded, and adding some delivery signs would make this better for business, especially, but not exclusively restaurants.





|  | Required Zoning of Property   | # of Signs Permitted on a Lot | Minimum Distance from Property Lines | Maximum Sign Area   | Maximum Height     |
|--|---|-------------------------------|--------------------------------------|---|--------------------|
| <b>Class A</b>   | Open Space<br>Floodplain/Greenbelt<br>Commercial<br>Industrial<br>Institutional <sup>9</sup>  | One <sup>1,7</sup>            | 1.5 m<br>(5 ft)                      | 15 m <sup>2</sup><br>(161 ft <sup>2</sup> ) <sup>11</sup> | 7.5 m<br>(24.5 ft) |
| <b>Class B <sub>2</sub></b>  | Commercial <sup>3</sup><br>Industrial <sup>3</sup>  | One                           | 10 m<br>(32 ft)                      | 20 m <sup>2</sup><br>(215 ft <sup>2</sup> )               | 7.5 m<br>(24.5 ft) |
| <b>Brampton Downtown Area</b> <sub>4,5,6</sub>   | Commercial  | One                           | 1.5 m<br>(5 ft)                      | 1 m <sup>2</sup><br>(10.8 ft <sup>2</sup> )               | 2.3 m<br>(7.5 ft)  |
| <b>Queen Street Corridor and Downtown Brampton Provisions</b> <sub>5,10</sub>          | Residential where a commercial use has been approved through Committee Of Adjustment <sup>8</sup>   | One                           | 1.5m<br>(5 ft)                       | 1 m <sup>2</sup><br>(10.8 ft <sup>2</sup> )               | 1.2 m<br>(4 ft)    |
| <b>Live/Work Unit constructed as a Detached or Semi-Detached House</b> <sub>5,12</sub> | Residential   | One                           | 1.5 m<br>(5 ft)                      | 1 m <sup>2</sup><br>(10.8 ft <sup>2</sup> )               | 1.2 m<br>(4 ft)    |
|  | <sup>1</sup> One additional ground sign shall be permitted for a corner lot, having a combined frontage in excess of 150 m (492 ft) on two or more streets, provided that the two signs do not front on the same street. A minimum distance of 30 m (98 ft) shall be provided between each sign and a minimum distance of 15 m (49 ft) shall be provided between each sign and the nearest corner of a visibility triangle. |                               |                                      |   |                    |

Except the by-laws say, no, you can only have one, maybe two signs at most commercial plazas, and often that capacity is taken up by another form of sign. It does seem reasonable to have controls on signs that are in excess of a metre, and definitely for ones in excess of 10 square metres, but that prior sign is 30cm by 30cm, that is 0.09 metres. Applying the same requirements to a sign that is 0.1 square metres as one that is 10 square metres is absurd. Sure, you could apply for a by-law amendment at the cost of \$2000 in city fees, and 4-6 months just for the application, in addition to needing to hire people to do a property survey, and help with all the paperwork, but how many restaurants are sitting on thousands of dollars they don't need right now? How about those with half a year or more of time to waste? Even if this is 100% revenue recovery application, is this a good use of staff time? How does this make residents lives better?





College Plaza at Steeles and McLaughlin, hypothetical converted spots shown in red, the longer one might be a two faced sign.





Enlarged





## The Ask

- Refer to staff to look at
  - Exempting small signs such as 15 minute parking signs, which are mounted in a similar way as Accessible parking signs, from the sign limit
  - Allowing a less expensive alternative to a full property survey, like the process the City uses for patios.
  - Other changes as might be appropriate
  - Reduce the sign permit fee to account for this category of sign requiring less staff time and work.

Allowing these measures will help restaurants during the pandemic, recovering from the pandemic, and after





## Request for Delegation

Attention: City Clerk's Office, City of Brampton, 2 Wellington Street West, Brampton ON L6Y 4R2  
Email: cityclerksoffice@brampton.ca Telephone: (905) 874-2100 Fax: (905) 874-2119

Meeting: ☐ City Council ☐ Planning & Development Committee  
☒ Committee of Council  
☐ Other

Meeting Date Requested: September 23, 2020 Agenda Item (if applicable): PB&ED 2020-060

Name of Individual(s): Terrie O'Leary, Executive Vice President, Business Strategy  
Daniel Hengeveld, Senior Director, Investment Attraction

Position/Title:

Organization/Person  
being Represented:

Toronto Global

Full Address for Contact:

Telephone No. \_\_\_\_\_ Email/ toleary@torontoglobal.ca  
Fax No. dhengeveld@torontoglobal.ca

Subject Matter to  
be Discussed

Toronto Global Update

Action  
Requested

Note: a delegation is limited to not more than five minutes.

Attach additional page if required.

I am submitting a formal presentation to accompany my delegation: ☒ Yes ☐ No

I will require the following audio-visual equipment/software for my presentation:

☐ Computer Notebook ☐ DVD Player ☒ PowerPoint  
☐ Other - please specify \_\_\_\_\_

Note: Delegates are requested to provide to the City Clerk's Office **well in advance of the meeting date:** (i) 25 copies of all background material and/or presentations for publication with the meeting agenda and/or distribution at the meeting, and (ii) for PowerPoint and other visual presentations, an electronic copy of the presentation (e.g., DVD, CD, .ppt file) to ensure compatibility with corporate equipment.  
Once the above information is received by the City Clerk's Office, you will be contacted by a Legislative Coordinator **to confirm your placement on the appropriate agenda.**

Personal information on this form is collected under authority of the Municipal Act, SO 2001, c.25 and/or the Planning Act, R.S.O. 1990, c.P.13 and will be used in the preparation of the applicable Council/Committee agenda and will be attached to that agenda. Questions about the collection of personal information should be directed to the Deputy City Clerk, Office of the CAO, 2 Wellington Street West, Brampton, Ontario, L6Y 4R2, tel. 905-874-2115.





## Request for Delegation

Attention: City Clerk's Office, City of Brampton, 2 Wellington Street West, Brampton ON L6Y 4R2  
Email: cityclerksoffice@brampton.ca Telephone: (905) 874-2100 Fax: (905) 874-2119

Meeting: ☒ City Council ☐ Planning & Development Committee  
☐ Committee of Council  
☐ Other

Meeting Date Requested: September 23rd, 2020 Agenda Item (if applicable): \_\_\_\_\_

Name of Individual(s): Pam Banks

Position/Title: Director

Organization/Person  
being Represented: RIC Centre

Full Address for Contact: 6 George St. S., Brampton, ON, L6Y 1P1

Telephone No. (289) 373 3050 Email/  
Fax No. \_\_\_\_\_

Subject Matter to  
be Discussed An update on their growth and relocation into Brampton's Innovation District.  
Two businesses will join the delegation, will confirm names.

Action  
Requested

No action requested.

Note: a delegation is limited to not more than five minutes.

Attach additional page if required.

I am submitting a formal presentation to accompany my delegation: ☒ Yes ☐ No

I will require the following audio-visual equipment/software for my presentation:

☐ Computer Notebook ☐ DVD Player ☒ PowerPoint  
☐ Other - please specify \_\_\_\_\_

Note: Delegates are requested to provide to the City Clerk's Office **well in advance of the meeting date:** (i) 25 copies of all background material and/or presentations for publication with the meeting agenda and/or distribution at the meeting, and (ii) for PowerPoint and other visual presentations, an electronic copy of the presentation (e.g., DVD, CD, .ppt file) to ensure compatibility with corporate equipment.  
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RESEARCH INNOVATION  
COMMERCIALIZATION

Accelerate Success.™

# Fall 2020 Update





# 6 George St South



RIC Centre & Ryerson Cybersecure Catalyst



RIC Centre  
(top floor)



City Hall & Brampton Entrepreneur Centre



# 6 George St South



Co-Working Space



5 Offices



2 Meeting Rooms



# Programming during COVID



## COVID-19 Survival Toolkit Bootstrapping

Getting a lot done with minimal cash.

July 7th, 2020 3pm ET





# Programming during COVID



## MVP to Market

Get to Revenue Faster  
with Expert Advice





# MVP to Market

## Program Partners:



## Testimonials

“It was invaluable for MARSystems to work with the RIC Centre and their great team of advisors, attend their series of live and virtual workshops, and to meet fellow tech entrepreneurs in the start-up technology company journey. This RIC support helped us refine our value proposition for providing MARS Lifesaving Trauma Stabilization - and thus, positions us to win over large B2B customers in Canada and the US”

-Dan Jumis, President, Monroe Advanced Robotics Systems.

We found that the M2M program helped us at just the right time. We're weeks away from launch and the program helped us refine our sales process and improved our sales and marketing messages. Everyone was exceptionally helpful (even the participants) and a good crew to work with. M2M helped to reframe some of our thinking. Thanks!

-Kathleen Webb, CEO & Founder, Skill Squirrel



# Community Initiatives



- DMS Community Collaboration Project
- DMS Transformation Teams
- DMS Labs



- SAFEcheck collaboration with CloserCollab



RIC Centre Contact Tracing Results
 File Edit View Insert Format Data Tools Add-ons Help
Last edit was made 22 minutes ago by SAfEcheck Support

|    | A   | B   | C   | D  | E   | F              |
|----|---|---|---|--|---|----------------|
| 1  | First, please provide us with your full name. | I confirm that I am not presenting any symptoms of COVID-19 (fever, shortness of breath, sore throat, runny nose) | Have you come in contact with a positive case of COVID-19 and awaiting results? | I verify that I have not traveled outside of Canada in the past 14 days and have not been in touch with anyone with covid/potential covid in the last 14 days. | Please provide us with an email address for us to notify you of any COVID19 developments in the building. | Submitted At   |
| 2  | pam   | TRUE  | FALSE   | TRUE   | pam@ricentre.ca   | 9/4/2020 16:2  |
| 3  | Jenny Qian                                    | TRUE  | FALSE   | TRUE   | jenny.qian@ricentre.com   | 9/8/2020 13:1  |
| 4  | Jenny Qian                                    | TRUE  | FALSE   | TRUE   | jenny.qian@ricentre.com   | 9/8/2020 14:9  |
| 5  | Jenny qian                                    | TRUE  | FALSE   | TRUE   | jenny.qian@ricentre.com   | 9/8/2020 15:0  |
| 6  | Jenny qian                                    | TRUE  | FALSE   | TRUE   | jenny.qian@ricentre.com   | 9/8/2020 15:0  |
| 7  | Pam Banks                                     | TRUE  | FALSE   | TRUE   | pam.banks@ricentre.com  | 9/8/2020 16:1  |
| 8  | Gary Yip                                      | TRUE  | FALSE   | TRUE   | gary@closercollab.com   | 9/9/2020 14:4  |
| 9  | Jenny qian                                    | TRUE  | FALSE   | TRUE   | jenny.qian@ricentre.com   | 9/9/2020 15:0  |
| 10 | Khurram Mehdi                                 | TRUE  | FALSE   | TRUE   | khurram.mehdi@tossdown.com  | 9/9/2020 15:4  |
| 11 | Pam banks                                     | TRUE  | FALSE   | TRUE   | Pam.banks@ricentre.com  | 9/10/2020 13:3 |
| 12 | Shawn   | TRUE  | FALSE   | TRUE   | slarkin@nadpe.com   | 9/10/2020 15:0 |
| 13 | Suzy  | TRUE  | FALSE   | TRUE   | suzzannegagnon1981@gmail.com  | 9/10/2020 15:0 |
| 14 | Shahzeb Rizvi                                 | TRUE  | FALSE   | TRUE   | shahzeb.rizvi@tossdown.com  | 9/10/2020 15:3 |
| 15 | Shawn Larkin                                  | TRUE  | FALSE   | TRUE   | slarkin@nadpe.com   | 9/11/2020 13:5 |
| 16 | Pam banks                                     | TRUE  | FALSE   | TRUE   | pam.banks@ricentre.com  | 9/11/2020 14:3 |
| 17 | Anika   | TRUE  | FALSE   | TRUE   | finance@ricentre.com  | 9/11/2020 16:4 |
| 18 | Shawn Larkin                                  | TRUE  | FALSE   | TRUE   | slarkin@nadpe.com   | 9/12/2020 18:4 |
| 19 | Jenny qian                                    | TRUE  | FALSE   | TRUE   | jenny.qian@ricentre.com   | 9/14/2020 12:4 |
| 20 | Shahzeb Rizvi                                 | TRUE  | FALSE   | TRUE   | shahzeb.rizvi@tossdown.com  | 9/14/2020 13:2 |
| 21 | Pam banks                                     | TRUE  | FALSE   | TRUE   | pam.banks@ricentre.com  | 9/14/2020 15:0 |
| 22 | Khurram Mehdi                                 | TRUE  | FALSE   | TRUE   | khurram.mehdi@tossdown.com  | 9/14/2020 16:0 |



# Newly Moved In





# Thank You



**Date:** 2020-08-17-

**Subject:** **Toronto Global Re-Investment Recommendation Report**

**Secondary Title:** Click or tap here to enter text.

**Contact:** Clare Barnett, Director, Economic Development,  
[clare.barnett@brampton.ca](mailto:clare.barnett@brampton.ca), 905-874-3926

**Report Number:** Planning, Building and Economic Development-2020-060

**Recommendations:**

1. **THAT** the report from Amanda Leard, Manager, Investment Attraction, dated August 17, 2020, to the Committee of Council meeting of September 23, 2020 entitled “**Toronto Global Re-Investment Recommendation Report**” (2020-060, File CE.x), be received; and
2. **THAT** Council approve an amount of \$170,477.70 (\$167,135 plus 2% COLA as per the current agreement in place) for year two of the signed agreement for Toronto Global to work with the City of Brampton and regional partners on foreign direct investment; and
3. **THAT** City staff and Toronto Global continue to report to Council on foreign direct investment results and achievements on an annual basis.

**Overview:**

- The City of Brampton has partnered with Toronto Global for four years to generate foreign direct investment in the Toronto Region. Generating new jobs and investment is a top priority of the City of Brampton.
- In 2019, Council approved a three-year funding agreement with Toronto Global. We are currently embarking on year two of the agreement and this report outlines the background and recommendation to continue funding Toronto Global at \$167,135 plus Cost of Living Allowance, for 2021.



- The re-investment into Toronto Global supports the best practice of using a regional marketing alliance to be more competitive in global markets.
- As a result of the Covid-19 pandemic, the City of Brampton has made investment attraction and foreign direct investment a priority as a vital component of economic recovery.
- In light of the pandemic, Toronto Global shifted their focus to assisting municipal stakeholders, representing the Toronto Region on initiatives including the GTA Economic Development Alliance, and the Toronto Region Board of Trade's Reimagining Recovery Framework, lending their expertise to the frontlines of the recovery process.
- This work reaffirms that regional marketing alliances, such as Toronto Global are in a strong competitive position to compete successfully on the world market with other global centres for new investment and jobs.

#### **Background:**

Toronto Global is supported financially by the cities of Brampton, Mississauga, and Toronto; and the regions of Durham, Halton, and York, as well as the federal and provincial governments. Collectively, all levels of government have committed close to \$21 million over three years to improve foreign direct investments results in the GTA. The funding allocations are outlined in Table 1.

**Table 1: Recent Toronto Global Annual Funding by Government Partners**

| <b>Municipality/Stakeholder</b> | <b>Annual Core Funding in 2020-21</b> |
|---------------------------------|---------------------------------------|
| Government of Canada            | \$2,000,000.00                        |
| Government of Ontario           | \$2,500,000.00                        |
| City of Toronto                 | \$908,220.24                          |
| York Region                     | \$335,976.78                          |
| City of Mississauga             | \$232,149.96                          |
| Durham Region                   | \$210,524.94                          |
| City of Brampton                | \$170,477.70                          |
| Halton Region                   | \$163,238.76                          |
| <b>Total Annual Funding</b>     | <b>\$6,520,588.38</b>                 |

Under the agreement, funding municipalities receive a seat on the Mayors and Chairs Strategy Council as well as representation on the Economic Development Officers Management Council. These two bodies provide strategic direction and advice to the Toronto Global Board of Directors, comprised of private sector members, and Toronto Global staff respectively.



## Current Situation:

A commitment was made by Toronto Global to change the organization's name to make it more representative and inclusive of the entire region. This name change was to have been recommended to the Mayor's and Chair's Strategy Council by December 31, 2019, and to have been approved within the first six months thereafter. This report continues to refer to "Toronto Global", because the name change has been delayed. Toronto Global will be discussing its recommendation with the Mayors and Chairs at their fall 2020 meeting.

The City of Brampton is currently engaged in year two of a three year funding agreement with Toronto Global. In 2019/20, Toronto Global exceeded all of their targets with 49 new investments, \$483 million in capital expenditure and 2,441 jobs. Toronto Global targets during 2019/20 were: 40 new investments + \$300 million in capital expenditure + 1,800 new jobs (within 3 years).

Invest in Canada recently published an article on the effects the Covid-19 Pandemic has had on foreign direct investment. That article states that "The United Nations Conference on Trade and Development (UNCTAD) projected in June 2020 that [FDI flows will decrease by 40% globally](#) in 2020 and decrease a further 5% to 10% during 2021, to the lowest levels in the past 20 years. The Organization for Economic Co-operation and Development (OECD) has published data that reveals [FDI flows are expected to fall by more than 30%](#) "even under the most optimistic scenario." (Source: [Canada's Fdi Numbers For Q2 And The Economic Effects Of Covid-19](#), Invest In Canada, [www.investcanada.ca](http://www.investcanada.ca))

In light of this, it would be unfair to expect Toronto Global to meet the key performance measures and accountabilities originally projected for 2020. The Toronto Global team developed an Interim Business Plan that outlines their approach to FDI during COVID. They have focused on: protecting leads in their pipeline, focussing on regional opportunities and strengthening relationships with FDI attraction partners.

"The interim business plan does not set forth metrics for the organization at this stage. While all Toronto Global staff are guided by performance metrics and targets set by the Board, it is impossible to predict outcomes in this current environment. Once our pipeline stabilizes and we have a better understanding of the external environment, the Board will establish metrics for the organization in the context of the post COVID-19 situation and the reopening of segments of the global economy." (see Appendix C)

In addition, the City of Brampton and Toronto Global have taken several steps to enhance collaboration in effort to improve results for Brampton. The initiatives have included:

- A virtual familiarization tour focused on strengthening the knowledge of Brampton's key value assets on a global scale.



- Toronto Global recently launched a “tech dashboard”. The web page includes a Dashboard that summarizes the tech attributes across the region, with the opportunity to click through to an individual Dashboard for each of the six municipalities, including Brampton.
- Participation in regular update meetings with Toronto Global’s investment attraction team and regular pipeline reviews.
- Increased communication and collaboration on new strategies leveraging Brampton’s key value proposition to strengthen our ability to compete on a global level.

Toronto Global is in the process of recruiting a new CEO and developing a new updated business plan for 2020 -21.

Toronto Global has developed a significant pipeline of potential leads identified through various sources and their own direct identification and outreach efforts. The agency’s investment advisors occasionally reach out to funding partners for support with investment clients or inquiries where there is a potential fit with a specific community, or communities.

Toronto Global’s impact to date on attracting investments and building awareness for the ‘Toronto Region’ globally has been positive. This supports the importance of having a global regional marketing alliance to compete with other large urban centers. The sales cycle for investment attraction projects handled by Toronto Global is 90 days to three years depending on the sector and specific opportunity in question. Since Toronto Global became active in January 2017; the agency reported 93 investment deals across the Toronto Region representing over 5,900 jobs.

A summary of the location and size of investments secured by Toronto Global since January 2017 appears in Table 2.

**Table 2: Distribution of Toronto Global Investments by Municipality, 2017 - Present**

| <b>Municipality</b>    | <b># of Investments</b> | <b>Number of Jobs</b> |
|------------------------|-------------------------|-----------------------|
| <b>City of Toronto</b> | <b>93</b>               | <b>3,984</b>          |
| City of Mississauga    | 9                       | 1,857                 |
| City of Brampton       | 1 (business expansion)  | 30                    |
| Region of York         | 2                       | 20                    |
| Region of Halton       | 3                       | 28                    |
| Region of Durham       | 1                       | 20                    |
| <b>Total</b>           | <b>109</b>              | <b>5,939</b>          |



As noted in Table 2, the agency secured one new foreign investment (a business expansion) in Brampton, creating up to 30 new jobs over 3 years. This was a pasta line extension at Italtasta in Brampton.

To date, the City of Brampton has received 27 leads through the partnership with Toronto Global.

### **Corporate Implications:**

#### Financial Implications:

Sufficient funding is available in Economic Development's 2020 operating budget for \$170,477.70. Cost of Living Allowance (COLA) will be incorporated in future budgets, pending Council approval.

#### Other Implications:

##### Economic Recovery

The continued participation in the three-year Toronto Global and City of Brampton Funding Agreement supports the City of Brampton's commitment to investment attraction and foreign direct investment playing a vital role in the economic recovery from the Covid-19 pandemic.

### **Term of Council Priorities:**

Our continued partnership with Toronto Global aligns with the Term of Council Priority that Brampton is a City of Opportunity, improving livability and prosperity by focusing on local education and employment opportunities, neighbourhood services programs, and job investment strategies.

### **Conclusion:**

In supporting the participation in year two of the three-year Toronto Global and City of Brampton Funding Agreement, Brampton will be in a better position to recover economically from the Covid-19 pandemic by leveraging global jobs and investments in partnership with a strong regional marketing alliance.

Authored by:

Reviewed by:

---

Amanda Leard, Manager  
Investment Attraction

---

Clare Barnett, Director  
Economic Development



Approved by:

Submitted by:

---

Allan Parsons, Acting Commissioner

Planning, Building and Economic Development

---

David Barrick

Chief Administrative Officer

**Attachments:**

**Appendix A: Toronto Global – Brampton Q2 2020 Results**

**Appendix B: Toronto Global Memo to Regional Mayors & Chairs**

**Appendix C: Toronto Global Interim Business Plan**



His Worship Patrick Brown  
Mayor, City of Brampton  
2 Wellington Street West  
Brampton, Ontario, L6Y 4R2



## Toronto Global Quarterly Update – July 2020

Dear Mayor Brown,

I'm writing to provide an update on Toronto Global's results and activities over the preceding two quarters, including our year-end results for 2019-20.

As the Toronto Region's investment attraction agency, representing the cities of Brampton, Mississauga and Toronto, and the Regional Municipalities of Halton, York and Durham, we have worked hard over the past two quarters to execute on our mandate of delivering jobs and investment through foreign direct investment (FDI).

For the 2020-21 fiscal year ending March 31, 2019, Toronto Global facilitated 49 new investments, achieving 2,441 jobs and \$482.2 million in capital expenditure (capex) over three years, beating our targets of 40 investments, 1,800 jobs and \$310 million in capex respectively. These results mark a continued focus on achieving a more equitable distribution of investments across the region, particularly within the "905" – those regions who are outside the City of Toronto. For 2019-20, we continued to increase the number of investments landing in the 905 with seven investments overall, totalling 327 jobs and \$66.5 million in capex.

Since March 31, and in light of the COVID-19 pandemic, we have shifted our focus to assisting our municipal stakeholders, recognizing the impact COVID-19 has had on their finances and operations. We have joined initiatives like the GTA Economic Development Alliance, and the Toronto Region Board of Trade's Reimagining Recovery Framework, lending our expertise to the frontlines of the recovery process.

Most importantly, we have ensured that the Toronto Region remains top of mind with foreign investors, safeguarding our pipeline of FDI projects during a period of great economic uncertainty. In addition, we are targeting firms who are still looking at expansion opportunities, including those in the digital healthcare, technology, food and beverage, and smart logistics space among others. We are pleased to report that this strategy is proving to be highly effective and have seen announcements from companies like Printful, Paris Baguette, Plug and Play and Babylon Health.

In all, we are projecting a strong increase in investments within the 905 for the 2020-21 fiscal year as our prospecting activities continue to build momentum. We have developed a prospect pool of over 1,000 opportunities that are specifically targeted to the 905, including Brampton. Opportunities are focused on sectors with strong alignment to the 905, including life sciences (devices, pharmaceuticals), advanced manufacturing (automotive, aerospace) and food and beverage (processing, packaging, and distribution). Across these industries, we are also focused on innovation and cyber security verticals, which align directly with the assets and strengths in Brampton. For example, we undertook a



campaign specifically targeting firms who show strong alignment with the Rogers CyberSecure Catalyst, In an effort to attract them to Brampton.

Additionally, we have continued to increase the awareness of the economic potential and assets found in Brampton, recently launching “tech dashboards” on our website, highlighting the innovative capacity within the city, and have also participated in a virtual familiarization tour with the Invest Brampton team.

Finally, over the coming months, we are working towards two important milestones, namely the recruitment of a new CEO and the development of an updated business plan for 2020-21. We aim to complete both by the fall.

I look forward to our continued collaboration and success.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Cohon".

Mark Cohon, O. Ont.  
Chair, Toronto Global Board of Directors



# MEMO



**TO: TORONTO REGION MAYORS & CHAIRS**

**CC: EDO MANAGEMENT COUNCIL**

**FROM: MARK COHON, CHAIR & JANET ECKER, VICE CHAIR**

**SUBJECT: TORONTO GLOBAL INTERIM BUSINESS PLAN**

**DATE: APRIL 29, 2020**

As COVID-19 impacts all of our communities across the Toronto Region, we wanted to provide you with an update on Toronto Global's business planning process as required by our funding agreements.

We are adopting a two-phased approach to business planning this year, reflecting the global effects and uncertainty of the COVID-19 pandemic. This encompasses an interim six-month period, followed by a second six-month period, wherein we are assuming a gradual return to business.

We have developed the attached six-month interim business plan for your review, which reflects the economic impact of COVID-19. This plan was approved by our Board of Directors on April 21, 2020.

In September, with our Board, we will re-evaluate a new six-month plan and budget based upon the environment we will find ourselves in. At that time we will also be back in touch with the economic development officers across the region to seek their input as we develop our plan for the second half of the year.

We welcome any questions you may have on the interim business plan, or our work as we press forward in the weeks and months ahead.

We would like to express our sincere thanks once again for your unwavering support and commitment to Toronto Global. It is greatly appreciated.

We hope that you, your family, friends and colleagues are safe and well.



# TORONTO GLOBAL INTERIM BUSINESS PLAN

APRIL 1 – SEPTEMBER 30, 2020

APRIL 17, 2020



YOUR  
REGION  
FOR  
BUSINESS



# OVERVIEW

## Introduction

Toronto Global is responsible for attracting greenfield Foreign Direct Investment (FDI) to the financial and business capital of Canada and the largest city-region in the country. Representing the Cities of Toronto, Mississauga and Brampton and the Regions of Durham, Halton, and York and funded by all three levels of government, Toronto Global is based on a solid partnership and collaboration with our funding partners.

Over the past three years, Toronto Global has experienced growing success, landing over 100 companies in the Toronto Region from the United States, Europe, Asia and Latin America. Over \$978 million in capital has been invested and over 5,939 jobs created.

In 2019/20 we exceeded all of our targets with 49 new investments, \$483 million in capital expenditure and 2,441 jobs. However, the positive momentum that we had entering into this new fiscal year is now significantly challenged as the global economy has changed dramatically due to the spread of COVID-19.

The COVID-19 pandemic is having a profound impact on the Toronto Region's economy. For Toronto Global's funding partners, the economic downturn has had an immediate effect, with firms experiencing significant revenue shortfalls, large reductions to the workforce, and mandated closures. Our municipal funding partners are further impacted by the immediate needs of local businesses and residents during the crisis, with resources being reallocated to respond to frontline service delivery and assistance efforts.

The full impact of the pandemic cannot be understated. As the business and financial capital of Canada, the Toronto Region's voice in the recovery effort will be vital to the country's success. We strongly believe the critical work we do for the Toronto Region will play an important role in the recovery and in rebuilding the economy.

With that in mind, during this uncertain time, Toronto Global is proposing to take a flexible approach to its business planning and budgeting process, while conservatively managing operating and capital expenditures. We are using the following assumptions:

- + Using a two-pronged approach to our planning and budgeting cycles: an interim business plan followed by a post-recovery business plan.
- + Tabling the interim business plan for the first six months of this fiscal year from April 1, 2020 to September 30, 2020, followed by the post-recovery Business Plan from October 1, 2020 to March 31, 2021.
- + Within the second half of the fiscal year, we believe the external environment will have stabilized and the global economy will enter a re-growth phase.



It is important to note that this interim business plan does not set forth metrics for the organization at this stage. While all Toronto Global staff are guided by performance metrics and targets set by the Board, it is impossible to predict outcomes in this current environment. Once our pipeline stabilizes and we have a better understanding of the external environment, the Board will establish metrics for the organization in the context of the post COVID-19 situation and the reopening of segments of the global economy.

Ideally, we will also be onboarding a new CEO in the fall. With a new CEO at the helm, we will look toward finalizing the business plan for the second half of the year and developing a five-year strategic plan for the organization going forward into 2021.

During this interim period, we are taking important steps to ensure we are supporting the immediate needs of our funding partners. This plan outlines initiatives across all lines of our business to directly support our regional recovery.



## Investment Attraction

It is too soon to predict the exact effect the pandemic will have on Toronto Global's core business line of investment attraction. However, projections from leading organizations, including the IMF, World Bank and Bank of Canada point to a severe decline in global economic activity over the medium term:

- + Global FDI flows have dropped an estimated 19 percent relative to Q1 2019, and could decline by 20 to 25 per cent overall in 2020, depending on how quickly the COVID-19 pandemic can be contained<sup>1</sup>.
- + Global supply chains have been disrupted as entire economies are shut down, borders are closed, and companies and governments look for options to rationalize and retool existing operations and processes to meet new demands.
- + Companies are rethinking expansion and growth decisions, and have placed projects on hold as they focus on business continuity during unprecedented declines in revenue.

Taking this into consideration, we expect the pool of potential FDI projects to shrink globally, and the competition for these projects to increase. The need for a strong approach to attracting investments continues to be paramount. The Investment Attraction team will focus on ensuring the Toronto Region emerges from the recovery period as a champion in attracting FDI to the region as well as retaining its current pipeline of projects

### Protecting our Pipeline of FDI Projects

Toronto Global's pipeline of opportunities represents the organization's collective efforts in investment attraction and is our strongest asset. The COVID-19 pandemic continues to impair global trade and investment flows, and is causing businesses to rethink their expansion plans. Consequently, the organization's pipeline has experienced a nine percent decline in investment-ready projects since March 2020. Over the interim period, the Investment Attraction team will focus on retaining projects and opportunities for the Toronto Region through:

- + Prioritizing clients who have already made the decision to invest in the Toronto Region to mitigate potential risks and ensure their projects remain on-track.
- + Proactively engaging clients to understand how changes in the global economy have impacted their future plans for expansion and ensure the Toronto Region remains top of mind.
- + Continuing to identify other areas of project risk and work with clients and partners to develop solutions that allow these projects to continue.

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<sup>1</sup>WAVTEQ, Impact of COVID-19 in Canada on FDI & Trade, 2020



## Continuing to Focus on Regional Opportunities

Our team continues to prospect for projects with an expressed interest or need to locate within the '905' and presents the full range of attributes across the entire region to potential investors. With the expected changes in the global economy, the impacts at a local level will be disparate and wide-ranging. Recognizing this, the Investment Attraction team will:

- + Engage with clients who have projects expected to locate in the 905 to understand how changes to their global business operations might impact local project plans and timelines.
- + Work closely with municipal funding partners to identify gaps and opportunities in local supply chains and target international firms that can meet these challenges, with a focus on prioritizing the sub-sectors of advanced manufacturing and food and beverage.
- + Ensure regular updates on projects expected to locate in the 905 are communicated to our EDO funding partners.

## Proactively Targeting Key Sectors and Markets

While the global pandemic has had a negative economic impact across markets and industries globally, there remains a number of areas that continue to show strong potential for expansion projects. Over the interim period, the investment attraction team will focus on these key areas to attract new investments by:

- + Engaging firms and industries that remain open to expansion activities or have active investment projects underway. Initially, this will focus on digitally-driven industries, as well as life sciences (health sector), and technology-focused opportunities.
- + Continuing to monitor growth signals across other sectors and verticals, including artificial intelligence, education, communications, and robotics verticals and position the Toronto Region as 'top of mind' for investment.
- + Tracking the 'return to business' across keymarkets globally to ensure that Toronto Global can rapidly return to market once business conditions normalize.

## Strengthening Partnerships

Leveraging Toronto Global's partnerships with groups including the Trade Commissioner Service, Invest in Canada, the Boards of Trade and Chambers of Commerce across the region, and the Consider Canada Cities Alliance, as well as industry groups like JETRO, AMCHAM and the C100, the Investment Attraction team will work to strengthen the organization's global network in an effort to:



- + Gather additional intelligence from key markets on the COVID-19 pandemic and understand the impact to expansion projects and FDI activity.
- + Ensure Toronto Global remains top of mind as a premier destination for investment and a partner of choice when referring leads and investment projects.
- + Grow our partnerships with research institutions, universities and colleges where the relationship between firms pursuing projects and knowledge-based investment projects remains strong, even during this economic downturn.



## Research and Insights

Working alongside and in support of the Investment Attraction team, the Research and Insights team will be providing critical knowledge and intelligence that will allow us to ensure we are driving and prospecting the type of FDI opportunities that are aligned with, and have a positive impact on regional economic development and recovery going forward.

We will be targeting our efforts through the following initiatives.

### Building Sector Expertise

As part of our ongoing efforts to hone in on industries and sectors of strength during the interim period, the Research and Insights team will:

- + Continue to expand our knowledge base in areas such as advanced manufacturing and life sciences, leveraging our partnerships and the results of our strategic projects completed to date.
- + Seek out areas of opportunity that can help rebuild and retool the Toronto Region economy as we recover post-COVID-19. We have already seen the potential for Toronto Global clients to help fill shortages of critical medical supplies and provide jobs to highly skilled workers. There will undoubtedly be other important gaps to be filled.
- + Continue to engage our network of sector experts and municipal partners to identify areas where Toronto Global can play a role in attracting and supporting companies that can assist our economic recovery.
- + Expand our partnership and knowledge base by engaging with groups such as the Toronto Region Board of Trade and their recently formed think tank arm, the Economic Blueprint Institute. Toronto Global has established a reputation for delivering high-quality information to our clients and partners. We will continue to uphold this standard and work to gather insights from relevant experts and industry groups.

### Modify Investor Pitch Material

Toronto Global's client engagement materials and tools will require modification to reflect changes in the Toronto Region value proposition as a result of COVID-19. The Research and Insights team will:

- + Work closely with the Investment Attraction team and partners to ensure our business cases reflect the needs of clients and our regional partners. We will be focusing on expanding our content in growth sectors and verticals identified by our partners and the Investment Attraction team.
- + Supplement the development of our sector knowledge by continuing to create targeted business case material for our Investment Attraction team for key sectors, markets, and clients.



- + Leverage insights and knowledge from our clients to understand global changes to labour, supply chains, or other sectors as a result of COVID-19. Understanding their value add and impact at the local level will be an important component in guiding our work.

### **Expand and Enhance Regional Content**

To support our efforts to drive a greater share of investments to the 905, the Research and Insights team will:

- + Continue to build upon high-level value propositions and business case content highlighting the 905, while developing a larger roster of regional expertise.
- + Support economic development officers in our partner municipalities with data and content as a critical part of addressing the need for enhanced regional engagement and input into our work in rebuilding our economy.



## Marketing and Communications

The importance of marketing and communications, especially digital marketing, has become even more pronounced at this time when in-person meetings are not possible. Working closely with the Investment Attraction and Research and Insights teams, the Marketing and Communications team is designing several initiatives to continue to engage our audience and generate interest in the Toronto Region from international investors. We are creating content that will be shared organically across our channels with the following goals in mind:

- + Showcase success stories from across the Toronto Region that highlight how firms are successfully meeting the economic challenges and community needs presented by the pandemic. Aligning with our federal counterparts and our partners across the country, we are participating in the Invest in Canada national campaign built on the hashtag #CanadaResilient.
- + Among our domestic stakeholders, position Toronto Global as an essential resource for rebuilding the regional economy through the attraction of businesses that will contribute to the regional GDP and create high value jobs. In addition, communicate the importance of FDI to our domestic audience, as global companies contribute efforts to our local fight against COVID-19.
- + With our international audience, continue to position the Toronto Region globally as the prime location to invest and build new economic opportunities post-recovery by highlighting the resilience of our region, the support from all levels of government, and the spirit of collaboration within the business community. An additional message to investors lies in the safety and security of the Toronto Region, Ontario and Canada. Our performance as a nation during this crisis will provide investors with added confidence that the Toronto Region is a safe and stable location for their businesses now and in the future.

## SEO Strategy

The Marketing and Communications team conducted a google trends analysis to determine what our foreign audience has been searching for over the last few weeks. With regard to our main keyword searches that people use to find Toronto Global (“Business Visa Canada,” “Starting a Business” and “International Business Expansion”), there was a dramatic drop in searches around March 11, 2020, which is the critical date when the World Health Organization declared a global pandemic. However, around March 21, 2020 and beyond, searches for those keywords picked up again. This tells us that business leaders are thinking long term and planning for their future recovery, including their plans for business expansion, and could benefit from Toronto Global’s services. Working with our Search consultant, we are developing a campaign featuring relevant ads to drive this traffic to our website and capture these contacts for follow up by the Investment Attraction team.

## Website

- + Create a COVID-19 landing page that encourages local businesses and existing clients to contact our team to be connected with resources to help them through these difficult times. Links to government support and resources will also be prominent on the page, but the main goal of



the landing page will be to encourage businesses to connect with us by directing them to our “Team” page with a large contact call out featured on the page. A message to foreign investors will also be included, driving them to contact our market directors to discuss opportunities to rebuild their businesses in a strong, stable environment post-pandemic.

- + Create a Hero Bar above the navigation bar on the website that drives traffic to the COVID-19 page.
- + Generate blogs to be posted biweekly over the next three months that cover relevant topics such as good news stories about businesses contributing to the effort to fight COVID-19 across the region, how to access financial aid for existing businesses, how to make the most of this time for the improvement of your business, and how to help support your employees through this crisis.
- + Working with our Search consultant, generate landing pages for our Search campaign that leverage keywords our foreign audience is using now to search for content about COVID-19 to drive traffic to our site and generate new contacts for the Investment Attraction team.

### **Stakeholder Communications**

To continue to engage our stakeholders and keep them updated on Toronto Global activities, the Marketing and Communications team is developing new stakeholder newsletters to engage our federal and provincial funders, the regional Mayors and Chairs, Economic Development Officers, and Board of Directors. This regular channel of communication will help keep our funding partners informed of our activities, update them on trends in key international markets, and reinforce our strong partnership as we work to support them during the recovery of our regional economy.

### **Toronto Region Promo Video**

In the summer/fall of 2020, in collaboration with our regional partners, the Marketing and Communications team will develop a new promo video using existing footage that showcases the beauty of our region, the continued strength of our regional economy, and the united, supportive and caring community that we share. The theme of the video will surround our resilience – not only economically, but the strength and resilience of our people, as we rally behind each other during both the best and the worst of times in order to come out stronger each time. The video will be hosted on [torontoglobal.ca](http://torontoglobal.ca) and a small, paid social media campaign will be launched on LinkedIn and Twitter to drive traffic to the new video.



## Human Resources and Business Operations

We are extremely proud of the team that has chosen Toronto Global as its employer. The saying that an organization is only as strong as its people is one that Toronto Global believes firmly. We are proud of the workforce we have in place, as they elevate the quality of the work we are able to produce on behalf of our partners. Their work ethic, professionalism and dedication are the primary drivers of Toronto Global's ability to deliver results on behalf of the Toronto Region.

The health and safety of our team members and their families is of the utmost importance to us at Toronto Global. In January 2020, we rolled out a Pilot Work from Home Policy where employees could work from home one day a week, with the goal of providing more work/life balance and flexible work options to our staff. At that time, we had no knowledge that the world would change so quickly with the onset of COVID-19. On March 11, 2020, we rolled out a policy specific to COVID-19 and on March 17, 2020, our office premises closed temporarily, and all staff were advised to work from home for the foreseeable future.

A key focus of the Human Resources & Business Operations team has been to ensure we provide all aspects of support to our staff under all circumstances so that they have all the necessary tools and resources, from both an emotional support and business perspective, available to them at all times, and especially now during this unique and stressful period of COVID-19.

### Health and Wellness Initiatives

- + We have introduced a combination of initiatives to keep our staff in regular and direct communication with each other. These include weekly management and staff meetings, which are chaired by the Chair and Vice Chair of our Board of Directors while our CEO search is ongoing.
- + To ensure we support our staff from any feelings of isolation or stress they may be feeling, we have expanded our Employee Assistance Program (EAP) and overall health benefits, to ensure all staff, regardless of their employee classification, have all the emotional and traditional health benefit support they may need. We are also hosting weekly optional virtual social gatherings.
- + In support of overall wellness, we have rolled out a number of wellness support tools and programs in an effort to reduce feelings of isolation and stress staff may be feeling working from home, in some cases combining child care with their regular work.

These are extraordinary times, and we are ensuring the team feels our appreciation for all the work they are doing under less than ideal conditions in support of all the regions. Their ability to continue to do excellent work is a testament to their devotion and talent, regardless of the work environment they find themselves in.

Our goal is to ensure we provide all the soft and hard tools necessary to set the team up for success and ensure job fulfillment. Whether it's on the human resources, payroll, benefits, audit, accounts



payable, accounts receivable, governance or technology front, our goal is to go above and beyond the call, all the time, but especially in these unsettling times.

A gap we have identified is within the quality of our IT-related remote work tools in support of our staff. We want to ensure that whether working from home, or working within the office, our entire team has access to the reliable tools they need to succeed.

### **Current initiatives**

- + The lifecycle of our current Server-based IT system has come to an end. Instead of replacing the current server with a new one, we have determined a smarter approach is to migrate to Microsoft Office 365 Cloud-based technology. The costs of either approach are relatively the same over the course of six years, with the benefits of moving to the Cloud far outweighing the Server approach. The move to the Cloud also ensures greater compatibility with other external programs as well as our CRM, and a far more reliable and enjoyable user experience with more effective firewalls. We have begun the process of moving forward with the migration to the Cloud, working on a timeline that is to be just under six weeks, with the project concluding on May 15, 2020. We recognize this is an important capital expenditure that will ensure Toronto Global's continued ability to work effectively and efficiently in an ever-evolving virtual workplace, and is a much more prudent approach than replacing with a new Server.
- + In support of remote working capabilities, we have successfully launched a virtual meeting program, Zoom, and once the Microsoft Office 365 is in place, in addition to Zoom we will also have access to Microsoft Office Teams virtual meeting software, which offers tighter security levers. This virtual meeting software allows Toronto Global the ability to more meaningfully engage directly with our clients and service providers, host remote meetings and continue to engage with prospective investors, both during this time of COVID-19 but also as a necessary tool as we go forward.
- + To build out our remote work from home capability for our staff, and to ensure they function comfortably and at maximum capacity, we have made a modest investment in ensuring they have the IT tools and work set-up within their remote offices that they need in support of both staff morale and their health and safety.



## Budget and Revenue

The full year budget for fiscal year 2020/21 is \$6,998,588 [comprised of \$6,520,588 from our funding partners and \$478,000 from CanExport Community Investments (CECI) Program]. We successfully secured multi-year funding arrangements last year, and plan to adopt a flexible budget approach with the below six-month budget of \$3 million as part of this interim business plan.

During this time, we are very mindful of our continued operations and funding envelopes. Since the outset of COVID-19, we have proactively reached out and had discussions with both our federal and provincial funding partners. Both welcomed the outreach and the chance to discuss the operating environment we all find ourselves in. They confirmed that our funding was safeguarded, even though there will have to be administrative amendments made to the initial transfer payment agreements to reflect the current extraordinary circumstances. We offered our assistance in any way to their external efforts, which was greatly appreciated. We agreed to remain in regular contact and reinforced to them the real significant economic and social hardship our municipal partners are facing on the ground.

This interim budget covering the COVID-19 pandemic stage has been prepared with two main objectives:

1. To cover Toronto Global's ongoing obligations (i.e. "our fixed costs") by maintaining our existing staff complement and payroll and making timely payments to all vendors, and
2. To prudently manage our discretionary expenditures with the objective to be able to advance key initiatives that will allow us to lead and partner in the economic recovery that will be necessary post COVID-19. Below are some examples of these planned expenditures.
  - + To support our Investment Attraction and Research and Insight teams, we have budgeted up to \$100,000 to acquire further sector expertise to focus on key sectors post COVID-19.
  - + Our Marketing and Communications team has developed a search engine optimization strategy with a budget of \$85,000 in this interim period that will develop new content, new landing pages, and initiate an 'always-in-market' Search/Display campaign that will help drive traffic to our website, raise Toronto Global's profile, and generate new contacts for the Investment Attraction team. This campaign will also retarget and re-engage clients in our current pipeline to keep the Toronto Region top of mind for them.
  - + In addition, there will be continued website enhancements (budgeted at \$25,000) to include new areas such as a COVID-19 landing page.
  - + Our Business Operations team is upgrading our IT software and hardware and enhancing our efficiency and capacity by migrating to Cloud-based technologies with a capital and operating budget expenditure of \$63,000.



**Interim Six-Month Budget**  
April 1 – September 30, 2020

**2020/2021 Budget (\$)**

|   |                  |
|---|------------------|
| <b>Labour &amp; Staff Costs</b>                         |                  |
| Salaries  | 1,650,000        |
| Chair's Honorarium                                      | 37,500           |
| Staff Recruitment                                       | 113,000          |
| Training, Education Learning & Professional Development | 30,000           |
| Temporary Help  | 15,600           |
| Employee Engagement & Familiarization Events            | 2,000            |
| <b>Total Labour &amp; Staff Costs</b>                   | <b>1,848,100</b> |
| <b>Professional Services</b>                            |                  |
| Lead Generation Services                                | 75,000           |
| Accounting & Audit Fees                                 | 100,000          |
| Legal Fees  | 2,500            |
| Industry/Sector Research & Benchmarking Tools           | 168,000          |
| Investment Attraction CRM Licenses                      | 25,000           |
| Creative Design Marketing Services                      | 45,000           |
| Research & Marketing Data                               | 40,000           |
| Digital and Social Media Strategy                       | 85,000           |
| Website Design & Maintenance                            | 25,000           |
| Corporate Collateral Materials                          | 0                |
| Translation & Interpreter Costs                         | 2,500            |
| Video and Photography                                   | 2,500            |
| Event Tables & Tickets                                  | 0                |
| <b>Total Professional Services Costs</b>                | <b>605,500</b>   |
| <b>Shared Services</b>                                  | <b>0</b>         |
| <b>Non-capital Costs</b>                                |                  |
| Printing/Stationery/Business Cards                      | 1,000            |



|  |                  |
|--|------------------|
| Office Expenses                        | 175,000          |
| <b>Total Non-Capital Costs</b>         | <b>176,000</b>   |
| <b>Rent &amp; Occupancy Costs</b>      | <b>200,000</b>   |
| <b>Travel</b>                          |                  |
| Airfare/Hotel/Conventions/Misc. Travel | <b>15,000</b>    |
| <b>Capital Costs</b>                   |                  |
| Facilities Improvements                | 0                |
| IT Capital Expenditures                | 47,000           |
| Furniture & Fixtures                   | 3,500            |
| <b>Total Capital Costs</b>             | <b>50,500</b>    |
| <b>Contingency Fund - unallocated</b>  | <b>100,000</b>   |
| <b>Total Expenses</b>                  | <b>2,995,100</b> |



## CONCLUSION

This interim six-month business plan reflects an extraordinary time for our business community. A crisis of this magnitude will challenge all of our operating assumptions and ingenuity. Yet, there exists great confidence in our ability to rebuild and become stronger, as we help redesign an even more resilient economy for the future. At the heart of this plan is our steadfast commitment to stand alongside our partners in our recovery efforts. It identifies and incorporates concrete goals for Toronto Global and offers a continued work plan that outlines key initiatives and activities for the organization to undertake in pursuit of these objectives. Obtaining continued feedback from our funders and stakeholders is critical to our business planning process to ensure widespread coordination and collaboration as we move forward.

Toronto Global plays an essential role in promoting the widespread attributes that make the Toronto Region a competitive jurisdiction for FDI. We represent a formidable economic region that is attractive to international business across all sectors. Interest from international investors in our pipeline remains strong. Our clients envision the recovery to come in different phases, which will be reflective of the performance of individual business sectors and the timing in which various international markets recover. The future state of the Toronto Region's economy will be shaped, in part, by our collective response to the crisis. We stand ready with our partners to help build that important roadmap for recovery.



**Date:** 2020-08-10

**Subject:** **Tax Adjustments, Cancellations and Reductions Pursuant to the Municipal Act, 2001**

**Secondary Title:** Click or tap here to enter text.

**Contact:** Yvonne Kwiecien, Manager, Taxation and Assessment

**Report Number:** Corporate Support Services-2020-097

**Recommendations:**

1. THAT the report from Yvonne Kwiecien, Manager, Taxation and Assessment, Corporate Services, dated August 10, 2020 to the Committee of Council Meeting of September 23, 2020 re: **Tax Adjustments, Cancellations and Reductions Pursuant to the *Municipal Act, 2001***, be received; and
2. THAT the tax account adjustments as listed on Appendix A of this report be approved.

**Overview:**

- The purpose of this report is to obtain approval by Committee to adjust and/or write-off the balance of various tax accounts as set out in the attached Appendix A. Total adjustments are approximately \$401,014.43 including \$158,452.10 in City of Brampton taxes.

**Background:**

Sections 334, 354, 357 and 358 of the *Municipal Act, 2001* provide the authorities and reasons for the write-off, cancellation, reduction or refund of taxes.



## **Current Situation:**

**Appendix A** outlines adjustments to be made to property tax accounts. Many of these adjustments are due to properties becoming exempt from taxation. For example, certain properties acquired by the City of Brampton, Region of Peel, School Boards, and religious organizations are not required to pay property taxes. Other adjustments are due to changes or errors in assessment values or tax classification. City staff has researched these accounts and is satisfied with the Municipal Property Assessment Corporation's (MPAC) recommendations regarding the changes in assessment. Lastly, adjustments may be made to correct an error in tax capping calculations which are also verified by City staff.

The total tax amount to be cancelled is \$401,014.43. The total amount will be allocated approximately as follows:

|                   |                            |
|-------------------|----------------------------|
| City of Brampton: | \$158,452.10               |
| Region of Peel:   | \$131,484.61               |
| School Boards:    | <u>\$111,077.72</u>        |
|                   | <b><u>\$401,014.43</u></b> |

Any penalties and interest associated with these reductions will be cancelled from the applicable accounts. The City's 2020 Budget for current year adjustments and the allowance for prior years' adjustments are sufficient for this and other anticipated tax write-offs.

**Appendix B** outlines appeals that were filed with the City of Brampton but have been returned from MPAC with No Recommendation, that is, there is no tax adjustment forthcoming.

## **Corporate Implications:**

### Financial Implications:

The City portion of taxes refunded due to these appeals is approximately \$158,452.10

### Other Implications:

Property owners that do not agree with the recommendation are entitled to appeal the decision of Council to the Assessment Review Board (ARB). The appeal must be filed within 35 days directly to the Registrar of the ARB.



## **Strategic Plan:**

This report achieves the Strategic Priority of Good Government by contributing to the Strategic Initiative of Continued Financial Stability and it promotes transparency in the reporting of the City's financial affairs.

## **Term of Council Priorities:**

This report fulfils the Council Priority of a Well-Run City through strict adherence to effective financial management policies and supports Brampton's 2040 Vision by ensuring sustainable financial revenues.

## **Conclusion:**

The tax levy of the municipality is based on the assessment roll delivered by MPAC to the City in December of the previous year. While taxation is based on that assessment roll, it is very common for changes to occur after the return of the roll that may affect the taxation of a particular property. The *Municipal Act, 2001* provides the municipality the authority to cancel, reduce, or refund taxes for applications made in accordance with the legislation. Examples of change events that may result in refunds include property class changes, newly exempt properties, demolished structures, and gross or manifest errors made in the assessment. The owners of properties within this report have made application for refund under the *Municipal Act, 2001*. All applications have been investigated and, where applicable, the appropriate refunds of taxes have been calculated and are presented for Council approval.

Authored by:

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Yvonne Kwiecien, Manager, Taxation  
and Assessment

Approved by:

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Michael Davidson, Commissioner,  
Corporate Support Services

Reviewed by:

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Mark Medeiros, Interim Treasurer

Submitted by:

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David Barrick, Chief Administrative Officer

## **Attachments:**

**Appendix A:** Tax Adjustments  
**Appendix B:** Rejected Appeals



| APPEAL<br>NO. | TAX<br>ROLL NO.        | TAX<br>YEAR | PROPERTY ADDRESS      | REASON FOR APPEAL   | ADJUSTMENT<br>(\$)    |
|---------------|------------------------|-------------|-----------------------|---|-----------------------|
| 6756          | 10-01-0-002-12800-0000 | 2020        | 36-38 Main St N       | Exempt - Owned by City of Brampton  | (\$6,422.33)          |
| 6755          | 10-01-0-002-12900-0000 | 2020        | 40 Main St N          | Exempt - Owned by City of Brampton  | (\$5,555.31)          |
| 6712          | 10-03-0-028-26100-0000 | 2019        | 69 Queen St W         | Structure was demolished - effective August 15, 2019                                | (\$1,371.61)          |
| 6731          | 10-04-0-032-07000-0000 | 2019        | 46 Elizabeth St       | Structure was demolished - effective December 15, 2019                              | (\$186.26)            |
| 6732          | 10-04-0-032-07100-0000 | 2019        | 50 Elizabeth St       | Structure was demolished - effective December 16, 2019                              | (\$94.25)             |
| 6734          | 10-04-0-032-07200-0000 | 2019        | 52 Elizabeth St       | Structure was demolished - effective December 15, 2019                              | (\$117.71)            |
| 6735          | 10-04-0-032-07300-0000 | 2019        | 54 Elizabeth St       | Structure was demolished - effective December 15, 2019                              | (\$100.25)            |
| 6736          | 10-04-0-032-07400-0000 | 2019        | 58 Elizabeth St       | Structure was demolished - effective December 15, 2019                              | (\$120.54)            |
| 6714          | 10-04-0-032-23178-0000 | 2019        | 4 Garden Park Lane    | Structure was demolished - effective April 30, 2019                                 | (\$400.53)            |
| 6730          | 10-04-0-036-05900-0000 | 2019        | 9 Railroad St         | Structure was demolished - effective December 15, 2019                              | (\$97.18)             |
| 6729          | 10-04-0-036-06000-0000 | 2019        | 7 Railroad St         | Structure was demolished - effective December 15, 2019                              | (\$108.79)            |
| 6726          | 10-04-0-999-00200-0000 | 2018        | 0 Brampton SPCLS      | Incorrect tax class, Cmmmercial Vacant PIL and not Commercial Vacant Taxable        | (\$185.05)            |
| 6727          | 10-04-0-999-00200-0000 | 2019        | 0 Brampton SPCLS      | Incorrect tax class, Cmmmercial Vacant PIL and not Commercial Vacant Taxable        | (\$178.89)            |
| 6777          | 10-04-0-999-00200-0000 | 2020        | 0 Brampton SPCLS      | Incorrect tax class, Cmmmercial Vacant PIL and not Commercial Vacant Taxable        | (\$415.68)            |
| 6720          | 10-06-0-002-16451-0000 | 2019        | 0 Kilkarrin Rd        | Exempt - Owned by Peel District School Board  | (\$32,915.19)         |
| 6779          | 10-06-0-002-16451-0000 | 2020        | 0 Kilkarrin Rd        | Exempt- Owned by Peel District School Board   | (\$50,353.63)         |
| 6721          | 10-06-0-002-20950-0000 | 2019        | 0 Veterans Dr         | Exempt - Owned by Peel District School Board  | (\$33,199.85)         |
| 6778          | 10-06-0-002-20950-0000 | 2020        | 0 Veterans Dr         | Exempt- Owned by Peel District School Board   | (\$50,582.42)         |
| 6746          | 10-06-0-002-22060-0000 | 2019        | 522 Veterans Dr       | MPAC error, duplicate assessment  | (\$1,487.01)          |
| 6750          | 10-06-0-003-21929-0000 | 2019        | 89 Benhurst Cres      | MPAC error, duplicate assessment  | (\$1,802.09)          |
| 6706          | 10-07-0-008-11800-0000 | 2017        | 0 Good Hope Rd        | Exempt - Owned by Dufferin-Peel Catholic District School Board                      | (\$43,931.44)         |
| 6705          | 10-07-0-008-11800-0000 | 2018        | 0 Good Hope Rd        | Exempt - Owned by Dufferin-Peel Catholic District School Board                      | (\$47,440.42)         |
| 6708          | 10-07-0-009-16968-0000 | 2017        | 9 Grove End Way       | Lot area corrected by MPAC  | (\$103.42)            |
| 6709          | 10-07-0-009-16968-0000 | 2018        | 9 Grove End Way       | Lot area corrected by MPAC  | (\$334.03)            |
| 6710          | 10-07-0-009-16968-0000 | 2019        | 9 Grove End Way       | Lot area corrected by MPAC  | (\$338.14)            |
| 6751          | 10-08-0-011-67242-0000 | 2019        | 0 Deanston Crt        | Exempt - Owned by City of Brampton  | (\$166.45)            |
| 6753          | 10-08-0-011-67245-0000 | 2019        | 0 Elbern Markell Dr   | Exempt - Owned by City of Brampton  | (\$8,679.16)          |
| 6718          | 10-09-0-036-61300-0000 | 2019        | 92 Madison St         | Assessment reduction applied to house damaged by fire, effective January 13, 2019   | (\$672.50)            |
| 6716          | 10-09-0-040-22790-0000 | 2019        | 0 Royal Salisbury Way | Unbuildable land - No owner   | (\$267.51)            |
| 6743          | 10-09-0-040-98505-0000 | 2019        | 52 Rusthall Way       | Assessment reduction applied to house damaged by otherwise, effective June 30, 2019 | (\$167.49)            |
| 6723          | 10-12-0-001-11252-0000 | 2019        | 90 Nexus Ave          | Exempt- owned and occupied by religious organization                                | (\$21,636.88)         |
| 6747          | 10-12-0-002-09890-0000 | 2019        | 9361 Goreway Dr       | Assessment reduction applied by MPAC, partial expropriation by City of Brampton     | (\$130.59)            |
| 6767          | 10-12-0-002-66316-0000 | 2020        | 195 Don Minaker Dr    | Exempt - Owned by City of Brampton  | (\$81,436.26)         |
| 6766          | 10-12-0-003-50488-0000 | 2019        | 20 Prada Crt          | MPAC error, 75% adjustment applied to structure due to fire damage                  | (\$2,293.34)          |
| 6745          | 10-15-0-118-01071-0000 | 2019        | 7955 Torbram Rd 21    | Exempt- owned and occupied by religious organization                                | (\$7,722.23)          |
| TOTAL:        |                        |             |                       |   | <b>(\$401,014.43)</b> |



| APPEAL<br>NO. | TAX<br>ROLL NO. | TAX<br>YEAR | PROPERTY ADDRESS | REASON FOR APPEAL | ADJUSTMENT<br>(\$) |
|---------------|-----------------|-------------|------------------|-------------------|--------------------|
|---------------|-----------------|-------------|------------------|-------------------|--------------------|



| APPEAL<br>NO. | TAX<br>ROLL NO. | TAX<br>YEAR | PROPERTY ADDRESS | REASON FOR APPEAL | ADJUSTMENT<br>(\$) |
|---------------|-----------------|-------------|------------------|-------------------|--------------------|
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| APPEAL<br>NO. | TAX<br>ROLL NO. | TAX<br>YEAR | PROPERTY ADDRESS | REASON FOR APPEAL | ADJUSTMENT<br>(\$) |
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| APPEAL<br>NO. | TAX<br>ROLL NO. | TAX<br>YEAR | PROPERTY ADDRESS | REASON FOR APPEAL | ADJUSTMENT<br>(\$) |
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| APPEAL<br>NO. | TAX<br>ROLL NO. | TAX<br>YEAR | PROPERTY ADDRESS | REASON FOR APPEAL | ADJUSTMENT<br>(\$) |
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| APPEAL<br>NO. | TAX<br>ROLL NO. | TAX<br>YEAR | PROPERTY ADDRESS | REASON FOR APPEAL | ADJUSTMENT<br>(\$) |
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| APPEAL<br>NO. | TAX<br>ROLL NO. | TAX<br>YEAR | PROPERTY ADDRESS | REASON FOR APPEAL | ADJUSTMENT<br>(\$) |
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| APPEAL<br>NO. | TAX<br>ROLL NO. | TAX<br>YEAR | PROPERTY ADDRESS | REASON FOR APPEAL | ADJUSTMENT<br>(\$) |
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| APPEAL<br>NO. | TAX<br>ROLL NO. | TAX<br>YEAR | PROPERTY ADDRESS | REASON FOR APPEAL | ADJUSTMENT<br>(\$) |
|---------------|-----------------|-------------|------------------|-------------------|--------------------|
|---------------|-----------------|-------------|------------------|-------------------|--------------------|



| APPEAL NO. | TAX ROLL NO.           | TAX YEAR | PROPERTY ADDRESS | REASON FOR APPEAL                       | REASON FOR REJECTION BY MPAC                                 |
|------------|------------------------|----------|------------------|---|--|
| 6685       | 10-03-0-022-04800-0000 | 2017     | 499 Main St S    | Razed by fire, demolition or otherwise. | Assessment already adjusted through ARB appeal               |
| 6739       | 10-08-0-012-40094-0000 | 2019     | 57 Links Lane    | Gross or Manifest Error                 | No error as per MPAC, secondary structure correctly assessed |



**Date:** 2020/09/03

**Subject:** **Capital Project Financial Status Report – Q2 2020**

**Secondary Title:** Click or tap here to enter text.

**Contact:** Maja Kuzmanov, Manager, Accounting, Corporate Support Services (905) 874-2259

**Report Number:** Corporate Support Services-2020-128

**Recommendations:**

That the report titled **Capital Project Financial Status Report – Q2 2020** to the Committee of Council Meeting of September 23, 2020, be received.

That the Capital Program be amended for the following capital projects:

- Capital Project #093610.006 – Project Design (Goreway – Steeles to Brandon Gate): increase budget by \$250,000 (Reserve 137 – DC Roads) to align funding source with actual spending (new Region access road)
- Capital Project #094500.006 – Environmental Assessment (Sandalwood – McLaughlin – Heart Lake): increase budget by \$50,000 (Reserve 137 – DC Roads) to align funding source with actual spending (tree impact assessment)
- Capital Project #143380.001 – Humberwest Parkway Widening: increase budget by \$500,000 (Reserve 137 – DC Roads) to align funding source with actual spending
- Capital Project #167720.001 – Downtown Revitalization: increase budget by \$150,000 (Reserve 4 – Replacement of Assets) to align funding source with actual spending
- Capital Project #202770.002 – Traffic Controller Upgrade: increase budget by \$410,000 (Region Cost Recovery) to align funding source with actual spending (purchase and installation of traffic controllers)
- Capital Project #202790.00 – Traffic Signal Communication: increase budget by \$40,000 (Region Cost Recovery) to align funding source with actual spending (purchase of modems)



- Create new project Nurturing Neighborhoods Program – transfer \$120,000 funding (Reserve 4 – Replacement of Assets) from project #207001.001 – Planning Vision Implementation

#### **Overview:**

- The purpose of this report is to provide City Council with an update on the financial status of the City's Capital Program as at June 30, 2020.
- The City's Capital Program at June 30, 2020 included 508 (2019: 450) active capital projects with a total approved budget of \$2.1 billion.
- \$1.2 billion of the approved budget has been spent as of June 30, 2020.
- The remaining capital budget stands at \$893.4 million as at June 30, 2020 (2019: \$752.9 million). Of this amount, \$163.0 million has been committed through purchase orders (contracted work underway) for specific projects, leaving \$730.4 million not yet committed or spent. The increase is primarily a result of the addition of the approved 2020 Capital Budget as well as budget amendments throughout 2020.
- Staff continues to review all active capital projects and return funds no longer required to their original funding sources. As such, \$5.5 million of funding has been returned and made available for future allocation to other priorities.
- KPMG has completed Phase 1 (pre-2016 capital project review) and presented their findings to City Council on June 24, 2020. As part of Phase 1 review, \$9.2 million of funding was identified to be returned to source and additional \$10.5 million to be reviewed for potential return.
- Subsequent to presenting their findings from Phase 1, KPMG initiated Phase 2 (capital project process review) of the engagement. Results of Phase 2 are anticipated to be reported to Council in November.

#### **Background:**

The Capital Project Financial Status Report provides a financial update of the City's Capital Program that includes analysis compiled from submissions made by departments managing their various capital programs. This report keeps Council informed on the use of financial resources and supports senior leaders by providing information to assist with project oversight and delivery.



Although there are a number of methods used to measure progress in Capital Program delivery, level of spending on projects compared to the approved budget is a key performance indicator that is common to all projects. The information reported helps generate discussion at the senior levels of departments with responsibility for project delivery and to draw attention to project areas that might require course correction. It is not meant to replace detailed status reports project managers and project teams produce and use for their own day-to-day project management and reporting.

City Council also passed the following Resolution CW364-2019 at its September 25th, 2019 Council meeting: That staff be directed to develop a draft Terms of Reference to retain an external auditor reporting to Mayor and Council, in order to analyze the project management of the systemic capital project processes (including project planning and budgeting), with particular reference to those projects initiated pre 2016, and report back for Council's review and deliberation. KPMG has completed Phase 1 (pre-2016 capital project review) and presented their findings to City Council on June 24, 2020. As part of Phase 1 review, \$9.2 million of funding was identified to be returned to source and additional \$10.5 million to be reviewed for potential return.

Subsequent to presenting their findings from Phase 1, KPMG initiated Phase 2 of the engagement. As part of the Phase 2 review KPMG will:

- Review City's capital project management processes and procedures
- Assess alignment with industry best practices
- Make recommendations to enhance transparency and efficiency

Results of Phase 2 are anticipated to be reported to Council in November.

### **Current Situation:**

As of June 30, 2020, the City had 508 active projects with a total approved budget of \$2.1 billion. The City has spent \$1.2 billion towards completion of these projects, with \$893.4 million (2019: \$752.9 million) budget available to be spent in the coming years. Of this amount, \$163.0 million has been committed through purchase orders (contracted work underway) for various capital projects. This leaves \$730.4 million remaining in open capital projects not yet committed or spent.

Key projects comprising \$288.7 million of the unspent/uncommitted balance include:

- Centre for Education, Innovation and Collaboration - \$159.4 million
- Bus Purchases - \$64.2 million
- Goreway Drive Widening - \$33.9 million
- Cottrelle Boulevard (Humberwest to Goreway)- \$31.2 million



Schedule A provides a summary, by department, of capital spending and the budget remaining, which includes all committed and remaining budgets. Schedule C provides a detailed list of all open projects with the same information.

This report includes analysis of the following topics:

- Capital Budget Remaining
- Top 30 Projects by Ward Reporting
- 2020 Capital Budget Analysis
- Capital Expenditure Forecast
- Return of Financing and Budget Commitment Reduction

### **Budget Remaining (Appendix A)**

The total capital project budget remaining before commitments, through purchase orders, often referred to as unspent budget or money yet to be spent, as of June 30, 2020, is \$893.4 million. This amount is \$140.5 million higher than the amount reported as at December 31, 2019 (\$752.9 million). The increase is primarily a result of the addition of the approved 2020 Capital Budget as well as budget amendments throughout 2020. Most notable being Bus Purchases (\$51.9 million).

The unforeseen COVID-19 pandemic has resulted in some projects being delayed due to the shutdown which directly impacted project spending in Q2.

The following schedule shows the 2020 financial activities of the Capital Program.

|  | <b>\$ Million</b> |
|--|-------------------|
| Remaining Budget before Commitments as at December 31, 2019    | 752.9             |
| Less: 2020 Capital Spending                                    | 94.4              |
| Less: 2020 Net Return of Financing and adjustments             | 5.5               |
| Sub Total  | 653.0             |
| Add: Council approved 2020 Capital Budget                      | 221.9             |
| Add: 2020 Budget Amendments                                    | 18.5              |
| <b>Remaining Budget before Commitments as at June 30, 2020</b> | <b>893.4</b>      |



|  | <b>\$ Million</b> |
|--|-------------------|
| Remaining Budget before Commitments as at June 30, 2020  | 893.4             |
| Less: Purchase Orders (contracted works underway)        | 163.0             |
| <b>Remaining Budget, Uncommitted as at June 30, 2020</b> | <b>730.4</b>      |

### **Top 30 Projects by Ward Reporting (Appendix B)**

For the purpose of this analysis, staff has identified 30 major Council approved capital projects, representing 6% of the number of all open projects and 65% of the uncommitted budget of the Capital Program. All of these projects are progressing in various stages of project management.

The status of the 30 major projects is as follows:

- 14 projects have an uncommitted budget of 90% or more.
- 3 projects were approved prior to 2014, some with budget top-ups in recent years.
- Delivery status of the 30 projects
  - 8 of the projects are in construction stage
  - 13 are in various stages of planning, approval and design
  - 1 project is in the procurement stage
  - 3 project is in either the close-out, litigation or warranty stage
  - 5 projects are comprised of multiple activities in various stages of completion

### **2020 Capital Budget Analysis**

Council approved a Capital Budget of \$221.9 million for 2020 and an additional \$18.5 million in budget amendments. The following Table provides an analysis of the 2020 Capital Budget spending to June 30, 2020 and it highlights that \$21.6 million of the approved \$240.4 million has been either spent or procured on a year to date basis.

#### **2020 Capital Budget Spending to June 30, 2020**

|   | <b>\$ Million</b> |
|---|-------------------|
| Council Approved 2020 Capital Budget      | 221.9             |
| 2020 Budget Amendments                    | 18.5              |
| Less: YTD Spending Against 2020 Budget    | 4.9               |
| Less: Purchase Orders Against 2020 Budget | 16.7              |
| <b>2020 Capital Budget Remaining</b>      | <b>218.8</b>      |



### **Capital Expenditure Forecast:**

The City forecasted through the 2020 budget process that it would achieve \$220.0 million in capital spending (cash flow) during the 2020 fiscal year. This includes 2020 spending on projects approved in the 2020 budget and open projects approved in prior years. Actual spending as at June 30, 2020 on all capital projects was \$94.4 million comprised of \$4.9 million related to the 2020 Capital Budget and \$89.5 million related to projects approved prior to 2020.

Following are major contributors to capital spending in 2020:

- Transit bus purchases and refurbishment
- Road construction and resurfacing
- Property acquisition
- Facility repair and replacement

### **Return of Financing and Budget Commitment Reduction:**

As of June 30, 2020, \$5.5 million of funding has been returned to source or the budget commitment reduced and made available for future allocation to other priorities. 42 projects were determined complete and therefore closed and \$4.1 million of the budget remaining associated with these projects was returned to source. An additional \$1.4 million was returned to source for projects that remain active.

Following is summary of return of financing by department:

| Corporate Support Services | Community Services | Fire | Public Works | Transit | Total |
|----------------------------|--------------------|------|--------------|---------|-------|
| 0.3                        | 0.0                | 0.5  | 3.7          | 1.0     | 5.5   |

It is worth noting that ongoing capital project review has resulted in \$1.4 million being returned to Development Charges Reserve Funds and an additional \$0.6 million reduction in budget commitment.

Staff will continue to review the City's Capital Program regularly to determine which projects should remain open, with the goal of returning financing, that is no longer required for project completion, to the original funding sources (Reserve Funds).

### **Budget Amendments and Reallocations:**

Budget amendments related to Capital Projects are required in order to reconcile overall funding for the projects as following:



- Capital Project #093610.006 – Project Design (Goreway – Steeles to Brandon Gate): increase budget by \$250,000 (Reserve 137 – DC Roads) to align funding source with actual spending (new Region access road)
- Capital Project #094500.006 – Environmental Assessment (Sandalwood – McLaughlin – Heart Lake): increase budget by \$50,000 (Reserve 137 – DC Roads) to align funding source with actual spending (tree impact assessment)
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- Create new project Nurturing Neighborhoods Program – transfer \$120,000 funding (Reserve 4 – Replacement of Assets) from project #207001.001 – Planning Vision Implementation

Budget amendments requiring increase in funding are being off-set by funds returned funds through project closures.

### **Corporate Implications:**

#### Financial Implications:

\$5.5 million of capital funding has been returned to source through return of financing and budget amendments and is available for allocation to other priorities, subject to Council approval

#### Other Implications:

The semi-annual Capital Status report will serve to maintain focus on project delivery and as a tool to identify available financial resources to be reallocated to other City priorities.



## **Strategic Plan:**

This report achieves the Strategic Plan priority of Good Government by practicing proactive, effective and responsible management of finances, policies and service delivery and promotes transparency in the reporting of the City's financial affairs.

## **Term of Council Priorities:**

This report fulfils the Council Priority of a Well-Run City through strict adherence to effective financial management policies and supports Brampton's 2040 Vision by ensuring sustainable financial operations.

## **Conclusion:**

This report provides Council with a financial status of the City's Capital Program and contributes to improved management oversight of the City's Capital Program. As of June 30, 2020, the City had spent \$1.2 billion on the 508 open projects with a further \$730.4 million remaining yet to be committed or spent to deliver the projects.

KPMG has completed Phase 1 (pre-2016 capital project review) and presented their findings to City Council on June 24, 2020. As part of Phase 1 review, \$9.2 million of funding was identified to be returned to source and additional \$10.5 million to be reviewed for potential return.

Subsequent to presenting their findings from Phase 1, KPMG initiated Phase 2 (capital project process review) of the engagement. Results of Phase 2 are anticipated to be reported to Council in November.

Authored by:

Reviewed by:

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Maja Kuzmanov, Manager, Accounting

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Mark Medeiros, Acting Treasurer

Approved by:

Submitted by:

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Michael Davidson, Commissioner,  
Corporate Support Services

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David Barrick, Chief Administrative Officer

## **Attachments:**

**Schedule A** Capital Project Spending Summary

**Schedule B** Capital Projects with Significant Budget Remaining



**Schedule C** Open Projects Analysis



**CAPITAL PROJECTS UNSPENT SUMMARY  
AS AT JUNE 30, 2020**

|   | No. of<br>Projects | Original<br>Budget   | Approved<br>Changes | Revised<br>Budget    | Total<br>Expenditures | Expenditures<br>as a % of<br>Revised Budget | Total Budget<br>Remaining before<br>Commitments | Purchase<br>Orders | Total Budget<br>Remaining after<br>Commitments |
|---|--------------------|----------------------|---------------------|----------------------|-----------------------|---|---|--------------------|--|
| <b>Summary of All Projects</b>            |                    |                      |                     |                      |                       |   |   |                    |  |
| CAO-Corporate-Council                     | 19                 | 4,490,752            | -                   | 4,490,752            | 554,742               | 12.35%                                      | 3,936,010                                       | 901,983            | 3,034,027                                      |
| Corporate Supp. Services - ITC            | 24                 | 54,060,000           | 1,555,000           | 55,615,000           | 17,121,127            | 30.79%                                      | 38,493,873                                      | 3,626,149          | 34,867,724                                     |
| Legislative Services                      | 5                  | 431,000              | -                   | 431,000              | 252,954               | 58.69%                                      | 178,046   | 34,440             | 143,606  |
| Community Services                        | 85                 | 213,492,000          | 41,928,755          | 255,420,755          | 174,870,354           | 68.46%                                      | 80,550,401                                      | 16,404,579         | 64,145,822                                     |
| Fire & Emergency Services                 | 17                 | 28,664,000           | 6,825,000           | 35,489,000           | 20,018,753            | 56.41%                                      | 15,470,247                                      | 4,172,948          | 11,297,299                                     |
| Transit                                   | 47                 | 297,472,000          | 126,524,561         | 423,996,561          | 297,942,552           | 70.27%                                      | 126,054,009                                     | 11,515,954         | 114,538,055                                    |
| Public Works & Engineering                | 251                | 731,221,884          | 513,892,923         | 1,245,114,807        | 634,792,333           | 50.98%                                      | 610,322,474                                     | 124,260,842        | 486,061,632                                    |
| Planning, Bldg & Economic Dev.            | 59                 | 23,331,819           | 3,547,540           | 26,879,359           | 9,155,815             | 34.06%                                      | 17,723,544                                      | 1,697,984          | 16,025,560                                     |
| Library                                   | 1                  | 21,750,000           | 1,500,000           | 20,250,000           | 19,628,194            | 96.93%                                      | 621,806   | 406,754            | 215,052  |
| <b>Total City</b>                         | <b>508</b>         | <b>1,374,913,455</b> | <b>692,773,779</b>  | <b>2,067,687,234</b> | <b>1,174,336,824</b>  | <b>56.79%</b>                               | <b>893,350,410</b>                              | <b>163,021,633</b> | <b>730,328,777</b>                             |
| <b>Summary of 2020 Projects</b>           |                    |                      |                     |                      |                       |   |   |                    |  |
| CAO-Corporate-Council                     | 5                  | 1,123,000            | 0                   | 1,123,000            | 6,129                 | 0.55%                                       | 1,116,871                                       |                    |  |
| Corporate Supp. Services - ITC            | 3                  | 14,099,000           | 0                   | 14,099,000           | 93,772                | 0.67%                                       | 14,005,228                                      |                    |  |
| Legislative Services                      | 2                  | 100,000              | 0                   | 100,000              | 0                     | 0.00%                                       | 100,000   |                    |  |
| Community Services                        | 17                 | 23,631,000           | 0                   | 23,631,000           | 391,968               | 1.66%                                       | 23,239,032                                      |                    |  |
| Fire & Emergency Services                 | 5                  | 5,509,000            | 2,695,000           | 8,204,000            | 1,200,583             | 14.63%                                      | 7,003,417                                       |                    |  |
| Transit                                   | 14                 | 95,877,000           | 0                   | 95,877,000           | 2,312,190             | 2.41%                                       | 93,564,810                                      |                    |  |
| Public Works & Engineering                | 63                 | 99,170,000           | 13,403,200          | 112,573,200          | 13,501,815            | 11.99%                                      | 99,071,385                                      |                    |  |
| Planning, Bldg & Economic Dev.            | 14                 | 5,930,000            | 141,000             | 6,071,000            | 1,225,380             | 20.18%                                      | 4,845,620                                       |                    |  |
| Library                                   | -                  | 0                    | 0                   | 0                    | 0                     | 0.00%                                       | 0   |                    |  |
| <b>Total City</b>                         | <b>123</b>         | <b>245,439,000</b>   | <b>16,239,200</b>   | <b>261,678,200</b>   | <b>18,731,837</b>     | <b>7.16%</b>                                | <b>242,946,363</b>                              |                    |  |
| <b>Summary of 2019 Projects</b>           |                    |                      |                     |                      |                       |   |   |                    |  |
| CAO-Corporate-Council                     | 4                  | 506,000              | 0                   | 506,000              | 134,828               | 26.65%                                      | 371,172   |                    |  |
| Corporate Supp. Services - ITC            | 3                  | 18,365,000           | 86,000              | 18,451,000           | 2,901,287             | 15.72%                                      | 15,549,713                                      |                    |  |
| Legislative Services                      | 1                  | 20,000               | 0                   | 20,000               | 805                   | 4.03%                                       | 19,195  |                    |  |
| Community Services                        | 24                 | 66,353,000           | 9,125,167           | 75,478,167           | 43,952,256            | 58.23%                                      | 31,525,911                                      |                    |  |
| Fire & Emergency Services                 | 5                  | 8,044,000            | 0                   | 8,044,000            | 2,584,789             | 32.13%                                      | 5,459,211                                       |                    |  |
| Transit                                   | 1                  | 110,000              | 0                   | 110,000              | 109,608               | 99.64%                                      | 392   |                    |  |
| Public Works & Engineering                | 56                 | 176,747,000          | 199,760,750         | 376,507,750          | 44,139,468            | 11.72%                                      | 332,368,282                                     |                    |  |
| Planning, Bldg & Economic Dev.            | 6                  | 2,275,000            | 1,600,000           | 3,875,000            | 1,087,337             | 28.06%                                      | 2,787,663                                       |                    |  |
| Library                                   | -                  | 0                    | 0                   | 0                    | 0                     | 0.00%                                       | 0   |                    |  |
| <b>Total City</b>                         | <b>100</b>         | <b>272,420,000</b>   | <b>210,571,917</b>  | <b>482,991,917</b>   | <b>94,910,378</b>     | <b>19.65%</b>                               | <b>388,081,539</b>                              |                    |  |
| <b>Summary of 2018 Projects</b>           |                    |                      |                     |                      |                       |   |   |                    |  |
| CAO-Corporate-Council                     | 6                  | 2,631,752            | 0                   | 2,631,752            | 337,065               | 12.81%                                      | 2,294,687                                       |                    |  |
| Corporate Supp. Services - ITC            | 4                  | 10,698,000           | 169,000             | 10,867,000           | 5,841,206             | 53.75%                                      | 5,025,794                                       |                    |  |
| Legislative Services                      | 1                  | 285,000              | 0                   | 285,000              | 226,868               | 79.60%                                      | 58,132  |                    |  |
| Community Services                        | 10                 | 10,326,000           | 11,535,570          | 21,861,570           | 9,721,510             | 44.47%                                      | 12,140,060                                      |                    |  |
| Fire & Emergency Services                 | 3                  | 2,721,000            | 0                   | 2,721,000            | 103,786               | 3.81%                                       | 2,617,214                                       |                    |  |
| Transit                                   | 9                  | 40,733,000           | 8,339,000           | 49,072,000           | 38,544,058            | 78.55%                                      | 10,527,942                                      |                    |  |
| Public Works & Engineering                | 35                 | 116,455,500          | 61,794,037          | 178,249,537          | 68,452,364            | 38.40%                                      | 109,797,173                                     |                    |  |
| Planning, Bldg & Economic Dev.            | 11                 | 8,887,604            | 0                   | 8,887,604            | 1,651,234             | 18.58%                                      | 7,236,370                                       |                    |  |
| Library                                   | -                  | 0                    | 0                   | 0                    | 0                     | 0.00%                                       | 0   |                    |  |
| <b>Total City</b>                         | <b>79</b>          | <b>192,737,856</b>   | <b>81,837,607</b>   | <b>274,575,463</b>   | <b>124,878,091</b>    | <b>45.48%</b>                               | <b>149,697,372</b>                              |                    |  |
| <b>Summary of 2017 Projects</b>           |                    |                      |                     |                      |                       |   |   |                    |  |
| CAO-Corporate-Council                     | 2                  | 114,000              | 0                   | 114,000              | 1,272                 | 1.12%                                       | 112,728   |                    |  |
| Corporate Supp. Services - ITC            | 6                  | 8,951,000            | 0                   | 8,951,000            | 6,011,265             | 67.16%                                      | 2,939,735                                       |                    |  |
| Legislative Services                      | 1                  | 26,000               | 0                   | 26,000               | 25,281                | 97.23%                                      | 719   |                    |  |
| Community Services                        | 8                  | 35,493,000           | 8,532,875           | 44,025,875           | 41,932,812            | 95.25%                                      | 2,093,063                                       |                    |  |
| Fire & Emergency Services                 | 2                  | 350,000              | 0                   | 350,000              | 249,551               | 71.30%                                      | 100,449   |                    |  |
| Transit                                   | 9                  | 77,689,000           | 1,000,000           | 78,689,000           | 70,570,487            | 89.68%                                      | 8,118,513                                       |                    |  |
| Public Works & Engineering                | 28                 | 95,200,384           | 12,071,200          | 107,271,584          | 85,934,576            | 80.11%                                      | 21,337,008                                      |                    |  |
| Planning, Bldg & Economic Dev.            | 7                  | 1,362,000            | 690,000             | 2,052,000            | 1,121,342             | 54.65%                                      | 930,658   |                    |  |
| Library                                   | -                  | 0                    | 0                   | 0                    | 0                     | 0.00%                                       | 0   |                    |  |
| <b>Total City</b>                         | <b>63</b>          | <b>219,185,384</b>   | <b>22,294,075</b>   | <b>241,479,459</b>   | <b>205,846,586</b>    | <b>85.24%</b>                               | <b>35,632,873</b>                               |                    |  |
| <b>Summary of 2016 and Prior Projects</b> |                    |                      |                     |                      |                       |   |   |                    |  |
| CAO-Corporate-Council                     | 2                  | 116,000              | 0                   | 116,000              | 75,448                | 65.04%                                      | 40,552  |                    |  |
| Corporate Supp. Services - ITC            | 8                  | 1,947,000            | 1,300,000           | 3,247,000            | 2,273,597             | 70.02%                                      | 973,403   |                    |  |
| Legislative Services                      | -                  | 0                    | 0                   | 0                    | 0                     | 0.00%                                       | 0   |                    |  |
| Community Services                        | 26                 | 77,689,000           | 12,735,143          | 90,424,143           | 78,871,808            | 87.22%                                      | 11,552,335                                      |                    |  |
| Fire & Emergency Services                 | 2                  | 12,040,000           | 4,130,000           | 16,170,000           | 15,880,044            | 98.21%                                      | 289,956   |                    |  |
| Transit                                   | 14                 | 83,063,000           | 117,185,561         | 200,248,561          | 186,406,209           | 93.09%                                      | 13,842,352                                      |                    |  |
| Public Works & Engineering                | 69                 | 243,649,000          | 226,863,736         | 470,512,736          | 422,764,110           | 89.85%                                      | 47,748,626                                      |                    |  |
| Planning, Bldg & Economic Dev.            | 21                 | 4,877,215            | 1,116,540           | 5,993,755            | 4,070,522             | 67.91%                                      | 1,923,233                                       |                    |  |
| Library                                   | 1                  | 21,750,000           | (1,500,000)         | 20,250,000           | 19,628,194            | 96.93%                                      | 621,806   |                    |  |
| <b>Total City</b>                         | <b>143</b>         | <b>445,131,215</b>   | <b>361,830,980</b>  | <b>806,962,195</b>   | <b>729,969,932</b>    | <b>90.46%</b>                               | <b>76,992,263</b>                               |                    |  |



**CAPITAL PROJECTS WITH SIGNIFICANT BUDGETS REMAINING  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                              | Status | Current Project Budget | Project to Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments | Uncommitted Budget Percentage | Department                 | Ward      | Stage  |
|-----------|-------------|--------------------|--|--------|------------------------|--------------------------|-------------------------------------|-----------------|------------------------------------|-------------------------------|----------------------------|-----------|--|
| 185160    | 2018        | 2019               | Centre for Education, Innovation & Collaboration | Open   | 160,000,000            | 163,670                  | 159,836,330                         | 392,372         | 159,443,958                        | 100%                          | Public Works & Engineering | 1         | To mitigate risks to schedule and budget associated with combining the Centre for Innovation and a transit hub, the functional plan for this project has been simplified to proceed with the CFI on a dedicated site that is separate and decoupled from the transit hub component. Purchasing has been engaged to proceed to issue an RFP to procure an architect.<br>Council provided direction on July 8th 2020 Council directed staff to locate the Centre for Innovation (CFI) at 8 and 14 Nelson Street West, this separated the CFI project from the transit terminal project. In February 2020 WSP was engaged to conduct a Transit Hub Study in the Downtown, WSP is on hold as of May 27th 2020. This Transit Hub Study will determine the location of the future new terminal and temporary bus services. |
| 162570    | 2016        | 2018               | Fire Campus Design                               | Open   | 59,100,000             | 6,956,948                | 52,143,052                          | 39,197,322      | 12,945,730                         | 22%                           | Public Works & Engineering | 8         | Phase 1A earthworks, foundations and site services work completed. Phase 1B (building) underway with structural cores in progress, structural steel due to arrive in October. Additional funding required for project, was awarded.  |
| 204690    | 2020        | 2020               | Bus Purchases                                    | Open   | 37,331,000             | -                        | 37,331,000                          | -               | 37,331,000                         | 100%                          | Transit                    | City Wide | All bus purchases are contingent on Provincial/Federal ICIP approval. Replacement buses (activity 002) has been approved Federally and is awaiting any required signed agreements. Once Provincial/Federal approval is granted (for growth bus activities) and agreements are in place (for all projects), Transit will proceed with procuring these buses.  |
| 143580    | 2014        | 2018               | Goreway Drive Widening                           | Open   | 33,920,388             | 14,386                   | 33,906,002                          | 50,003          | 33,855,999                         | 100%                          | Public Works & Engineering | 8         | Waiting for agreements and approvals.  |
| 193980    | 2019        | 2019               | Cottrelle Blvd: Humberwest Pkwy - Goreway Dr.    | Open   | 31,500,000             | 335,664                  | 31,164,336                          | -               | 31,164,336                         | 99%                           | Public Works & Engineering | 8         | Waiting for approvals.   |
| 194690    | 2019        | 2020               | Bus Purchases                                    | Open   | 26,890,000             | -                        | 26,890,000                          | -               | 26,890,000                         | 100%                          | Transit                    | City Wide | Conventional growth and replacement buses (activity 001 and 002) will be received at the end of September 2020. Articulated hybrid buses (activity 003) are contingent on ICIP approval, currently with the Provincial government for approval. Once Provincial/Federal approval is granted (for Hybrid growth buses) and agreements are in place, Transit will proceed with procuring these buses.  |
| 185670    | 2018        | 2019               | Chris Gibson Recreation Centre                   | Open   | 20,000,000             | 7,117                    | 19,992,883                          | 2,532,024       | 17,460,859                         | 87%                           | Public Works & Engineering | 1         | Architect has been engaged (Diamond Schmitt) and project is currently in conceptual design stage. Design is on track for April 2021 completion.  |
| 195740    | 2019        | 2019               | Victoria Park New Facility                       | Open   | 17,500,000             | 34,114                   | 17,465,886                          | -               | 17,465,886                         | 100%                          | Public Works & Engineering | 7         | Existing glulam beams are to be reclaimed during demolition and used in the new construction. A consultant is to be retained this year for design and contract administration of the new facility.   |
| 203820    | 2020        | 2020               | Road Resurfacing Program                         | Open   | 15,000,000             | 27,190                   | 14,972,810                          | 13,082,462      | 1,890,348                          | 13%                           | Public Works & Engineering | City Wide | Construction underway.   |
| 194020    | 2019        | 2019               | Land Acquisitions                                | Open   | 16,264,236             | 1,961,632                | 14,302,604                          | 111,936         | 14,190,668                         | 87%                           | Public Works & Engineering | City Wide | Underway   |



**CAPITAL PROJECTS WITH SIGNIFICANT BUDGETS REMAINING  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                                  | Status | Current Project Budget | Project to Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments | Uncommitted Budget Percentage | Department                 | Ward      | Stage   |
|-----------|-------------|--------------------|--|--------|------------------------|--------------------------|-------------------------------------|-----------------|------------------------------------|-------------------------------|----------------------------|-----------|---|
| 194880    | 2019        | 2019               | Transit Maintenance & Storage Facility               | Open   | 15,000,000             | 787,379                  | 14,212,621                          | 2,334,765       | 11,877,856                         | 79%                           | Public Works & Engineering | 10        | WSP has been retained as the Owner's Advisor to provide pre-design services. The RFPQ for design build services is ready for release the week of August 24th. Other consultants retained to date include external legal for contract development (Blakes), the fairness monitor (RGM), market sounding and information gathering consultant (Deloitte), financial evaluation services consultant (EY). The Environmental Assessment (EA) is underway with the draft TPAP targeted the week of August 17th for submission to the Ministry. Staff have been directed by Council to limit expenditures until Federal and Provincial funding have been approved, post the EA process in 2021. |
| 044580    | 2004        | 2010               | Torbram Rd. / CNR Grade Separation Design            | Open   | 22,573,000             | 10,907,869               | 11,665,131                          | 7,000,560       | 4,664,571                          | 21%                           | Public Works & Engineering | 7 & 8     | In litigation, managed by Mississauga.  |
| 194670    | 2019        | 2020               | Fare Collection Equipment                            | Open   | 10,000,000             | -                        | 10,000,000                          | -               | 10,000,000                         | 100%                          | Transit                    | City Wide | Project was submitted for approval through ICIP program. Approval was not granted for this project (application prepared by Metrolinx for all 905 Transit agencies). Further discussions are occurring with Metrolinx for possible solutions. Transit potentially could be requesting additional municipal funding through the 2021 budget process to cover the external funding shortfall.   |
| 191480    | 2019        | 2019               | Corporate Technology Program                         | Open   | 11,236,000             | 1,389,027                | 9,846,973                           | 1,579,417       | 8,267,556                          | 74%                           | Corporate Support Services | City Wide | Numerous projects under this program - projects are at various stages of completion.  |
| 185680    | 2018        | 2019               | Balmoral Recreation Centre                           | Open   | 10,000,000             | 196,273                  | 9,803,727                           | 1,297,010       | 8,506,717                          | 85%                           | Public Works & Engineering | 7         | Consultants have been retained and design is underway. Tender and construction to follow. Construction start anticipated in 2021. Remaining funds will be utilised for construction. Additional funds will be requested in 2021 budget based on design development and cost consultant report.  |
| 205865    | 2020        | 2020               | New Capital Development                              | Open   | 9,585,000              | 7,301                    | 9,577,699                           | -               | 9,577,699                          | 100%                          | Community Services         | City Wide | Work in Progress.   |
| 203750    | 2020        | 2020               | Chinguacousy Road Widening                           | Open   | 9,300,000              | -                        | 9,300,000                           | -               | 9,300,000                          | 100%                          | Public Works & Engineering | 6         | Underway.   |
| 175201    | 2017        | 2018               | BSC-Artificial Turf Fields & Seasonal Dome Structure | Open   | 10,230,000             | 1,735,136                | 8,494,864                           | 8,470,165       | 24,699                             | 0%                            | Community Services         | 9         | Construction.   |
| 183770    | 2018        | 2019               | Castlemore Road Widening                             | Open   | 10,600,000             | 2,164,968                | 8,435,032                           | 7,353,650       | 1,081,382                          | 10%                           | Public Works & Engineering | 8 & 10    | Construction underway.  |
| 191650    | 2019        | 2020               | Facilities Repair & Replacement                      | Open   | 17,592,000             | 9,443,675                | 8,148,325                           | 2,480,264       | 5,668,061                          | 32%                           | Public Works & Engineering | City Wide | Various projects at various stages.   |
| 204680    | 2020        | 2020               | Bus Refurbishments                                   | Open   | 7,939,000              | -                        | 7,939,000                           | -               | 7,939,000                          | 100%                          | Transit                    | City Wide | Project contingent on ICIP funding and has received Provincial and Federal approval. Once signed agreements are in place, Transit will proceed with shceduling and completing these bus refurbishments.   |
| 201650    | 2020        | 2020               | Facilities Repair & Replacement                      | Open   | 8,178,000              | 383,280                  | 7,794,720                           | 91,429          | 7,703,291                          | 94%                           | Public Works & Engineering | City Wide | Various projects at various stages.   |



**CAPITAL PROJECTS WITH SIGNIFICANT BUDGETS REMAINING  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                           | Status | Current Project Budget | Project to Date Spending | Budget Remaining Before Commitments | Purchase Orders   | Budget Remaining After Commitments | Uncommitted Budget Percentage | Department                 | Ward      | Stage  |
|-----------|-------------|--------------------|---|--------|------------------------|--------------------------|-------------------------------------|-------------------|------------------------------------|-------------------------------|----------------------------|-----------|--|
| 192840    | 2019        | 2020               | Williams Pkwy Works Yard Phase 3              | Open   | 7,600,000              | -                        | 7,600,000                           | -                 | 7,600,000                          | 100%                          | Public Works & Engineering | 8         | The WPOC Phase 3 scope of work was revised in early 2020 to incorporate relocation of Parks from 425 Chrysler, which is to be demolished as part of the new fire campus project. The Phase 3 scope of work revisions also altered the overall WPOC site development. Partial funding was approved in the 2020 Capital Budget, which is to be used to relocate Parks, additional funding is required to proceed with the remainder of the WPOC Phase 3 project. |
| 201480    | 2020        | 2020               | Corporate Technology Program                  | Open   | 7,369,000              | 41,903                   | 7,327,097                           | -                 | 7,327,097                          | 99%                           | Corporate Support Services | City Wide | Numerous projects under this program - projects are at various stages of completion.   |
| 124800    | 2012        | 2014               | Zum - BRT                                     | Open   | 121,549,000            | 114,374,084              | 7,174,916                           | 412,999           | 6,761,917                          | 6%                            | Transit                    | City Wide | Project is largely complete, with the exception of final property payments, some warranty work and other minor work. Anticipate to have funding remaining following payment of final costs.  |
| 143380    | 2014        | 2017               | Humberwest Parkway: Exchange Dr-Williams Pkwy | Open   | 9,000,000              | 1,857,187                | 7,142,813                           | 6,786,840         | 355,973                            | 4%                            | Public Works & Engineering | 8         | Construction underway.   |
| 195865    | 2019        | 2019               | New Capital Development                       | Open   | 8,205,000              | 1,079,287                | 7,125,713                           | 1,917,276         | 5,208,437                          | 63%                           | Community Services         | City Wide | Work in Progress.  |
| 182530    | 2018        | 2019               | Fire Station 214                              | Open   | 10,115,000             | 3,199,785                | 6,915,215                           | 474,284           | 6,440,931                          | 64%                           | Public Works & Engineering | 5         | Architect (Prime Consultant) issued a PO on November 15th, 2019. Project currently in the design stage. Demolition of existing buildings complete. Contractor prequalification closed on August 12th, 2020. Site Plan Approval application submitted.  |
| 085850    | 2008        | 2012               | Bram East Community Parkland Campus           | Open   | 98,308,242             | 92,006,484               | 6,301,758                           | 209,125           | 6,092,633                          | 6%                            | Public Works & Engineering | 10        | Remaining funds are being held due to the claim and potential litigation.  |
| 201427    | 2020        | 2020               | Core Technologies Program                     | Open   | 6,170,000              | 51,869                   | 6,118,131                           | -                 | 6,118,131                          | 99%                           | Corporate Support Services | City Wide | Numerous projects under this program - projects are at various stages of completion.   |
|           |             |                    |   |        | <b>828,054,866</b>     | <b>249,126,228</b>       | <b>578,928,638</b>                  | <b>95,773,903</b> | <b>483,154,735</b>                 |                               |                            |           |  |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                                  | Status | Budget    | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments |
|-----------|-------------|--------------------|--|--------|-----------|--------------------------|-------------------------------------|-----------------|------------------------------------|
|           |             |                    | <b>CAO, CORPORATE SUPPORT SERVICES &amp; COUNCIL</b> |        |           |                          |                                     |                 |                                    |
| 151201    | 2015        | 2015               | Corporate Performance Measurement Dashboard          | Open   | 100,000   | 75,448                   | 24,552                              | 13,174          | 11,378                             |
| 151436    | 2015        | 2015               | Health & Safety Mgmt System Enhancement              | Open   | 16,000    | -                        | 16,000                              | -               | 16,000                             |
| 171255    | 2017        | 2017               | Sport Tourism Strategy                               | Open   | 100,000   | 1,272                    | 98,728                              | 96,672          | 2,056                              |
| 171398    | 2017        | 2017               | Minor Capital - Human Resources                      | Open   | 14,000    | -                        | 14,000                              | -               | 14,000                             |
| 181000    | 2018        | 2018               | Development Charges Study                            | Open   | 500,000   | 149,574                  | 350,426                             | 22,744          | 327,682                            |
| 181075    | 2018        | 2018               | Corporate Asset Management                           | Open   | 1,000,000 | 51,307                   | 948,693                             | 358,791         | 589,902                            |
| 181080    | 2018        | 2018               | Destination District Site Dev.                       | Open   | 500,000   | -                        | 500,000                             | -               | 500,000                            |
| 181299    | 2018        | 2018               | Minor Capital Council Members                        | Open   | 22,000    | 15,168                   | 6,832                               | -               | 6,832                              |
| 181430    | 2018        | 2018               | Technology Acquisition-Refresh                       | Open   | 55,000    | 46,205                   | 8,795                               | -               | 8,795                              |
| 187723    | 2018        | 2018               | Main St. Revitalization                              | Open   | 554,752   | 74,811                   | 479,941                             | 410,602         | 69,339                             |
| 191397    | 2019        | 2019               | Minor Capital - Strategic Communications             | Open   | 13,000    | 12,581                   | 419                                 | -               | 419                                |
| 191098    | 2019        | 2019               | Minor Capital - Corporate Wide                       | Open   | 130,000   | 122,247                  | 7,753                               | -               | 7,753                              |
| 191299    | 2019        | 2019               | Minor Capital - Council Members                      | Open   | 13,000    | -                        | 13,000                              | -               | 13,000                             |
| 196860    | 2019        | 2019               | Public Art Investment                                | Open   | 350,000   | -                        | 350,000                             | -               | 350,000                            |
| 201070    | 2020        | 2020               | Fair Wage Policy & Community Benefits                | Open   | 150,000   | -                        | 150,000                             | -               | 150,000                            |
| 201075    | 2020        | 2020               | Corporate Asset Management                           | Open   | 750,000   | -                        | 750,000                             | -               | 750,000                            |
| 201098    | 2020        | 2020               | Minor Capital - Corporate Wide                       | Open   | 178,000   | 6,129                    | 171,871                             | -               | 171,871                            |
| 201360    | 2020        | 2020               | Communications Master Plan                           | Open   | 25,000    | -                        | 25,000                              | -               | 25,000                             |
| 206855    | 2020        | 2020               | Arts Walk of Fame                                    | Open   | 20,000    | -                        | 20,000                              | -               | 20,000                             |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description  | Status | Budget           | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders   | Budget Remaining After Commitments |
|-----------|-------------|--------------------|--|--------|------------------|--------------------------|-------------------------------------|-------------------|------------------------------------|
|           |             |                    | <b>TOTAL CAO, CORPORATE SUPPORT SERVICES &amp; COUNCIL</b> |        | <b>4,490,752</b> | <b>554,742</b>           | <b>3,936,010.00</b>                 | <b>901,983.00</b> | <b>3,034,027</b>                   |
|           |             |                    | <b>CORPORATE SUPPORT SERVICES - ITC</b>                    |        |                  |                          |                                     |                   |                                    |
| 131459    | 2013        | 2013               | Mobile Corporate Printing Productivity Enhancement         | Open   | 99,000           | 10,977                   | 88,023                              | -                 | 88,023                             |
| 141463    | 2014        | 2014               | Corporate Digital Signage Solutions                        | Open   | 57,000           | 55,204                   | 1,796                               | -                 | 1,796                              |
| 141466    | 2014        | 2014               | Prosecution Tracking-Migration                             | Open   | 217,000          | 148,204                  | 68,796                              | 68,795            | 1                                  |
| 147741    | 2014        | 2014               | Amanda Building Permit System Upgrade                      | Open   | 250,000          | 177,415                  | 72,585                              | 52,612            | 19,973                             |
| 151341    | 2015        | 2015               | Talent Management  | Open   | 621,000          | 585,811                  | 35,189                              | -                 | 35,189                             |
| 151790    | 2015        | 2015               | Business Systems Initiatives                               | Open   | 1,515,000        | 1,000,642                | 514,358                             | 47                | 514,311                            |
| 161141    | 2016        | 2016               | Printer Fleet Management System                            | Open   | 188,000          | 143,357                  | 44,643                              | -                 | 44,643                             |
| 161790    | 2016        | 2016               | Business Systems Initiatives                               | Open   | 300,000          | 151,987                  | 148,013                             | 44,821            | 103,192                            |
| 171041    | 2017        | 2017               | Enterprise Payment Solution                                | Open   | 226,000          | 63,233                   | 162,767                             | -                 | 162,767                            |
| 171427    | 2017        | 2017               | Core Technologies Program                                  | Open   | 3,620,000        | 3,346,073                | 273,927                             | 13,829            | 260,098                            |
| 171468    | 2017        | 2017               | Service Brampton - Customer Service Enhancements           | Open   | 455,000          | 438,649                  | 16,351                              | 14,151            | 2,200                              |
| 171478    | 2017        | 2017               | Citizen Service Program                                    | Open   | 800,000          | 614,465                  | 185,535                             | 140,650           | 44,885                             |
| 171480    | 2017        | 2017               | Corporate Technology Program                               | Open   | 3,600,000        | 1,503,323                | 2,096,677                           | 598,606           | 1,498,071                          |
| 177741    | 2017        | 2017               | Amanda Building Permit System Upgrade                      | Open   | 250,000          | 45,522                   | 204,478                             | -                 | 204,478                            |
| 181164    | 2018        | 2018               | Enforcement-Mobile Technology                              | Open   | 60,000           | 18,279                   | 41,721                              | -                 | 41,721                             |
| 181427    | 2018        | 2018               | Core Technologies Program                                  | Open   | 4,110,000        | 3,605,334                | 504,666                             | -                 | 504,666                            |
| 181478    | 2018        | 2018               | Citizen Service Program                                    | Open   | 200,000          | -                        | 200,000                             | -                 | 200,000                            |
| 181480    | 2018        | 2018               | Corporate Technology Program                               | Open   | 6,497,000        | 2,217,593                | 4,279,407                           | 1,069,973         | 3,209,434                          |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                           | Status | Budget            | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders  | Budget Remaining After Commitments |
|-----------|-------------|--------------------|---|--------|-------------------|--------------------------|-------------------------------------|------------------|------------------------------------|
| 191427    | 2019        | 2019               | Core Technologies Program                     | Open   | 5,465,000         | 1,231,122                | 4,233,878                           | 43,248           | 4,190,630                          |
| 191478    | 2019        | 2019               | Citizen Service Program                       | Open   | 1,750,000         | 281,138                  | 1,468,862                           | -                | 1,468,862                          |
| 191480    | 2019        | 2019               | Corporate Technology Program                  | Open   | 11,236,000        | 1,389,027                | 9,846,973                           | 1,579,417        | 8,267,556                          |
| 201427    | 2020        | 2020               | Core Technologies Program                     | Open   | 6,170,000         | 51,869                   | 6,118,131                           | -                | 6,118,131                          |
| 201478    | 2020        | 2020               | Citizen Service Program                       | Open   | 560,000           | -                        | 560,000                             | -                | 560,000                            |
| 201480    | 2020        | 2020               | Corporate Technology Program                  | Open   | 7,369,000         | 41,903                   | 7,327,097                           | -                | 7,327,097                          |
|           |             |                    | <b>TOTAL CORPORATE SUPPORT SERVICES - ITC</b> |        | <b>55,615,000</b> | <b>17,121,127</b>        | <b>38,493,873</b>                   | <b>3,626,149</b> | <b>34,867,724</b>                  |
|           |             |                    | <b>LEGISLATIVE SERVICES</b>                   |        |                   |                          |                                     |                  |                                    |
| 171161    | 2017        | 2017               | Radios & Handheld Units                       | Open   | 26,000            | 25,281                   | 719                                 | -                | 719                                |
| 181485    | 2018        | 2018               | Records-Info Mgmt System-BRIMS                | Open   | 285,000           | 226,868                  | 58,132                              | 34,440           | 23,692                             |
| 195181    | 2019        | 2019               | Animal Services - Misc Initiatives            | Open   | 20,000            | 805                      | 19,195                              | -                | 19,195                             |
| 201193    | 2020        | 2020               | Minor Capital - Enforcement                   | Open   | 40,000            | -                        | 40,000                              | -                | 40,000                             |
| 205181    | 2020        | 2020               | Animal Services - Misc Initiatives            | Open   | 60,000            | -                        | 60,000                              | -                | 60,000                             |
|           |             |                    | <b>TOTAL LEGISLATIVE SERVICES</b>             |        | <b>431,000</b>    | <b>252,954</b>           | <b>178,046</b>                      | <b>34,440</b>    | <b>143,606</b>                     |
|           |             |                    | <b>COMMUNITY SERVICES</b>                     |        |                   |                          |                                     |                  |                                    |
| 045810    | 2004        | 2014               | Creditview / Sandalwood City-wide Park        | Open   | 15,686,291        | 14,415,832               | 1,270,459                           | 14,873           | 1,255,586                          |
| 075940    | 2007        | 2007               | Pathways Implementation Program               | Open   | 1,922,100         | 1,878,377                | 43,723                              | -                | 43,723                             |
| 085940    | 2008        | 2012               | Pathways Implementation Program               | Open   | 2,289,605         | 957,501                  | 1,332,104                           | -                | 1,332,104                          |
| 105400    | 2010        | 2010               | Outdoor Assets                                | Open   | 6,049,817         | 5,859,350                | 190,467                             | -                | 190,467                            |
| 105710    | 2010        | 2013               | Mississauga / Bovaird Community Park          | Open   | 7,515,000         | 6,678,019                | 836,981                             | 836,980          | 1                                  |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description               | Status | Budget    | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments |
|-----------|-------------|--------------------|-----------------------------------|--------|-----------|--------------------------|-------------------------------------|-----------------|------------------------------------|
| 105940    | 2010        | 2010               | Pathways Implementation Program   | Open   | 2,280,500 | 1,706,977                | 573,523                             | 131,109         | 442,414                            |
| 106000    | 2010        | 2010               | Valleyland Development            | Open   | 2,771,177 | 2,236,584                | 534,593                             | -               | 534,593                            |
| 115400    | 2011        | 2011               | Outdoor Asset Replacement         | Open   | 3,366,354 | 3,296,267                | 70,087                              | -               | 70,087                             |
| 125400    | 2012        | 2012               | Outdoor Asset Replacement         | Open   | 7,003,235 | 6,739,092                | 264,143                             | 53,048          | 211,095                            |
| 125430    | 2012        | 2012               | Wayfinding & Signage Program      | Open   | 215,000   | 146,573                  | 68,427                              | 68,427          | -                                  |
| 125860    | 2012        | 2012               | Neighbourhood Parks               | Open   | 1,597,600 | 1,596,155                | 1,445                               | -               | 1,445                              |
| 126000    | 2012        | 2012               | Valleyland Development            | Open   | 2,380,000 | 2,140,603                | 239,397                             | 25,296          | 214,101                            |
| 135400    | 2013        | 2013               | Outdoor Asset Replacement         | Open   | 4,243,500 | 4,104,998                | 138,502                             | 29,083          | 109,419                            |
| 135860    | 2013        | 2013               | Neighbourhood Parks               | Open   | 4,347,540 | 4,115,484                | 232,056                             | -               | 232,056                            |
| 135940    | 2013        | 2013               | Pathways Implementation Program   | Open   | 905,000   | 445,801                  | 459,199                             | -               | 459,199                            |
| 136000    | 2013        | 2013               | Valleyland Development            | Open   | 1,190,700 | 520,840                  | 669,860                             | -               | 669,860                            |
| 144954    | 2014        | 2014               | Outdoor Asset Replacement - PIS   | Open   | 3,813,979 | 3,601,384                | 212,595                             | 118,494         | 94,101                             |
| 145860    | 2014        | 2014               | Neighbourhood Parks               | Open   | 1,911,136 | 1,354,282                | 556,854                             | -               | 556,854                            |
| 146000    | 2014        | 2014               | Valleyland Development            | Open   | 2,713,000 | 1,855,040                | 857,960                             | 30,477          | 827,483                            |
| 154954    | 2015        | 2015               | Outdoor Asset Replacement - PIS   | Open   | 4,339,101 | 4,185,624                | 153,477                             | 28,792          | 124,685                            |
| 156000    | 2015        | 2015               | Valleyland Development            | Open   | 290,000   | 24,707                   | 265,293                             | -               | 265,293                            |
| 156770    | 2015        | 2015               | Natural Heritage Land Acquisition | Open   | 960,000   | 80,375                   | 879,625                             | -               | 879,625                            |
| 164954    | 2016        | 2016               | Outdoor Asset Replacement - PIS   | Open   | 6,150,000 | 5,733,581                | 416,419                             | 395,028         | 21,391                             |
| 166000    | 2016        | 2016               | Valleyland Development            | Open   | 1,797,450 | 714,692                  | 1,082,758                           | 41,844          | 1,040,914                          |
| 166600    | 2016        | 2016               | Emerald Ash Borer                 | Open   | 3,703,000 | 3,694,462                | 8,538                               | 27              | 8,511                              |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                                  | Status | Budget     | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments |
|-----------|-------------|--------------------|--|--------|------------|--------------------------|-------------------------------------|-----------------|------------------------------------|
| 166700    | 2016        | 2016               | Tableland Acquisition - Land Acquisition             | Open   | 983,058    | 789,208                  | 193,850                             | -               | 193,850                            |
| 171583    | 2017        | 2017               | Downtown Property Acquisition                        | Open   | 27,012,115 | 26,995,318               | 16,797                              | -               | 16,797                             |
| 174954    | 2017        | 2017               | Outdoor Asset Replacement                            | Open   | 3,025,375  | 1,953,955                | 1,071,420                           | 552,890         | 518,530                            |
| 174960    | 2017        | 2017               | Outdoor Assets - Canada 150                          | Open   | 2,566,740  | 2,429,126                | 137,614                             | -               | 137,614                            |
| 175201    | 2017        | 2018               | BSC-Artificial Turf Fields & Seasonal Dome Structure | Open   | 10,230,000 | 1,735,136                | 8,494,864                           | 8,470,165       | 24,699                             |
| 175860    | 2017        | 2017               | Neighbourhood Parks                                  | Open   | 5,872,850  | 5,298,529                | 574,321                             | -               | 574,321                            |
| 175865    | 2017        | 2017               | Parks - Outdoor Assets                               | Open   | 2,925,000  | 2,678,510                | 246,490                             | 61,007          | 185,483                            |
| 176700    | 2017        | 2017               | Tableland Acquisition - Land Acquisition             | Open   | 2,211,715  | 2,172,795                | 38,920                              | -               | 38,920                             |
| 176810    | 2017        | 2017               | Arts & Culture Misc. Initiatives                     | Open   | 407,080    | 402,164                  | 4,916                               | 3,982           | 934                                |
| 178199    | 2017        | 2017               | Minor Capital - Service Brampton                     | Open   | 5,000      | 2,415                    | 2,585                               | -               | 2,585                              |
| 184954    | 2018        | 2018               | Parks - Outdoor Asset Replacement                    | Open   | 745,000    | 349,154                  | 395,846                             | 207,287         | 188,559                            |
| 184955    | 2018        | 2018               | Park Enhancements                                    | Open   | 1,250,000  | 445,460                  | 804,540                             | 357,170         | 447,370                            |
| 185560    | 2018        | 2018               | Recreation - Misc Initiatives                        | Open   | 863,000    | 824,396                  | 38,604                              | 31,712          | 6,892                              |
| 185580    | 2018        | 2018               | Norton Park Development                              | Open   | 100,000    | 45,365                   | 54,635                              | -               | 54,635                             |
| 185865    | 2018        | 2018               | Parks-New Capital Development                        | Open   | 3,741,000  | 2,154,399                | 1,586,601                           | 175,300         | 1,411,301                          |
| 186000    | 2018        | 2018               | Valleyland Development                               | Open   | 625,000    | 18,078                   | 606,922                             | 7,668           | 599,254                            |
| 186600    | 2018        | 2018               | Emerald Ash Borer                                    | Open   | 1,703,000  | 1,624,090                | 78,910                              | 73,657          | 5,253                              |
| 186780    | 2018        | 2018               | Land Acquisition-Inder Heights                       | Open   | 2,200,000  | 2,140,337                | 59,663                              | -               | 59,663                             |
| 186810    | 2018        | 2018               | Cultural Services Initiatives                        | Open   | 404,570    | 385,095                  | 19,475                              | 15,987          | 3,488                              |
| 191542    | 2019        | 2019               | Land Acquisition & Preliminary Due Diligence         | Open   | 17,750,000 | 13,637,159               | 4,112,841                           | -               | 4,112,841                          |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                                 | Status | Budget    | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments |
|-----------|-------------|--------------------|---|--------|-----------|--------------------------|-------------------------------------|-----------------|------------------------------------|
| 191588    | 2019        | 2019               | Acquisition-Main St.Properties                      | Open   | 9,050,000 | 6,885,848                | 2,164,152                           | -               | 2,164,152                          |
| 191589    | 2019        | 2019               | Acquisition-Nelson-George St.                       | Open   | 5,900,000 | 5,791,095                | 108,905                             | -               | 108,905                            |
| 191775    | 2019        | 2019               | Acquisition of Property-PVGC                        | Open   | 2,080,000 | 1,971,410                | 108,590                             | -               | 108,590                            |
| 194954    | 2019        | 2019               | Outdoor Asset Replacement-Planning & Infrastructure | Open   | 620,000   | 238,066                  | 381,934                             | 67,707          | 314,227                            |
| 195210    | 2019        | 2019               | Collaborative Learning Technology Centre            | Open   | 3,000,000 | -                        | 3,000,000                           | -               | 3,000,000                          |
| 195420    | 2019        | 2019               | Playground Repair & Replacement                     | Open   | 1,555,000 | 1,206,872                | 348,128                             | 113,707         | 234,421                            |
| 195430    | 2019        | 2019               | Wayfinding & Signage Program - Outdoors             | Open   | 50,000    | 12,244                   | 37,756                              | -               | 37,756                             |
| 195499    | 2019        | 2019               | Minor Capital - Parks - Outdoor Assets              | Open   | 25,000    | 24,312                   | 688                                 | -               | 688                                |
| 195560    | 2019        | 2019               | Recreation - Misc Initiatives                       | Open   | 1,110,000 | 322,919                  | 787,081                             | 48,160          | 738,921                            |
| 195780    | 2019        | 2019               | CAA Centre  | Open   | 195,000   | 188,671                  | 6,329                               | -               | 6,329                              |
| 195860    | 2019        | 2019               | Neighbourhood Parks                                 | Open   | 7,690,167 | 1,611,890                | 6,078,277                           | -               | 6,078,277                          |
| 195865    | 2019        | 2019               | New Capital Development                             | Open   | 8,205,000 | 1,079,287                | 7,125,713                           | 1,917,276       | 5,208,437                          |
| 195893    | 2019        | 2019               | Sportsfield Repair & Replacement                    | Open   | 430,000   | 49,684                   | 380,316                             | 45,722          | 334,594                            |
| 195940    | 2019        | 2019               | Pathways Implementation Program                     | Open   | 250,000   | -                        | 250,000                             | -               | 250,000                            |
| 195941    | 2019        | 2019               | Recreation Trail Repair & Replacement               | Open   | 295,000   | -                        | 295,000                             | 251,041         | 43,959                             |
| 196000    | 2019        | 2019               | Valleyland Development                              | Open   | 675,000   | 16,024                   | 658,976                             | -               | 658,976                            |
| 196201    | 2019        | 2019               | Urban Forestry Master Plan                          | Open   | 100,000   | -                        | 100,000                             | 86,881          | 13,119                             |
| 196600    | 2019        | 2019               | Emerald Ash Borer                                   | Open   | 2,703,000 | 1,143,032                | 1,559,968                           | 1,093,292       | 466,676                            |
| 196715    | 2019        | 2019               | Land Acquisition - Bovaird Dr.                      | Open   | 9,800,000 | 9,605,080                | 194,920                             | -               | 194,920                            |
| 196760    | 2019        | 2019               | Parkland Over-Dedication                            | Open   | 3,600,000 | -                        | 3,600,000                           | -               | 3,600,000                          |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                                 | Status | Budget    | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments |
|-----------|-------------|--------------------|---|--------|-----------|--------------------------|-------------------------------------|-----------------|------------------------------------|
| 196810    | 2019        | 2019               | Cultural Services Initiatives                       | Open   | 300,000   | 161,502                  | 138,498                             | -               | 138,498                            |
| 196820    | 2019        | 2019               | Venue Management Software                           | Open   | 50,000    | -                        | 50,000                              | -               | 50,000                             |
| 196830    | 2019        | 2019               | Accessibility – Rose Theatre                        | Open   | 45,000    | 7,161                    | 37,839                              | -               | 37,839                             |
| 204150    | 2020        | 2020               | Engineering & Parkland Studies                      | Open   | 1,000,000 | -                        | 1,000,000                           | 38,954          | 961,046                            |
| 204954    | 2020        | 2020               | Outdoor Asset Replacement-Planning & Infrastructure | Open   | 745,000   | -                        | 745,000                             | -               | 745,000                            |
| 204955    | 2020        | 2020               | Park Enhancements                                   | Open   | 1,250,000 | -                        | 1,250,000                           | -               | 1,250,000                          |
| 205420    | 2020        | 2020               | Playground Repair & Replacement                     | Open   | 2,140,000 | -                        | 2,140,000                           | -               | 2,140,000                          |
| 205499    | 2020        | 2020               | Minor Capital - Parks - Outdoor Assets              | Open   | 50,000    | 926                      | 49,074                              | -               | 49,074                             |
| 205560    | 2020        | 2020               | Recreation - Misc Initiatives                       | Open   | 1,270,000 | 64,013                   | 1,205,987                           | 95,694          | 1,110,293                          |
| 205730    | 2020        | 2020               | Gore Meadows Fieldhouse & Ancillary Buildings       | Open   | 1,050,000 | -                        | 1,050,000                           | -               | 1,050,000                          |
| 205780    | 2020        | 2020               | CAA Centre  | Open   | 638,000   | 319,728                  | 318,272                             | -               | 318,272                            |
| 205860    | 2020        | 2020               | Neighbourhood Parks                                 | Open   | 75,000    | -                        | 75,000                              | -               | 75,000                             |
| 205865    | 2020        | 2020               | New Capital Development                             | Open   | 9,585,000 | 7,301                    | 9,577,699                           | -               | 9,577,699                          |
| 205893    | 2020        | 2020               | Sportsfield Repair & Replacement                    | Open   | 200,000   | -                        | 200,000                             | -               | 200,000                            |
| 205894    | 2020        | 2020               | Accessible Baseball Diamond                         | Open   | 150,000   | -                        | 150,000                             | -               | 150,000                            |
| 205936    | 2020        | 2020               | Central Peel - Artificial Turf Field                | Open   | 1,500,000 | -                        | 1,500,000                           | -               | 1,500,000                          |
| 206000    | 2020        | 2020               | Valleyland Development                              | Open   | 1,925,000 | -                        | 1,925,000                           | -               | 1,925,000                          |
| 206600    | 2020        | 2020               | Emerald Ash Borer                                   | Open   | 1,703,000 | -                        | 1,703,000                           | 915,842         | 787,158                            |
| 206810    | 2020        | 2020               | Performing Arts Initiatives                         | Open   | 300,000   | -                        | 300,000                             | -               | 300,000                            |
| 206835    | 2020        | 2020               | Signage-Rebranding – Rose Theatre                   | Open   | 50,000    | -                        | 50,000                              | -               | 50,000                             |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                        | Status | Budget             | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders      | Budget Remaining After Commitments |
|-----------|-------------|--------------------|--|--------|--------------------|--------------------------|-------------------------------------|----------------------|------------------------------------|
|           |             |                    | <b>TOTAL COMMUNITY SERVICES</b>            |        | <b>255,420,755</b> | <b>174,870,354</b>       | <b>80,550,401</b>                   | <b>16,404,579.00</b> | <b>64,145,822</b>                  |
|           |             |                    | <b>FIRE &amp; EMERGENCY SERVICES</b>       |        |                    |                          |                                     |                      |                                    |
| 102120    | 2010        | 2012               | Station & Apparatus & Maintenance Facility | Open   | 11,570,000         | 11,415,975               | 154,025                             | 14,901               | 139,124                            |
| 132506    | 2013        | 2013               | Station 204 Relocation & Expansion         | Open   | 4,600,000          | 4,464,069                | 135,931                             | 36,559               | 99,372                             |
| 171840    | 2017        | 2017               | Emergency Measures                         | Open   | 150,000            | 78,219                   | 71,781                              | -                    | 71,781                             |
| 172430    | 2017        | 2017               | Dispatch Equipment                         | Open   | 200,000            | 171,332                  | 28,668                              | -                    | 28,668                             |
| 182110    | 2018        | 2018               | Fire Miscellaneous Initiatives             | Open   | 221,000            | 103,786                  | 117,214                             | 117,024              | 190                                |
| 182300    | 2018        | 2018               | Growth Vehicles                            | Open   | 900,000            | -                        | 900,000                             | -                    | 900,000                            |
| 182310    | 2018        | 2018               | Vehicle Replacement                        | Open   | 1,600,000          | -                        | 1,600,000                           | 1,235,202            | 364,798                            |
| 182430    | 2018        | 2020               | Dispatch Equipment                         | Open   | 5,349,000          | 1,200,583                | 4,148,417                           | 2,697,502            | 1,450,915                          |
| 192110    | 2019        | 2019               | Fire Miscellaneous Initiatives             | Open   | 241,000            | 63,902                   | 177,098                             | -                    | 177,098                            |
| 192111    | 2019        | 2019               | Community Safety Project                   | Open   | 300,000            | 139,436                  | 160,564                             | -                    | 160,564                            |
| 192310    | 2019        | 2019               | Vehicle Replacement                        | Open   | 6,115,000          | 1,580,720                | 4,534,280                           | 43,092               | 4,491,188                          |
| 192430    | 2019        | 2019               | Dispatch Equipment                         | Open   | 400,000            | 101,000                  | 299,000                             | 28,668               | 270,332                            |
| 192460    | 2019        | 2019               | Fire Fighting Equipment                    | Open   | 988,000            | 699,731                  | 288,269                             | -                    | 288,269                            |
| 202110    | 2020        | 2020               | Fire Miscellaneous Initiatives             | Open   | 200,000            | -                        | 200,000                             | -                    | 200,000                            |
| 202310    | 2020        | 2020               | Fire Vehicle Replacement                   | Open   | 1,270,000          | -                        | 1,270,000                           | -                    | 1,270,000                          |
| 202430    | 2020        | 2020               | Dispatch Upgrade & Equipment               | Open   | 415,000            | -                        | 415,000                             | -                    | 415,000                            |
| 202460    | 2020        | 2020               | Fire Fighting Equipment                    | Open   | 970,000            | -                        | 970,000                             | -                    | 970,000                            |
|           |             |                    | <b>TOTAL FIRE &amp; EMERGENCY SERVICES</b> |        | <b>35,489,000</b>  | <b>20,018,753</b>        | <b>15,470,247</b>                   | <b>4,172,948</b>     | <b>11,297,299</b>                  |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                                    | Status | Budget      | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments |
|-----------|-------------|--------------------|--|--------|-------------|--------------------------|-------------------------------------|-----------------|------------------------------------|
|           |             |                    | <b>TRANSIT</b>   |        |             |                          |                                     |                 |                                    |
| 064610    | 2006        | 2007               | Smart Bus  | Open   | 7,180,000   | 7,056,337                | 123,663                             | 123,511         | 152                                |
| 097730    | 2009        | 2009               | Mt.Pleasant Mobility Hub Infrastructure Project        | Open   | 29,898,561  | 27,807,607               | 2,090,954                           | 1,484,534       | 606,420                            |
| 104701    | 2010        | 2013               | Hurontario / Main Street Corridor Master Plan          | Open   | 3,925,000   | 3,655,166                | 269,834                             | -               | 269,834                            |
| 124800    | 2012        | 2014               | Acceleride / Zum                                       | Open   | 121,549,000 | 114,374,084              | 7,174,916                           | 412,999         | 6,761,917                          |
| 144680    | 2014        | 2014               | Bus Refurbishments                                     | Open   | 3,134,000   | 3,038,007                | 95,993                              | -               | 95,993                             |
| 144703    | 2014        | 2014               | Queen Street LRT                                       | Open   | 1,200,000   | 860,815                  | 339,185                             | -               | 339,185                            |
| 144801    | 2014        | 2016               | Zum Project Office                                     | Open   | 3,527,000   | 3,371,939                | 155,061                             | -               | 155,061                            |
| 154690    | 2015        | 2015               | Bus Purchases  | Open   | 12,445,000  | 12,213,444               | 231,556                             | -               | 231,556                            |
| 154714    | 2015        | 2015               | Transit IT Initiatives                                 | Open   | 550,000     | 399,679                  | 150,321                             | 62,175          | 88,146                             |
| 154860    | 2015        | 2015               | Bus Storage & Repair Facility                          | Open   | 2,000,000   | 111,541                  | 1,888,459                           | -               | 1,888,459                          |
| 164110    | 2016        | 2018               | Hurontario Light Rail Transit                          | Open   | 4,750,000   | 2,740,944                | 2,009,056                           | 5,882           | 2,003,174                          |
| 164680    | 2016        | 2016               | Bus Refurbishments                                     | Open   | 4,375,000   | 4,360,985                | 14,015                              | 755             | 13,260                             |
| 164690    | 2016        | 2016               | Bus Purchases  | Open   | 8,965,000   | 8,766,335                | 198,665                             | -               | 198,665                            |
| 164840    | 2016        | 2016               | Terminal Improvements                                  | Open   | 1,000,000   | 1,488                    | 998,512                             | -               | 998,512                            |
| 164850    | 2016        | 2016               | Existing Facility Refurbishmnt                         | Open   | 500,000     | 388,782                  | 111,218                             | 1,508           | 109,710                            |
| 174115    | 2017        | 2017               | Light Rail Transit Extension - Alternative Routes - EA | Open   | 5,400,000   | 1,883,108                | 3,516,892                           | 3,004,558       | 512,334                            |
| 174116    | 2017        | 2017               | Hurontario LRT - Infrastructure & Capital Costs        | Open   | 3,150,000   | 3,896                    | 3,146,104                           | -               | 3,146,104                          |
| 174680    | 2017        | 2017               | Bus Refurbishments                                     | Open   | 960,000     | 925,687                  | 34,313                              | -               | 34,313                             |
| 174690    | 2017        | 2017               | Bus Purchases  | Open   | 20,450,000  | 20,023,858               | 426,142                             | -               | 426,142                            |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description              | Status | Budget     | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments |
|-----------|-------------|--------------------|----------------------------------|--------|------------|--------------------------|-------------------------------------|-----------------|------------------------------------|
| 174700    | 2017        | 2017               | Vehicle Maintenance System Pilot | Open   | 2,522,000  | 2,501,841                | 20,159                              | 829             | 19,330                             |
| 174771    | 2017        | 2017               | Transit Amenity Program          | Open   | 2,000,000  | 1,999,513                | 487                                 | -               | 487                                |
| 174782    | 2017        | 2018               | Electric Overhead Chargers       | Open   | 5,844,000  | 3,010,423                | 2,833,577                           | 2,286,747       | 546,830                            |
| 174799    | 2017        | 2017               | Minor Capital - Transit          | Open   | 207,000    | 175,108                  | 31,892                              | 31,880          | 12                                 |
| 174800    | 2017        | 2017               | Zum Service Expansion            | Open   | 19,100,000 | 19,099,937               | 63                                  | -               | 63                                 |
| 174860    | 2017        | 2017               | Bus Storage & Repair Facility    | Open   | 24,900,000 | 23,957,539               | 942,461                             | 87,430          | 855,031                            |
| 184635    | 2018        | 2018               | Transit Operator Safety Shields  | Open   | 2,545,000  | 2,504,781                | 40,219                              | 8,393           | 31,826                             |
| 184680    | 2018        | 2018               | Bus Refurbishments               | Open   | 5,520,000  | 5,222,183                | 297,817                             | -               | 297,817                            |
| 184690    | 2018        | 2018               | Bus Purchases                    | Open   | 28,205,000 | 24,567,019               | 3,637,981                           | 2,399,859       | 1,238,122                          |
| 184714    | 2018        | 2018               | Transit IT Initiatives           | Open   | 1,500,000  | 751                      | 1,499,249                           | 1,379,619       | 119,630                            |
| 184745    | 2018        | 2018               | Affordable Transit Program       | Open   | 85,000     | 32,602                   | 52,398                              | -               | 52,398                             |
| 184770    | 2018        | 2018               | Bus Shelters-Pads-Stops          | Open   | 416,000    | 323,390                  | 92,610                              | 1,477           | 91,133                             |
| 184799    | 2018        | 2018               | Minor Capital - Transit          | Open   | 207,000    | 141,965                  | 65,035                              | -               | 65,035                             |
| 194610    | 2019        | 2020               | Smart Bus                        | Open   | 5,000,000  | -                        | 5,000,000                           | -               | 5,000,000                          |
| 194670    | 2019        | 2020               | Fare Collection Equipment        | Open   | 10,000,000 | -                        | 10,000,000                          | -               | 10,000,000                         |
| 194680    | 2019        | 2020               | Bus Refurbishments               | Open   | 4,870,000  | 2,293,486                | 2,576,514                           | -               | 2,576,514                          |
| 194690    | 2019        | 2020               | Bus Purchases                    | Open   | 26,890,000 | -                        | 26,890,000                          | -               | 26,890,000                         |
| 194704    | 2019        | 2019               | Senior Transit Pass Implmntatn   | Open   | 110,000    | 109,608                  | 392                                 | -               | 392                                |
| 194712    | 2019        | 2020               | Emerging Technologies Study      | Open   | 100,000    | -                        | 100,000                             | -               | 100,000                            |
| 194770    | 2019        | 2020               | Bus Shelters-Pads-Stops          | Open   | 439,000    | -                        | 439,000                             | 223,798         | 215,202                            |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                       | Status | Budget             | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders   | Budget Remaining After Commitments |
|-----------|-------------|--------------------|---|--------|--------------------|--------------------------|-------------------------------------|-------------------|------------------------------------|
| 204117    | 2020        | 2020               | Brand Development Strategy                | Open   | 500,000            | -                        | 500,000                             | -                 | 500,000                            |
| 204120    | 2020        | 2020               | Queen Rapid Transit Desgn-TPAP            | Open   | 2,000,000          | -                        | 2,000,000                           | -                 | 2,000,000                          |
| 204641    | 2020        | 2020               | Fleet Support Vehicles                    | Open   | 35,000             | -                        | 35,000                              | -                 | 35,000                             |
| 204680    | 2020        | 2020               | Bus Refurbishments                        | Open   | 7,939,000          | -                        | 7,939,000                           | -                 | 7,939,000                          |
| 204690    | 2020        | 2020               | Bus Purchases                             | Open   | 37,331,000         | -                        | 37,331,000                          | -                 | 37,331,000                         |
| 204704    | 2020        | 2020               | Senior Transit Pass Implementation        | Open   | 150,000            | -                        | 150,000                             | -                 | 150,000                            |
| 204770    | 2020        | 2020               | Bus Shelters-Pads-Stops                   | Open   | 416,000            | 18,704                   | 397,296                             | -                 | 397,296                            |
| 204799    | 2020        | 2020               | Minor Capital – Transit                   | Open   | 207,000            | -                        | 207,000                             | -                 | 207,000                            |
|           |             |                    | <b>TOTAL TRANSIT</b>                      |        | <b>423,996,561</b> | <b>297,942,552</b>       | <b>126,054,009</b>                  | <b>11,515,954</b> | <b>114,538,055</b>                 |
|           |             |                    | <b>PUBLIC WORKS &amp; ENGINEERING</b>     |        |                    |                          |                                     |                   |                                    |
| 012810    | 2001        | 2013               | Sandalwood Works Yard                     | Open   | 112,821,000        | 112,026,413.00           | 794,587                             | 82,394            | 712,193                            |
| 044580    | 2004        | 2010               | Torbram Rd. / CNR Grade Separation Design | Open   | 22,573,000         | 10,907,869               | 11,665,131                          | 7,000,560         | 4,664,571                          |
| 067970    | 2006        | 2011               | Sustainable Development Guidelines        | Open   | 180,000            | 161,336                  | 18,664                              | -                 | 18,664                             |
| 073610    | 2007        | 2007               | Project Design                            | Open   | 3,079,753          | 2,754,475                | 325,278                             | 325,194           | 84                                 |
| 083311    | 2008        | 2008               | Clarkway Dr: Cottrelle - N of Cottrelle   | Open   | 560,000            | 560,000                  | -                                   | -                 | -                                  |
| 083610    | 2008        | 2015               | Project Design                            | Open   | 10,752,710         | 8,635,983                | 2,116,727                           | 1,046,508         | 1,070,219                          |
| 083870    | 2008        | 2010               | James Potter Rd:Queen - 30 Metres South   | Open   | 10,245,713         | 10,173,404               | 72,309                              | -                 | 72,309                             |
| 085850    | 2008        | 2012               | Bram East Community Parkland Campus       | Open   | 98,308,242         | 92,006,484               | 6,301,758                           | 209,125           | 6,092,633                          |
| 093610    | 2009        | 2009               | Project Design                            | Open   | 4,126,881          | 3,846,385                | 280,496                             | 69,533            | 210,963                            |
| 093625    | 2009        | 2019               | Utility Relocation                        | Open   | 4,624,700          | 1,242,807                | 3,381,893                           | 818,379           | 2,563,514                          |



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AS AT JUNE 30, 2020**

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| 094500    | 2009        | 2009               | Environmental Assessments                         | Open   | 2,191,869  | 2,137,730                | 54,139                              | 49,515          | 4,624                              |
| 097720    | 2009        | 2009               | Downtown Revitalization                           | Open   | 3,947,000  | 3,844,413                | 102,587                             | 71,071          | 31,516                             |
| 103625    | 2010        | 2018               | Utility Relocation                                | Open   | 1,737,400  | 1,020,295                | 717,105                             | 695,099         | 22,006                             |
| 113413    | 2011        | 2011               | Creditview Rd: Spine Rd. - Fairhill Ave.          | Open   | 3,920,000  | 1,401,969                | 2,518,031                           | -               | 2,518,031                          |
| 113550    | 2011        | 2011               | Mayfield Road-Region: Bramalea Rd - Airport Rd    | Open   | 152,727    | 61,618                   | 91,109                              | -               | 91,109                             |
| 113610    | 2011        | 2011               | Project Design                                    | Open   | 6,117,600  | 5,416,402                | 701,198                             | 205,566         | 495,632                            |
| 113625    | 2011        | 2011               | Utility Relocation                                | Open   | 3,141,476  | 1,836,260                | 1,305,216                           | 1,192,467       | 112,749                            |
| 114940    | 2011        | 2011               | Storm Water Management - Restoration              | Open   | 3,279,133  | 3,146,068                | 133,065                             | -               | 133,065                            |
| 123030    | 2012        | 2012               | Safety Performance Functions & Network Screening  | Open   | 65,000     | 13,030                   | 51,970                              | 47,949          | 4,021                              |
| 123412    | 2012        | 2013               | Creditview Rd. Reconstruction: Creditview - CN    | Open   | 35,340,000 | 32,163,592               | 3,176,408                           | 2,631,043       | 545,365                            |
| 123870    | 2012        | 2012               | James Potter Road                                 | Open   | 3,902,000  | 2,567,781                | 1,334,219                           | -               | 1,334,219                          |
| 124270    | 2012        | 2012               | Bridge Condition Surveys                          | Open   | 16,630     | 40                       | 16,590                              | 11,494          | 5,096                              |
| 124500    | 2012        | 2013               | Environmental Assessments                         | Open   | 2,536,664  | 2,138,929                | 397,735                             | 379,411         | 18,324                             |
| 124940    | 2012        | 2012               | Storm Water Management - Restoration              | Open   | 3,293,371  | 3,029,209                | 264,162                             | 182,911         | 81,251                             |
| 124950    | 2012        | 2012               | Storm Water Management Study                      | Open   | 200,000    | 198,647                  | 1,353                               | 883             | 470                                |
| 125610    | 2012        | 2012               | Heritage Program                                  | Open   | 415,000    | 379,384                  | 35,616                              | 35,616          | -                                  |
| 131432    | 2013        | 2015               | Asset Management System - Hansen                  | Open   | 4,003,000  | 1,878,794                | 2,124,206                           | 1,216,165       | 908,041                            |
| 133500    | 2013        | 2013               | North-South Spine Rd: Creditview Rd to Sandalwood | Open   | 2,870,000  | 2,854,558                | 15,442                              | -               | 15,442                             |
| 133880    | 2013        | 2013               | Bramalea Road Widening: Countryside to Mayfield   | Open   | 10,293,948 | 9,672,085                | 621,863                             | 313,560         | 308,303                            |
| 134561    | 2013        | 2013               | Civic Design - Region of Peel                     | Open   | 375,000    | 367,794                  | 7,206                               | -               | 7,206                              |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

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| 134940    | 2013        | 2013               | Storm Water Management - Restoration            | Open   | 2,407,907  | 1,476,455                | 931,452                             | 277,697         | 653,755                            |
| 134950    | 2013        | 2013               | Storm Water Management Study                    | Open   | 200,000    | 188,176                  | 11,824                              | 8,087           | 3,737                              |
| 141500    | 2014        | 2014               | Corporage Indoor Asset Replacement              | Open   | 874,000    | 860,721                  | 13,279                              | -               | 13,279                             |
| 142741    | 2014        | 2014               | Overhead Vehicle Detection                      | Open   | 70,000     | 16,888                   | 53,112                              | 53,112          | -                                  |
| 143010    | 2014        | 2014               | Traffic Calming Measures                        | Open   | 150,000    | 133,764                  | 16,236                              | -               | 16,236                             |
| 143380    | 2014        | 2017               | Humberwest Parkway: Exchange Dr-Williams Pkwy   | Open   | 9,000,000  | 1,857,187                | 7,142,813                           | 6,786,840       | 355,973                            |
| 143450    | 2014        | 2014               | New Road A: Steeles Ave - Financial Dr          | Open   | 3,176,000  | 2,787,803                | 388,197                             | -               | 388,197                            |
| 143451    | 2014        | 2014               | New Road A: Financial Dr - Embleton Rd          | Open   | 2,673,000  | 775,276                  | 1,897,724                           | -               | 1,897,724                          |
| 143580    | 2014        | 2018               | Goreway Drive Widening                          | Open   | 33,920,388 | 14,386                   | 33,906,002                          | 50,003          | 33,855,999                         |
| 143610    | 2014        | 2014               | Project Design                                  | Open   | 3,048,900  | 2,229,045                | 819,855                             | 72,497          | 747,358                            |
| 143625    | 2014        | 2020               | Utility Relocation                              | Open   | 405,000    | 15,519                   | 389,481                             | 88,816          | 300,665                            |
| 143780    | 2014        | 2014               | Sandalwood Parkway: Creditview - Mississauga Rd | Open   | 2,971,000  | 2,470,891                | 500,109                             | -               | 500,109                            |
| 143811    | 2014        | 2015               | Financial Dr: Mississauga Dr - Heritage Rd      | Open   | 3,127,000  | 2,076,266                | 1,050,734                           | -               | 1,050,734                          |
| 143870    | 2014        | 2014               | James Potter Rd: Ashby Field Rd - Bovaird Dr    | Open   | 1,530,000  | 1,529,852                | 148                                 | -               | 148                                |
| 143940    | 2014        | 2014               | Countryside Dr: Airport Rd - Goreway Dr         | Open   | 23,687,500 | 23,391,721               | 295,779                             | 83,789          | 211,990                            |
| 144230    | 2014        | 2017               | Bridge Repairs                                  | Open   | 7,723,000  | 7,032,809                | 690,191                             | 663,723         | 26,468                             |
| 144300    | 2014        | 2017               | Noise Walls                                     | Open   | 484,500    | 470,668                  | 13,832                              | 6,413           | 7,419                              |
| 144411    | 2014        | 2014               | Sidewalks - Region of Peel                      | Open   | 1,056,300  | 1,022,637                | 33,663                              | 33,445          | 218                                |
| 144500    | 2014        | 2014               | Environmental Assessments                       | Open   | 1,456,400  | 857,440                  | 598,960                             | 453,058         | 145,902                            |
| 144530    | 2014        | 2014               | Streetlighting                                  | Open   | 1,110,600  | 1,078,950                | 31,650                              | 10,176          | 21,474                             |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

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| 144940    | 2014        | 2014               | Storm Water Management - Restoration          | Open   | 979,000    | 786,051                  | 192,949                             | 152,604         | 40,345                             |
| 151650    | 2015        | 2015               | Facilities Repair & Replacement               | Open   | 10,107,112 | 9,970,380                | 136,732                             | 123,994         | 12,738                             |
| 151799    | 2015        | 2015               | Minor Capital - Facility Services             | Open   | 35,000     | 5,960                    | 29,040                              | 29,040          | -                                  |
| 152950    | 2015        | 2015               | Replacement Equipment                         | Open   | 2,200,000  | 2,164,815                | 35,185                              | 34,598          | 587                                |
| 153099    | 2015        | 2015               | Minor Capital - Operations                    | Open   | 10,000     | 9,536                    | 464                                 | -               | 464                                |
| 153610    | 2015        | 2018               | Project Design                                | Open   | 2,271,400  | 1,732,507                | 538,893                             | 339,485         | 199,408                            |
| 153625    | 2015        | 2015               | Utility Relocation                            | Open   | 1,201,000  | 998,552                  | 202,448                             | 132,332         | 70,116                             |
| 153760    | 2015        | 2015               | Torbram Rd: Countryside Dr. - Mayfield Rd.    | Open   | 7,141,000  | 6,801,605                | 339,395                             | 169,189         | 170,206                            |
| 153811    | 2015        | 2015               | Financial Dr: Steeles Ave. - South City Limit | Open   | 13,331,000 | 12,973,589               | 357,411                             | 246,107         | 111,304                            |
| 154410    | 2015        | 2015               | Sidewalks                                     | Open   | 665,500    | 567,884                  | 97,616                              | 45,792          | 51,824                             |
| 154950    | 2015        | 2015               | Storm Water Management Study                  | Open   | 300,000    | 181,638                  | 118,362                             | 11,215          | 107,147                            |
| 161650    | 2016        | 2016               | Facilities Repair-Replacement                 | Open   | 19,318,000 | 18,365,762               | 952,238                             | 301,206         | 651,032                            |
| 161760    | 2016        | 2016               | Facility Inspections & Audits                 | Open   | 1,264,000  | 878,853                  | 385,147                             | 384,888         | 259                                |
| 162570    | 2016        | 2018               | Fire Campus Design                            | Open   | 59,100,000 | 6,956,948                | 52,143,052                          | 39,197,322      | 12,945,730                         |
| 162732    | 2016        | 2017               | Electronic Speed Advisry Signs                | Open   | 350,000    | 345,175                  | 4,825                               | 4,579           | 246                                |
| 162770    | 2016        | 2016               | Traffic Signal Modernization Program          | Open   | 600,000    | 579,611                  | 20,389                              | -               | 20,389                             |
| 162950    | 2016        | 2016               | Replacement Equipment                         | Open   | 2,424,000  | 2,023,198                | 400,802                             | 397,257         | 3,545                              |
| 163010    | 2016        | 2016               | Traffic Calming Measures                      | Open   | 250,000    | -                        | 250,000                             | -               | 250,000                            |
| 163099    | 2016        | 2016               | Minor Capital - Operations                    | Open   | 10,000     | 9,484                    | 516                                 | -               | 516                                |
| 163201    | 2016        | 2018               | Intersection Improvements - Region of Peel    | Open   | 410,500    | 384,306                  | 26,194                              | 4,980           | 21,214                             |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

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| 163500    | 2016        | 2016               | North - South Spine Road                          | Open   | 2,580,000  | 1,936,185                | 643,815                             | -               | 643,815                            |
| 163501    | 2016        | 2016               | East - West Spine Road                            | Open   | 2,335,000  | 2,307,892                | 27,108                              | -               | 27,108                             |
| 163610    | 2016        | 2016               | Project Design                                    | Open   | 589,200    | 489,126                  | 100,074                             | 66,650          | 33,424                             |
| 163625    | 2016        | 2019               | Utility Relocation                                | Open   | 4,257,614  | 7,759                    | 4,249,855                           | 1,057,275       | 3,192,580                          |
| 163640    | 2016        | 2016               | Countryvillage Collector                          | Open   | 2,520,000  | 2,485,118                | 34,882                              | -               | 34,882                             |
| 163870    | 2016        | 2016               | James Potter Road                                 | Open   | 1,337,000  | -                        | 1,337,000                           | -               | 1,337,000                          |
| 164230    | 2016        | 2016               | Bridge Repairs                                    | Open   | 3,263,000  | 3,106,192                | 156,808                             | 109,540         | 47,268                             |
| 164486    | 2016        | 2016               | Parking Garage System Upgrade                     | Open   | 350,000    | 2,664                    | 347,336                             | 123,094         | 224,242                            |
| 164530    | 2016        | 2016               | Streetlighting                                    | Open   | 991,600    | 902,554                  | 89,046                              | 6,754           | 82,292                             |
| 164531    | 2016        | 2017               | Streetlighting LED Retrofit - Arterials           | Open   | 3,300,000  | 3,292,467                | 7,533                               | 7,533           | -                                  |
| 164950    | 2016        | 2016               | Storm Water Management Study                      | Open   | 450,000    | 126,513                  | 323,487                             | 58,973          | 264,514                            |
| 167299    | 2016        | 2016               | Minor Capital - Development Engineering           | Open   | 15,000     | 14,411                   | 589                                 | -               | 589                                |
| 167720    | 2016        | 2017               | Downtown Revitalization                           | Open   | 3,750,000  | 2,971,449                | 778,551                             | 760,154         | 18,397                             |
| 171520    | 2017        | 2017               | Energy Programs                                   | Open   | 1,000,000  | 564,112                  | 435,888                             | 105,394         | 330,494                            |
| 171599    | 2017        | 2017               | Minor Capital - Facility Operations & Maintenance | Open   | 400,000    | 393,784                  | 6,216                               | 3,530           | 2,686                              |
| 171650    | 2017        | 2017               | Facilities Repair & Replacement                   | Open   | 24,833,000 | 22,601,355               | 2,231,645                           | 520,833         | 1,710,812                          |
| 171760    | 2017        | 2017               | Facility Inspections & Audits                     | Open   | 1,685,000  | 698,526                  | 986,474                             | 303,798         | 682,676                            |
| 171900    | 2017        | 2017               | Interior Design Services                          | Open   | 3,998,000  | 2,603,925                | 1,394,075                           | 124,396         | 1,269,679                          |
| 172710    | 2017        | 2017               | Traffic Signalization                             | Open   | 400,000    | 390,063                  | 9,937                               | 9,458           | 479                                |
| 172745    | 2017        | 2017               | Traffic System Detectors                          | Open   | 100,000    | 720                      | 99,280                              | 99,279          | 1                                  |



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AS AT JUNE 30, 2020**

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| 172770    | 2017        | 2017               | Traffic Signal Modernization            | Open   | 600,000    | 582,589                  | 17,411                              | 17,411          | -                                  |
| 172910    | 2017        | 2017               | New Equipment                           | Open   | 451,000    | 128,194                  | 322,806                             | -               | 322,806                            |
| 172950    | 2017        | 2017               | Replacement Equipment                   | Open   | 2,385,000  | 1,396,915                | 988,085                             | 827,860         | 160,225                            |
| 173099    | 2017        | 2017               | Minor Capital - Road Operations         | Open   | 10,000     | 9,591                    | 409                                 | -               | 409                                |
| 173201    | 2017        | 2017               | Intersection Improvements               | Open   | 300,000    | 122,728                  | 177,272                             | 136,510         | 40,762                             |
| 173610    | 2017        | 2019               | Project Design                          | Open   | 4,174,500  | 2,302,634                | 1,871,866                           | 983,334         | 888,532                            |
| 173625    | 2017        | 2018               | Utility Relocation                      | Open   | 1,700,000  | 550,156                  | 1,149,844                           | 581,517         | 568,327                            |
| 173820    | 2017        | 2017               | Road Resurfacing Program                | Open   | 11,751,000 | 11,579,928               | 171,072                             | 170,855         | 217                                |
| 173830    | 2017        | 2017               | Road Infrastructure Misc.               | Open   | 250,000    | 179,863                  | 70,137                              | 69,197          | 940                                |
| 173941    | 2017        | 2017               | Countryside Dr. Widening                | Open   | 19,335,000 | 16,425,206               | 2,909,794                           | 267,022         | 2,642,772                          |
| 174230    | 2017        | 2017               | Bridge Repairs                          | Open   | 547,000    | 401,382                  | 145,618                             | 144,747         | 871                                |
| 174280    | 2017        | 2017               | Bridge Management System Upgrades       | Open   | 150,000    | 138,618                  | 11,382                              | 11,382          | -                                  |
| 174530    | 2017        | 2017               | Streetlighting                          | Open   | 1,509,700  | 1,127,891                | 381,809                             | 84,486          | 297,323                            |
| 174910    | 2017        | 2017               | Clean Water & Wastewater Fund           | Open   | 10,742,384 | 9,144,249                | 1,598,135                           | 427,439         | 1,170,696                          |
| 174940    | 2017        | 2017               | Storm Water Mgmt-Restoration            | Open   | 2,000,000  | 1,472,538                | 527,462                             | 289,367         | 238,095                            |
| 174950    | 2017        | 2017               | Storm Water Management Study            | Open   | 200,000    | -                        | 200,000                             | -               | 200,000                            |
| 177299    | 2017        | 2017               | Minor Capital - Development Engineering | Open   | 17,000     | 2,644                    | 14,356                              | -               | 14,356                             |
| 181500    | 2018        | 2018               | Corporate Indoor Asset Replacement      | Open   | 150,000    | 70,922                   | 79,078                              | -               | 79,078                             |
| 181518    | 2018        | 2019               | New Facilities Development              | Open   | 6,300,000  | 3,177,727                | 3,122,273                           | 3,120,336       | 1,937                              |
| 181520    | 2018        | 2018               | Energy Programs                         | Open   | 500,000    | 319,891                  | 180,109                             | 102,769         | 77,340                             |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

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| 181599    | 2018        | 2018               | Misc Initiatives–Facilities Operations & Maintenance | Open   | 350,000    | 349,546                  | 454                                 | -               | 454                                |
| 181650    | 2018        | 2018               | Facilities Repair & Replacement                      | Open   | 12,656,189 | 9,141,475                | 3,514,714                           | 495,865         | 3,018,849                          |
| 181760    | 2018        | 2018               | Facility Inspections & Audits                        | Open   | 325,000    | 25,786                   | 299,214                             | 262,786         | 36,428                             |
| 181771    | 2018        | 2018               | East-end Community Centre                            | Open   | 12,600,000 | 6,881,639                | 5,718,361                           | 5,160           | 5,713,201                          |
| 181900    | 2018        | 2018               | Interior Design Services                             | Open   | 3,205,000  | 2,838,193                | 366,807                             | 60,481          | 306,326                            |
| 181940    | 2018        | 2018               | 8 Nelson Purchase / Remediation / Renovation         | Open   | 500,000    | 200,539                  | 299,461                             | 32,563          | 266,898                            |
| 182530    | 2018        | 2019               | Fire Station 214                                     | Open   | 10,115,000 | 3,199,785                | 6,915,215                           | 474,284         | 6,440,931                          |
| 182710    | 2018        | 2018               | Traffic Signalization                                | Open   | 400,000    | 390,094                  | 9,906                               | 9,582           | 324                                |
| 182770    | 2018        | 2018               | Traffic Signal Modernization Program                 | Open   | 600,000    | 112,417                  | 487,583                             | 333,018         | 154,565                            |
| 182910    | 2018        | 2018               | New Equipment  | Open   | 1,109,000  | 617,312                  | 491,688                             | 65,045          | 426,643                            |
| 182950    | 2018        | 2018               | Replacement Equipment                                | Open   | 2,260,000  | 620,556                  | 1,639,444                           | 421,262         | 1,218,182                          |
| 183040    | 2018        | 2018               | AVL - GPS Solution                                   | Open   | 450,000    | 78,902                   | 371,098                             | 221,448         | 149,650                            |
| 183200    | 2018        | 2018               | Intersection Improvements                            | Open   | 500,000    | 378,370                  | 121,630                             | 119,936         | 1,694                              |
| 183501    | 2018        | 2018               | East-West Spine Rd                                   | Open   | 4,689,000  | 4,178,869                | 510,131                             | -               | 510,131                            |
| 183610    | 2018        | 2020               | Project Design                                       | Open   | 2,102,000  | 623,789                  | 1,478,211                           | 44,493          | 1,433,718                          |
| 183625    | 2018        | 2018               | Utility Relocation                                   | Open   | 30,000     | 653                      | 29,347                              | 3,562           | 25,785                             |
| 183770    | 2018        | 2019               | Castlemore Road Widening                             | Open   | 10,600,000 | 2,164,968                | 8,435,032                           | 7,353,650       | 1,081,382                          |
| 183820    | 2018        | 2018               | Road Resurfacing Program                             | Open   | 12,594,000 | 12,507,789               | 86,211                              | 85,479          | 732                                |
| 183830    | 2018        | 2018               | Road Infrastructure Misc.                            | Open   | 220,160    | 218,572                  | 1,588                               | 1,497           | 91                                 |
| 183840    | 2018        | 2018               | Williams Parkway                                     | Open   | 11,100,000 | 9,529,598                | 1,570,402                           | 1,279,758       | 290,644                            |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                                  | Status | Budget      | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments |
|-----------|-------------|--------------------|--|--------|-------------|--------------------------|-------------------------------------|-----------------|------------------------------------|
| 183866    | 2018        | 2018               | Downtown Improvements                                | Open   | 3,000,000   | 967,408                  | 2,032,592                           | 610,902         | 1,421,690                          |
| 184230    | 2018        | 2018               | Bridge Repairs                                       | Open   | 5,145,000   | 4,927,558                | 217,442                             | 211,791         | 5,651                              |
| 184410    | 2018        | 2018               | Sidewalks  | Open   | 392,000     | 337,119                  | 54,881                              | -               | 54,881                             |
| 184500    | 2018        | 2018               | Environmental Assessments                            | Open   | 1,650,000   | 679,743                  | 970,257                             | 381,604         | 588,653                            |
| 184530    | 2018        | 2018               | Streetlighting                                       | Open   | 1,470,000   | 434,675                  | 1,035,325                           | 288,198         | 747,127                            |
| 184531    | 2018        | 2018               | Streetlighting LED Retrofit                          | Open   | 1,500,000   | 1,500,000                | -                                   | -               | -                                  |
| 184945    | 2018        | 2018               | Storm Water Pond Retrofits                           | Open   | 200,000     | 128,322                  | 71,678                              | -               | 71,678                             |
| 185160    | 2018        | 2019               | Centre for Education, Innovation & Collaboration     | Open   | 160,000,000 | 163,670                  | 159,836,330                         | 392,372         | 159,443,958                        |
| 185600    | 2018        | 2019               | Howden Recreation Centre                             | Open   | 5,000,000   | 49,067                   | 4,950,933                           | 234,898         | 4,716,035                          |
| 185670    | 2018        | 2019               | Chris Gibson Recreation Centre                       | Open   | 20,000,000  | 7,117                    | 19,992,883                          | 2,532,024       | 17,460,859                         |
| 185680    | 2018        | 2019               | Balmoral Recreation Centre                           | Open   | 10,000,000  | 196,273                  | 9,803,727                           | 1,297,010       | 8,506,717                          |
| 186100    | 2018        | 2018               | Natural Heritage Restoration                         | Open   | 14,500      | 2,904                    | 11,596                              | -               | 11,596                             |
| 187485    | 2018        | 2018               | Environmental Master Plan Implementation             | Open   | 100,000     | 57,817                   | 42,183                              | -               | 42,183                             |
| 187735    | 2018        | 2018               | Riverwalk  | Open   | 1,400,000   | 297,097                  | 1,102,903                           | 131,934         | 970,969                            |
| 191518    | 2019        | 2019               | New Facilities Development                           | Open   | 900,000     | 880,826                  | 19,174                              | 14,803          | 4,371                              |
| 191520    | 2019        | 2019               | Energy Programs                                      | Open   | 350,000     | -                        | 350,000                             | -               | 350,000                            |
| 191584    | 2019        | 2019               | Demolition of 14 & 21 Nelson St.                     | Open   | 2,000,000   | 474,710                  | 1,525,290                           | -               | 1,525,290                          |
| 191599    | 2019        | 2019               | Misc Initiatives–Facilities Operations & Maintenance | Open   | 350,000     | 74,075                   | 275,925                             | 147,552         | 128,373                            |
| 191650    | 2019        | 2020               | Facilities Repair & Replacement                      | Open   | 17,592,000  | 9,443,675                | 8,148,325                           | 2,480,264       | 5,668,061                          |
| 191760    | 2019        | 2019               | Facility Inspections & Audits                        | Open   | 1,080,000   | 335,102                  | 744,898                             | 324,525         | 420,373                            |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                  | Status | Budget    | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments |
|-----------|-------------|--------------------|--------------------------------------|--------|-----------|--------------------------|-------------------------------------|-----------------|------------------------------------|
| 191899    | 2019        | 2019               | Minor Capital - Corporate Security   | Open   | 245,000   | 66,994                   | 178,006                             | -               | 178,006                            |
| 191900    | 2019        | 2019               | Interior Design Services             | Open   | 3,180,000 | 1,230,966                | 1,949,034                           | 54,022          | 1,895,012                          |
| 192555    | 2019        | 2020               | Redevelopment of Fire Station 201    | Open   | 1,650,000 | -                        | 1,650,000                           | -               | 1,650,000                          |
| 192710    | 2019        | 2019               | Traffic Signalization                | Open   | 600,000   | 553,248                  | 46,752                              | 20,919          | 25,833                             |
| 192746    | 2019        | 2019               | Connected Vehicle Infrastructure     | Open   | 100,000   | -                        | 100,000                             | -               | 100,000                            |
| 192761    | 2019        | 2019               | Controlled Pedestrian Crosswalks     | Open   | 50,000    | -                        | 50,000                              | -               | 50,000                             |
| 192770    | 2019        | 2019               | Traffic Signal Modernization Program | Open   | 700,000   | 564,233                  | 135,767                             | -               | 135,767                            |
| 192799    | 2019        | 2019               | Minor Capital - Traffic              | Open   | 10,000    | 6,194                    | 3,806                               | -               | 3,806                              |
| 192830    | 2019        | 2019               | Bramalea Transit Terminal Repairs    | Open   | 638,000   | 175,063                  | 462,937                             | 27,945          | 434,992                            |
| 192831    | 2019        | 2019               | Parking Lots                         | Open   | 359,000   | -                        | 359,000                             | -               | 359,000                            |
| 192840    | 2019        | 2020               | Williams Pkwy Works Yard Phase 3     | Open   | 7,600,000 | -                        | 7,600,000                           | -               | 7,600,000                          |
| 192910    | 2019        | 2019               | New Equipment                        | Open   | 1,393,000 | 264,138                  | 1,128,862                           | 331,980         | 796,882                            |
| 192950    | 2019        | 2019               | Replacement Equipment                | Open   | 3,000,000 | 331,835                  | 2,668,165                           | 109,172         | 2,558,993                          |
| 192971    | 2019        | 2019               | Green Fleet Strategy                 | Open   | 150,000   | -                        | 150,000                             | -               | 150,000                            |
| 192999    | 2019        | 2019               | Minor Capital - Engineering          | Open   | 106,700   | 76,702                   | 29,998                              | -               | 29,998                             |
| 193040    | 2019        | 2019               | AVL / GPS Solution                   | Open   | 155,000   | -                        | 155,000                             | -               | 155,000                            |
| 193050    | 2019        | 2019               | Vehicle Barriers                     | Open   | 125,000   | -                        | 125,000                             | -               | 125,000                            |
| 193099    | 2019        | 2019               | Minor Capital - Operations           | Open   | 10,000    | 6,703                    | 3,297                               | -               | 3,297                              |
| 193130    | 2019        | 2019               | Active Transportation Infrastructure | Open   | 2,000,000 | 47,960                   | 1,952,040                           | 361,386         | 1,590,654                          |
| 193610    | 2019        | 2020               | Project Design                       | Open   | 4,622,200 | 207,436                  | 4,414,764                           | -               | 4,414,764                          |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                           | Status | Budget     | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments |
|-----------|-------------|--------------------|---|--------|------------|--------------------------|-------------------------------------|-----------------|------------------------------------|
| 193620    | 2019        | 2019               | Pre-Engineering                               | Open   | 750,000    | 669,569                  | 80,431                              | -               | 80,431                             |
| 193625    | 2019        | 2019               | Utility Relocation                            | Open   | 2,000,000  | -                        | 2,000,000                           | -               | 2,000,000                          |
| 193640    | 2019        | 2019               | Countryside Village Collector                 | Open   | 900,000    | -                        | 900,000                             | -               | 900,000                            |
| 193690    | 2019        | 2019               | Rivermont Road                                | Open   | 400,000    | -                        | 400,000                             | -               | 400,000                            |
| 193820    | 2019        | 2019               | Road Resurfacing                              | Open   | 15,000,000 | 13,058,936               | 1,941,064                           | 903,119         | 1,037,945                          |
| 193830    | 2019        | 2019               | Road Infrastructure Misc.                     | Open   | 550,000    | 189,946                  | 360,054                             | 290,704         | 69,350                             |
| 193920    | 2019        | 2019               | McLaughlin Road Widening                      | Open   | 9,300,000  | 3,766,537                | 5,533,463                           | 4,454,420       | 1,079,043                          |
| 193980    | 2019        | 2019               | Cottrelle Blvd: Humberwest Pkwy - Goreway Dr. | Open   | 31,500,000 | 335,664                  | 31,164,336                          | -               | 31,164,336                         |
| 194020    | 2019        | 2019               | Land Acquisitions                             | Open   | 16,264,236 | 1,961,632                | 14,302,604                          | 111,936         | 14,190,668                         |
| 194230    | 2019        | 2019               | Bridge Repairs                                | Open   | 2,910,000  | 525,488                  | 2,384,512                           | 1,214,889       | 1,169,623                          |
| 194410    | 2019        | 2019               | Sidewalks                                     | Open   | 1,250,000  | 630,652                  | 619,348                             | -               | 619,348                            |
| 194500    | 2019        | 2019               | Environmental Assessments                     | Open   | 1,350,000  | 18,033                   | 1,331,967                           | -               | 1,331,967                          |
| 194530    | 2019        | 2019               | Streetlighting                                | Open   | 810,000    | 192,104                  | 617,896                             | 247,369         | 370,527                            |
| 194531    | 2019        | 2019               | Streetlighting LED Retrofit                   | Open   | 3,000,000  | 2,966,255                | 33,745                              | 5,065           | 28,680                             |
| 194880    | 2019        | 2019               | Transit Maintenance & Storage Facility        | Open   | 15,000,000 | 787,379                  | 14,212,621                          | 2,334,765       | 11,877,856                         |
| 194941    | 2019        | 2019               | Stormwater Asset Management                   | Open   | 600,000    | 564,541                  | 35,459                              | 759             | 34,700                             |
| 194945    | 2019        | 2019               | Storm Water Pond Retrofits                    | Open   | 1,060,000  | 5,242                    | 1,054,758                           | 158,436         | 896,322                            |
| 194950    | 2019        | 2019               | Storm Water Management Study                  | Open   | 200,000    | -                        | 200,000                             | -               | 200,000                            |
| 195622    | 2019        | 2019               | Chinguacousy Wellness Interior Renovation     | Open   | 1,500,000  | 108,206                  | 1,391,794                           | 40,124          | 1,351,670                          |
| 195640    | 2019        | 2019               | Boxing Club Interior Renovation               | Open   | 400,000    | 298,121                  | 101,879                             | -               | 101,879                            |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                                  | Status | Budget     | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments |
|-----------|-------------|--------------------|--|--------|------------|--------------------------|-------------------------------------|-----------------|------------------------------------|
| 195740    | 2019        | 2019               | Victoria Park New Facility                           | Open   | 17,500,000 | 34,114                   | 17,465,886                          | -               | 17,465,886                         |
| 196110    | 2019        | 2019               | Fletchers Creek SNAP Program                         | Open   | 700,000    | -                        | 700,000                             | 305,281         | 394,719                            |
| 197485    | 2019        | 2019               | Environmental Master Plan Implementation             | Open   | 290,000    | 184,857                  | 105,143                             | 8,488           | 96,655                             |
| 197735    | 2019        | 2019               | Riverwalk  | Open   | 700,000    | 241,636                  | 458,364                             | -               | 458,364                            |
| 201518    | 2020        | 2020               | New Facilities Development                           | Open   | 1,260,000  | 185,725                  | 1,074,275                           | -               | 1,074,275                          |
| 201520    | 2020        | 2020               | Energy Programs                                      | Open   | 600,000    | 4,984                    | 595,016                             | 50,055          | 544,961                            |
| 201585    | 2020        | 2020               | Demolition of Heritage Theatre & Block               | Open   | 600,000    | 29,228                   | 570,772                             | 224,687         | 346,085                            |
| 201586    | 2020        | 2020               | Temporary Landscaping of Heritage Block              | Open   | 450,000    | -                        | 450,000                             | -               | 450,000                            |
| 201599    | 2020        | 2020               | Misc Initiatives–Facilities Operations & Maintenance | Open   | 375,000    | -                        | 375,000                             | -               | 375,000                            |
| 201650    | 2020        | 2020               | Facilities Repair & Replacement                      | Open   | 8,178,000  | 383,280                  | 7,794,720                           | 91,429          | 7,703,291                          |
| 201760    | 2020        | 2020               | Facility Inspections & Audits                        | Open   | 1,705,000  | 69,457                   | 1,635,543                           | -               | 1,635,543                          |
| 201850    | 2020        | 2020               | Corporate Security Systems                           | Open   | 800,000    | 855                      | 799,145                             | -               | 799,145                            |
| 201899    | 2020        | 2020               | Minor Capital - Corporate Security                   | Open   | 325,000    | 62,014                   | 262,986                             | -               | 262,986                            |
| 201900    | 2020        | 2020               | Interior Design Services                             | Open   | 3,739,000  | 150,364                  | 3,588,636                           | 34,226          | 3,554,410                          |
| 202710    | 2020        | 2020               | Traffic Signalization                                | Open   | 600,000    | -                        | 600,000                             | -               | 600,000                            |
| 202745    | 2020        | 2020               | Traffic System Detectors                             | Open   | 100,000    | -                        | 100,000                             | 84,981          | 15,019                             |
| 202761    | 2020        | 2020               | Controlled Pedestrian Crosswalks                     | Open   | 50,000     | -                        | 50,000                              | -               | 50,000                             |
| 202770    | 2020        | 2020               | Traffic Signal Modernization Program                 | Open   | 1,000,000  | -                        | 1,000,000                           | -               | 1,000,000                          |
| 202790    | 2020        | 2020               | Traffic Signal Communication                         | Open   | 50,000     | 1,592                    | 48,408                              | -               | 48,408                             |
| 202799    | 2020        | 2020               | Minor Capital - Traffic                              | Open   | 60,000     | 21,980                   | 38,020                              | -               | 38,020                             |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                 | Status | Budget     | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments |
|-----------|-------------|--------------------|-------------------------------------|--------|------------|--------------------------|-------------------------------------|-----------------|------------------------------------|
| 202831    | 2020        | 2020               | Parking Lots                        | Open   | 600,000    | 2,936                    | 597,064                             | -               | 597,064                            |
| 202832    | 2020        | 2020               | Gateway Transit Terminal Repairs    | Open   | 500,000    | 15,200                   | 484,800                             | 157,121         | 327,679                            |
| 202910    | 2020        | 2020               | New Equipment - Vehicles            | Open   | 790,000    | 1,253                    | 788,747                             | 379,415         | 409,332                            |
| 202930    | 2020        | 2020               | Special Tools                       | Open   | 45,000     | 10,346                   | 34,654                              | -               | 34,654                             |
| 202950    | 2020        | 2020               | Replacement Equipment - Vehicles    | Open   | 1,000,000  | -                        | 1,000,000                           | -               | 1,000,000                          |
| 202985    | 2020        | 2020               | Road Weather Information System     | Open   | 100,000    | -                        | 100,000                             | -               | 100,000                            |
| 202999    | 2020        | 2020               | Minor Capital - Engineering         | Open   | 100,000    | -                        | 100,000                             | 38,931          | 61,069                             |
| 203010    | 2020        | 2020               | Traffic Calming Measures            | Open   | 150,000    | -                        | 150,000                             | -               | 150,000                            |
| 203120    | 2020        | 2020               | Asset Management – Roads            | Open   | 100,000    | -                        | 100,000                             | -               | 100,000                            |
| 203140    | 2020        | 2020               | Railway Crossing Reconstruction     | Open   | 50,000     | -                        | 50,000                              | -               | 50,000                             |
| 203200    | 2020        | 2020               | Intersection Improvements           | Open   | 300,000    | -                        | 300,000                             | -               | 300,000                            |
| 203610    | 2020        | 2020               | Project Design                      | Open   | 750,000    | 26,103                   | 723,897                             | 235,083         | 488,814                            |
| 203620    | 2020        | 2020               | Pre-Engineering                     | Open   | 750,000    | -                        | 750,000                             | -               | 750,000                            |
| 203625    | 2020        | 2020               | Utility Relocation                  | Open   | 1,550,000  | -                        | 1,550,000                           | -               | 1,550,000                          |
| 203710    | 2020        | 2020               | Remembrance Road                    | Open   | 2,000,000  | -                        | 2,000,000                           | -               | 2,000,000                          |
| 203750    | 2020        | 2020               | Chinguacousy Road Widening          | Open   | 9,300,000  | -                        | 9,300,000                           | -               | 9,300,000                          |
| 203820    | 2020        | 2020               | Road Resurfacing Program            | Open   | 15,000,000 | 27,190                   | 14,972,810                          | 13,082,462      | 1,890,348                          |
| 203835    | 2020        | 2020               | Concrete Road Construction          | Open   | 1,500,000  | -                        | 1,500,000                           | -               | 1,500,000                          |
| 204160    | 2020        | 2020               | Road Network Survey                 | Open   | 400,000    | 13,861                   | 386,139                             | 211,402         | 174,737                            |
| 204200    | 2020        | 2020               | Horizontal-Vertical Control Network | Open   | 200,000    | -                        | 200,000                             | -               | 200,000                            |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                               | Status | Budget    | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments |
|-----------|-------------|--------------------|---|--------|-----------|--------------------------|-------------------------------------|-----------------|------------------------------------|
| 204230    | 2020        | 2020               | Bridge Repairs                                    | Open   | 3,700,000 | 810                      | 3,699,190                           | -               | 3,699,190                          |
| 204300    | 2020        | 2020               | Noise Walls                                       | Open   | 750,000   | 11,702                   | 738,298                             | -               | 738,298                            |
| 204410    | 2020        | 2020               | Sidewalks   | Open   | 600,000   | -                        | 600,000                             | -               | 600,000                            |
| 204486    | 2020        | 2020               | Parking Garage System                             | Open   | 455,000   | -                        | 455,000                             | -               | 455,000                            |
| 204500    | 2020        | 2020               | Environmental Assessments                         | Open   | 750,000   | -                        | 750,000                             | -               | 750,000                            |
| 204530    | 2020        | 2020               | Streetlighting                                    | Open   | 1,070,000 | -                        | 1,070,000                           | -               | 1,070,000                          |
| 204531    | 2020        | 2020               | Streetlighting LED Retrofit                       | Open   | 3,500,000 | 2,191,377                | 1,308,623                           | 845,188         | 463,435                            |
| 204920    | 2020        | 2020               | Stormwater & Environmental Monitoring             | Open   | 450,000   | -                        | 450,000                             | 189,757         | 260,243                            |
| 204940    | 2020        | 2020               | Storm Water Management - Restoration              | Open   | 4,300,000 | -                        | 4,300,000                           | -               | 4,300,000                          |
| 204941    | 2020        | 2020               | Stormwater Asset Management                       | Open   | 750,000   | -                        | 750,000                             | -               | 750,000                            |
| 204945    | 2020        | 2020               | Storm Water Pond Retrofits                        | Open   | 200,000   | -                        | 200,000                             | -               | 200,000                            |
| 204950    | 2020        | 2020               | Storm Water Management Study                      | Open   | 400,000   | -                        | 400,000                             | -               | 400,000                            |
| 205120    | 2020        | 2020               | FCCC 1 & 2 Court Yard Infill                      | Open   | 300,000   | 122                      | 299,878                             | -               | 299,878                            |
| 205380    | 2020        | 2020               | Site Servicing Design                             | Open   | 3,000,000 | -                        | 3,000,000                           | -               | 3,000,000                          |
| 205500    | 2020        | 2020               | Sports Hall of Fame                               | Open   | 420,000   | -                        | 420,000                             | -               | 420,000                            |
| 205520    | 2020        | 2020               | Centennial Community Centre Addition & Renovation | Open   | 200,000   | 610                      | 199,390                             | -               | 199,390                            |
| 205631    | 2020        | 2020               | Memorial Arena - Junior A-B Expansion             | Open   | 180,000   | -                        | 180,000                             | -               | 180,000                            |
| 205651    | 2020        | 2020               | Century Gardens - Youth Centre                    | Open   | 2,000,000 | -                        | 2,000,000                           | -               | 2,000,000                          |
| 205691    | 2020        | 2020               | South Fletchers - Youth Centre                    | Open   | 60,000    | -                        | 60,000                              | -               | 60,000                             |
| 205951    | 2020        | 2020               | Chinguacousy Park-Bramalea Tennis Club Expansion  | Open   | 240,000   | 407                      | 239,593                             | -               | 239,593                            |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                                  | Status | Budget               | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders    | Budget Remaining After Commitments |
|-----------|-------------|--------------------|--|--------|----------------------|--------------------------|-------------------------------------|--------------------|------------------------------------|
| 207485    | 2020        | 2020               | Environmental Master Plan Implementation             | Open   | 200,000              | -                        | 200,000                             | -                  | 200,000                            |
|           |             |                    | <b>TOTAL PUBLIC WORKS &amp; ENGINEERING</b>          |        | <b>1,245,114,807</b> | <b>634,792,333</b>       | <b>610,322,474</b>                  | <b>124,260,842</b> | <b>486,061,632</b>                 |
|           |             |                    | <b>PLANNING, BUILDING &amp; ECONOMIC DEVELOPMENT</b> |        |                      |                          |                                     |                    |                                    |
| 097813    | 2009        | 2016               | Large Format Mixed Use/Comm. Dev. Guidelines         | Open   | 100,000              | 39,518                   | 60,482                              | 10,482             | 50,000                             |
| 107300    | 2010        | 2010               | Secondary Plan Reviews                               | Open   | 100,000              | 76,123                   | 23,877                              | -                  | 23,877                             |
| 117175    | 2011        | 2011               | Provincial Growth Plan Conformity                    | Open   | 21,540               | 7,547                    | 13,993                              | 13,988             | 5                                  |
| 117852    | 2011        | 2015               | Queen St West DPS Implementation                     | Open   | 85,000               | 47,619                   | 37,381                              | -                  | 37,381                             |
| 117860    | 2011        | 2011               | Heritage Heights Community Study                     | Open   | 1,789,215            | 1,408,864                | 380,351                             | 254,475            | 125,876                            |
| 137030    | 2013        | 2013               | Downtown Flood Risk Mitigation                       | Open   | 267,000              | 225,743                  | 41,257                              | -                  | 41,257                             |
| 137420    | 2013        | 2014               | Official Plan Review Studies                         | Open   | 701,000              | 624,396                  | 76,604                              | 76,604             | -                                  |
| 137740    | 2013        | 2014               | Building Permit On-Line                              | Open   | 1,105,000            | 396,949                  | 708,051                             | -                  | 708,051                            |
| 137814    | 2013        | 2013               | Central Area Study                                   | Open   | 20,000               | 17,598                   | 2,402                               | -                  | 2,402                              |
| 137821    | 2013        | 2013               | City Wide Urban Design                               | Open   | 30,000               | 26,192                   | 3,808                               | 3,422              | 386                                |
| 137866    | 2013        | 2013               | Heritage Studies                                     | Open   | 30,000               | 27,044                   | 2,956                               | 1,897              | 1,059                              |
| 151132    | 2015        | 2015               | Hospital Area Economic Development Plan              | Open   | 200,000              | 123,055                  | 76,945                              | -                  | 76,945                             |
| 157201    | 2015        | 2015               | Official Plan Review Studies - Zoning By-Law Review  | Open   | 250,000              | 207,342                  | 42,658                              | 42,657             | 1                                  |
| 157341    | 2015        | 2015               | Heart Lake Road Improvement Study                    | Open   | 150,000              | 125,570                  | 24,430                              | -                  | 24,430                             |
| 157420    | 2015        | 2017               | Official Plan Review Studies - Official Plan Review  | Open   | 1,000,000            | 792,121                  | 207,879                             | 170,728            | 37,151                             |
| 161202    | 2016        | 2016               | Audio Video Upgrades to Board & Meeting Rooms        | Open   | 95,000               | 94,013                   | 987                                 | -                  | 987                                |
| 161204    | 2016        | 2016               | Community Improvement Plan Fin. Planning Tool        | Open   | 75,000               | 62,290                   | 12,710                              | 12,710             | -                                  |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                                | Status | Budget    | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments |
|-----------|-------------|--------------------|--|--------|-----------|--------------------------|-------------------------------------|-----------------|------------------------------------|
| 167250    | 2016        | 2016               | Age Friendly City Master Plan                      | Open   | 75,000    | 64,876                   | 10,124                              | 108             | 10,016                             |
| 167360    | 2016        | 2016               | Transportation Master Plan - TMP                   | Open   | 250,000   | 191,879                  | 58,121                              | 35,747          | 22,374                             |
| 167823    | 2016        | 2017               | Downtown Mobility Hub Master Plan                  | Open   | 200,000   | 142,308                  | 57,692                              | -               | 57,692                             |
| 167827    | 2016        | 2016               | Community Improvement Plan Program                 | Open   | 300,000   | 179,985                  | 120,015                             | -               | 120,015                            |
| 167833    | 2016        | 2017               | Development Design Guidelines Update-Consolidation | Open   | 190,000   | 183,237                  | 6,763                               | -               | 6,763                              |
| 167834    | 2016        | 2016               | Development Design Guidelines-High Rise Guidelines | Open   | 100,000   | 69,986                   | 30,014                              | 27,348          | 2,666                              |
| 167867    | 2016        | 2016               | Cultural Heritage Plan                             | Open   | 250,000   | 53,933                   | 196,067                             | -               | 196,067                            |
| 177050    | 2017        | 2017               | Comprehensive Fees Review                          | Open   | 200,000   | -                        | 200,000                             | -               | 200,000                            |
| 177499    | 2017        | 2017               | Minor Capital - Building                           | Open   | 12,000    | 3,676                    | 8,324                               | -               | 8,324                              |
| 177824    | 2017        | 2017               | Gateway Precinct - Mobility Hub Master Plan        | Open   | 150,000   | -                        | 150,000                             | -               | 150,000                            |
| 177827    | 2017        | 2017               | Community Development Plan Program                 | Open   | 300,000   | -                        | 300,000                             | -               | 300,000                            |
| 181256    | 2018        | 2018               | Branding-Marketing-FDI Strategy                    | Open   | 1,875,000 | 477,654                  | 1,397,346                           | -               | 1,397,346                          |
| 187001    | 2018        | 2018               | Planning Vision Implementation                     | Open   | 300,000   | 156,836                  | 143,164                             | 85,040          | 58,124                             |
| 187002    | 2018        | 2018               | Strategic Planning Studies                         | Open   | 2,000,000 | 644,478                  | 1,355,522                           | 53,465          | 1,302,057                          |
| 187202    | 2018        | 2018               | Queen Corridor-Policy-Zoning                       | Open   | 120,000   | -                        | 120,000                             | -               | 120,000                            |
| 187356    | 2018        | 2018               | Active Transportation Plan - Cycling               | Open   | 1,875,000 | 128,439                  | 1,746,561                           | 220,059         | 1,526,502                          |
| 187360    | 2018        | 2018               | Transportation Master Plan-TMP                     | Open   | 500,000   | 155,823                  | 344,177                             | 7,501           | 336,676                            |
| 187375    | 2018        | 2018               | Commuter Cycling Program                           | Open   | 1,780,604 | -                        | 1,780,604                           | -               | 1,780,604                          |
| 187499    | 2018        | 2018               | Minor Capital Building                             | Open   | 12,000    | -                        | 12,000                              | -               | 12,000                             |
| 187828    | 2018        | 2018               | Urban Centres Implementation                       | Open   | 200,000   | 79,225                   | 120,775                             | -               | 120,775                            |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description                                      | Status | Budget    | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders | Budget Remaining After Commitments |
|-----------|-------------|--------------------|--|--------|-----------|--------------------------|-------------------------------------|-----------------|------------------------------------|
| 187951    | 2018        | 2018               | Bramalea Mobility Hub MP                                 | Open   | 150,000   | -                        | 150,000                             | -               | 150,000                            |
| 187992    | 2018        | 2018               | Bram East Emplmnt Land Review                            | Open   | 75,000    | 8,779                    | 66,221                              | 28,363          | 37,858                             |
| 191206    | 2019        | 2019               | Cybersecure Catalyst                                     | Open   | 2,300,000 | 973,857                  | 1,326,143                           | 163,120         | 1,163,023                          |
| 197001    | 2019        | 2019               | Planning Vision Implementation                           | Open   | 500,000   | 48,163                   | 451,837                             | 2,575           | 449,262                            |
| 197003    | 2019        | 2020               | Policy Planning Studies                                  | Open   | 666,000   | 10,380                   | 655,620                             | 10,664          | 644,956                            |
| 197051    | 2019        | 2019               | Costing Model Review for Administration of the Bldg Code | Open   | 75,000    | -                        | 75,000                              | 75,000          | -                                  |
| 197360    | 2019        | 2019               | Transportation Master Plan - TMP                         | Open   | 200,000   | -                        | 200,000                             | -               | 200,000                            |
| 197400    | 2019        | 2019               | Official Plan Review                                     | Open   | 500,000   | 65,317                   | 434,683                             | 402,031         | 32,652                             |
| 197827    | 2019        | 2019               | Community Improvement Plan Program                       | Open   | 300,000   | -                        | 300,000                             | -               | 300,000                            |
| 201207    | 2020        | 2020               | Framery Q Maggie   | Open   | 30,000    | -                        | 30,000                              | -               | 30,000                             |
| 201256    | 2020        | 2020               | FDI Stratgy  | Open   | 300,000   | -                        | 300,000                             | -               | 300,000                            |
| 207001    | 2020        | 2020               | Planning Vision Implementation                           | Open   | 300,000   | -                        | 300,000                             | -               | 300,000                            |
| 207003    | 2020        | 2020               | Policy Planning Studies                                  | Open   | 100,000   | -                        | 100,000                             | -               | 100,000                            |
| 207357    | 2020        | 2020               | Transportation Modelling & Data Analytics                | Open   | 25,000    | -                        | 25,000                              | -               | 25,000                             |
| 207360    | 2020        | 2020               | Transportation Master Plan - TMP                         | Open   | 150,000   | -                        | 150,000                             | -               | 150,000                            |
| 207400    | 2020        | 2020               | Official Plan Review                                     | Open   | 300,000   | -                        | 300,000                             | -               | 300,000                            |
| 207829    | 2020        | 2020               | Algoma University Expansion                              | Open   | 2,500,000 | 1,215,000                | 1,285,000                           | -               | 1,285,000                          |
| 207840    | 2020        | 2020               | Urban Design Standards Manual                            | Open   | 250,000   | -                        | 250,000                             | -               | 250,000                            |
| 207841    | 2020        | 2020               | Urban Design Integrated Community Master Plan            | Open   | 150,000   | -                        | 150,000                             | -               | 150,000                            |
| 207858    | 2020        | 2020               | Queen St. Development Permit Implementation              | Open   | 500,000   | -                        | 500,000                             | -               | 500,000                            |



**CAPITAL PROJECT STATUS REPORT - OPEN PROJECTS  
AS AT JUNE 30, 2020**

| Project # | Budget Year | Budget Amend. Year | Project Description  | Status | Budget               | Project To Date Spending | Budget Remaining Before Commitments | Purchase Orders    | Budget Remaining After Commitments |
|-----------|-------------|--------------------|--|--------|----------------------|--------------------------|-------------------------------------|--------------------|------------------------------------|
| 207860    | 2020        | 2020               | Heritage Heights Studies                                   | Open   | 500,000              | -                        | 500,000                             | -                  | 500,000                            |
| 207921    | 2020        | 2020               | Comprehensive Municipal Parking Strategy                   | Open   | 300,000              | -                        | 300,000                             | -                  | 300,000                            |
|           |             |                    | <b>TOTAL PLANNING, BUILDING &amp; ECONOMIC DEVELOPMENT</b> |        | <b>26,879,359</b>    | <b>9,155,815</b>         | <b>17,723,544</b>                   | <b>1,697,984</b>   | <b>16,025,560</b>                  |
|           |             |                    | <b>LIBRARY</b>   |        |                      |                          |                                     |                    |                                    |
| 136961    | 2013        | 2013               | Springdale Library & Neighbourhood Park                    | Open   | 20,250,000           | 19,628,194               | 621,806                             | 406,754            | 215,052                            |
|           |             |                    | <b>TOTAL LIBRARY</b>                                       |        | <b>20,250,000</b>    | <b>19,628,194</b>        | <b>621,806</b>                      | <b>406,754</b>     | <b>215,052</b>                     |
|           |             |                    |  |        | <b>2,067,687,234</b> | <b>1,174,336,824</b>     | <b>893,350,410</b>                  | <b>163,021,633</b> | <b>730,328,777</b>                 |



**Date:** 2020-08-19

**Subject:** **2020 Second Quarter Operating Budget and Reserve Report**

**Secondary Title:** Click or tap here to enter text.

**Contact:** Mark Medeiros, Treasurer (Acting)  
mark.medeiros@brampton.ca 905-874-2520

**Report Number:** Corporate Support Services-2020-134

**Recommendations:**

1. That the report titled “**2020 Second Quarter Operating Budget and Reserve Report**” to the Committee of Council Meeting of September 23<sup>rd</sup> be received;
2. That as per resolution BC018-2020.4, the following property tax funded reserves be closed due to redundancy and any remaining balances and/or liabilities be transferred to Reserve 4 (Asset Repair and Replacement):
  - a. Civic Centre Restoration (Reserve 10)
  - b. Official Plan Review (Reserve 37)
  - c. Theatre Capital Improvements (Reserve 58)
  - d. Operating Development Charge Contribution (Reserve 78)
3. That future initiatives related to the reserves in Recommendation #2, be funded from Reserve 4 (Asset Repair and Replacement);
4. That By-law 90-94, as amended, created to establish a Brampton Theatre Capital Improvements Reserve Fund, be repealed

**Overview:****2020 Operating Budget**

- **Based on operating results as at June 30, the Corporation is forecasting a year-end operating deficit of \$57.7 million. This variance represents 7.7% of total budgeted expenditures of \$753.5 million.**



- The 2020 projected operating budget deficit of \$57.7 million is primarily due to the impacts of COVID-19 with anticipated revenue losses of \$94.6 million and additional COVID-19 emergency measure costs of \$10.2 million which, are partially offset by \$47.1 million in operational savings and mitigating measures.
- The Ontario government, in partnership with the Federal government announced the first round of emergency funding under the Safe Restart Agreement and the Municipal Transit Enhanced Cleaning (MTEC) fund, providing the City of Brampton with funding of approximately \$34.9 million and \$0.6 million respectively. The City's projected deficit is anticipated to be offset by this emergency funding, which results in a remaining deficit of \$22.2 million.
- Staff are working with the Federal and Provincial governments to determine process, timelines and eligibility of the Phase 2 funding available in the Safe Restart Agreement and will continue to advocate for additional funding to offset the remaining projected deficit of \$22.2 million.
- The General Rate Stabilization reserve (GRS) balance is currently \$70.6 million, which is \$4.8 million less than the Council approved target of 10% of operating budget expenditures or \$75.4 million. If the GRS is utilized in lieu of Phase 2 funding, the projected GRS balance at year-end would be \$48.4 million with a shortfall of \$27.0 million.
- While it is difficult to predict the duration of a pandemic and the accompanying actions that are necessary to ensure the safety of residents, staff will continue to monitor the current situation and consider the impact and assumptions driving Q2 variances as part of developing the 2021 budget.

#### **Reserves / Reserve Funds**

- An update on the status of the City's primary Reserves and Reserve Funds, including rate stabilization reserves and development charge reserve funds, is also presented.

#### **Background:**

The City's financial management policies require staff to provide Council with periodic status updates related to the City's finances. This report is focused on updating Council on the status of the City's 2020 operating budget and reserves balances.



In March the Province of Ontario, the Region of Peel and the City of Brampton declared states of emergency to limit the spread of COVID-19 primarily through physical distancing measures.

As part of its response efforts, Council approved a number of necessary measures that had impacts to City finances, resulting in an anticipated deficit for 2020.

In late April, Ontario introduced “A Framework for Reopening Our Province” and Peel Region moved to Stage 2 of reopening on June 24 and Stage 3 (current stage) on July 31. The impact of reopening City Services has been considered by each Department when developing the Q2 Year-End Forecast.

### **Current Situation:**

#### **2020 OPERATING BUDGET**

Based on operating results as at June 30, the Corporation is forecasting a year-end operating deficit of \$57.7 million. This variance represents 7.7% of total budgeted expenditures of \$753.5 million.

The following tables summarize the 2020 Operating Budget forecasted year-end results, which includes a departmental breakdown of the deficit, along with highlighting specific variances that are deemed materially significant to the Corporation.



TABLE 1: 2020 OPERATING BUDGET FINANCIAL SUMMARY

| OPERATING VARIANCE:                       | Annual Net Budget | Q2 YE Projection | (Favourable) / Unfavourable Variance |       |
|---|-------------------|------------------|--------------------------------------|-------|
| Departments                               | (\$000s)          |                  |                                      | %     |
| Public Works & Engineering                | 86,238            | 86,907           | 669                                  | 1%    |
| Transit                                   | 77,316            | 95,000           | 17,684                               | 23%   |
| Community Services                        | 71,118            | 77,129           | 6,011                                | 8%    |
| Corporate Support Services                | 63,049            | 60,485           | (2,564)                              | -4%   |
| Fire & Emergency Services                 | 80,116            | 79,769           | (348)                                | 0%    |
| Legislative Services                      | 10,426            | 17,062           | 6,636                                | 64%   |
| Planning, Building & Economic Development | 4,169             | 5,624            | 1,455                                | 35%   |
| Mayor & Members Of Council                | 4,529             | 4,076            | (452)                                | -10%  |
| Office of the CAO                         | 8,784             | 7,124            | (1,660)                              | -19%  |
| Brampton Public Library                   | 18,214            | 16,543           | (1,671)                              | -9%   |
| Gapping                                   | (13,150)          | -                | 13,150                               | -100% |
| DEPARTMENTAL VARIANCE : DEFICIT           |                   |                  | 38,911                               |       |
|   |                   |                  |                                      |       |
| GENERAL GOVERNMENT VARIANCE: DEFICIT      |                   |                  | 18,791                               |       |
|   |                   |                  |                                      |       |
| CORPORATE VARIANCE: DEFICIT               |                   |                  | 57,702                               |       |



TABLE 2: 2020 OPERATING BUDGET VARIANCES

| OPERATING VARIANCE:                         | YEAR-END PROJECTION |
|---|---------------------|
| Revenue Loss                                | 94,592              |
| Emergency Measures Costs                    | 10,225              |
| Operational Savings and Mitigation Measures | (47,115)            |
| <b>CORPORATE VARIANCE: DEFICIT</b>          | <b>57,702</b>       |
|   |                     |
| MAJOR VARIANCES                             | YEAR-END PROJECTION |
| Transit reduced revenues                    | 41,640              |
| Recreation reduced revenues                 | 25,995              |
| COVID-19 Emergency Measures Costs           | 10,225              |
| POA reduced revenues                        | 6,644               |
| Tax Penalties & Interest Revenue            | 6,066               |
| Supplemental Taxes                          | 2,400               |
| Development Services Reduced Revenue        | 2,542               |
| Investment income loss                      | 2,293               |
| Performing Arts Reduced Revenue             | 1,933               |
| Ride Sharing reduced revenue                | 1,037               |
| Other                                       | (1,646)             |
| Library Non-Labour Expenditures             | (1,671)             |
| Recreation Non-Labour Expenditures          | (4,800)             |
| Transit Non-Labour Expenditures             | (9,959)             |
| Labour Savings                              | (24,998)            |
| <b>CORPORATE VARIANCE: DEFICIT</b>          | <b>57,702</b>       |

Deficit Summary

The 2020 projected operating budget deficit of \$57.7 million is primarily due to the impacts of COVID-19 with anticipated revenue losses of \$94.6 million and additional COVID-19 emergency measure costs of \$10.2 million which, are partially offset by \$47.1 million in operational savings and mitigating measures.



As illustrated in Table 2, revenue deficits are driven by a decline in user fee revenues which is largely concentrated in the areas of Transit and Recreation Services which account for 73% of revenue losses.

Transit's anticipated revenue deficit of \$41.6 million is largely due to the suspension of fares between March 21<sup>st</sup> and July 1<sup>st</sup>, reduced capacity and lower ridership demand.

Recreation revenue losses are the second largest contributor of the deficit with a projected loss of \$26.0 million primarily driven by the City's decision to close Recreation facilities, cancel programs and rentals to prevent the spread of the pandemic.

Several other revenue streams have been impacted by COVID-19 including Provincial Offences Act (POA) Revenues of \$6.4 million, tax related revenue loss of \$8.5 million due to waived tax penalties and delayed supplemental taxes; development services revenue of \$2.5 million, investment income of \$2.3 million; lost revenue due to unrealized sales of tickets, room and equipment rental of \$1.9 million in performing arts and ridesharing revenue losses of \$1.0 million due to decreased demand.

The City's response to the pandemic has placed additional emergency measure pressures which is anticipated at approximately \$10.2 million by year-end. These costs are attributable to enhanced cleaning and sanitization, personal protective equipment stock piling for all City staff, critical need long-term care homes and residents as part of the 1 million mask campaign; the Backyard Garden Program; additional rental and contracted Janitorial and Security services as well as COVID-19 sick credits provided to Transit frontline staff. At year-end, \$1.7 million in remaining Transit sick credits will carry into the following year.

\$47.1 million in operational savings and mitigating measures is projected to offset the significant revenue loss and additional costs incurred due to the pandemic.

\$25.0 million is due to labour related savings primarily driven by the temporary suspension of employment of part-time, temporary/casual, and seasonal staff members in non-essential and non-critical services, this can predominantly be seen in Transit due to reduced scheduling and maximizing available resources to minimize overtime costs; and in Recreation as a result of part-time labour and vacancy savings. With the decision to delay or freeze hiring where possible, labour vacancy savings are realized throughout the rest of the corporation but predominantly offset by lost capital recoveries.

The remaining \$22.1 million in non-labour expenditures savings is directly related to the City's response to the pandemic and again is mostly seen in Transit and Recreation, however cost savings are seen throughout the corporation in the areas of utility and fuel; preventative and demand maintenance, presto commission fee savings, contracted services and a lower transfer to Library due to hiring freezes and temporary layoffs.



### Deficit Management

On August 12th the Ontario government, in partnership with the federal government announced Phase 1 of emergency funding under the Safe Restart Agreement providing the City of Brampton with approximately \$34.9 million in relief funds. \$24.0 million for the City's transit system to help offset financial pressures related to COVID-19, maintain critical services and protect vulnerable people as the province safely and gradually opens and \$10.9 million to help address other municipal operating pressures related to the pandemic.

Phase 2 funding will be available based on expenses incurred by each municipality up to March 31, 2021 and although the exact timing of the second phase funding is unknown, staff are working with the Federal and Provincial governments to determine process, timelines and eligibility and will continue to advocate for additional relief to offset the City's deficit.

The provincial government has also announced an incremental funding program to assist municipal transit agencies by providing funding under the Municipal Transit Enhanced Cleaning (MTEC) fund, which has been confirmed at \$0.6 million for the City of Brampton.

Considering the funding committed from the Federal Government and Province of Ontario, the City's projected deficit is anticipated to be offset by Phase 1 funding of the Safe Restart Agreement by \$34.9 million and the MTEC fund by \$0.6 with the remaining projected deficit of \$22.2 million potentially offset by Phase 2 funding. In the event that the timing of the second phase funding does not coincide with the City's year-end, the General Rate Stabilization Reserve will be drawn upon to fund the projected deficit as illustrated in Table 3.

TABLE 3: Deficit Management Strategy

| Deficit Management                       | \$ M        |
|--|-------------|
| Q2 Year-End Projected Deficit            | (57.7)      |
| Funding Offset:                          |             |
| Phase 1 - Safe Restart Funding           | 34.9        |
| Municipal Transit Enhanced Cleaning Fund | 0.6         |
| Phase 2 - Safe Restart Funding / GRS     | 22.2        |
| <b>Net Projected Deficit</b>             | <b>\$ -</b> |

The primary purpose of the General Rate Stabilization reserve is to smooth the impacts on City operations in the event of an economic downturn or extraordinary situations such as the one we are currently in. Council's commitment to maintain the General Rate Stabilization reserve at an industry best practice of 10% of operating



expenditures, provides assurance to our residents and businesses that the City is well positioned to manage the financial impacts of this pandemic.

## **RESERVES AND RESERVE FUNDS (Schedule A)**

### ***Stormwater Reserve Fund***

In the 2020 Operating Budget, the Stormwater fund has been established to manage the recently approved Stormwater Charge. The charge became effective on June 1, 2020 and is collected through the Region of Peel water/wastewater bill in response to the City's maintenance, renewal, replacement and asset management of the City's \$1.2 billion of Stormwater infrastructure.

The Brampton Stormwater Charge is anticipated to collect \$12.8 million for the period from June 1<sup>st</sup> to December 31<sup>st</sup> 2020 and \$22 million per year going forward, growing at the rate of inflation.

### ***Debt Repayment Reserve***

The 2020 Operating Budget included approval of \$3.6 million in annual debt repayments, related to a 25-year debenture of \$26 million, for the Fire and Emergency Services Campus and \$107.5 million for a 30-year debenture for the Centre for Innovation.

The Debt Repayment Reserve established in 2018, has a balance of \$10.7 million, as at June 30, 2020.

The City issued debentures in the amount of \$26 million in 2019 to meet cash flow requirements for the construction of the Fire and Emergency Services Campus. Annual funding from the Debt Repayment Reserve will be used to repay external borrowing obligations and therefore no incremental impact to property taxpayers is expected over the term of the debenture.

### ***Development Charge Reserve Funds***

Development charges (DCs) are one-time fees levied on new growth to pay for growth-related City infrastructure. The current DC By-laws were approved by Council in 2019, and inputs into the DC Study were based on various Master Servicing Plans and departmental input in how they would meet the needs of servicing new growth.

The impacts of COVID-19 on the housing market are being closely monitored by Finance staff. At present, the DC revenue for 2020 is tracking better than the recession of 2008-2009, but are lower than historic averages. DC reserve funds are currently in a surplus position of \$26.4 million, as of June 30, 2020.



### ***Building Rate Stabilization Reserve Fund***

As at June 30, 2020, the balance in the Building Rate Stabilization Reserve Fund was \$40.4 million, which provides assurance against a future short-term downturn in building activity. The City is obligated to transfer any surplus resulting from building related operations to this reserve fund in accordance with the requirements of Bill 124 (*Building Code Statute Law Amendment Act, 2002*).

### ***Cash In Lieu of Parkland***

As at June 30, 2020, there was a balance in the Cash in Lieu of Parkland of \$108.1 million. Staff continues to work on strategies to secure and expedite the acquisition of strategic parkland to meet the future needs of residents.

### ***General Rate Stabilization Reserve***

As at June 30, 2020, the balance in the General Rate Stabilization reserve was \$70.6 million. Council has established a GRS reserve balance target at 10% of the annual approved operating budget. The 2020 Operating Budget has been approved at \$754 million, resulting in a GRS reserve target of \$75.4 million.

The General Rate Stabilization reserve (GRS) balance is currently \$70.6 million, which is \$4.8 million less than the Council approved target of 10% of operating budget expenditures or \$75.4 million.

The COVID-19 pandemic has resulted in a projected deficit of \$57.7 million. In lieu of additional funding provided through Phase 2 of the Safe Restart Agreement, the GRS would be the primary source to fund the remaining estimated deficit of \$22.2 million in 2020 as illustrated in Table 4.

TABLE 4: 2020 OPERATING BUDGET VARIANCES

| <b>General Rate Stabilization Fund (GRS)</b>        | <b>\$ M</b>   |
|---|---------------|
| 10% of Operating Budget (\$754 M)                   | 75.4          |
| Current Balance as at June 30, 2020                 | 70.6          |
| GRS Deficit as at June 30, 2020                     | (4.8)         |
| GRS Funding in lieu of Phase 2 Safe Restart Funding | (22.2)        |
| <b>GRS Year-End Shortfall (Estimate)</b>            | <b>(27.0)</b> |



### ***Interest Rate Stabilization Reserve Fund***

As at June 30, 2020, the uncommitted balance in the Interest Rate Stabilization Reserve Fund was \$5.8 million. The balance continues to be drawn upon to fund annual operating shortfalls on budgeted Hydro investment income. Staff recommends the balance continue to be protected for use in mitigating any shortfalls in investment income expected in future years.

### ***Legacy, Community Investment, and Community Development Reserve Funds***

The Legacy, Community Investment and Community Dividend Reserve Funds were established in 2002 with contributions from the sale of Brampton Hydro. The Council approved objectives of these funds are as follows:

- Legacy Fund: Principal to be preserved and invested; investment income available for use
- Community Investment Fund: Principal for capital financing through internal borrowing; principal to be preserved over the long term; investment income available for use
- Community Dividend Fund: Principal available for direct spending on community orientated initiatives and other extraordinary, non-recurring expenditures; To be used only after consideration of all alternative funding sources; investment income available for use

Table 5 provides a financial status update on these strategic reserves, including the original balance, utilization to date, available balances and known pending commitments:

**TABLE 5: STRATEGIC RESERVES - FINANCIAL STATUS UPDATE**

|  | AMOUNT \$ M  | LEGACY      | COMMUNITY INVESTMENT | COMMUNITY DIVIDEND |
|--|--------------|-------------|----------------------|--------------------|
| Original Balance (1)   | 230.0        | 100.0       | 100.0                | 30.0               |
| Spending & Approved Capital Commitments, as at June 30, 2020   | (85.2)       | (4.8)       | (50.4)               | (30.0)             |
| <b>Uncommitted Balance, as at June 30, 2020</b>  | <b>144.8</b> | <b>95.2</b> | <b>49.6</b>          | <b>-</b>           |
| Pending Strategic Initiatives: \$47.7 M remaining for Ryerson University and \$4.8 M for Algoma University | (52.5)       |             |                      |                    |
| <b>STRATEGIC RESERVES AVAILABLE BALANCE</b>  | <b>92.3</b>  |             |                      |                    |

(1) Investment income from these strategic reserves is included as a reserve source in the operating budget at a rate of 4.5%. As these funds are utilized, investment income revenue is reduced from the operating budget. Alternative revenue sources, reduction in expenditures or increases in property taxes would be required to offset the reduction in investment income revenue



- Council has endorsed in-principle \$50.0 million from the Legacy fund to support the Ryerson University initiative and \$7.3 million for the Algoma University initiative. Subsequent to funding these commitments, the Legacy Fund is projected to have a remaining balance of \$42.7 million.
- Of the \$50.0 million for Ryerson University, Council has approved \$5.0 million over a 4 year period (2019-2022) for the Cybersecure Catalyst and \$2.3 million has been contributed since 2019. Of the \$7.3 million for Algoma University, \$2.5 million has been contributed in 2020, leaving a remaining balance of \$95.2 million in the Legacy Fund, as at June 30, 2020.
- To date, the Legacy Fund has generated \$88.1 million in interest revenue since the inception of the fund. Of this, \$70.3 million has been transferred to the Operating Fund to offset tax levy requirements and the balance has been transferred to the Interest Rate Stabilization Reserve Fund.
- The Community Investment Fund has outstanding internal loans of \$50.4 million committed against this fund for previous Council initiatives such as the Rose Theatre, Provincial Offences Act Courthouse and Public Works Yards. Annual interest on the fund has also been built into the base budget to offset tax levy needs. The remaining uncommitted balance plus annual principal repayments will be available strategic for initiatives in 2021 and beyond. The balance available for future initiatives was \$49.6 million, as at June 30, 2020.
- The Community Dividend Fund has been fully drawn down for projects of citywide benefit and was closed out in 2009. Funding was committed towards initiatives such as the Rose Theatre, Downtown Revitalization and Sheridan College.

### Housekeeping Item:

During the 2020 Council Budget Deliberations, resolution BC018-2020.4 directed staff to reduce contribution to reserves by \$5.0 million (or approximately 1 percent) from the 2020 operating budget. Table 6 illustrates the reserves impacted by the reduction in contributions;

TABLE 6: 2020 BUDGET REDUCTION IN CONTRIBUTIONS TO RESERVES

| RESERVE # | RESERVE DESCRIPTION                                    | REDUCTION \$ M |
|-----------|--|----------------|
| 4         | Asset Repair & Replacement                             | (0.033)        |
| 10        | Corporate Facilities                                   | (0.737)        |
| 37        | Official Plan Review                                   | (0.150)        |
| 58        | Theatre Capital Improvements                           | (0.150)        |
| 78        | Operating Development Charge Contribution Contribution | (3.930)        |
|           |  | <b>(5.000)</b> |



#### Civic Centre Restoration (Reserve #10)

Established in 1987, this reserve was created to retain funds specifically for renovations to the Civic Centre pursuant to the resolution passed on March 9<sup>th</sup> 1987. Currently it is used for the repair and renovation of corporate properties which is redundant to the Asset Repair & Replacement Reserve 4 which, going forward is recommended to fund infrastructure related costs for the Civic Centre.

#### Official Plan Review (Reserve #37)

Established through a council resolution in 1991 by amendment to the development application fee by-law. A fee was to be charged once for each developable land outside of the 1984 Official Plan urban boundary and transferred to a reserve fund until needed for purposes of Official Plan Review studies. The nature of contribution to this reserve has changed where the reserve has been funded through an annual transfer of \$120,000 to \$150,000 of property tax funding rather than the fees as stated in the 1991 resolution. Going forward Official Plan Review studies are recommended be funded by the Asset Repair & Replacement Reserve.

#### Theatre Capital Improvements (Reserve #58)

By-Law 90-94 / 123-2000 / 287-2002 / 119-2007 was enacted in 1994 which permits the transfer of Ticket Surcharge revenue (\$2 Surcharge on every ticket sold, excluding complimentary tickets, or tickets under \$6) to the reserve for the purpose of funding capital improvements to City Theatres. Staff are recommending the closure of this reserve and that the by-law to establish a Brampton Theatre Capital Improvements Reserve Fund, be repealed, with future infrastructure funding requirements funded from the Asset Repair & Replacement reserve (Reserve 4).

#### Operating Development Charge Contribution (Reserve #78)

Established in 2000, this reserve was created to fund the City's benefit to existing requirement for growth assets, as per the Development Charge Act. As this reserve is funded by property taxes, the purpose is considered redundant and staff recommend that future benefit to existing requirements for growth assets be funded by the Asset Repair and Replacement reserve (Reserve 4), similar to other tax funded capital needs.

#### **Corporate Implications:**

##### Financial Implications:

N/A

##### Other Implications:

N/A



**Strategic Plan:**

This report achieves the Strategic Plan priority of Good Government by practicing proactive effective management of finances, policies and service delivery.

**Term of Council Priorities:**

This report fulfils the Council Priority of a Well-Run City through strict adherence to effective financial management policies and supports Brampton's 2040 Vision by ensuring sustainable financial operations.

**Conclusion:**

Based on operating results as at June 30, the Corporation is forecasting a year-end operating deficit of \$57.7 million. This variance represents 7.7% of total budgeted expenditures of \$753.5 million.

While it is difficult to predict the direction of a pandemic and the accompanying actions that are necessary to ensure the safety of residents, staff will continue to monitor the current situation and consider the impact and assumptions driving Q2 variances as part of developing the 2021 budget.

Authored by:

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Diana Wren, Manager, Financial  
Planning (Acting)

Approved by:

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Michael Davidson, Commissioner,  
Corporate Support Services

Reviewed by:

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Mark Medeiros, Treasurer (Acting)

Submitted by:

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David Barrick, Chief Administrative Officer

**Attachments:**

Schedule A: Reserve and Reserve Fund Balances

Schedule B: Departmental Year-End Forecast Variances







**SCHEDULE A: RESERVE AND RESERVE FUND BALANCES (\$000s)**  
**AS AT JUNE 30, 2020**

|  | YE               | YE               | Q2                |
|--|------------------|------------------|-------------------|
| <b>Discretionary Reserve and Reserve Funds</b>       | <b>2018</b>      | <b>2019</b>      | <b>2020</b>       |
| <b>Financial Strategy Reserve Funds</b>              |                  |                  |                   |
| Res # 211 - Interest Rate Stabilization              | \$8,075          | \$5,788          | \$5,788           |
| Res # 200 - Debt Repayment                           | \$3,237          | \$9,007          | \$10,673          |
| Res # 100 - Legacy Fund                              | \$100,000        | \$99,000         | \$95,200          |
| Res # 110 - Community Investment Fund                | \$25,105         | \$49,158         | \$49,620          |
| <b>Subtotal</b>                                      | <b>\$136,418</b> | <b>\$162,954</b> | <b>\$161,282</b>  |
| <b>Other Development-Related</b>                     |                  |                  |                   |
| Res # 26 - Cash-in-Lieu of Downtown Parking          | \$41             | \$42             | \$42              |
| Res # 37 - Official Plan Review Reserve Fund         | \$303            | \$208            | \$43              |
| <b>Subtotal</b>                                      | <b>\$344</b>     | <b>\$250</b>     | <b>\$85</b>       |
| <b>Tax Base Capital Reserve Funds</b>                |                  |                  |                   |
| Res # 4 - Asset Replacement                          | \$36,488         | \$27,729         | (\$15,238)        |
| Res # 36 - Joint Use Facility Agreements             | \$542            | \$592            | \$592             |
| Res # 46 - Stormwater Charge                         |                  |                  | (\$6,560)         |
| Res # 58 - Theatre Capital Improvements              | \$771            | \$615            | \$273             |
| Res # 78 - 10% Non-DC                                | \$7,699          | \$4,662          | \$2,112           |
| Res # 119 - Transit Levy                             | \$0              | \$76             | \$89              |
| <b>Subtotal</b>                                      | <b>\$45,500</b>  | <b>\$33,674</b>  | <b>(\$18,733)</b> |
| <b>Special Purpose Reserve Funds</b>                 |                  |                  |                   |
| Res # 3 - Workers' Compensation Fund                 | \$7,528          | \$7,413          | \$7,683           |
| Res # 8 - 3rd Party Liab. Self Insurance             | \$18,242         | \$0              | \$0               |
| Res # 10 - Civic Centre/Corporate Facilities         | \$1,379          | \$1,907          | \$1,907           |
| Res # 12 - Land Proceeds                             | (\$9,619)        | (\$27,314)       | (\$27,314)        |
| Res # 15 - Conversion of Employee Sick Leave         | \$7,747          | \$7,937          | \$7,937           |
| Res # 16 - Community Grant Surplus Reserve           | \$1,109          | \$633            | \$633             |
| Res # 19 - Employee Ben. Prem. Rate Stab.            | \$4,865          | \$5,725          | \$5,374           |
| Res # 23 - Brampton Columbarium                      | \$26             | \$29             | \$30              |
| Res # 25 - Municipal Elections                       | \$1,020          | \$1,641          | \$2,410           |
| Res # 42 - C.A.R.E. Program                          | \$3              | \$0              | \$0               |
| Res # 53 - Brampton Senior Fund                      | \$51             | \$51             | \$51              |
| Res # 54 - LACAC                                     | \$46             | \$48             | \$48              |
| Res # 59 - Fire / Life Safety Centre                 | \$190            | \$194            | \$194             |
| Res # 88 - Community Improvement Plan Fund           | \$327            | \$291            | \$291             |
| Res # 96 - Transportation Initiatives Reserve        | \$377            | \$9              | \$39              |
| Res # 97 - Multi -Year Non-Capital Projects          | \$134            | \$138            | \$138             |
| Res # 125 - Heritage Initiatives                     | \$52             | \$56             | \$56              |
| Res # 126 - Pledge to Peel Memorial Hospital         | \$20,350         | \$20,851         | \$20,851          |
| Res # 129 - Brampton University Reserve Fund         | \$25             | \$25             | \$25              |
| <b>Subtotal</b>                                      | <b>\$53,851</b>  | <b>\$19,632</b>  | <b>\$20,353</b>   |
| <b>Total Reserve Funds</b>                           | <b>\$236,112</b> | <b>\$216,510</b> | <b>\$162,986</b>  |
| <b>Reserves</b>                                      |                  |                  |                   |
| General Rate Stabilization Reserve                   | \$71,345         | \$71,774         | \$70,640          |
| <b>Subtotal</b>                                      | <b>\$71,345</b>  | <b>\$71,774</b>  | <b>\$70,640</b>   |
| <b>Total Discretionary Reserve and Reserve Funds</b> | <b>\$307,457</b> | <b>\$288,284</b> | <b>\$233,626</b>  |



**SCHEDULE A: RESERVE AND RESERVE FUND BALANCES (\$000s)**  
**AS AT JUNE 30, 2020**

|   | YE               | YE               | Q2               |
|---|------------------|------------------|------------------|
| <b>Obligatory Reserve Funds</b>                                     | <b>2018</b>      | <b>2019</b>      | <b>2020</b>      |
| <b>Development Charges</b>  |                  |                  |                  |
| Res # 130 - DC:Growth Studies & Other                               | \$3,252          | \$3,791          | \$3,110          |
| Res # 132 - DC:Library  | (\$10,222)       | (\$5,633)        | (\$4,908)        |
| Res # 133 - DC:Fire Protection                                      | (\$12,958)       | (\$15,343)       | (\$13,619)       |
| Res # 134 - DC:Recreation   | \$110,067        | \$90,789         | \$79,539         |
| Res # 135 - DC:Transit  | (\$37,876)       | (\$44,394)       | (\$42,321)       |
| Res # 136 - DC:Public Works Buildings & FI                          | (\$34,657)       | (\$31,961)       | (\$30,879)       |
| Res # 137 - DC:Roads  | \$20,714         | \$7,052          | \$4,085          |
| Res # 138 - DC:Parking Lots   | \$6,898          | \$6,608          | \$6,153          |
| Res # 142 - DC:Bramwest North South Trans                           | \$21,494         | \$24,322         | \$25,236         |
| <b>Subtotal</b>   | <b>\$66,712</b>  | <b>\$35,230</b>  | <b>\$26,396</b>  |
| <b>Other Development-Related</b>                                    |                  |                  |                  |
| Res # 2 - Cash in lieu of Parkland                                  | \$102,881        | \$106,733        | \$108,136        |
| Res # 18 - Dev. Cont. for Future Construction                       | \$30,947         | \$32,534         | \$32,222         |
| Res # 38 - Subdivision Maintenance                                  | \$15,053         | \$15,808         | \$15,811         |
| <b>Subtotal</b>   | <b>\$148,881</b> | <b>\$155,075</b> | <b>\$156,169</b> |
| <b>Special Purpose Reserve Funds</b>                                |                  |                  |                  |
| Res # 22 - Sport /Entertainment Centre                              | \$8,237          | \$8,243          | \$8,243          |
| Res # 89 - Dedicated Gas Tax Reserve                                | \$5,551          | \$2,929          | \$2,929          |
| Res # 91 - Federal Gas Tax Reserve                                  | \$6,436          | \$13,383         | \$15,737         |
| Res # 93 - Building Rate Stabilization                              | \$33,491         | \$40,514         | \$40,412         |
| Res # 95 - Accele Ride Reserve                                      | \$302            | \$8              | \$8              |
| Res # 121 - Municipal Transit Capital                               | \$23             | \$8              | \$408            |
| Res # 122 - Municipal Road & Bridge Infrastructure                  | \$38             | \$44             | \$44             |
| Res # 123 - Miscellaneous Fed / Prov Transit Capital Grant          | \$142            | \$486            | \$493            |
| Res # 124 - Municipal Transit Demand Management                     | \$1              | \$1              | \$1              |
| Res # 127 - Major Maintenance Reserve Fund                          | \$2,973          | \$3,690          | \$4,043          |
| Res # 128 - Brampton Starter Company                                | \$162            | \$315            | \$374            |
| <b>Subtotal</b>   | <b>\$57,355</b>  | <b>\$69,622</b>  | <b>\$72,691</b>  |
| <b>Total Obligatory Reserve Funds</b>                               | <b>\$272,948</b> | <b>\$259,927</b> | <b>\$255,256</b> |
| <b>Total Obligatory and Discretionary Reserve and Reserve Funds</b> | <b>\$580,405</b> | <b>\$548,211</b> | <b>\$488,883</b> |



## SCHEDULE B: YEAR-END FORECAST VARIANCES AS AT JUNE 30, 2020

| Transit                   | BUDGET               | FORECAST<br>YEAR-END | VARIANCE              | %             |
|---------------------------|----------------------|----------------------|-----------------------|---------------|
| Labour Expenditures       | \$133,497,069        | \$119,500,000        | (\$13,997,069)        | -10.5%        |
| Other Expenditures        | \$44,158,563         | \$34,200,000         | (\$9,958,563)         | -22.6%        |
| <b>Total Expenditures</b> | <b>\$177,655,632</b> | <b>\$153,700,000</b> | <b>(\$23,955,632)</b> | <b>-13.5%</b> |
| Revenues                  | (\$100,339,744)      | (\$58,700,000)       | \$41,639,744          | -41.5%        |
| <b>Net Expenditures</b>   | <b>\$77,315,888</b>  | <b>\$95,000,000</b>  | <b>\$17,684,112</b>   | <b>22.9%</b>  |

| Community Services        | BUDGET               | FORECAST<br>YEAR-END | VARIANCE              | %             |
|---------------------------|----------------------|----------------------|-----------------------|---------------|
| Labour Expenditures       | \$77,886,948         | \$63,223,961         | (\$14,662,987)        | -18.8%        |
| Other Expenditures        | \$30,967,598         | \$23,658,716         | (\$7,308,882)         | -23.6%        |
| <b>Total Expenditures</b> | <b>\$108,854,546</b> | <b>\$86,882,677</b>  | <b>(\$21,971,869)</b> | <b>-20.2%</b> |
| Revenues                  | (\$37,736,660)       | (\$9,753,406)        | \$27,983,254          | -74.2%        |
| <b>Net Expenditures</b>   | <b>\$71,117,886</b>  | <b>\$77,129,271</b>  | <b>\$6,011,385</b>    | <b>8.5%</b>   |

| Legislative Services      | BUDGET              | FORECAST<br>YEAR-END | VARIANCE             | %            |
|---------------------------|---------------------|----------------------|----------------------|--------------|
| Labour Expenditures       | \$25,044,429        | \$24,211,361         | (\$833,068)          | -3.3%        |
| Other Expenditures        | \$7,660,081         | \$6,657,477          | (\$1,002,604)        | -13.1%       |
| <b>Total Expenditures</b> | <b>\$32,704,510</b> | <b>\$30,868,838</b>  | <b>(\$1,835,672)</b> | <b>-5.6%</b> |
| Revenues                  | (\$22,278,567)      | (\$13,806,992)       | \$8,471,575          | -38.0%       |
| <b>Net Expenditures</b>   | <b>\$10,425,943</b> | <b>\$17,061,847</b>  | <b>\$6,635,904</b>   | <b>63.6%</b> |

| Planning, Building & Economic Development | BUDGET              | FORECAST<br>YEAR-END | VARIANCE           | %            |
|---|---------------------|----------------------|--------------------|--------------|
| Labour Expenditures                       | \$23,644,368        | \$22,860,979         | (\$783,389)        | -3.3%        |
| Other Expenditures                        | \$2,933,071         | \$3,211,721          | \$278,650          | 9.5%         |
| <b>Total Expenditures</b>                 | <b>\$26,577,439</b> | <b>\$26,072,700</b>  | <b>(\$504,739)</b> | <b>-1.9%</b> |
| Revenues                                  | (\$22,408,505)      | (\$20,448,473)       | \$1,960,032        | -8.7%        |
| <b>Net Expenditures</b>                   | <b>\$4,168,934</b>  | <b>\$5,624,227</b>   | <b>\$1,455,293</b> | <b>34.9%</b> |

| Public Works & Engineering | BUDGET               | FORECAST<br>YEAR-END | VARIANCE           | %            |
|----------------------------|----------------------|----------------------|--------------------|--------------|
| Labour Expenditures        | \$45,068,540         | \$43,648,271         | (\$1,420,269)      | -3.2%        |
| Other Expenditures         | \$55,197,201         | \$55,703,064         | \$505,863          | 0.9%         |
| <b>Total Expenditures</b>  | <b>\$100,265,741</b> | <b>\$99,351,335</b>  | <b>(\$914,406)</b> | <b>-0.9%</b> |
| Revenues                   | (\$14,027,857)       | (\$12,444,118)       | \$1,583,739        | -11.3%       |
| <b>Net Expenditures</b>    | <b>\$86,237,884</b>  | <b>\$86,907,217</b>  | <b>\$669,333</b>   | <b>0.8%</b>  |



## SCHEDULE B: YEAR-END FORECAST VARIANCES AS AT JUNE 30, 2020

| Fire & Emergency Services | BUDGET              | FORECAST<br>YEAR-END | VARIANCE           | %            |
|---------------------------|---------------------|----------------------|--------------------|--------------|
| Labour Expenditures       | \$77,088,354        | \$76,537,754         | (\$550,600)        | -0.7%        |
| Other Expenditures        | \$4,508,000         | \$4,162,806          | (\$345,194)        | -7.7%        |
| <b>Total Expenditures</b> | <b>\$81,596,354</b> | <b>\$80,700,560</b>  | <b>(\$895,794)</b> | <b>-1.1%</b> |
| Revenues                  | (\$1,480,000)       | (\$931,760)          | \$548,240          | -37.0%       |
| <b>Net Expenditures</b>   | <b>\$80,116,354</b> | <b>\$79,768,800</b>  | <b>(\$347,554)</b> | <b>-0.4%</b> |

| Mayor & Members Of Council | BUDGET             | FORECAST<br>YEAR-END | VARIANCE           | %             |
|----------------------------|--------------------|----------------------|--------------------|---------------|
| Labour Expenditures        | \$4,329,819        | \$3,847,445          | (\$482,374)        | -11.1%        |
| Other Expenditures         | \$198,950          | \$228,855            | \$29,905           | 15.0%         |
| <b>Total Expenditures</b>  | <b>\$4,528,769</b> | <b>\$4,076,300</b>   | <b>(\$452,469)</b> | <b>-10.0%</b> |
| Revenues                   | \$0                | \$0                  | \$0                | -             |
| <b>Net Expenditures</b>    | <b>\$4,528,769</b> | <b>\$4,076,300</b>   | <b>(\$452,469)</b> | <b>-10.0%</b> |

| Office of the CAO         | BUDGET             | FORECAST<br>YEAR-END | VARIANCE             | %             |
|---------------------------|--------------------|----------------------|----------------------|---------------|
| Labour Expenditures       | \$6,009,503        | \$4,969,851          | (\$1,039,652)        | -17.3%        |
| Other Expenditures        | \$3,054,521        | \$2,544,401          | (\$510,120)          | -16.7%        |
| <b>Total Expenditures</b> | <b>\$9,064,024</b> | <b>\$7,514,252</b>   | <b>(\$1,549,772)</b> | <b>-17.1%</b> |
| Revenues                  | (\$280,000)        | (\$390,002)          | (\$110,002)          | 39.3%         |
| <b>Net Expenditures</b>   | <b>\$8,784,024</b> | <b>\$7,124,250</b>   | <b>(\$1,659,774)</b> | <b>-18.9%</b> |

| Brampton Public Library   | BUDGET              | FORECAST<br>YEAR-END | VARIANCE             | %            |
|---------------------------|---------------------|----------------------|----------------------|--------------|
| Labour Expenditures       | \$0                 | \$0                  | \$0                  | -            |
| Other Expenditures        | \$18,214,052        | \$16,543,070         | (\$1,670,982)        | -9.2%        |
| <b>Total Expenditures</b> | <b>\$18,214,052</b> | <b>\$16,543,070</b>  | <b>(\$1,670,982)</b> | <b>-9.2%</b> |
| Revenues                  | \$0                 | \$0                  | \$0                  | -            |
| <b>Net Expenditures</b>   | <b>\$18,214,052</b> | <b>\$16,543,070</b>  | <b>(\$1,670,982)</b> | <b>-9.2%</b> |

| Corporate Support Services | BUDGET              | FORECAST<br>YEAR-END | VARIANCE             | %            |
|----------------------------|---------------------|----------------------|----------------------|--------------|
| Labour Expenditures        | \$45,174,861        | \$43,793,664         | (\$1,381,197)        | -3.1%        |
| Other Expenditures         | \$23,680,842        | \$21,432,094         | (\$2,248,748)        | -9.5%        |
| <b>Total Expenditures</b>  | <b>\$68,855,703</b> | <b>\$65,225,758</b>  | <b>(\$3,629,945)</b> | <b>-5.3%</b> |
| Revenues                   | (\$5,806,829)       | (\$4,741,230)        | \$1,065,599          | -18.4%       |
| <b>Net Expenditures</b>    | <b>\$63,048,874</b> | <b>\$60,484,528</b>  | <b>(\$2,564,346)</b> | <b>-4.1%</b> |



**Date:** 2020-06-22

**Subject:** **Review of Tax Fairness for the Villages of Rosedale Residents**

**Secondary Title:** Click or tap here to enter text.

**Contact:** Mark Medeiros, Interim Treasurer, Finance  
Corporate Support Services

Michael Parks, Director, Road Operations and Fleet  
Public Works and Engineering

**Report Number:** Corporate Support Services-2020-102

**Recommendations:**

1. That the report titled: **Review of Tax Fairness for the Villages of Rosedale Residents** to the Committee of Council meeting of September 23, 2020, be received.

**Overview:**

- **Representatives from the Villages of Rosedale (VOR) delegated before Committee of Council on December 4, 2019 requesting tax fairness for residents in their condominium complex.**
- **Council directed staff to report back on potential opportunities with regard to property tax grants or rebates, participation in the City's program for Snow Removal Financial Assistance, and to request the Province to examine the feasibility for municipalities to introduce property tax exemptions for senior's condominiums.**
- **Council has the authority to provide grants or aid to any person, group, or body for any purpose that Council considers to be in the interest of the municipality.**



- **The Snow Removal Financial Assistance program is available to residents 65 years of age, own and occupy the property on which the application is made and not live in a condominium dwelling whereby all snow removal is the direct responsibility of the condominium corporation.**
- **Council may lobby the provincial Minister of Finance to review the current property tax classification requirements for residential condominium properties.**

### **Background:**

On June 20, 2018, representatives for the Villages of Rosedale (VOR) presented a delegation regarding tax fairness for residents in their condominium complex. A staff report in response to the delegation was delivered on April 3, 2019. The property is a gated residential condominium community located off Sandalwood Parkway between Dixie Road and Highway 410.

As described in the delegation, VOR is an adult lifestyle community with a number of indoor and outdoor recreation facilities such as a private golf course, tennis courts, lawn bowling greens, shuffleboard courts, and a clubhouse / recreation centre at the hub of the complex. Each of these amenities form part of the common areas and are not subject to property tax. Instead, the value of the amenities is embedded in the market value of each of the units as is customary for these property types. The complex currently has 1,202 units existing or under construction and is expected to grow to 1,544 units by 2022.

The amenities, roads, parklands and other features at the VOR are not accessible to the general public as it is private property. The property taxes paid by VOR residents, and all taxpayers, provide use and access to City assets, programs and services throughout the City.

On December 4, 2019, staff presented a follow up report to council with estimates of costs to provide certain services at the VOR and another estimate to provide services for all residential condominiums across the City.

Council referred the matter requesting that staff research potential tools for providing tax relief for condominiums. It was also Council's directive to request the Province examine the feasibility for municipalities to introduce property tax exemptions for seniors condominiums. It should be noted that the VOR advertises itself as an "adult lifestyle community" but there are no legal limitations regarding who can purchase property



within the condominium. VOR estimates that their current demographic is about 90% retired residents.

## **Current Situation:**

### Property Tax Relief

Under Section 365.(1) of *Municipal Act, 2001* (the “Act”) the City has passed a by-law to provide for the cancellation, reduction, or refund of taxes levied. The current by-law restricts eligibility requirements to low-income seniors and low-income persons with disabilities. The Region of Peel has passed a complementary by-law under Section 319 of the “Act” which enables both the upper and lower-tier municipalities to administer a single program at the lower-tier level.

Applicants that meet the eligibility requirements as defined in the by-laws would be eligible for this tax rebate. For 2020 taxation, the rebate is \$421 and applications are accepted until December 31<sup>st</sup>. This program is available to any eligible resident in Brampton including VOR residents. In 2019, 39 applicants in the VOR complex took advantage of the program generating a total rebate of \$16,224.

Under Section 107.(1) of *the “Act”*, a municipality may give grants or aid to any person(s) or groups that Council considers appropriate for any purpose deemed to be in the interests of the municipality.

Staff does not recommend this option as it would create an inequitable property tax allocation amongst residential condominiums.

### Snow Removal Financial Assistance

The Financial Assistance Program was implemented to help senior citizens and physically challenged homeowners with costs incurred from hiring a service provider to remove snow from their sidewalks and driveways. Qualifying applicants can receive a grant of up to \$200 for non-corner lot properties or up to \$300 for corner lot properties with sidewalks on two sides of the property and where both sidewalks are not cleared by City forces.

In order for a VOR resident to qualify for the program, they must be 65 years of age or more at the date of the application or be permanently disabled in such a way as to restrict physical mobility, own and occupy the property on which the application is made, not have claimed a credit on any other property for the same winter season and not live in a condominium dwelling whereby all snow removal is the direct responsibility of the condominium corporation.



Therefore, VOR residents would need to provide documentation that the condominium does not provide this service as part of their condominium fees.

### Lobby Provincial Government

The provincial Ministry of Finance directs property tax policy in Ontario and the Municipal Property Assessment Corporation (MPAC) is responsible for determining property tax classification. Residential condominiums are defined as part of the residential tax class through the *Assessment Act, 1990* and specifically in Ontario Regulation 282/98. Many property types are included in the residential tax class, it is not limited to just typical housing such as single family detached, semi-detached, townhouses, or condominiums. For example, golf courses, not-for-profit service, cultural, and recreational sports clubs organizations, group homes, and several other property types are also assessed in the residential class for property tax purposes.

The City has no jurisdiction to alter the provincially regulated classification of properties but can request the Minister of Finance review the current legislation. The communication could suggest that the Minister review the requirements for residential condominium properties and consider a separation from the broader residential property class currently legislated under Ontario Regulation 282/98.

### **Corporate Implications:**

#### Financial Implications:

Should Council opt to provide a grant to VOR, the City would be providing grant funding to maintain infrastructure for which the public does not have legal access. Outside specific contractual arrangements, there are no other instances where the City provides maintenance services or funds to offset maintenance costs on private property. Similarly, the City does not subsidize infrastructure on any private property outside of *Local Improvement Act* projects.

To account for growth in municipal infrastructure (roads, sidewalks, streetscaping, parks, ponds, street lighting, etc.) an increase to the annual budget provision is made for ongoing maintenance activities such as additional road lane kilometers and parkland hectares. The current operating costs for roads per lane km and parkland per hectare have been derived from actual operating results. The annual operating costs for Villages of Rosedale are estimated at \$177,000 using the costs currently incurred by the City in the 2020 Budget for typical operations.

If eligibility is approved, the snow removal financial assistance program would see an annual operating increase of over \$200,000 based on 860 finished dwelling units and the demographics indicated that approximately 90% of the VOR are retired. This



number would increase annual as units are occupied and further applications are received.

#### Other Implications:

The potential exists for other residential condominium properties to request similar relief. The cost estimates for subsidizing the operating costs of @ 160 residential condominiums would range between \$2.4 to \$3.6 Million annually. This does not include the added administration costs the City would incur to maintain the subsidies on an annual basis.

Any changes to the current property tax classification rules that result in lower taxation for residential condominiums would be diverted to the other existing tax classes where approximately 77% would be borne by the remaining residential ratepayers.

#### **Strategic Plan:**

This report achieves the Strategic Plan priority of Good Government by practicing proactive, effective and responsible management of finances, policies and service delivery and promotes transparency in the reporting of the City's financial affairs.

#### **Term of Council Priorities:**

This report fulfils the Council Priority of a Well-run City through collaborative citizen engagement and effective managing of municipal assets.

#### **Conclusion:**

City Council has the authority to provide a grant to VOR under Section 107.(1) of the "Act". The annual grant to offset certain operating costs at the VOR would be approximately \$177,000. The amount would constitute a line item in the City's annual budget, thus having an impact on the final tax rates charged to all property taxpayers.

To account for the additional snow removal financial applications, an additional \$200,000 would be required annually, with incremental increase required as new units become occupied.

Municipal councils do not have the authority to amend property tax policy in Ontario. Residential condominiums are designated by the Province in the residential tax class through Ontario Regulation 282/98. However, City Council can lobby the Provincial government to consider legislative changes to the classification of residential condominium properties under the regulation in the *Assessment Act, 1990*.



Authored by:

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Martin Finnegan, Senior Manager,  
Revenue

Michael Parks, Director, Road  
Maintenance, Operations and Fleet

Approved by:

---

Michael Davidson, Commissioner,  
Corporate Support Services

Reviewed by:

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Mark Medeiros, Interim Treasurer

Submitted by:

---

David Barrick, Chief Administrative Officer

**Attachments:**



**Date:** 2020-07-17

**Subject:** 2020 Levy By-law per Section 323 of the Municipal Act, 2001

**Secondary Title:** Annual Levy on Universities/Colleges, Correctional Institutions, and Public Hospitals

**Contact:** Yvonne Kwiecien, Manager, Taxation and Assessment

**Report Number:** Corporate Support Services-2020-100

**Recommendations:**

1. THAT the report titled: **2020 Levy By-law per Section 323 of the *Municipal Act, 2001* (Annual Levy on Universities/Colleges, Correctional Institutions, and Public Hospitals)** to the Committee of Council meeting of September 23, 2020 be received; and
2. That a By-law be passed for the annual levy on Universities/Colleges, Correctional Institutions, Public Hospitals for the year 2020 as per Section 323 of the *Municipal Act, 2001* in accordance with this report.

**Overview:**

- An annual By-law is required to levy an amount on Universities or Colleges, Correctional Institutions and Public Hospitals pursuant to Section 323 of the *Municipal Act, 2001*. The levy remains at \$75.00 per full-time students enrolled, residents placed and provincially rated beds, the same rate that has been in effect since 1987.
- Council passed Resolution C335-2019 resulting in the Mayor's letter sent on July 31, 2020 to the Minister of Municipal Affairs and Housing and the Minister of Finance requesting an appropriate rate for the year 2021, reflective of current municipal fiscal demands.



## Background:

The purpose of the accompanying By-law is to levy an amount based on the number of full-time students enrolled, residents placed and provincially rated beds on each of Sheridan College – Davis Campus, Algoma University – Brampton, Ontario Correctional Institute, Roy McMurtry Youth Centre, and William Osler (Brampton - Civic Site). The number of full-time students enrolled, residents placed and provincially rated beds is supplied to the City by the Ministry of Municipal Affairs and Housing per “Capacity of Institutions Information” letter (Appendix A). The current rate prescribed by the Province, \$75 per full-time student enrolled, resident placed and provincially rated bed, has been unchanged since 1997.

At the Committee of Council Meeting of September 4, 2019, Council passed Resolution C335-2019 (adopting Recommendation CW328-2019). The directive from Council was for the Mayor to communicate with the Minister of Municipal Affairs and Housing and the Minister of Finance highlighting the dated nature of the rate and to strenuously request a more appropriate figure reflective of the current day municipal fiscal demands. Attached as Appendix B is a copy of the letter that was delivered to the Ministers outlining three proposed options (below) that would result in appropriate compensation for municipalities.

1. Amend the currently prescribed rate (\$75 per “head or bed”) to reflect increases in the Consumer Price Index (CPI) in each year from 1987 to 2020. The 2019 rate would have escalated to \$152.20 for each full time student, provincially rated bed, or prisoner. As a result, Brampton’s revenue from this source would have doubled in 2019 from \$393,592 to \$798,729.
2. Adjust the CPI revised rate to account for the increased revenue colleges and universities generate for international student tuition fees. Certain educational institutions in Brampton have a high volume of international students in relation to domestic. The extra revenue received by municipalities can be directed towards affordable housing projects which is also a current objective of provincial policy. New affordable housing for students will assist in alleviating the demand for illegal second units and lodging houses that have become a challenge in Brampton.
3. Alternatively, the Province could require these payment-in-lieu (PIL) properties to be calculated based on their current value assessment (CVA), equivalent to other federal, provincial and municipal PIL properties. This action would require legislative amendments to the **Assessment Act, 1990** and the **Municipal Act, 2001**. Under this scenario, the City portion of the PILs in Brampton would rise to between \$1.95 million using the 2019 residential tax rate to \$2.5 M should the properties be classified in the commercial (default) class.



**Current Situation:**

The City is required to share the levy with the Region of Peel. The sharing percentage is calculated using the commercial class municipal tax base. For 2020, the sharing ratio is 54.06343% to the City and 45.93657% to the Region of Peel. The total levy is \$728,700 and the City will retain \$ \$393,960. The Region will receive \$ \$334,740.

The table below sets out the number of full-time students enrolled, residents placed or provincially rated beds and resulting levies as supplied by the Ministry of Municipal Affairs and the Ministry of Housing.

| Name                                  | # of Occupants | \$75 per Occupant / Bed | Levy      |
|---------------------------------------|----------------|-------------------------|-----------|
| Algoma University - Brampton          | 521            | \$75                    | \$39,075  |
| Ontario Correction Inst.              | 186            | \$75                    | \$13,950  |
| Roy McMurtry Youth Centre             | 192            | \$75                    | \$14,400  |
| Sheridan College- Davis Campus        | 8,140          | \$75                    | \$610,500 |
| William Osler (Brampton - Civic Site) | 677            | \$75                    | \$50,775  |
| TOTAL                                 |                |                         | \$728,700 |

**Corporate Implications:**Financial Implications:

As required by the *Municipal Act, 2001*, a By-law is necessary in the form which accompanies this report. As such, the City's Legal Services Department will be solicited to review and approve the accompanying By-law. The approval of this report and By-law is necessary to support the budget requirements of the City and the Region of Peel.

Other Implications:

N/A



**Strategic Plan:**

This report achieves the Strategic Plan priority of Good Government by practicing proactive, effective and responsible management of finances, policies and service delivery and promotes transparency in the reporting of the City's financial affairs.

**Term of Council Priorities:**

This report fulfils the Council Priority of a Well-Run City through strict adherence to effective financial management policies and supports Brampton's 2040 Vision by ensuring sustainable financial revenues.

**Conclusion:**

Subject to enactment of the attached By-law, invoices will be prepared and sent to each of the aforementioned institutions. The Standard Operating Procedure for the collection of General Accounts Receivable establishes the payment terms per organization type. Other levels of government are given 90 days before interest will be charged as per user fee By-law 380-2003. Therefore, the due date for payment will be December 29, 2020.

Authored by:

Reviewed by:

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Yvonne Kwiecien, Manager, Taxation and Assessment

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Mark Medeiros, Interim Treasurer

Approved by:

Submitted by:

---

Michael Davidson, Commissioner,  
Corporate Support Services

---

David Barrick, Chief Administrative Officer

**Attachments:**

**Appendix A:** Ministry of Municipal Affairs and Housing "Capacity of Institutions Information" Letter

**Appendix B:** Mayor's letter to Minister of Finance and Minister of Municipal Affairs and Housing

**2020 By-law** for Annual Levy on Universities/Colleges, Correctional Institutions, and Public Hospitals



**Ministry of  
Municipal Affairs  
and Housing**

Municipal Programs and  
Analytics Branch  
777 Bay Street, 16th Floor  
Toronto ON M7A 2J3  
Telephone: 416 585-7296  
Facsimile: 416 585-7292

**Ministère des  
Affaires municipales  
et du Logement**

Direction des programmes municipaux  
et de l'analytique  
777, rue Bay, 16<sup>e</sup> étage  
Toronto ON M7A 2J3  
Téléphone : 416 585-7296  
Télécopieur : 416 585-7292



August 21, 2020

Sent by email: david.sutton@brampton.ca  
martin.finnegan@brampton.ca

David Sutton  
Treasurer  
City of Brampton  
2 Wellington Street W.  
Brampton, Ontario L6Y 4R2

Dear David Sutton:

**Re: Capacity of Institutions Information for the year 2019**

I am pleased to provide you with updated capacity of institution(s) information in your municipality provided to us by the particular ministry designated for each institution.

As a result of the ongoing response to the COVID-19 situation, and to ensure your municipality is able to receive this letter in a timely manner, the capacity information for hospitals is based on 2018 data. If we obtain updates to capacities for hospitals in your municipality for 2019, we will forward that information separately at a later time.

In accordance with the current regulations, your municipality may levy an amount up to \$75 per rated capacity designated for each institution listed below. The levy amount is provided in the right-hand column.

| <u>Institutions</u>                         | <u>Capacity</u> | <u>Levy Amount</u> |
|---|-----------------|--------------------|
| Algoma University - Brampton .....          | 521 .....       | \$39,075           |
| Ontario Correctional Institute .....        | 186 .....       | \$13,950           |
| Roy McMurtry Youth Centre .....             | 192 .....       | \$14,400           |
| Sheridan College - Davis Campus .....       | 8140 .....      | \$610,500          |
| William Osler (Brampton - Civic Site) ..... | 677 .....       | \$50,775           |

The appropriate tax bill should be sent directly to each institution for payment. Please note that in accordance with Section 323 of the Municipal Act, institutions do not have to remit payment until July 1, 2020.



Should you have any question regarding the information provided, please do not hesitate to contact Kyla Simpson at [kyla.simpson@ontario.ca](mailto:kyla.simpson@ontario.ca) or at 416-585-7263.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Karen Partanen', written in a cursive style.

Karen Partanen  
Manager, Information and Analysis Unit  
Municipal Programs and Analytics Branch  
Ministry of Municipal Affairs and Housing



## Appendix B



2 Wellington St W  
Brampton ON  
L6Y4R2

T 905.874.2600  
F 905.874.2620  
TTY 905.874.2130



### MAYOR PATRICK BROWN

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July 31, 2020

The Honourable Rod Phillips, MPP  
Minister of Finance  
7 Queen's Park Crescent, 7<sup>th</sup> Floor  
Toronto, ON M7A 1Y7  
Sent via email

The Honourable Steve Clark, MPP  
Minister of Municipal Affairs & Housing  
777 Bay St., 17<sup>th</sup> Floor  
Toronto, ON M5G 2E5

Dear Minister Phillips and Minister Clark,

I am writing this letter to request the Province increase payments to municipalities for all property tax-exempt public institutional properties that are provincially owned or controlled, including hospitals, universities, colleges and correctional institutions. The rate is currently \$75 per "head or bed" and has remained unchanged since 1987. The rate does not reflect the change in cost of delivering services to Ontario municipalities and forces municipalities to compensate in other ways, including increased property taxes.

I am aware that several municipalities have also made similar requests of the Province including Toronto, Hamilton, Oshawa, Waterloo and Kingston. The Ontario Chamber of Commerce has twice submitted pre-budget papers that called for an increase to the rate. The Association of Municipalities Ontario is another organization that has previously lobbied the Province to match the rate to inflation.

To date, the Province has not committed to any review of the legislative or regulatory provisions that govern the levy on provincial institutions. I ask that the Province correct this situation prior to the billing of the "heads and beds" levy in 2021 with consideration to the options cited below:

1. Amend the currently prescribed rate (\$75 per "head or bed") to reflect increases in the Consumer Price Index (CPI) in each year from 1987 to 2020. The 2019 rate would have escalated to \$152.20 for each full-time student, provincially rated bed, or prisoner. As a result, Brampton's revenue from this source would have doubled in 2019 from \$393,592 to \$798,729.
2. Adjust the CPI revised rate to account for the increased revenue colleges and universities generate for international student tuition fees. Certain educational institutions in Brampton have a high volume of international students in relation to domestic. The extra revenue received by municipalities can be directed towards affordable housing projects which is also a current objective of provincial policy. New affordable housing for students will assist in alleviating the demand for illegal second units and lodging houses that have become a challenge in Brampton.



**MAYOR PATRICK BROWN**

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3. Alternatively, the Province could require these payment-in-lieu (PIL) properties to be calculated based on their current value assessment (CVA), equivalent to other federal, provincial and municipal PIL properties. This action would require legislative amendments to the Assessment Act, 1990 and the Municipal Act, 2001. Under this scenario, the City portion of the PILs in Brampton would rise to between \$1.95 million using the 2019 residential tax rate to \$2.5 M should the properties be classified in the commercial (default) class.

I recognize the great value these institutions bring to our community including employment opportunities and obvious benefits in education and health care. However, they also impact local infrastructure costs such as roads, public transit, policing, emergency medical services etc. The rate has remained unchanged since 1987 and does not accurately reflect the municipal costs that such institutions generate in our community.

Sincerely,



Patrick Brown  
Mayor

cc The Honourable Ross Romano, Minister of Colleges and Universities  
Sara Singh, MPP Brampton Centre  
Gurratan Singh, MPP Brampton East  
Kevin Yarde, MPP Brampton North  
The Honourable Prabmeet Singh Sarkaria, MPP Brampton South  
Amarjot Sandhu, MPP Brampton West  
Nando Iannicca, Chair, Region of Peel  
Members of Brampton City Council  
Brian Rosborough, Executive Director, AMO





THE CORPORATION OF THE CITY OF BRAMPTON

# BY-LAW

*Number* \_\_\_\_\_ - 2020

To Levy an annual amount on Sheridan College – Davis Campus, on the Ontario Correctional Institute, on Roy McMurtry Youth Centre, on the William Osler Health Centre (Brampton – Civic Site), and on Algoma University - Brampton for the Year 2020

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WHEREAS pursuant to Section 323 (1) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, (the “Municipal Act, 2001”), a local municipality may by by-law levy upon a university designated by the Minister of Training, Colleges and Universities or a college of applied arts and technology which is situate in the municipality, an annual tax not exceeding the prescribed amount for each full-time student enrolled in such university or college in the year preceding the year of levy, as determined by the Minister of Training, Colleges and Universities;;

AND WHEREAS pursuant to Section 323 (2) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, (the “Municipal Act, 2001”), a local municipality may by by-law levy upon a correctional institution designated by the Minister of Community Safety and Correctional Services, or a training school, or youth custody facility designated under subsection 85(2) of the *Youth Criminal Justice Act* (Canada) and designated by the Minister Community and Social Services which is situate in the municipality, an annual amount not exceeding the prescribed amount for each resident placed in such institution, school or facility as determined by the Minister of Community Safety and Correctional Services or the Minister of Community and Social Services, as the case may be;

AND WHEREAS pursuant to Section 323 (3) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, (the “Municipal Act, 2001”) a local municipality may by by-law levy upon a public hospital or a provincial mental health facility designated by the Minister of Health and Long-Term Care which is situate in the municipality, an annual amount not exceeding the prescribed amount for each provincially rated bed in such public hospital or provincial mental health facility, as determined by the Minister of Health and Long-Term Care;

AND WHEREAS, pursuant to Ontario Regulation 384/98, as amended, made under the *Municipal Act, 2001*, the prescribed amount for the purpose of Section 323 of the Act is \$75.00 per full-time student, per resident or per rated bed, per year;



AND WHEREAS City Council has, in the past years, levied the maximum allowable amount on these institutions;

AND WHEREAS City Council considers it desirable to continue to levy the maximum allowable amount on these institutions;

NOW THEREFORE the Council of The Corporation of the City of Brampton ENACTS as follows:

1. There will be levied upon Sheridan College – Davis Campus, in the City of Brampton, for 2020 a tax of \$75.00 for each of the 8,140 full-time students enrolled in the college, the annual amount levied being \$610,500.00.
2. There will be levied upon Algoma University – Brampton, for 2020 a tax of \$75.00 for each of the 521 full-time students enrolled in the university, the annual amount levied being \$39,075.00.
3. There will be levied upon Ontario Correctional Institute for 2020 an amount of \$75.00 for each of the 186 residents placed in the institution, the annual amount levied being \$13,950.00.
4. There will be levied upon Roy McMurtry Youth Centre for 2020 an amount of \$75.00 for each of the 192 residents placed in the institution, the annual amount levied being \$14,400.00.
5. There will be levied upon William Osler (Brampton – Civic Site) for 2020 an amount of \$75.00 for each of the 677 rated beds in the hospital, the annual amount levied being \$50,775.00.
6. That the said amounts shall be due by December 29<sup>th</sup>, 2020.

ENACTED and PASSED this 30<sup>th</sup> day of September, 2020

Approved as to form.  
09/04/2020  
C. Pratt  
Legal

\_\_\_\_\_  
Patrick Brown, Mayor

Approved as to  
content.  
\_\_\_\_/\_\_\_\_/\_\_\_\_  
\_\_\_\_\_  
Treasurer

\_\_\_\_\_  
Peter Fay, City Clerk



**Date:** 2020-09-15

**Subject:** **Relief Measures for Overdue Property Taxes**

**Secondary Title:** Click or tap here to enter text.

**Contact:** Mark Medeiros, Treasurer (Interim) [mark.medeiros@brampton.ca](mailto:mark.medeiros@brampton.ca)

**Report Number:** Corporate Support Services-2020-166

**Recommendations:**

1. THAT the report titled: **Relief Measures for Overdue Property Taxes**, to the Committee of Council meeting on September 23, 2020, be received;
2. THAT penalty and interest charges be suspended on tax arrears effective August 20, 2020 until December 31, 2020, through an amendment to the Final Tax Levy By-law 77-2020;
3. THAT the following Tax Collection activities be suspended for the remainder of 2020;
  - a. Registration of tax arrears certificate on title (lien on title of property)
  - b. Tax sales of property
  - c. Important Overdue Tax Notices
4. THAT the following Tax Collection activities continue to ensure property owners and interested parties, such as mortgage providers are appropriately informed of the seriousness of the tax arrear situation;
  - a. Final Notice (2 years or more in arrears)
  - b. Urgent Notice to Interested Parties (3 years or more in arrears)
5. THAT overdue tax notices scheduled for issuance in October, be modified to remove the due date for payment in 2020, while informing property owners of amounts owing and encouraging continuation of payments for those who are able to do so;
6. THAT the overdue tax notification fee of \$7.00 plus HST be suspended for the remainder of 2020;
7. THAT staff continue to assess the economic impact of COVID-19 on our residents and businesses and report back to Council in December of 2020 with



recommendations (if any) to manage overdue taxes and/or collections activity for 2021.

**Overview:**

- **At the onset of this pandemic, Council immediately recognized the serious economic impact that COVID-19 was having in our community and took action to provide temporary financial relief.**
- **At the Special Council meeting of March 25<sup>th</sup>, 2020, Council approved the report titled “Property Tax Assistance – City Response to COVID-19”, which suspended penalties and interest charges on overdue property tax accounts until August 19<sup>th</sup>, 2020. This decision provided financial relief of approximately \$6.1 million to many in our community that were most impacted by this pandemic.**
- **The temporary financial relief provided in the early days of this pandemic has now expired, leading to penalty and interest charges being accrued on property tax accounts that are overdue.**
- **Given that this pandemic is still having significant economic impacts to our community, staff recommend that penalties and interest on overdue property tax accounts be suspended for the remainder of 2020.**
- **In addition, staff recommend that collection activities, such as new liens on property and tax sales of property be suspended for the remainder of the year and that fees associated with issuing overdue notices, be suspended.**
- **In order to ensure that our property owners are informed as to the amounts owing, staff recommend that the overdue tax notices scheduled for issuance in October, be modified to inform property owners of any amounts owing, encourage those that are able to do so to continue to make payments, but remove the deadline for payment in 2020.**
- **The recommendations in this report are estimated to result in lost revenue of approximately \$4.2 million to the City and when combined with the \$6.1 million in relief already provided, would result in total financial relief of \$10.3 million to our residents and businesses.**
- **Lastly, staff will continue to assess the economic impact of COVID-19 on our residents and businesses and report back to Council in December of 2020 with recommendations (if any) to manage overdue taxes and/or collections activity for 2021.**



**Background:**

At the onset of this pandemic, Council immediately recognized the serious economic impact that COVID-19 was having in our community and took action to provide temporary financial relief.

At the Special Council meeting of March 25<sup>th</sup>, 2020, Council approved the report titled “Property Tax Assistance – City Response to COVID-19”, which suspended penalties and interest charges on overdue property tax accounts until August 19<sup>th</sup>, 2020. This decision provided financial relief of approximately \$6.1 million to many of those in need.

The temporary financial relief provided in the early days of this pandemic has now expired, leading to penalty and interest charges being accrued on property tax accounts that are overdue.

The Tax Billing and Collection Policy # 13.10.0 provides the framework for the administration of the City’s property taxes receivable including the processes to be followed when accounts fall into arrears.

Legislation requires that penalty and interest be applied in the same manner and at the same time for all properties. If penalty and interest were to be suspended, it would have to be suspended on all tax arrears including accounts that were in arrears prior to the COVID-19 outbreak.

**Current Situation:**

Given that this pandemic is still having significant economic impacts to our community, staff recommend that penalties and interest on overdue property tax accounts be suspended for the remainder of 2020.

In addition, staff recommend that collection activities, such as new liens on property and tax sales of property be suspended for the remainder of the year and that fees associated with issuing overdue notices, be suspended.

In order to ensure that our property owners are informed as to the amounts owing, staff recommend that the overdue tax notices scheduled for issuance in October, be modified to inform property owners of any amounts owing, encourage those that are able to do so to continue to make payments, but remove the deadline for payment in 2020.

The recommendations in this report are estimated to result in lost revenue of approximately \$4.2 million to the City and when combined with the \$6.1 million in relief already provided, would result in total financial relief of \$10.3 million to our residents and businesses.

Lastly, staff will continue to assess the economic impact of COVID-19 on our residents and businesses and report back to Council in December of 2020 with recommendations (if any) to manage overdue taxes and/or collections activity for 2021.



**Financial Implication:**

Suspending penalties and interest charges is estimated to result in \$1 Million per month in foregone revenue.

Suspending the overdue tax notification fee of \$7.00 plus HST for the October 2020 overdue notices is estimated to result in a revenue loss of approximately \$190,000.

The total estimated revenue loss related to the recommendations in this report are estimated to be \$4.2 million and when combined with the \$6.1 million in relief already provided, would result in total financial relief of \$10.3 million to our residents and businesses.

**Strategic Plan:**

This report achieves the Strategic Plan priority of Good Government by practicing proactive effective management of finances, policies and service delivery.

**Term of Council Priorities:**

This report fulfils the Council Priority of a Well-Run City through strict adherence to effective financial management policies and supports Brampton's 2040 Vision by ensuring sustainable financial revenues.

**Conclusion:**

The COVID-19 pandemic has caused financial hardship for many residents and businesses. The purpose of the recommendations in this report are to extend the financial relief provided by Council at the onset of this pandemic to those in our community who need it most, while encouraging those that are able to pay to continue to do so.

Authored by:

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Mark Medeiros, Treasurer (Acting)

Reviewed by:

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Mark Medeiros, Treasurer (Acting)

Approved by:

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Michael Davidson, Commissioner,  
Corporate Support Services

Submitted by:

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David Barrick, Chief Administrative Officer



**Date:** 2020-08-31

**Subject:** **Brampton's Community Energy and Emissions Reduction Plan (CEERP) Presentation**

**Contact:** Pam Cooper, Environmental Planner, [pam.cooper@brampton.ca](mailto:pam.cooper@brampton.ca)

**Report Number:** Public Works & Engineering-2020-099

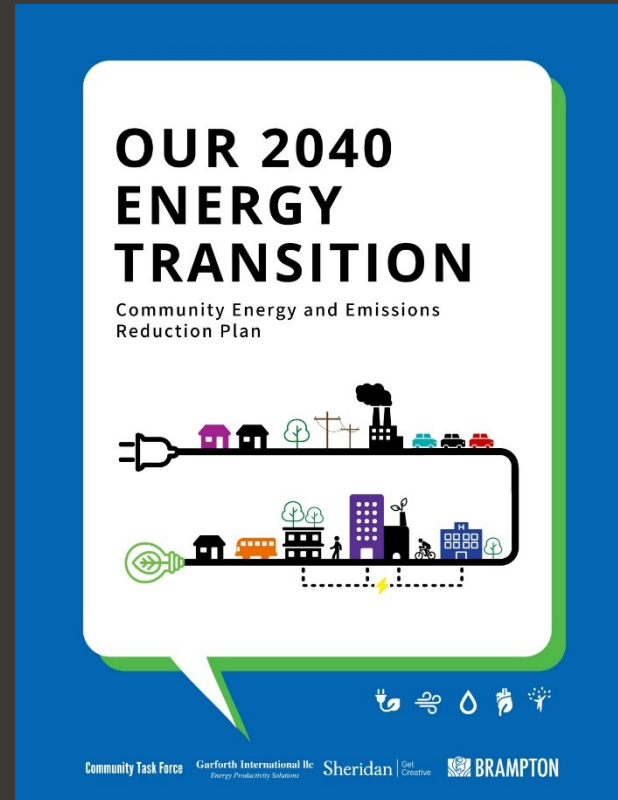
**Recommendations:**

1. That the presentation titled: Brampton's Community Energy and Emission Reduction Plan (CEERP) to the Committee of Council meeting of September 23, 2020 be received;



# Community Energy & Emissions Reduction Plan

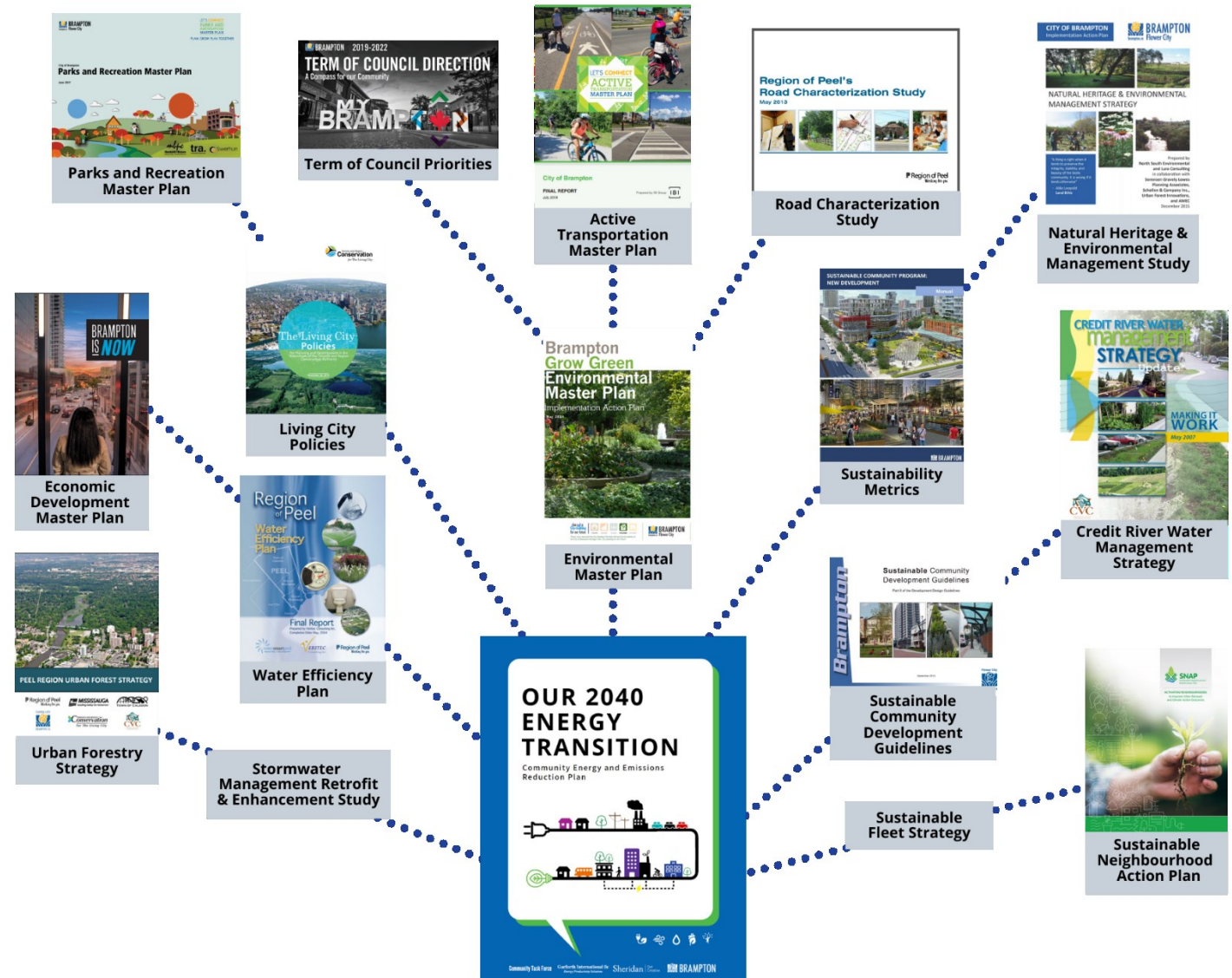
Committee of Council  
September 23, 2020





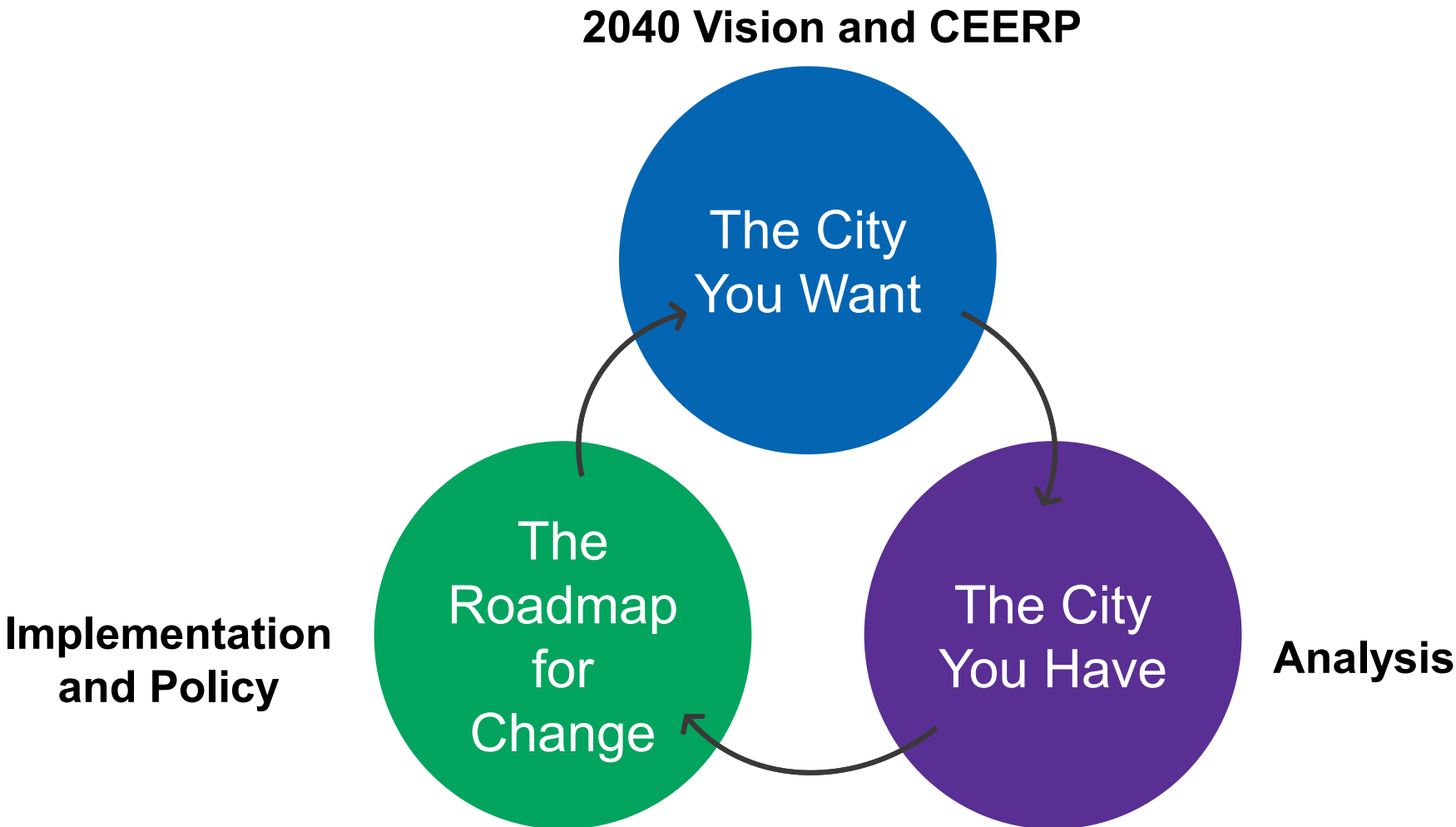
# CEERP

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





# Transforming Our City: Collective Action





# 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



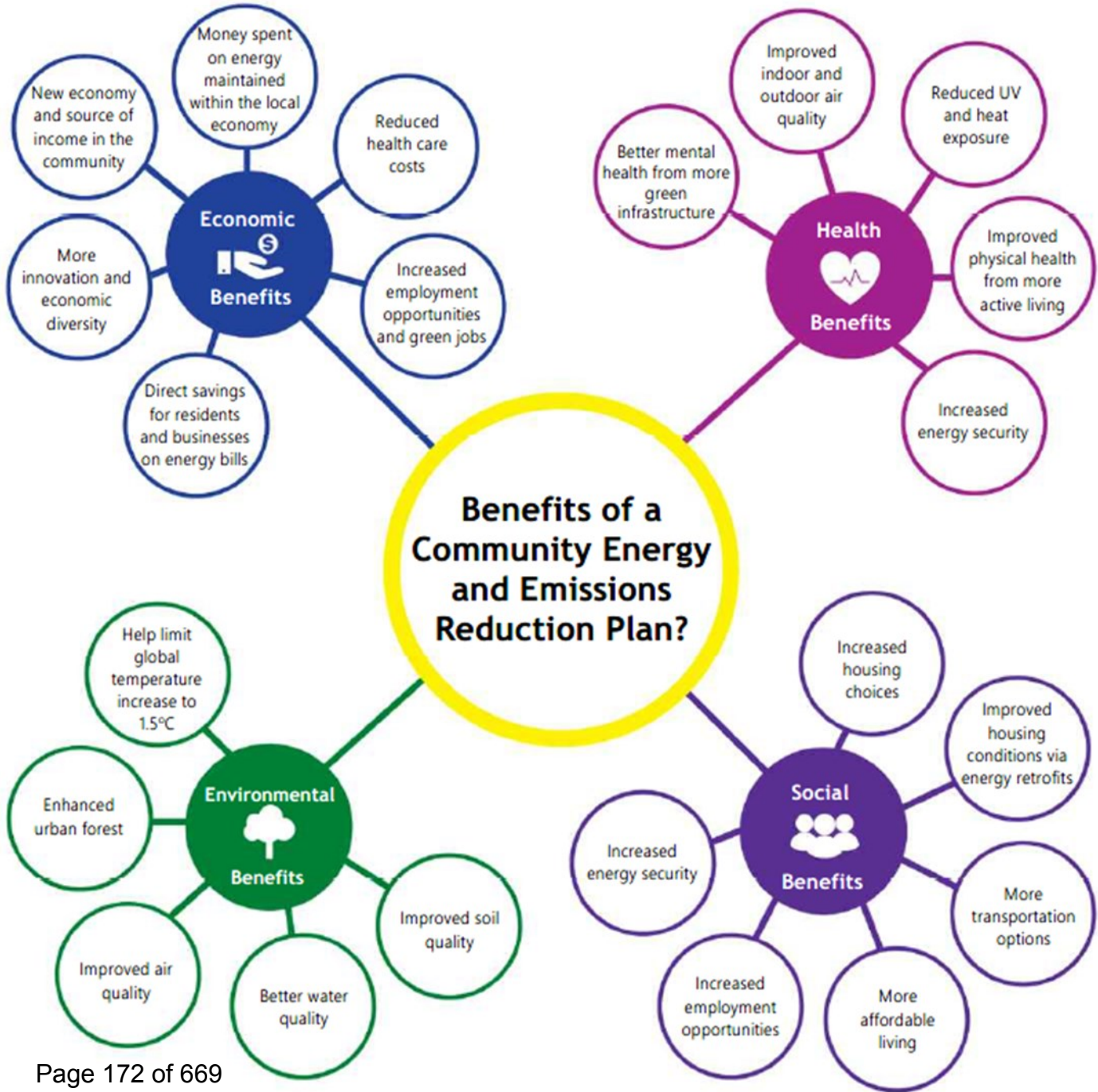
The Brampton City Council is looking to take action against climate change.





# Co-Benefits

- Environmental
- Social
- Health
- Economic



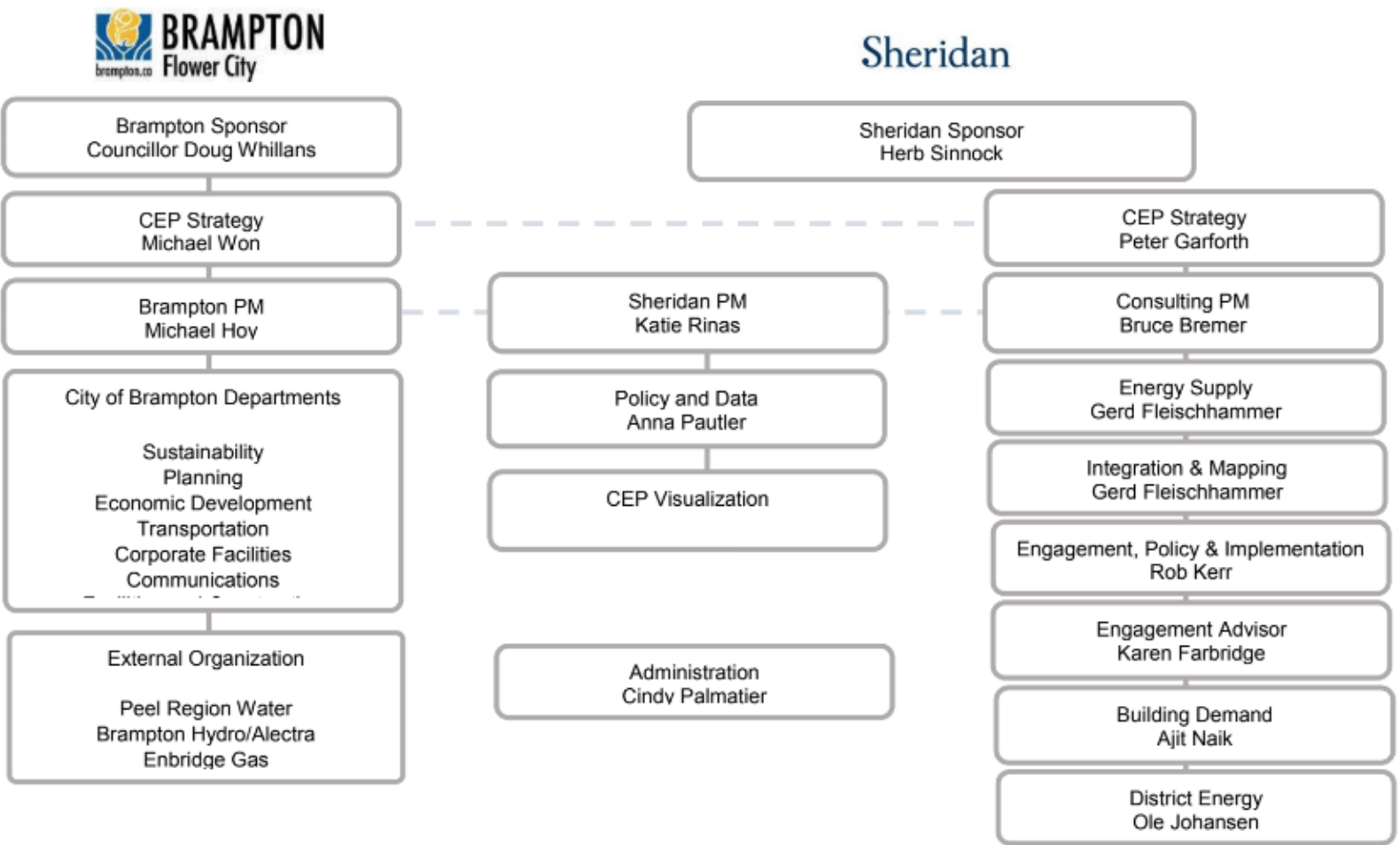


# Community Task Force





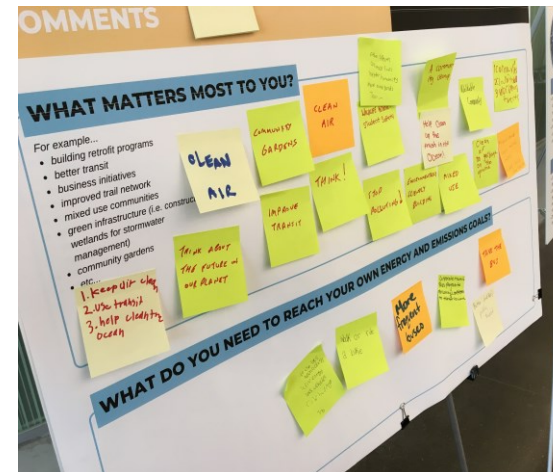
# Project Working Team





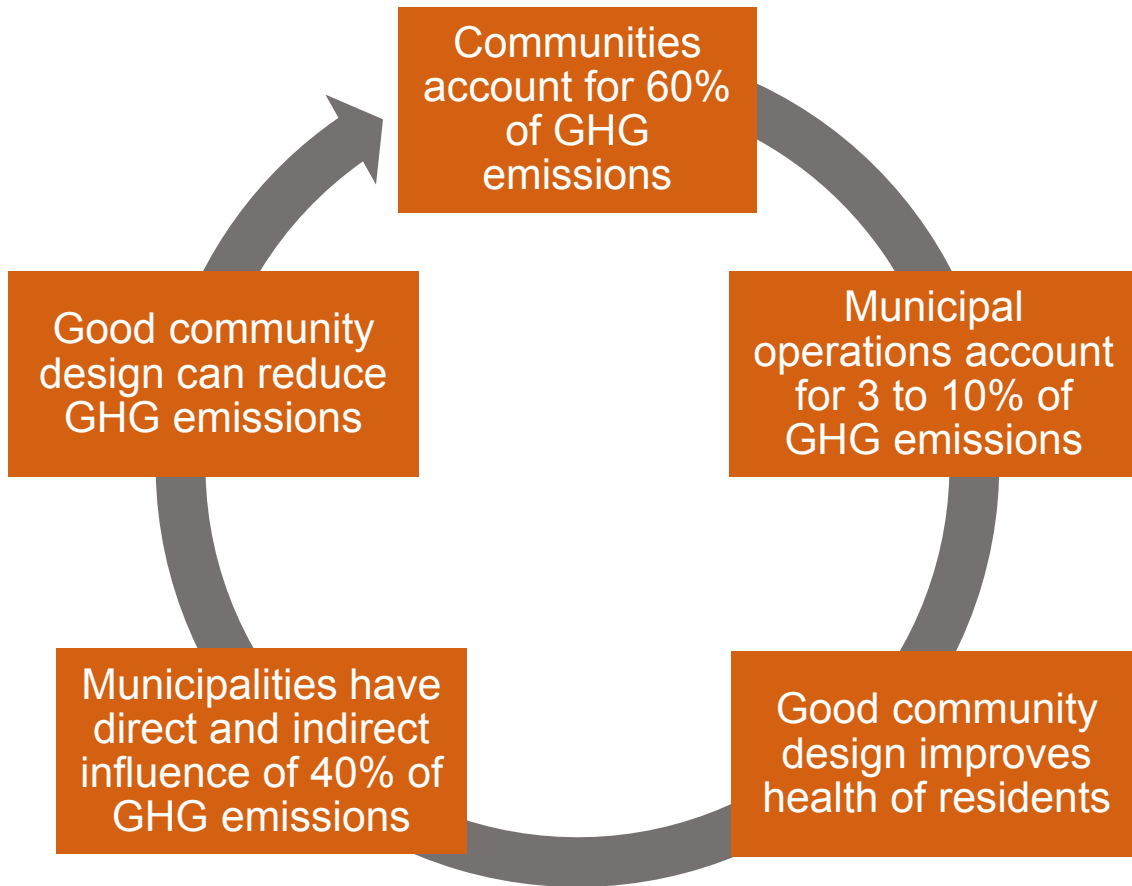
# Engagement

- 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)





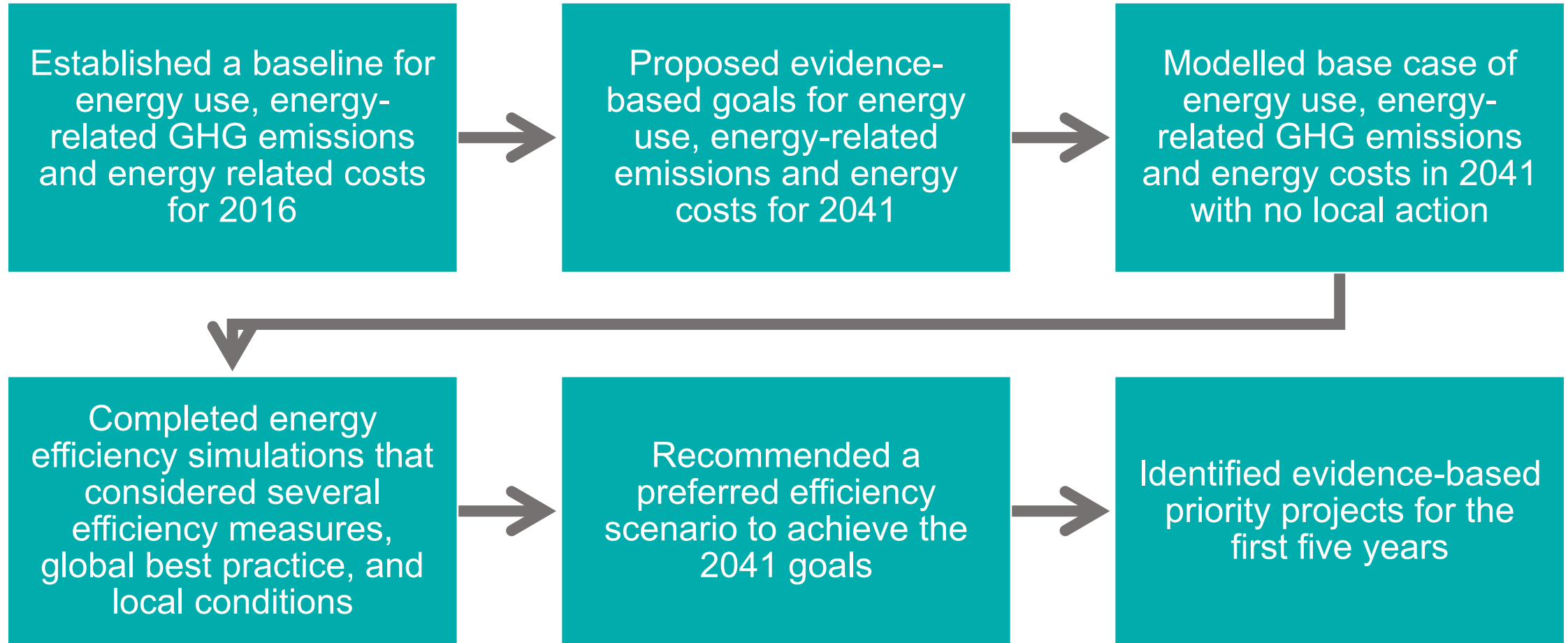
# Local Planning Matters



- 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



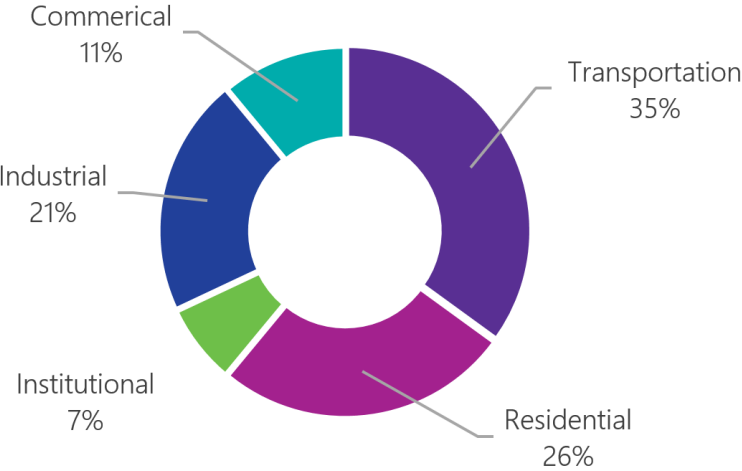
# Evidence Based Process



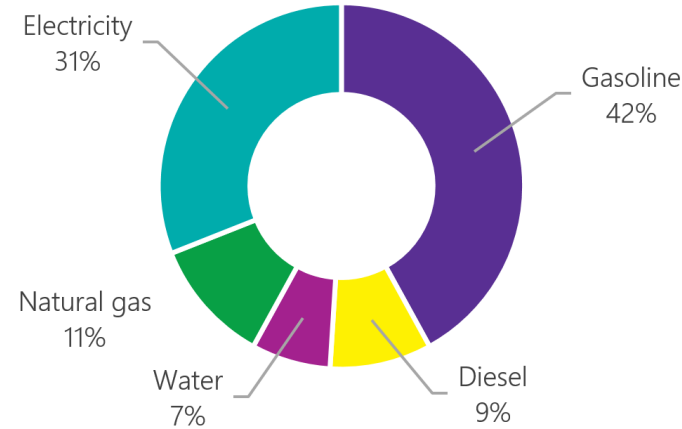


# 2016 Base Case

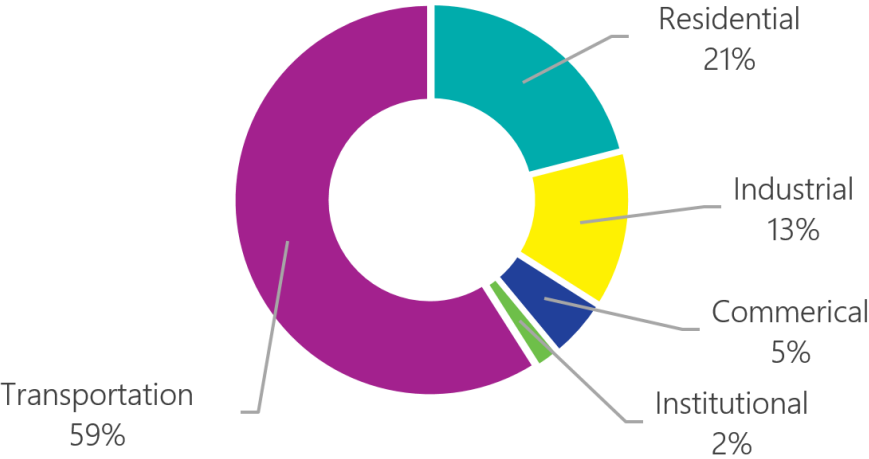
**Brampton Source Energy Use by Sector, 2016**



**Brampton Energy Costs by Utility, 2016**



**Brampton Emissions by Sector, 2016**

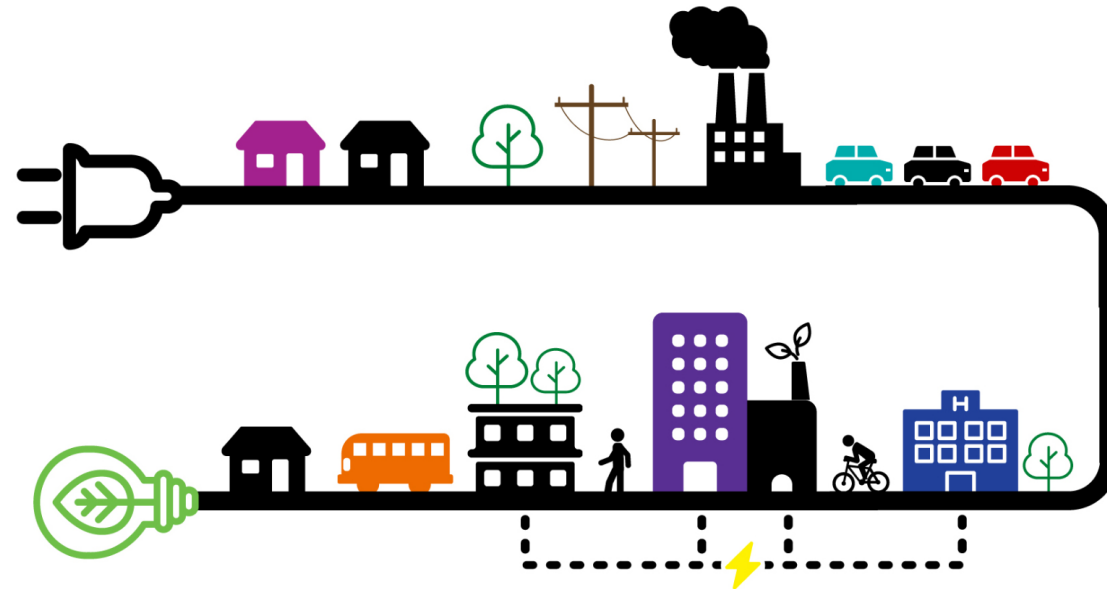




# CEERP Framework

Addressing the Climate Change Emergency requires:

- Urban transition
- Energy transition
- Community commitment and collaboration



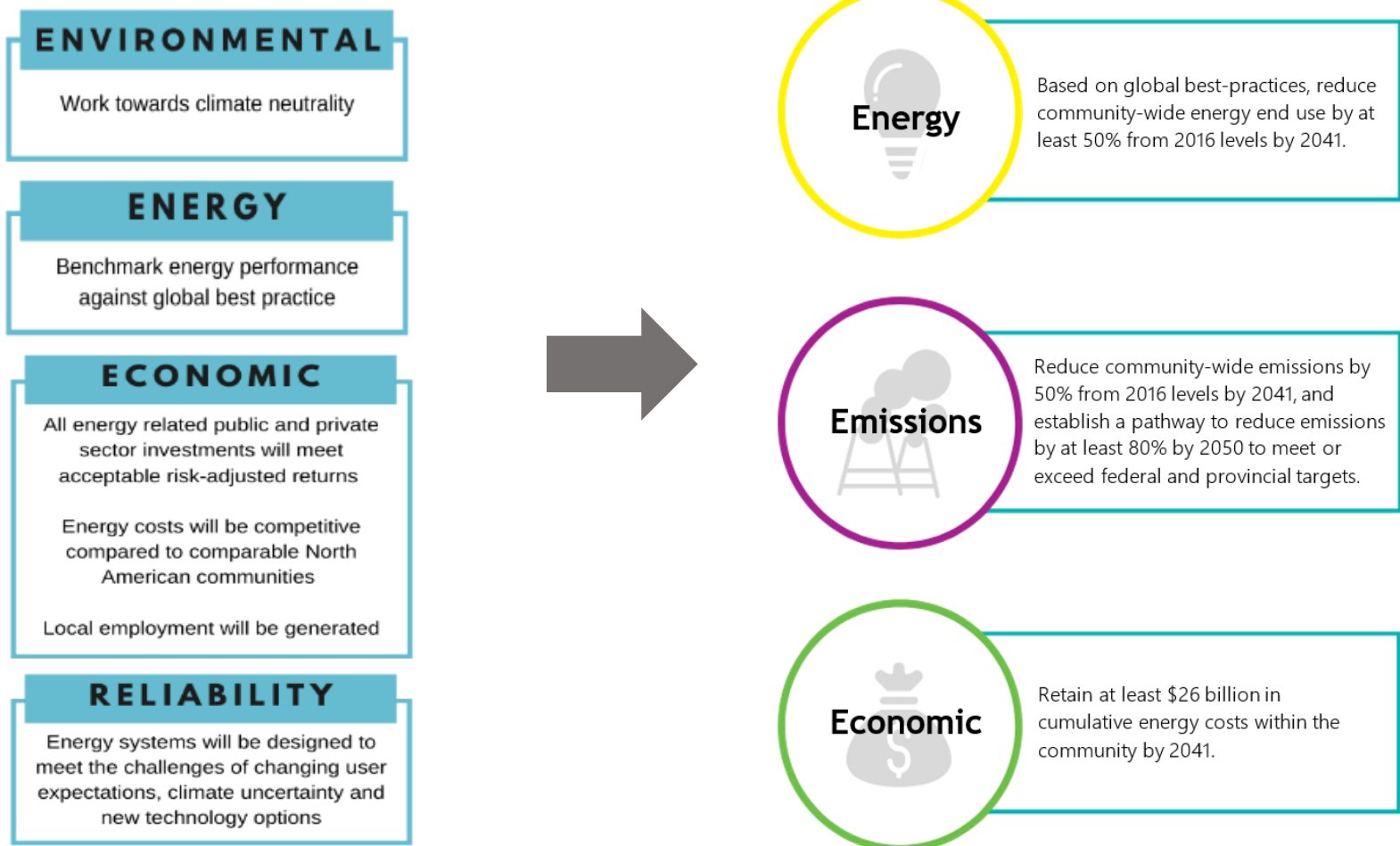


# Vision Statement

**Brampton's energy future is clean,  
sustainable, resilient, and supports  
the Brampton 2040 Vision.**



# Principles and 2041 Goals





# 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.



# 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

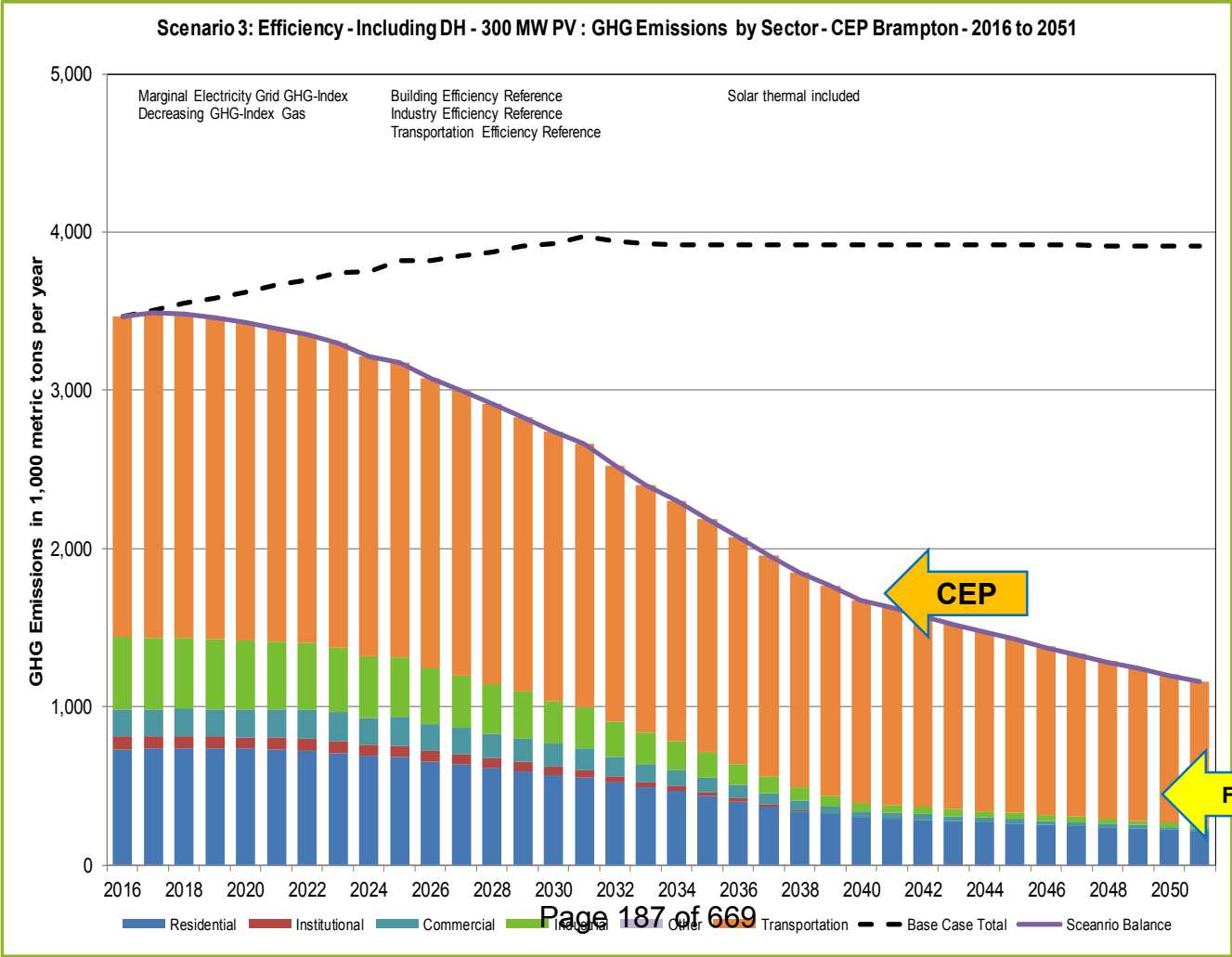
| Local Energy Supply and Distribution |   |      |                    |             |
|--------------------------------------|---|------|--------------------|-------------|
| #                                    | Action  | Lead | Partner(s)         | Timeline    |
| Corporate                            |   |      |                    |             |
| 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 CEERP.*   | 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 the CEERP energy district mapping. * | 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.*   | 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.*  | COM  | COB, ROP, UT       | Short-term  |
| 5.2.4                                | Identify and pursue opportunities for combined heat and power (CHP) partnerships for district energy.*  | 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, PPG | 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 |



# Brampton's GHG Emissions Target

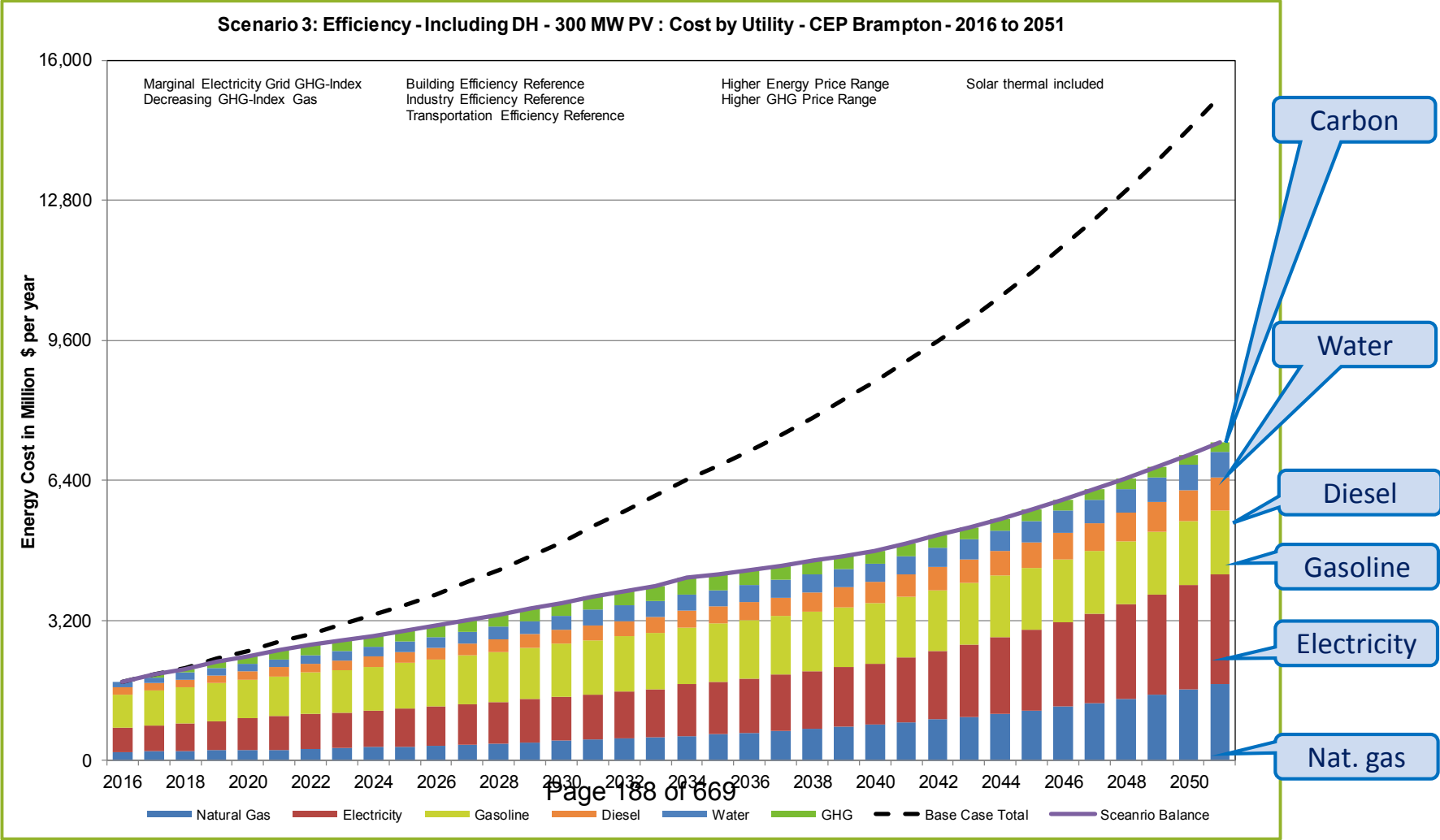
- GHG Emission reduction of 50% by 2041





# Brampton's Energy Savings

- Potential cumulative energy savings of \$26 billion by 2040





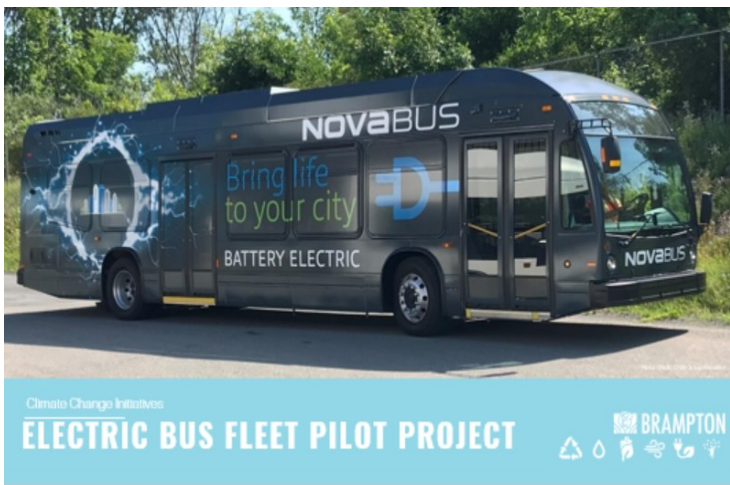
# Moving Forward

- 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





# We Have Much to Be Proud Of







By adopting the CEERP, Brampton will be joining the ranks of the global community of cities taking a leadership role in the fight against climate change. We can set an example as to what a successful, growing, suburban city looks like for others to follow.



# Thank you

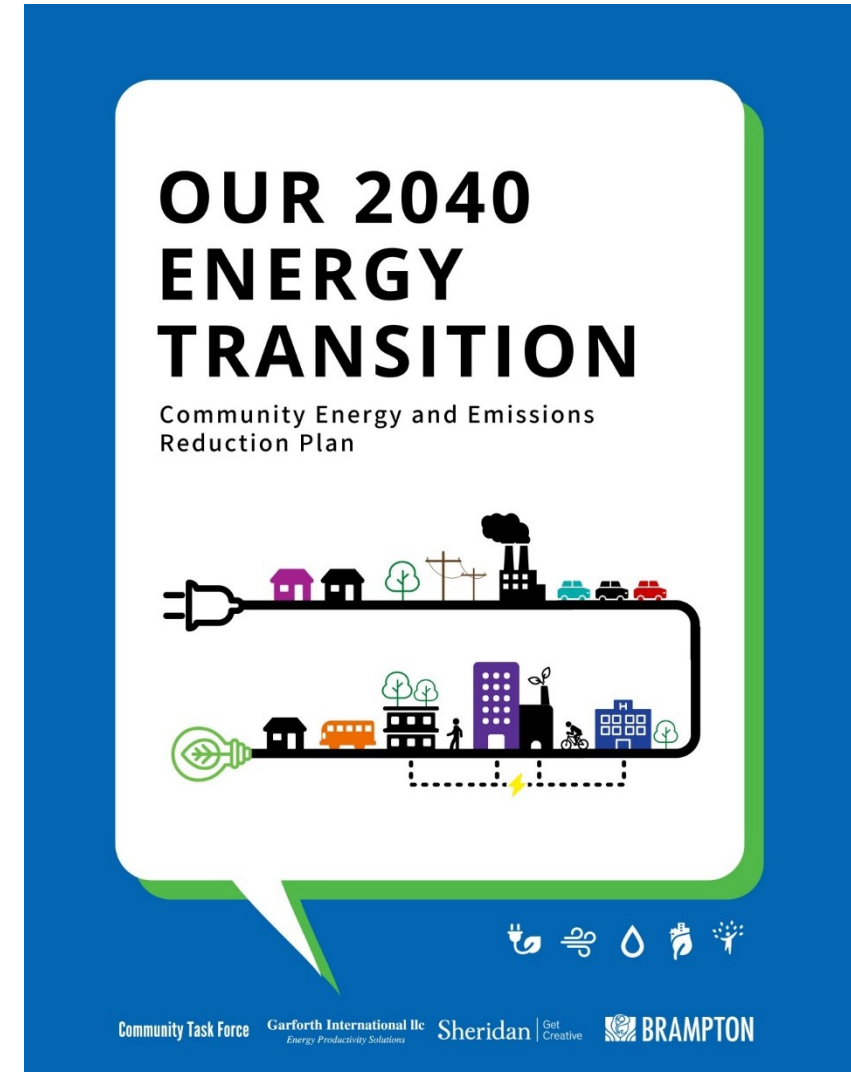
Pam Cooper

Senior Environmental Planner

Public Works and Engineering

[pam.cooper@brampton.ca](mailto:pam.cooper@brampton.ca)

905.874.2265





**Date:** 2020-08-31

**Subject:** **Centre for Community Energy Transformation (CCET)**

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

**Report Number:** Public Works & Engineering-2020-116

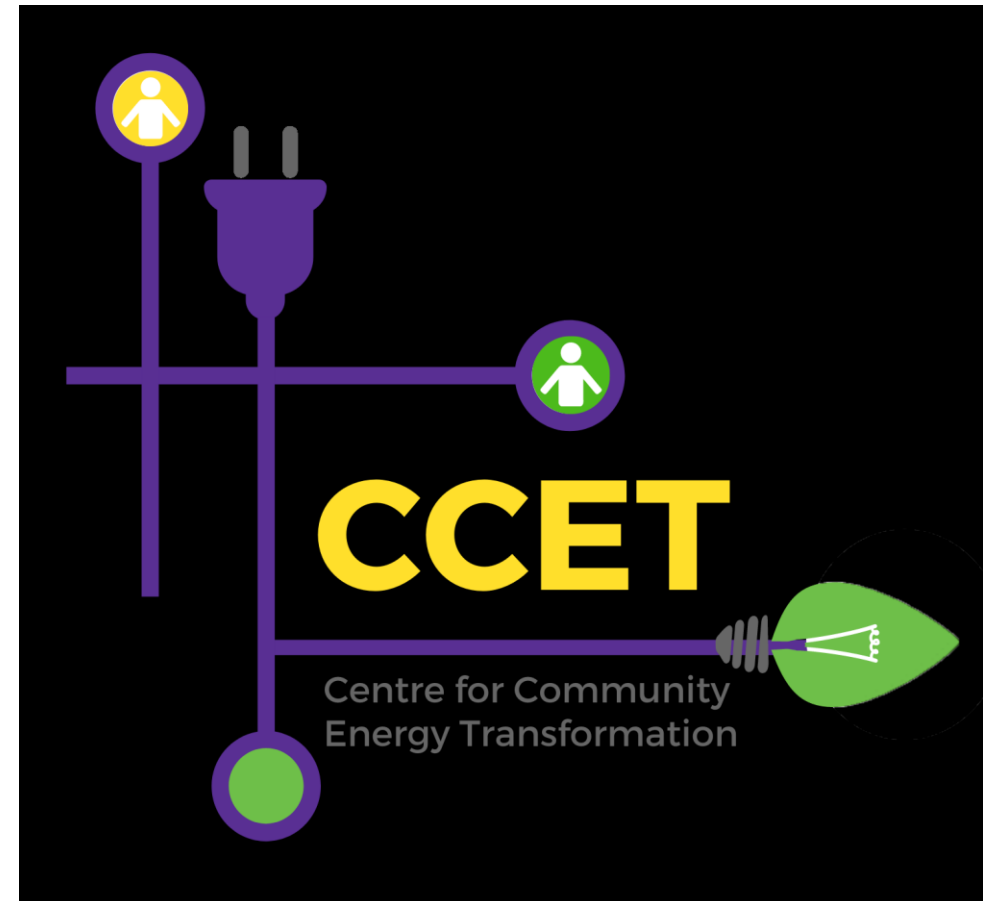
**Recommendations:**

1. That the presentation titled: Centre for Community Energy Transformation (CCET) to the Committee of Council meeting of September 23, 2020 be received;



# Centre for Community Energy Transformation

Committee of Council  
2020.09.23





# 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





# 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.

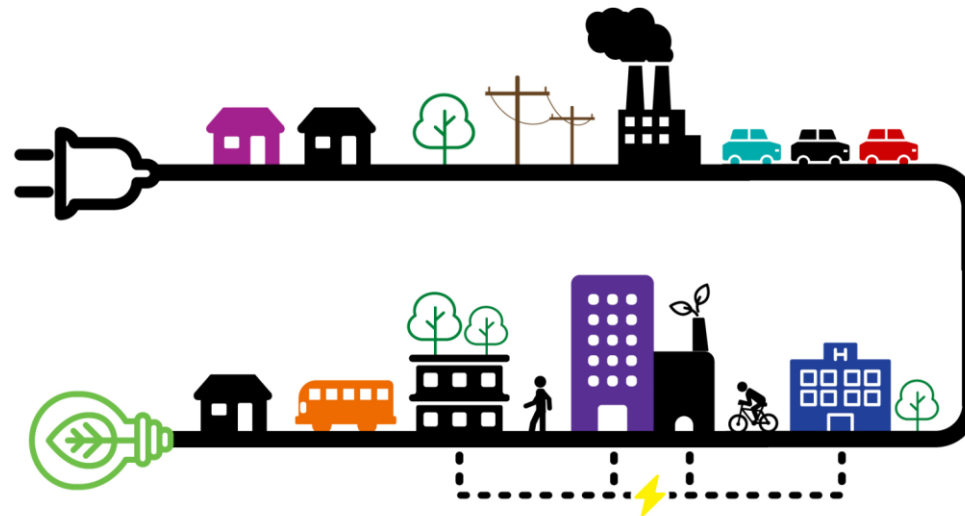
| Changes   | Effects  | Community Impact   |
|---|--|--|
| <br>Increase in average summer temperatures<br>More frequent and longer heat waves | <br>Heat islands<br>Health issues   | Increased costs to cool buildings<br>Increased healthcare costs<br>Increased socioeconomic disparity   |
| <br>Increase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



# CEERP Framework

Addressing the Climate Change Emergency requires:

- Urban transition
- Energy transition
- Community commitment and collaboration

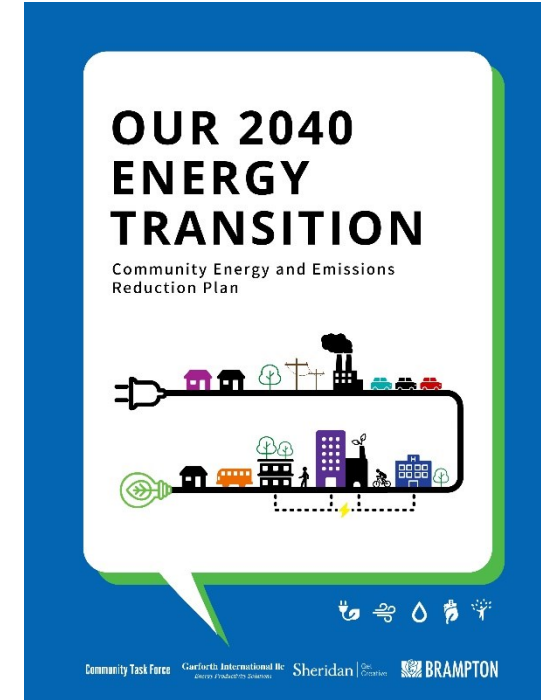




# Brampton's Approach to Mitigating Climate Change



Urban transition =  
Brampton 2040 Vision

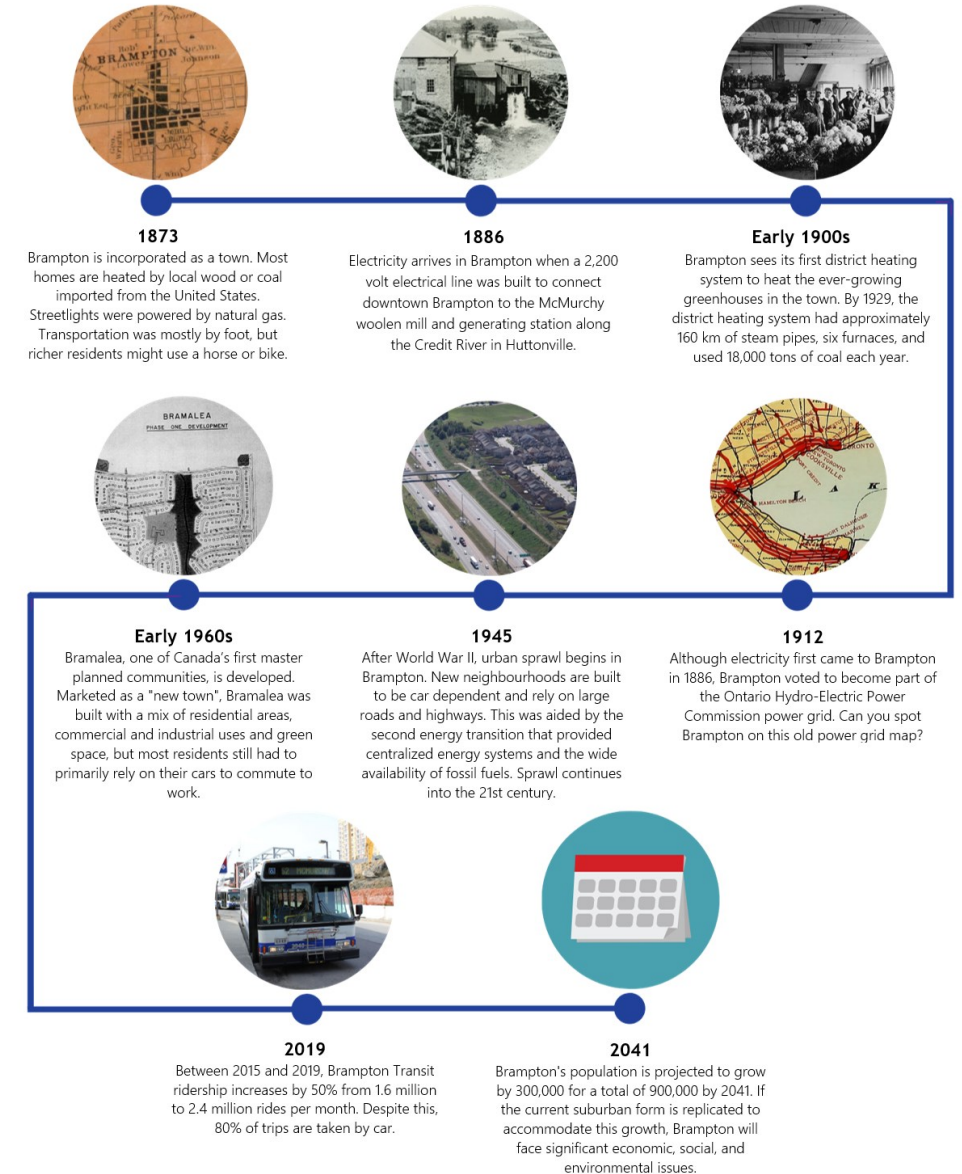


Energy Transition =  
Community Energy &  
Emissions Reduction Plan



# Energy Transitions

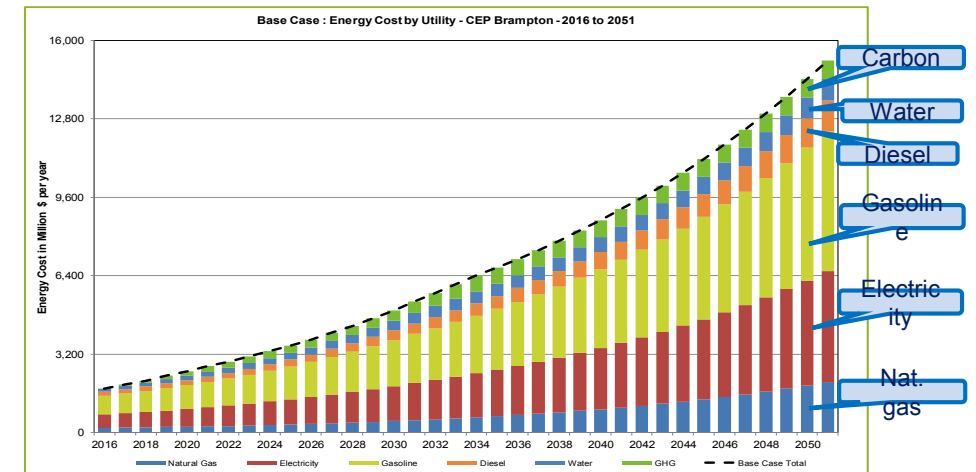
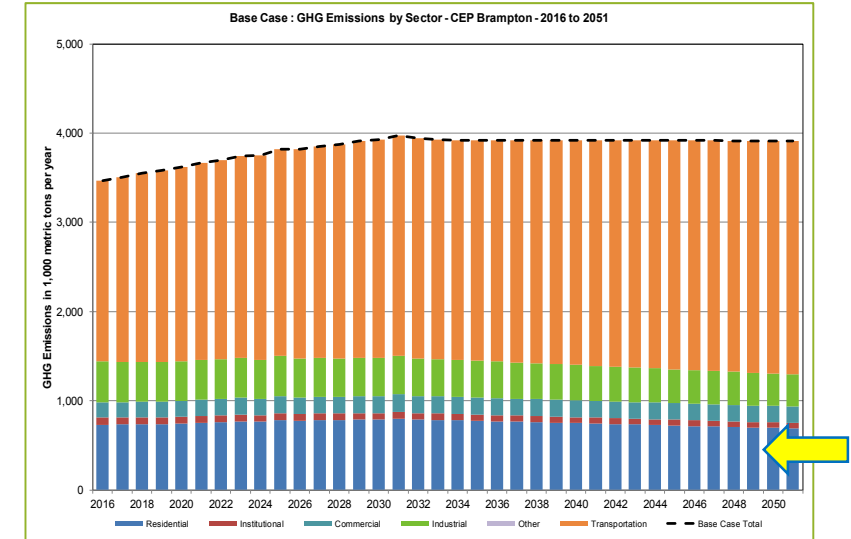
- Two previous energy transition in the last 100 years
  - 1<sup>st</sup>: wide scale use of coal and steam power
  - 2<sup>nd</sup>: move to centralized energy systems and use of fossil fuels
- Current transition involves:
  - Decarbonization of energy
  - Distributed energy generation
  - Deep building 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 CO<sub>2</sub>e of GHG per resident (Ontario = 3.7t /capita)
- Brampton buildings ½ as efficient as global best practices
- Transportation sector almost 60% of GHGs

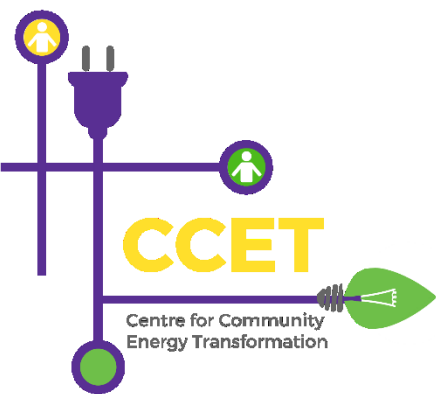
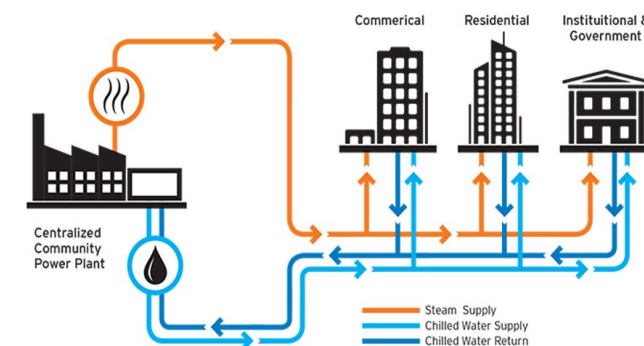




# CEERP Priority Projects

Implement in the next 5 years:

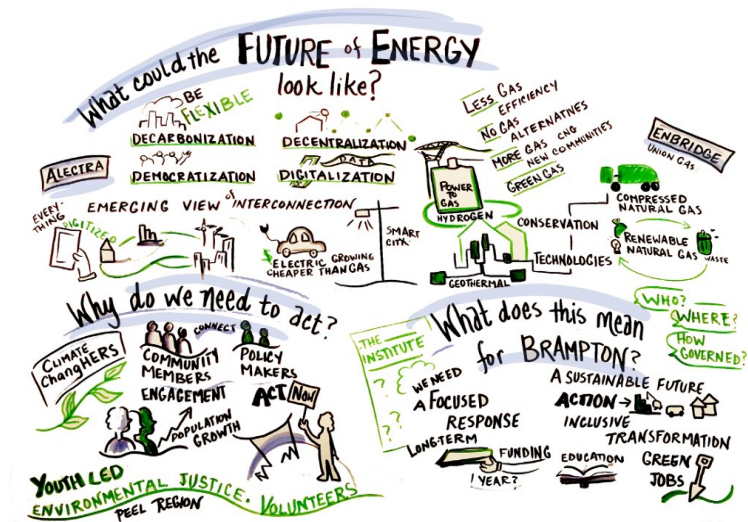
- Align City policies/programs to support CEERP targets
- Establish a standardized Home Retrofit Program
- Update Transportation Master Plan
- Integrate District Energy Systems into City/Town Centres
- Develop Integrated Energy Master Plans
- Establish a Community Organization





# 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

CCET

Centre for Community  
Energy Transformation



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

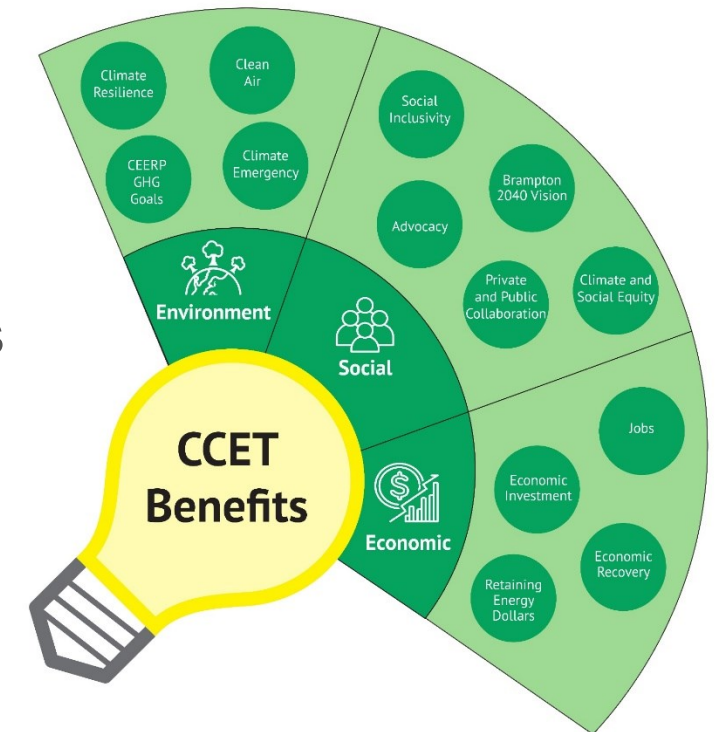
- Non-profit community organization
- Focused on becoming a centre of excellence in energy
- Support Brampton in meeting its climate change targets
- Facilitate community actions to accelerate Brampton's energy transformation
- Collaborate with businesses, developers, utilities, governments, institutions,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

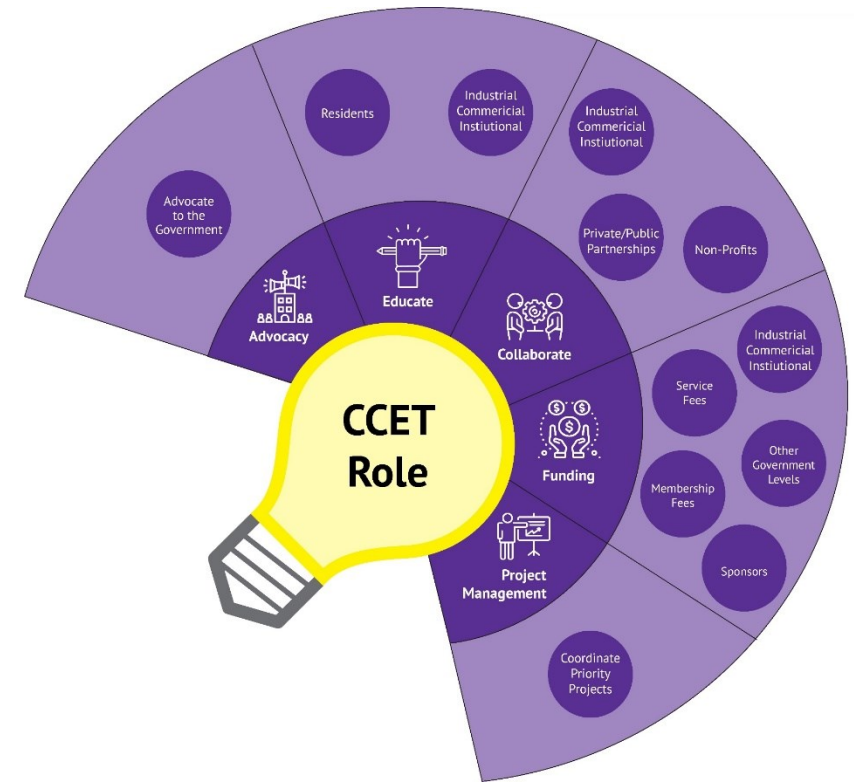
- Working for Brampton's community
- Build network of cross-sector stakeholders and partners
- Secure funding opportunities for private and public sector
- Seek integrated solutions with multiple benefits
- Develop a brand and virtual presence





# Role of CCET in Brampton's Energy Transition

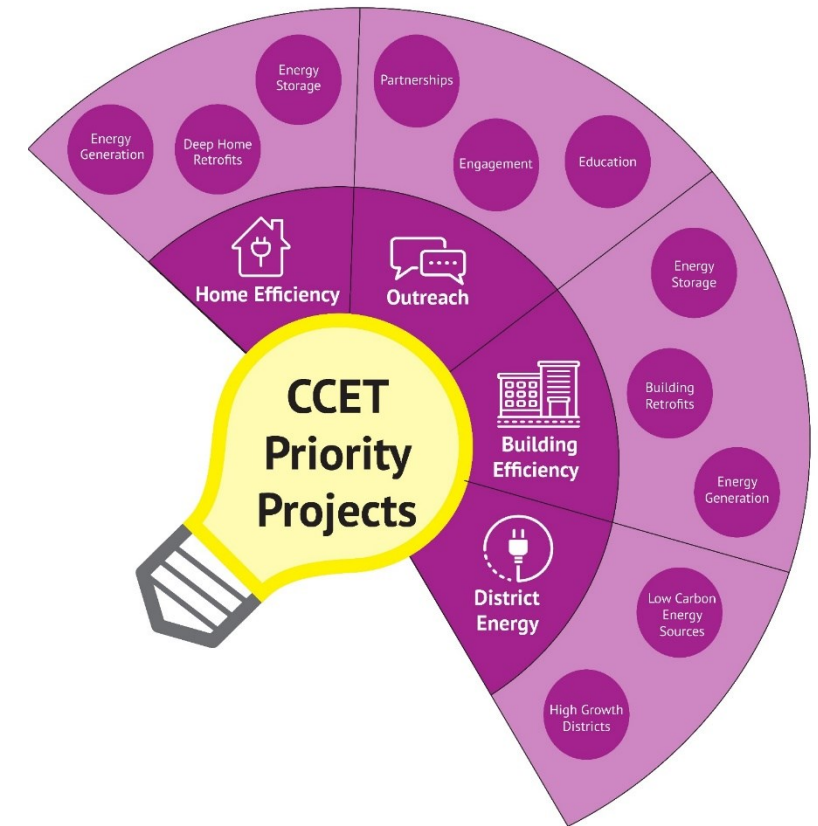
- Plan, coordinate, and deliver select 2020-2025 CCERP priority projects
- Advocate for energy investment
- Secure funding opportunities from private and public sector
- Communicate and engage regularly
- Community hub for energy excellence





# CCET Priority Projects

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





# Establishing CCET: Community Task Force

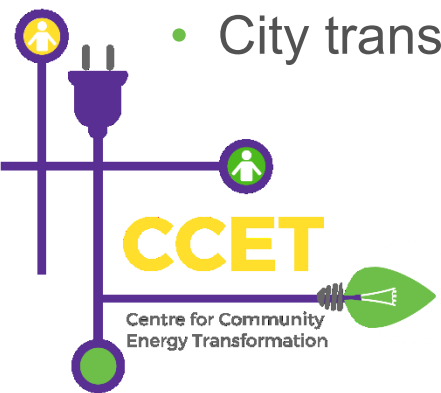




# Establishing the CCET: 2020-2022

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





# Thank you

Michael Hoy  
Supervisor, Environmental Planning  
Public Works & Engineering  
City of Brampton  
905-874-2608  
[michael.hoy@brampton.ca](mailto:michael.hoy@brampton.ca)





**Date:** 2020-08-26

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

**Secondary Title:** Click or tap here to enter text.

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

**Report Number:** Public Works & Engineering-2020-075

**Recommendations:**

1. That the report titled: Brampton's Community Energy and Emission Reduction Plan - City Wide - All Wards (HA.D CEERP) to the Committee of Council meeting of September 23, 2020 be received;
2. That the Community Energy and Emission Reduction Plan and its Priority Projects be endorsed by Council;
3. That the target to reduce greenhouse gas (GHG) emissions by 50% from 2016 levels by 2040, and to establish a pathway to reduce emissions by at least 80% by 2050 be approved by Council;
4. 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; and,
5. That the Community Energy and Emissions Reduction Plan be circulated to the local MP's/MPP's, Ministry of the Environment, Conservation and Parks, Ministry of Energy, Northern Development and Mines, Federation of Canadian Municipalities, Association of Municipalities Ontario, Region of Peel, City of Mississauga, Town of Caledon, and Sheridan College for information.

**Overview:**

- In June 2019, Council unanimously declared a climate emergency and directed staff to report on recommendations for Brampton to reduce greenhouse gas (GHG) emissions by 50% from 2016 levels by 2040 and to establish a pathway to reduce emissions by at least 80% by 2050.



- As the current COVID-19 crisis transitions to economic recovery, the City require an urban and energy transition to create a new path forward that will meet our economic, social and environmental goals.
- Changing markets and technologies have inspired this current energy transition, but more important is the urgent need to cut greenhouse gas emissions to address climate change. This calls for a major transformation of energy, heating and transportation systems to low-carbon technologies.
- The City of Brampton, in collaboration with Sheridan College, launched the development of the Community Energy and Emissions Reduction Plan (CEERP).
- The CEERP is Brampton's climate mitigation strategy and its vision is "an energy future that is clean, sustainable, resilient, and supports the Brampton 2040 Vision."
- The CEERP goals are to:
  - reduce community-wide energy end use by at least 50% from 2016 levels by 2041 and by at least 50% from 2016 levels by 2041,
  - to establish a pathway to reduce emissions by at least 80% in 2050 to meet or exceed federal and provincial targets ,and
  - retain at least \$26 billion in cumulative energy costs within the community by 2041.
- The CEERP Strategic Directions focus on green communities, transportation efficiency, home and building efficiency, local energy supply and distribution, industrial efficiency, green infrastructure, and communications, engagement and monitoring.
- The Term of Council Priority, "Lead Environmental Innovation" directs Brampton to develop a Community Energy and Emissions Reduction Plan to improve energy efficiency, reduce greenhouse gas emissions, ensure energy security, create economic advantage, and increase resilience to climate change.
- The Community Energy and Emissions Reduction Plan establishes an aligned strategy that supports Brampton 2040 Vision: Living the Mosaic.
- This staff report seeks Council endorsement of the Community Energy and Emissions Reduction Plan (CEERP), approval of the greenhouse gas (GHG) reduction targets, and endorsement of the Priority Projects identified in the CEERP.

## **Background:**

Addressing the global climate change emergency requires an urban and energy transition, which will result in a number of economic, social, and environmental opportunities and benefits.



Brampton's approach to the needed urban transition is to focus on creating urban and town centres, enhancing transportation options, and pursuing "One Planet Living". Brampton's Community Energy and Emissions Reduction Plan (CEERP) represents the city's approach to managing the risks and opportunities associated with the current energy transition by focusing on *energy efficiency, sustainable transportation, and sustainable energy supply and distribution*.

In addition, as governments respond to the economic impacts of COVID-19 through stimulus funding, it is important to not lose sight of a major challenge of our time: clean energy transitions. With the approval of the CEERP, Brampton will be in a strong position to take advantage of this funding and lead in this new energy transition and climate change mitigation.

### **Climate Change Impacts**

Ontario's average temperature has increased by 1.5 degrees Celsius (°C) over the last five years and is projected to experience a further 3 to 8 degree °C increase by the end of this century. Brampton is already experiencing the consequences of climate change through the increasing severity of precipitation, snow, ice storms and wind events, greater temperature fluctuations and extremes, and the growing presence of vector-borne diseases. Further temperature increases in the coming decades would potentially increase the severity of these impacts.

The "Report of the Intergovernmental Panel on Climate Change (IPCC) on the Impacts of Global Warming of 1.5°C above Pre-Industrial Levels" (2018) demonstrates that we must limit global warming to 1.5°C by the end of this century to avoid irreversible and catastrophic impacts. This means that GHG emissions need to decline by about 45% by 2030, and reach net zero in 2050.

At the United Nations Climate Action Summit in 2019, global attention focused on the urgent need to scale up action. Studies have shown a record increase in carbon dioxide (CO<sup>2</sup>) levels and other key greenhouse gases (GHG) in the atmosphere, with CO<sup>2</sup> growth rates being nearly 20% higher than the previous five years.

The Climate Action Summit delivered a clear direction: reinforce 1.5°C as the socially, economically, politically, and scientifically safe limit to global warming by the end of this century, reduce GHG emissions by 45% by 2030, and aim for net zero emissions by 2050 as the global long-term climate objective.

### **Climate Change Opportunities**

The COVID-19 pandemic offers lessons about the urgency of taking swift action and the high cost of inaction. There are multiple benefits associated with proactively addressing



the climate crisis, related to economic development, health and wellness, social equity, and environmental improvements, including:

- improved indoor and outdoor air quality,
- increased energy security,
- reduced heat exposure,
- more accessible transportation options,
- investment of energy dollars,
- retention and creation of local jobs,
- more housing options,
- improved home comfort, and
- higher property values.

### **Municipal Leadership on Climate Change**

City of Brampton has responded to the climate change crisis with municipal leadership in the following ways:

- In June 2019, Council unanimously declared a **climate emergency** and directed staff to report on recommendations for Brampton to reduce greenhouse gas (GHG) emissions by 50% from 2016 levels by 2040, and to establish a pathway to reduce emissions by at least 80% by 2050.
- In November 2019, the City signed a declaration to join the **Global Covenant of Mayors for Climate & Energy**. Brampton is one of 25 Canadian communities participating in the national Showcase Cities pilot led by the Global Covenant of Mayors (GCOM) Canada, Federation of Canadian Municipalities, ICLEI Canada, and the Urban Cooperation Project.
- Central to the Brampton 2040 Vision are seven ambitious vision statements dealing with sustainability and the environment, transportation, creating and retaining jobs, recreation, health, social issues, and arts and culture. The CEERP supports multiple vision statements.
- The City of Brampton is a participant in the **Peel Climate Change Partnership Low Carbon Communities Strategy**, a collaboration between the Region of Peel and local municipalities, which seeks to advocate for, encourage, and implement GHG mitigation measures.

Brampton's municipal leadership is important as analysis from the International Energy Agency shows that "governments directly or indirectly drive more than 70% of global energy investments. They have a historic opportunity today to steer those investments onto a more sustainable path." Data from the Federation of Canadian Municipalities also shows the importance of local decisions on reducing GHG emissions, as 45% of national GHG emissions in Canada are under the direct or indirect control of municipal governments.



## Community Energy and Emission Reduction Plan

In 2018, the City of Brampton and Sheridan College partnered to fund and facilitate the development of the CEERP, and enlisted a team of consultants operating under the umbrella of Garforth International llc. The City also secured funding from the Government of Ontario to support planning of the CEERP. Both the City of Brampton and Sheridan College assigned staff to a Project Working Team to oversee the project and support a Community Task Force.

The vision of Community Energy and Emission Reduction Plan is an “energy future that is clean, sustainable, resilient, and supports the Brampton 2040 Vision”. It offers tangible solutions to the City, residents, businesses, and institutions to address our climate emergency.

## Partnerships

To ensure community ownership of the CEERP, a Community Task Force formed to provide governance and oversight of the planning process. The Community Task Force consists of a variety of community stakeholders within Brampton, representing a cross-section of local business, energy, public sector and environmental organizations, including:



Letters of support for the CEERP from several of these stakeholders are provided in Appendix 4 – Letters of Support.



## **Community Engagement**

In addition to forming a Community Task Force, the Project Team conducted a number of consultation and engagement activities, which included:

- March 26/27, 2019                      Nordic City Solutions, presentation of CEERP
- November 29, 2019                   Partners in Project Green, presentation
- February 2020                         York University presentation
- Community survey                    On-line survey, City of Brampton website
- Mapping workshop                   CEERP Task Force and Sheridan College students
- Open House events                   Cassie Campbell Recreation Centre, Springdale Library, Brampton Soccer Centre<sup>1</sup>

Additional promotion of the CEERP occurred at public events such as: Earth Day Celebration, Mayor's Faith Based Leaders Forum, Massey Street Public School Open House, Annual Scouts Tree Planting, Brampton Vision Celebration, National Public Works Week, Heart Lake Run, Farmers Markets Launch, Bike the Creek, Farmers Market tree talk event, Farmers Market pollinator event, and the Massey Park, Dorchester Park, and Fletchers Creek community planting events.

The 2019 CEERP Engagement Report fully describes the engagement activities (see Appendix 3 - Engagement Report).

### **Current Situation:**

Brampton's population is expected to grow from 600,000 to 900,000 by 2041. This rapid urbanization places pressure on municipal leaders who must manage the growth and development of the community while protecting residents' quality of life. Planning, designing, and building smart, transit-oriented, energy efficient communities helps improve Brampton's economic development, quality of life, and social equity while addressing climate change.

The Community Energy and Emissions Reduction Plan (CEERP) (see Appendix 1) is Brampton's climate mitigation strategy and provides a road map to achieve a clean, sustainable, and resilient energy future in Brampton. The CEERP builds on existing strategies and plans to advance a number of City objectives, including the Brampton Grow Green Environmental Master Plan and the Brampton 2040 Vision.

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<sup>1</sup> Events planned for South Fletchers Sportsplex, Gore Meadows Community Centre and Brampton Civic Centre were cancelled due to COVID-19, however, email was used to direct people to a survey and information on the City's website.



The CEERP planning process involved:

- Establishing a baseline for energy use, energy-related greenhouse gas emissions and energy costs for 2016;
- Proposing evidence-based goals for energy use, energy-related greenhouse gas emissions and energy costs for 2041;
- Modelling base case of energy use, energy-related greenhouse gas emissions and energy costs in 2041 with no local action;
- Undertaking energy efficiency simulations that considered several efficiency measures as well as global best practice and local conditions;
- Recommending a preferred efficiency scenario to achieve the 2041 goals; and,
- Identifying evidence-based priority projects for the first five years.

Based on this planning process, the CEERP consists of three documents (see Appendix 1, 2 and 3):

1. **Community Energy and Emissions Reduction Plan** - provides context for the report and summarizes the recommended strategy and priority projects.
2. **Analytical Report and Appendices** - summarizes the evidence-based rationale for the recommended strategy and priority projects.
3. **Engagement Report and Appendices** - summarizes the year-long process that culminated in the recommended strategy and priority projects.

The CEERP recommendations are based on:

- understanding Brampton's Baseline and Base Case for energy use and energy-related emissions;
- understanding Brampton's population and employment growth;
- community engagement;
- results of simulations of Brampton's growth, employing several efficiency measures (see 2019 Analytical Report for more details); and
- global best practice and assessment of local opportunities.

Based on the analytical findings of the CEERP, in 2016, the Brampton community spent over \$1.8 billion annually on energy. Of those energy dollars, 80% or \$1.4 billion leaves the community. In 2016, Brampton's GHG emissions were 3.5 million tonnes, or 5.6 tonnes for every Brampton resident. This is more than Ontario's average GHG emissions of 3.7 tonnes per capita and twice that of the City of Copenhagen, widely recognized as a global leader. Brampton's GHG emissions are about ten times the Government of Canada's target for 2050 based on the Paris Agreement. Finally, transportation accounted for almost 60% of Brampton's emissions, while the residential sector accounted for 21% of emissions.



Based on this analysis and scenario planning, the CEERP recommends the following emission targets for the City of Brampton:

- 50% reduction of 2016 GHG emissions by 2040
- 80% reduction of 2016 GHG emissions by 2050

Council has the option to recommend interim targets for 2030 that express Council commitment and leadership towards mitigating climate change and addressing the Climate Emergency. However, these interim targets would not be based on analysis and scenario planning. If Council decides to endorse 2030 interim targets, staff will analyze their impact on the recommended Action Plan and make the necessary amendments to ensure the City is on track to meet them.

### **Community Energy and Emissions Reduction Plan (CEERP)**

The Community Task Force is seeking Council's endorsement of Brampton's CEERP, which includes the following structure and content:

#### Vision

The Community Task Force approved the following vision statement as a future oriented declaration of Brampton's energy transition:

*An energy future, which is clean, sustainable, resilient and supports the Brampton 2040 Vision.*

#### Principles

The CEERP was developed as a realistic and implementable plan that will be regularly updated. The Community Task Force approved six principles under four categories to guide strategic implementation and ensure decision making in a responsible and sustainable manner that is consistent with CEERP's vision statement. The following principles guided the formation of goals, objectives, and targets and helped prioritize actions:

1. **Environmental** - work towards climate neutrality.
2. **Energy** - benchmark energy performance against global best practices.
3. **Economic** – all energy-related investments will meet acceptable returns, energy costs will be competitive compared to similar North American communities and local employment will be generated.
4. **Reliability** - energy systems will be designed to meet the challenges of changing user expectations, climate uncertainty, and new technology options.



### Goals

The Community Task Force chose realistic over aspirational goals, recognizing that the CEERP will require regular updates to adapt to changes in climate policy, energy policy, technology, and global best practice. Goals are based on the assessment of Brampton's current energy and emissions data relative to global best practice and where Brampton wants to be by 2040.

- **Energy** - Based on global best-practices, the community-wide energy end use will be reduced at least 50% from 2016 levels by 2041
- **Emissions** - To reduce community-wide emissions by 50% from 2016 levels by 2041, and to establish a pathway to reduce emissions by at least 80% in 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, Objectives and 2041 Targets

The Community Task Force approved seven strategic directions, reflecting Brampton's urban and energy transitions as well as the Brampton 2040 Vision:

1. Green Communities
2. Transportation Efficiency
3. Home and Building Efficiency
4. Local Energy Supply and Distribution
5. Industrial Efficiency
6. Green Infrastructure
7. Communication, Engagement and Monitoring

Each strategic direction has a series of objectives and 2041 targets that will direct City and community actions. For more information, please refer to the "Objectives and 2041 Targets" table in the CEERP report.

### Priority Projects (2020-2025)

Based on the CEERP framework, the Community Task Force approved six priority projects to completed within the next five years that serve to accelerate the Brampton's energy transition, including:

1. Ensure the City of Brampton policies and programs align with supporting the CEERP Objectives and Targets;
2. Establish a system to deliver standardized retrofits to Brampton homeowners;
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 the City of 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.

### CEERP Action Plan

Beyond the Priority Projects, the CEERP outlines a number of actions to undertake over the next 20 years to meet the Plan's objectives and targets. These actions are identified as either on-going, short, medium or long term in the Action Plan and will be regularly updated to reflect Brampton's changing context.

The City and its partners have already commenced many of the actions within the CEERP related to the:

- Official Plan Review;
- Active Transportation Master Plan;
- Energy and Emissions Management Plan 2019-2024: A Zero Carbon Transition;
- Partnership with RioCan on the development of an Integrated Energy Plan for the Shoppers World redevelopment;
- Implementation of electric buses and charging stations;
- Implementation of the 1 Million Trees Program;
- Installation of 53 City-owned Electric Vehicle Charging Stations
- Update to the City's Sustainability Metrics;
- Development of the Heritage Heights Secondary Plan; and
- Exploration of establishing a Residential Home Retrofit Program

### **Implementation**

Individual actions by the community to address climate change, such as taking transit or buying energy efficient appliances has been and will continue to be important. However, the scale of the actions needed to address the climate emergency and the new energy transition will require coordinated and collective effort within Brampton that will involve the City, residents, business, agencies, and institutions.

To ensure that the CEERP does not 'sit on a shelf' and implementation of the 2020-2025 Priority Projects is achieved and sustained, it is necessary for the City to consider identifying and dedicating resources to oversee, coordinate, implement, and report on overall progress of achieving the Plan's targets.

Internally within the City, the Environment section will work as the coordinator of the City's climate change actions and utilize the existing corporate Grow Green Team,



which includes representatives from across the corporation, to monitor and report on the progress of implementing CEERP related actions.

The establishment of an independent external community organization to work in parallel with the City's efforts to implement the CEERP is one way to accelerate implementation and coordinate collective actions within the community. The Brampton 2040 Vision recommended the establishment of such an organization, referred to as the Institute for Sustainable Brampton (ISB), which would “facilitate public-private actions to position Brampton in the vanguard of suburban sustainability.”

In the fall of 2019, the City, in collaboration with the Region of Peel and Sheridan College, initiated a process to define a framework for this community organization. Through this exercise, the Community Task Force and stakeholders developed a mandate for the ISB that focuses on achieving Brampton's energy transition. As such, this community organization would be renamed “Community Centre for Energy Transformation” (CCET) and could serve as a hub for coordinating, implementing and reporting on the progress of fulfilling select CEERP priority projects.

The CCET is proposed as a not-for-profit, community-based, action-orientated organization to help accelerate Brampton's energy transition towards a low-carbon future by coordinating the implementation of the CEERP's community-based priority actions, including:

- development of a home energy retrofit program;
- expansion/promotion of skilled training in high schools and post-secondary institutions;
- development of a business case for District Energy Systems;
- cooperation with private and public sectors to implement District Energy systems;
- development of a Waste Heat Strategy; and
- pursuit of opportunities to collaborate with community groups to engage on CEERP actions.

Details on the formation of the Community Centre for Energy Transformation (CCET) are contained in a separate staff report.

### **Next Steps**

If endorsed, staff will begin implementing the CEERP with initial actions focusing on:

- defining and assigning municipal resources through the corporate Grow Green Team;
- developing a budget and decision making framework;
- implementing the Action Plan, focusing on the short term actions (1-2 years);



- implementing Priority Projects aligned with the City's mandate (in particular, ensuring municipal policy and program alignment;
- initiating the process for establishing a home energy and retrofit program;
- working with partners to achieve the Priority Projects;
- monitoring progress towards GHG emission goals; and
- developing an internal and external education, communication and outreach plan

## **Corporate Implications:**

### Financial Implications:

There are currently no financial impacts resulting from the recommendations in this report. Any additional resources and funding required to implement actions will be identified and brought forward to Council for approval as part of the annual budget process.

### Other Implications:

### **Term of Council Priorities:**

Within the "Brampton is a Green City" Term of Council Priority, "Lead Environmental Innovation" directs Brampton to develop a Community Energy and Emissions Reduction Plan to improve energy efficiency, reduce greenhouse gas emissions, ensure energy security, create economic advantage, and increase resilience to climate change.

### **Brampton 2040 Vision:**

The Community Energy and Emissions Reduction Plan establishes an aligned strategy that supports Brampton 2040 Vision: Living the Mosaic.

### **Economic Development Implications:**

The CEERP can help to foster an environment conducive to business retention and expansion by providing existing companies with a reason to maintain and expand their operations in Brampton. This is particularly helpful for organizations that consume high amounts of energy, such as some advanced manufacturing companies and data centres. In addition, the provision of competitive energy services will also serve to attract and retain investment in all community sectors.

The CEERP can help identify local energy investments that provide the greatest opportunity for Brampton's local economy, such as investing in the local generation and distribution of energy, manufacturing of energy technologies and infrastructure, or retrofitting of buildings.



The opportunity for the CEERP to spur local economic development is significant and may include:

- direct jobs by businesses that support improvements to energy efficiency (e.g., construction trades) or design, build and/or operate local supply and distribution systems;
- indirect jobs in supply chains that deliver goods and services to businesses in the direct job category; and
- induced jobs when the newly-hired workers in direct or indirect jobs spend their new earnings on goods and services in the community.

There is indication that the federal COVID-19 recovery plans to strengthen and accelerate local stimulus work will focus on climate change and clean technology. The current Investing in Canada Infrastructure Program: COVID-19 Resilience stream supports projects such as active transportation infrastructure (including parks, trails, foot bridges, bike lanes and multi-use paths) and disaster mitigation and adaptation projects (including natural infrastructure, flood and fire mitigation, and tree planting and related infrastructure). Staff will monitor stimulus plans for any applicable programs Brampton could participate in (such as the Green Municipal Fund), as well as monitoring any other provincial/federal financial programs that align with the goals and objectives of the CEERP.

### **Other Implications**

The CEERP's focus on energy transformation is aligned with, and supported by the Peel Climate Change Partnership's Low Carbon Communities strategy, which seeks to advocate for, encourage, and implement GHG mitigation measures. The Partnership is an ongoing collaboration between the Region of Peel and the local municipalities, and opportunities for advancing implementation actions through the work of the partnership will be explored.

### **Conclusion:**

Addressing the climate change emergency requires an urban and energy transition, which will result in a number of economic, social and environmental opportunities and benefits. Together, the Brampton 2040 Vision and the CEERP will establish Brampton as a leader and position it to realize the many benefits of proactively dealing with our climate emergency.

As Brampton moves forward with achieving the economic, emissions and energy savings goals of the CEERP, it will also need to look beyond the current targets and to work towards eventual climate neutrality. By adopting the CEERP, Brampton will be taking a leadership role in the fight against climate change. Brampton can set an example for others to follow of how a growing suburban city can successfully combat



climate change while coming out economically stronger, more equitable, and improving resident's quality of life.

The CEERP provides a more sustainable, urban, and vibrant future for our City, aligned with nature and "one planet" living. Our diverse community is energized and ready to act towards energy and emissions reduction. The power of our partnerships will allow us to work towards an energy future that is clean, sustainable and resilient.

The COVID-19 pandemic has taught us about the urgency of taking swift action. If we wait to see further impacts of climate change, it will be too late to stop them and Brampton will not realize the economic, social and environmental benefits of proactive action.

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David Barrick, Chief Administrative Officer

**Attachments:**

Appendix 1: Community Energy and Emissions Reduction Plan

Appendix 2: Analytical Report

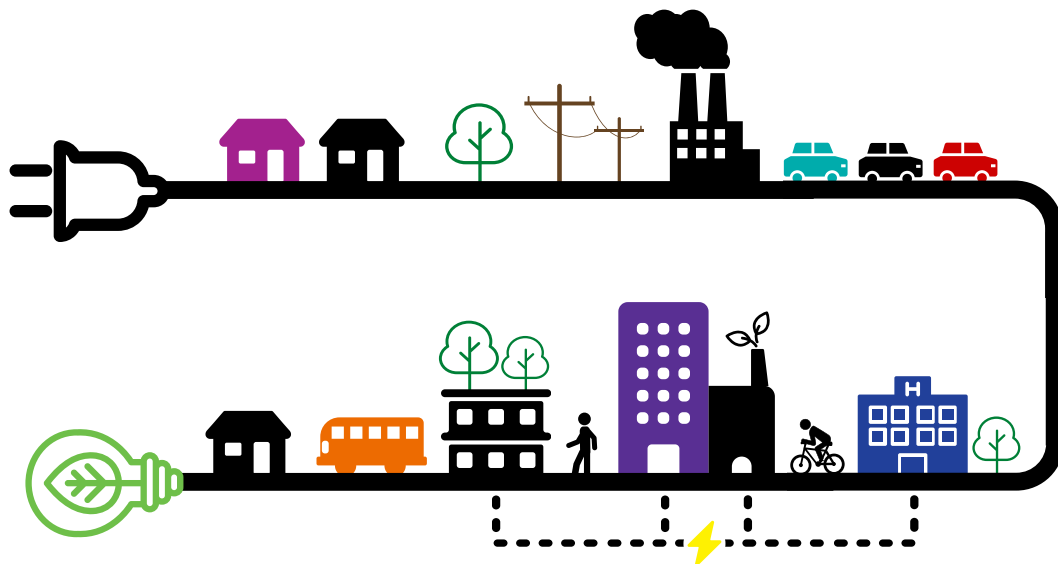
Appendix 3: Engagement Report

Appendix 4: Letters of Support



# OUR 2040 ENERGY TRANSITION

Community Energy and Emissions  
Reduction Plan





## Message from the Community Task Force Co-Chairs

Many municipalities are developing Climate Action Plans, and it is important that Brampton develop its own, locally relevant plan. As Co-Chairs of the City of Brampton's Community Energy and Emissions Reduction Plan Community Task Force, we are pleased to submit Our 2040 Energy Transition: Community Energy and Emissions Reduction Plan.

Brampton has responded to the climate change crisis with municipal leadership by developing the Brampton 2040 Vision, declaring a climate emergency, and joining the Global Covenant of Mayors for Climate and Energy.

The Community Energy and Emissions Reduction Plan (CEERP) is another step forward in environmental leadership on behalf of the residents of Brampton. This Community Energy and Emissions Reduction Plan is Brampton's first, and sets clear targets for energy and greenhouse gas (GHG) emission reductions and clear actions for achieving those results, all the while targeting improved economic prosperity for the City's residents, businesses and institutions.

The CEERP is a reflection of the work put in by the Community Task Force members listed below, who have developed a Vision for an energy future that is clean, sustainable, and resilient, and supports the Brampton 2040 Vision.

Addressing the Climate Change Emergency requires an urban and energy transition and coordinated and collective effort within Brampton that will involve the City, residents, business, agencies, and institutions.

The COVID-19 pandemic has taught us about the urgency of taking swift action. If we wait to see further impacts of climate change, it will be too late to stop them and Brampton will not realize the economic, social, and environmental benefits of proactive action.

We want to thank all that contributed their time and effort to this important project and hope that the CEERP provides residents of Brampton with a sustainable plan to meet their energy and emission reduction needs over the next twenty years.

Thank you,

Dave Kapil  
Chair, New Brampton

Hassaan Khan  
Area General Manager, Performance Infrastructure Canada  
Johnson Controls Canada L.P.



## Acknowledgements: We Would Like to Thank...

The following Community Task Force Members who provided their time, commitment, and invaluable contributions:

|   |  |
|---|--|
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| Lauren Mulkerns, Brampton Brick         | Eric Meliton, Partners in Project Green, TRCA            |
| Dave Kapil, New Brampton                | Trevor Boston, Brampton Environmental Advisory Committee |
| Brandon DiLollo, Paradise Homes         | David Laing, Brampton Environmental Advisory Committee   |
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|             |                    |               |               |                  |
|-------------|--------------------|---------------|---------------|------------------|
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|                             |                      |  |                              |
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# Table of Contents

|  |     |
|--|-----|
| <b>Glossary</b> .....  | i   |
| <b>Executive Summary</b> .....   | 1   |
| Context .....  | 2   |
| Introduction .....   | 6   |
| The Plan .....   | 7   |
| Vision .....   | 8   |
| Principles .....   | 8   |
| Goals .....  | 9   |
| Strategic Directions .....   | 10  |
| Objectives and 2041 Targets .....  | 10  |
| Priority Projects: 2020 – 2025 .....   | 12  |
| Action Plan .....  | 13  |
| Governance and Oversight of Implementation .....                                   | 13  |
| Conclusion .....   | 13  |
| <b>Chapter 1: The Climate Reality</b> .....  | 14  |
| 1.0 The Climate Reality .....  | 15  |
| 1.1 The Connection between Energy and GHG Emissions .....                          | 21  |
| 1.2 Climate Adaptation .....   | 21  |
| 1.3 Why is Climate Change a Municipal Issue? .....                                 | 21  |
| 1.4 Climate Action .....   | 22  |
| 1.5 Taking Action .....  | 26  |
| <b>Chapter 2: Energy Transitions</b> .....   | 28  |
| 2.0 Energy Transitions .....   | 29  |
| 2.1 The Latest Energy Transition .....   | 34  |
| 2.2 Urbanization .....   | 37  |
| <b>Chapter 3: The Opportunity of a Century</b> .....                               | 43  |
| 3.0 Building a Community Energy and Emissions Reduction Plan .....                 | 44  |
| 3.1 What is the Community Energy and Emissions Reduction Plan .....                | 44  |
| 3.2 Seizing Opportunity .....  | 44  |
| 3.3 Working Together .....   | 48  |
| 3.4 The CEERP Planning Process .....   | 49  |
| <b>Chapter 4: Brampton Today</b> .....   | 51  |
| 4.0 How Brampton Uses Energy .....   | 52  |
| 4.1 Brampton's Energy Use: Baseline and Base Case ....                             | 55  |
| 4.2 Brampton's Energy Related Emissions .....                                      | 58  |
| 4.3 Brampton's Energy and Water Costs .....  | 59  |
| 4.4 Benchmarking How Do We Compare Globally and Locally? .....                     | 60  |
| 4.5 Summary of Findings .....  | 61  |
| <b>Chapter 5: Brampton's Community Energy &amp; Emissions Reduction Plan</b> ..... | 64  |
| 5.0 Community Energy and Emissions Reduction Plan                                  | 65  |
| 5.1 Vision .....   | 68  |
| 5.2 Guiding Principles .....   | 68  |
| 5.3 Goals .....  | 69  |
| 5.4 Strategic Directions .....   | 72  |
| 5.5 Objectives and 2041 Targets .....  | 83  |
| 5.6 Priority Projects: 2020 – 2025 .....   | 87  |
| 5.7 CEERP Actions .....  | 90  |
| 5.8 Roles: Working Together .....  | 101 |
| 5.9 Getting There .....  | 109 |
| 5.10 Monitoring and Evaluating to 2025 .....                                       | 112 |
| 5.11 Conclusion .....  | 114 |
| <b>Appendices</b> .....  | 116 |



# Glossary

Base Case – a ‘business-as-usual’ projection of Brampton’s energy future.

Baseline – energy use or emissions at a certain point in time. A 2016 Baseline was chosen for the Community Energy and Emissions Reduction Plan to align with the 2016 Census.

Carbon Footprint – the amount of greenhouse gases (GHGs) released due to an activity, event, organization, person, etc., considering all relevant sources, sinks, and storage, and expressed as a carbon dioxide (CO<sub>2</sub>) equivalent. An individual or organization’s carbon footprint is the total amount of GHGs released from supporting their needs, lifestyle, and daily life choices.

Carbon neutrality – achieving net-zero carbon dioxide (CO<sub>2</sub>) emissions by balancing CO<sub>2</sub> emissions with CO<sub>2</sub> emissions removal, or eliminating CO<sub>2</sub> emissions altogether.

Carbon sinks and sequestration – the capture and storage of carbon dioxide (CO<sub>2</sub>), through means such as urban forestry, urban farming, green roofs, naturalization, and natural heritage conservation. This can result in other energy-related benefits like the ambient climatic effects that shade, solar energy reflection, and transpiration provide. Community energy planning often does not include measures that sequester CO<sub>2</sub> through green infrastructure.

Centralized Energy Systems – supply of energy through large-scale energy generation infrastructure that delivers energy via a vast distribution network, often far from the point of use.

Climate Mitigation – decreasing the human-induced sources of climate change to reduce future impacts, such as minimizing the amount of greenhouse gas (GHG)-emitting fossil fuels burned for energy or enhancing carbon sinks that store GHGs.

Cogeneration or Combined Heat and Power – an energy efficient technology that generates electricity and captures heat, which would otherwise be wasted (e.g. steam or hot water), to provide useful thermal energy that can be used for space heating, cooling, domestic hot water, and industrial processes. Combined heat and power systems produce electricity and thermal energy from a single fuel source (e.g. natural gas, biomass). When electricity is generated in large scale regional gas-fired power plants, as much as 60% of the energy value is lost, mostly as heat at the point of generation and the remainder during transmission. This inefficiency can be addressed by generating electricity within the community and capturing the heat for use in a district energy system.

Conversion (energy)/transformation – the process of changing one type of energy to another (e.g. wind (mechanical energy) to electricity, electricity to heat (thermal energy). From energy source to site use, energy can undergo multiple transformations. During each energy conversion, an amount of energy is lost through heat (waste waste).

Community – in the context of community energy planning, the word “community” is meant to be inclusive of all people, groups, and stakeholders that share the common attribute of being inhabitants of Brampton and direct and indirect consumers of energy.

Community Energy Plan(ning) – a data-informed approach to understanding where and how energy is used and greenhouse gas (GHG) emissions released in a community to identify local opportunities and priorities for increasing energy efficiency, reducing GHG emissions, and lowering energy costs. The Community Energy and Emissions Reduction Plan is Brampton’s community energy plan.

Community Improvement Plan – a tool that allows a municipality to direct funds and implement policy initiatives toward a specifically defined area.

Community Task Force – a team of community champions and principal advisors for the Community Energy and Emissions Reduction Plan.

Decentralized/Distributed Energy Systems – small-scale energy generation, operation, and/or energy storage used to provide an alternative to or an enhancement of the traditional electric power grid.

Deep Decarbonization – measures to significantly reduce and/or sequester carbon dioxide (CO<sub>2</sub>) emissions, with an ultimate objective of zero carbon dioxide emissions.

District energy – supplying thermal energy (heating and/or cooling) to multiple buildings from a central plant or from several interconnected but distributed plants. Thermal energy is conveyed with water through a close network of pre-insulated pipes to meet end-users’ need for cooling, heating and domestic hot water. Historically, steam networks have been used and are still used in some older systems. A district energy system is comprised of three subsystems, which include the collection and/or generation of thermal energy, the distribution of that thermal energy from the plant(s) to end-users, and the transfer of the thermal energy to the energy consumer.



Efficiency Case – considers how different combinations of measures can impact the projection of Brampton’s energy future.

Energy Efficiency – using less energy to perform the same task and eliminating energy waste.

Energy Performance Labels – measure and display the energy efficiency and environmental impact (e.g. greenhouse gas emissions) of an item, such as a home, building, appliances, etc.

Energy Security – maintaining an adequate and resilient supply of energy (electricity, liquid fuel, and gas) while also addressing issues of affordability, accessibility, and reliability.

Energy Transition – a major and long term structural change in energy systems, often including a significant transformation in how energy is sourced, distributed, and/or utilized.

Framing Goals – established at the beginning of the analytical process of the CEERP, and used to evaluate the performance of the Base Case and Efficiency Case simulations.

Gigajoule (GJ) – a unit of measurement of energy. One gigajoule is equivalent to one billion joules.

Global Best Practice – method or technique that is generally accepted as superior to the alternatives because it produces results that are superior to those achieved by other means. For community energy planning, global best practice is achieved in Northern Europe/Nordic countries, where municipalities have taken the lead in developing and implementing community energy plans that result in order of magnitude improvements in energy efficiency and over 50% reductions in per capita GHG emissions.

Greenfield – undeveloped land, typically dominated by agriculture, open space, and or natural heritage features.

Greenhouse Gases (GHGs) – any gas that absorbs thermal radiation from the sun and emits it back into the earth’s atmosphere, such as include water vapour, carbon dioxide, methane, nitrous oxide, and ozone. Without them, the average temperature at the surface of our planet would be around -18°C rather than 15°C.

Home and Building – Homes refers to all residential buildings. Buildings refer to all other types of building structures (e.g. commercial, facilities, institutional, storage, business etc.)

Integrated Energy Master Plan (IEMP) – the equivalent of a Community Energy and Emissions Reduction Plan but developed at the scale of a portfolio of properties, neighbourhood, or subdivision.

Latest Energy Transition – the current energy transition underway being driven by the decarbonization and the localized distribution of energy.

Modal Split – the percentage share of travelers or goods using a particular type of transportation type, or the number of trips using said type (e.g. 10% cycling, 50% single-passenger car, 5% walking, 35% transit).

Near-net-zero (NNZ) Neighbourhood – areas where little or no energy is drawn from the electricity grid or from pipelines, and little or no greenhouse gas (GHG) emissions are released.

Non-GHG Emitting Sources – sources of energy that do not produce greenhouse gas (GHG) (e.g. nuclear, hydro, wind, solar, geothermal).

Project Working Team – comprised of representatives from the City of Brampton, Sheridan College, and the consulting team led by Garforth International LLC, and headed the analytical and engagement processes for the CEERP.

Provincial Growth Plan – the Growth Plan for the Great Golden Horseshoe establishes population and employment targets for 2041 for all municipalities within the region. Municipal official plans must be in conformity with these targets.

Resiliency – the ability to prepare for, absorb, and recover from future shocks (economic, environmental, social, and institutional). Resilient cities promote sustainable development, well-being, and inclusive growth. The CEERP contributes to overall community resiliency by addressing increasing consumer concerns about energy affordability, accessibility, and reliability.

Site Energy – considers the energy use at the meter by end-users (e.g. homes, buildings, industry, and transportation).

Source Energy – considers all energy flows from production to end-use.

Standardized Retrofits – a consistent set of modifications to existing buildings designed to improve energy efficiency or decrease energy demand.

Sustainability – meeting the needs of the present without compromising the ability of future generations by creating and maintaining the conditions under which people (social), economies (economic), and the environment (environment) can exist in productive harmony.



Thermal Utility - a district energy network is typically run as a thermal utility by a company that operates all the plants and networks, ensures service quality, and manages the metering and billing of the heating and cooling services. The network allows for economies of scale, since the generation of heat in a few larger plants is more efficient than having many boilers, each heating their individual building. It also enables valuable energy currently wasted in electricity generation, as well as industrial and other processes to be cheaply captured and delivered to other consumers.

Tonne – a metric tonne, equivalent to 1000 kilograms (kg) or 2204.6 pounds (lbs).

Transmission (energy) – the movement or delivery of energy from its point of generation to point of consumer/site use, and usually referring to the transmission of electricity across specialized cables or structures.

Urbanization – the growth of cities and towns driven by a rise of population and the increasing share of people living in urban centers.

Urban Centre – an urban area with a high population density.



# COMMUNITY ENERGY & EMISSIONS REDUCTION PLAN

## Executive Summary

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## Context

Climate change is a threat to all life on the planet and to people's livelihoods. To address this crisis, we must urgently reduce carbon emissions and prepare for the consequences of a warming planet. Ontario has already seen these consequences through the increasing severity of rain, snow, ice and wind events, greater temperature fluctuations and extremes, changing wildlife migration patterns, and the growing presence of vector-borne diseases. In the next quarter century, it is expected that the types of climate change impacts and their severity will increase. These impacts all come at a significant cost to municipalities, residents, and businesses, and inaction will be expensive.

A global shift towards a low-carbon economy is underway, primarily motivated by the urgent need to address the mounting risks and impacts of climate change. A transformation in our urban and energy systems towards low or zero carbon systems is needed to address this climate emergency. This transformation will see changes in how we design our cities and neighbourhoods, how people and goods travel, the supply and distribution of our energy needs, how we build our homes and buildings, the production and supply of goods and services, how we manage our waste, and more. A clean energy and urban transition is already underway, locally and globally. With the Brampton 2040 Vision and the Community Energy and Emissions Reduction Plan (CEERP), Brampton is positioning itself well to address the climate emergency. However, acceleration is needed to reduce the cost of climate change inaction, and fully realize the economic, social and environmental opportunities of this transition.

A significant economic opportunity exists to make a clean energy transition. Eliminating wasted energy and localizing energy production will provide an enhanced economy in Brampton. This will directly contribute to more localized jobs, higher property values, lower property taxes, and lower costs of living over the long-run. Currently, not only is a good portion of energy wasted by inefficiency, but the majority of dollars spent on energy end up in the pockets of other communities. This reveals a significant economic opportunity for Brampton to capitalize on by working to retain and recirculate more of these energy dollars within the community, leading to the creation of more local jobs, new industries and economies, greater savings for local business operations, and more affordable living for residents.

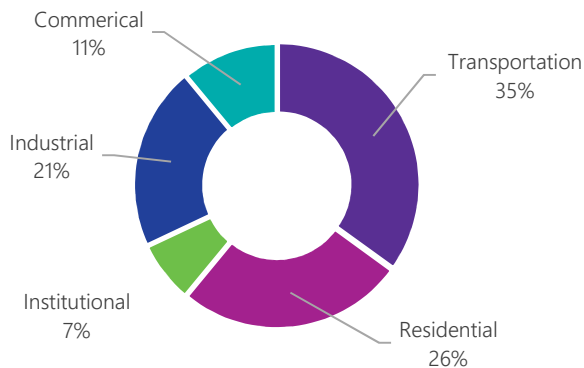
**“This is not just about coping with climate change, but prospering through it.”**

**- Canada's National Round Table on the Environment and the Economy, 2012**

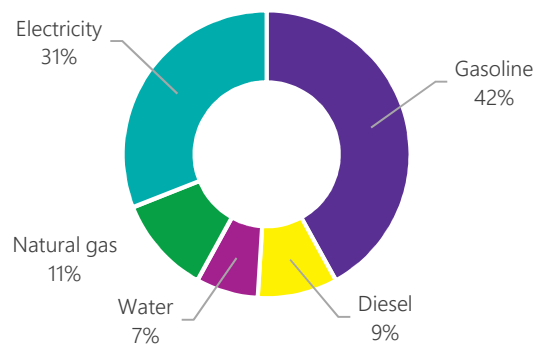




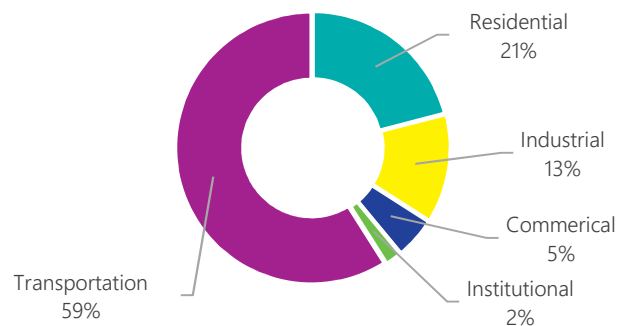
**Brampton Source Energy Use by Sector, 2016**



**Brampton Energy Costs by Utility, 2016**



**Brampton Emissions by Sector, 2016**





## Brampton's Community Energy and Emissions Reduction Plan establishes an evidence-based strategy to reduce emissions in Brampton

In 2015, the Paris Agreement, a historic international agreement, was signed in Paris by 195 countries to hold “the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change.”

Since then, over 1,468 jurisdictions in 28 countries have declared a climate emergency, including 501 Canadian municipalities. In June 2019, Brampton City Council voted unanimously to declare a climate emergency. The Region of Peel, in solidarity with its local municipalities, also declared a climate emergency in October 2019. This is a call to action for all sectors of society – government, business, the community and individuals.

Considering 60% of energy consumption and over half of all greenhouse gases (GHG) in Canada are influenced by communities - for instance, the transportation of people, goods, and services, the powering of local industry, and the heating, cooling, and lighting of homes and buildings - all levels of government are enabling local action on climate change. As a signatory to the Paris Climate Agreement, the Canadian federal government set a target to reduce national GHG emissions by 80% below 1990 levels by 2050. In 2016, the Pan-Canadian Framework on Clean Growth and Climate was approved. Putting a price on carbon has been an important part of the Government of Canada's Climate Action Plan. The Province of Ontario has also committed to reducing GHG emissions to 30% below 2005 levels by 2030 and in 2018 released Preserving and Protecting our Environment for Future Generations: A Made-in-Ontario Environment Plan.

Addressing climate change is accelerating a shift by communities to also examine the challenge of a clean energy transition and to create community energy plans. Over 400 Canadian communities have developed community energy plans to establish local priorities for reducing energy use and energy-related emissions.

## The Community Energy and Emissions Reduction Plan establishes an integrated strategy that allows Brampton to benefit economically from its energy transition.

Reducing climate change helps capitalize on multiple benefits, such as health and wellness, social equity, environment and economic opportunities, and is one of several reasons driving communities to undertake energy planning. Communities must ensure they are well positioned to manage the risks and opportunities associated with the current global energy transition, one that is moving towards a more distributed energy system. Action on climate change is one central factor towards this transition. Other factors include the:

- decreasing costs for technologies that generate and distribute energy locally;
- convergence of communication and energy technologies, commonly referred to as “smart-grid”;
- growing systemic inefficiencies in our current centralized energy system; and
- need to increase community resiliency by addressing escalating concerns about energy security, which includes consumer issues of affordability, accessibility and reliability.

**Our community  
spends  
\$1.8 billion  
on energy each year**



**\$1.4 billion  
of these energy  
dollars currently  
leave the community**



Community energy transformation creates significant local economic development opportunities. For instance, local job creation occurs in three ways:

1. direct jobs are created by businesses that support energy efficiency improvements (e.g. construction trades), or design and build and/or operate local supply and distribution systems;
2. indirect jobs are created in supply chains that deliver goods and services to businesses in the direct job category; and
3. induced jobs are created when the newly-hired workers in direct or indirect jobs spend their new earnings on goods and services in the community.

The provision of competitive and reliable energy services also serves to attract and retain investment in all community sectors.

### **The Community Energy and Emissions Reduction Plan establishes an aligned strategy that supports the Brampton 2040 Vision: Living the Mosaic.**

Municipal governments are responsible for managing the growth and development of their communities. They have a key role in ensuring the establishment of compact, mixed-use, walkable, and transit-friendly cities. Analysis from the International Energy Agency states that governments directly or indirectly drive more than 70% of global energy investments, and that they have a historic opportunity to steer those investments onto a more sustainable path.

Brampton's population is expected to grow from 600,000 to 900,000 by 2041. This rapid urbanization puts pressure on municipal leaders who must manage the growth and development of the community while protecting residents' quality of life. Planning and designing smart, transit-orientated, energy efficient communities helps reduce these pressures by supporting Brampton's economic development, quality of life and social equity while addressing climate change.

In 2017 and 2018, the City engaged thousands of Brampton citizens in the development of a transformative community vision that advocates for compact, mixed-use, walkable, and transit-friendly neighbourhoods in an exceptional urban experience. The Brampton 2040 Vision: Living the Mosaic is

a bold new vision for the future of Brampton. Central to the Vision are seven ambitious vision statements dealing with sustainability and the environment, transportation, creating and retaining jobs, recreation, health, social issues, and arts and culture.

The CEERP relates to more than just the Sustainability and Environment statement of the Brampton 2040 Vision. It links to most aspects from the other Vision statements, such as sustainable urban places, complete neighbourhoods, an interconnected green park network, denser urban and town centres, local jobs, and an integrated transportation contributing to civic sustainability with an emphasis on walking, cycling, and transit.



## Introduction

Community energy planning considers all local energy movement that impacts activities within a community, including supply, distribution, and end-use. Brampton's Community Energy and Emissions Reduction Plan (CEERP) was initiated to combine efforts of the municipality, local utilities, and community stakeholders to create a roadmap to improve energy efficiency, reduce GHG emissions, ensure energy security, create economic advantage, and increase resilience to climate change.

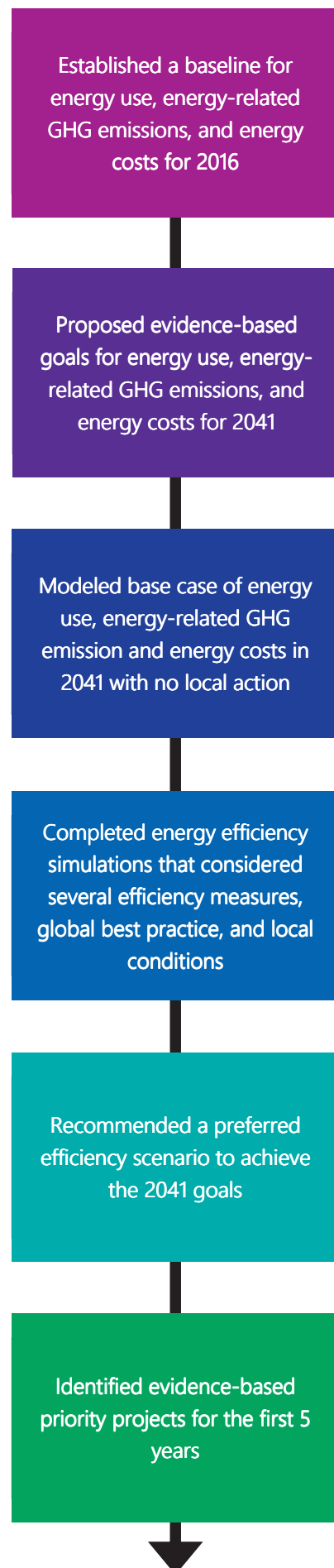
The City of Brampton and Sheridan College came together to facilitate the development of the CEERP. They convened a Community Task Force to provide governance and oversight of the planning process. The Community Task Force represented many different community stakeholders within Brampton, representing a cross-section of local business, energy, public sector and environmental organizations.

The City also secured funding from the Government of Ontario to support the planning of this Strategy. Both the City of Brampton and Sheridan College contributed funding towards the completion of the CEERP and assigned staff to a Project Working Team to support the Community Task Force.

The Project Working Team (PWT), consisting of City representatives and an external consulting team, managed the CEERP planning process.

Guided by an Engagement Plan, various channels were developed to engage the appropriate stakeholders and community-at-large to inform, consult, and involve them in the development of the CEERP. More details on engagement are found in the 2019 Engagement Plan Report.

The results of the analytical work that led to the development of the preferred overall strategy are summarized in this report and found in more detail in the 2019 CEERP Analytical Report.





## Community Task Force



## The Plan

The strategy presented in the CEERP is the road map to achieve a clean, sustainable, and resilient energy future in Brampton and is based on:

- understanding Brampton's Baseline and Base Case for energy use and energy-related emissions;
- understanding Brampton's population and employment growth;
- community engagement;
- results of simulations of Brampton's growth employing several efficiency measures (see 2019 Analytical Report for more details); and
- global best practice and assessment of local opportunities.

The preferred strategy is based on a framework that aligns:

- one vision;
- six principles organized under four categories;
- three goals;
- seven strategic directions;
- 24 objectives and targets; and
- six priority projects for the first five years.

The Community Task Force recognizes that successful implementation of the strategy will require all sectors of Brampton's society to undertake activities aligned with the six Priority Projects. The primary aspiration of the CEERP is to shape Brampton's energy future by creating the right conditions for public and private sector community action. The roles of different private and public sectors in achieving the CEERP Goals and Objectives are explored in Chapter 5.

The CEERP contains an Action Plan that will be pursued to support the implementation of the Priority Projects (see Chapter 5, Section 5.7).

The Community Task Force acknowledges that energy and climate policies are changing rapidly as governments respond to both local and international pressure to reduce GHG emissions. The market will also continue to innovate, and more cost-effective technologies will emerge to accelerate the uptake of low-carbon local energy supply and distribution technologies designed for rapidly urbanizing communities like Brampton. Consequently, the Task Force recommends a review and update of the CEERP, as appropriate, every five years.



# Brampton's energy future is clean, sustainable, resilient, and supports the Brampton 2040 Vision.

## Vision

The Community Task Force approved the following CEERP vision statement: *Brampton's energy future is clean, sustainable, and resilient and supports the Brampton 2040 Vision.*

## Principles

The Community Task Force approved six principles to guide the strategic implementation and to ensure decision making conforms to the long-term vision of the CEERP. The principles shaped the formation of goals, objectives, and targets and helped prioritize actions.

### Environmental

- Work towards climate neutrality.

### Energy

- Benchmark energy performance against global best practices.

### 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.



## Goals

The Community Task Force approved three goals, based on the assessment of local energy and emissions data (where Brampton is today) relative to global best practice (where Brampton could be). The Task Force chose realistic over aspirational goals, while still recognizing that the goals will require regular updates to adapt to changes in climate policy, energy policy, and global best practice.



### 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.



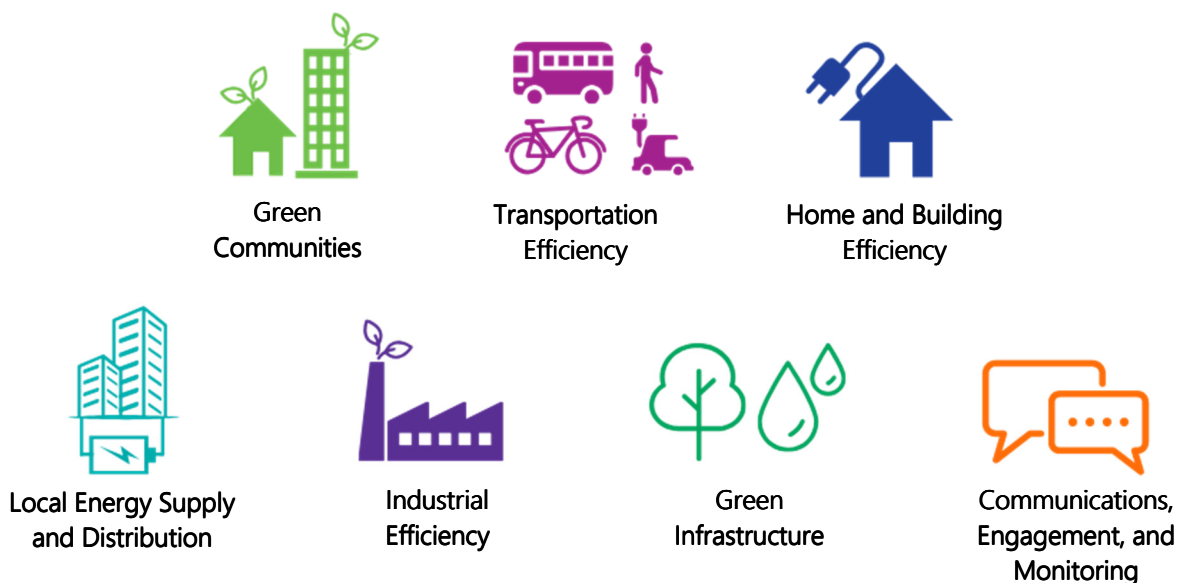
### Economic

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



## Strategic Directions

The Community Task Force approved seven strategic directions, which reflect Brampton's urban and energy transition, as well as the Brampton 2040 Vision.



## Objectives and 2041 Targets

The Community Task Force approved objectives and targets which reflect the preferred scenario and the measures considered in the energy efficiency simulations.

| Strategic Direction       | #  | Objective                                     | 2041 Target  |
|---------------------------|----|---|--|
| Green Communities         | 1A | Achieve near net-zero communities             | Attain near net-zero GHG emissions for new communities in Heritage Heights and new buildings in Town Centres, and Major Urban Growth Areas |
|                           | 1B | Policy is aligned                             | Complete all policy updates as identified in the Action Plan and its subsequent updates  |
|                           | 1C | Establish Major Growth Areas and Town Centres | Meet the Brampton 2040 Major Growth Areas and Town Centres density and job targets (to be revised through the OP Review process)           |
| Transportation Efficiency | 2A | Reduce average trip length                    | Reduce average trip length by 3.75% for light-duty vehicles from 2016 levels   |
|                           | 2B | Increase trips by walking and cycling         | Increase the share of passenger kilometres travelled walking and cycling to 7%   |
|                           | 2C | Increase trips by Brampton Transit            | Increase the share of passenger kilometres travelled by Brampton Transit to 9.0%   |



|  |    |   |   |
|--|----|---|---|
|  | 2D | Increase trips by GO Transit  | Increase the share of passenger kilometres travelled by GO Train to 8.5%  |
|  | 2E | Increase use of electric vehicles   | Increase electric share of light-duty vehicles to 22% and heavy-duty vehicles to 7%   |
|  | 2F | Increase efficiency of vehicles   | Increase efficiency of gas/diesel vehicles by 36% and electric vehicles by 20% from 2016 levels   |
| Home and Building Efficiency               | 3A | Increase efficiency of existing homes   | Achieve a 35% residential sector efficiency gain from 2016 levels by retrofitting 80% of existing homes   |
|  | 3B | Increase efficiency of other existing buildings   | Achieve a 22% commercial and institutional sector efficiency gain from 2016 levels by retrofitting 60% of existing buildings  |
|  | 3C | Increase delivered efficiency of new property   | Achieve a 17% Ontario Building Code efficiency gain from 2016 levels  |
|  | 3D | Increase water efficiency of existing homes and buildings   | Achieve a 34% water efficiency gain from 2016 levels  |
| Local Energy Supply and Distribution       | 4A | Implement district energy in high growth districts with a mix of combined heat and power and other low-carbon heating and cooling sources | Serve 70% of existing high growth Energy Planning Districts and 80% of new high growth Energy Planning Districts with district energy                                   |
|  | 4B | Install solar hot water in stable residential areas (low growth districts)  | Serve 10% of hot water and heating needs in homes not served by district energy with solar hot water  |
|  | 4C | Generate significant amounts of solar power installed on suitable rooftops and other locations  | Supply 8% of Brampton's electricity needs with locally generated solar power  |
| Industrial Efficiency                      | 5A | Proliferate best practice to all local industry   | Achieve a 20% industrial sector efficiency gain from 2016 levels  |
| Green Infrastructure                       | 6A | Expand the Urban forest   | Plant 1 million trees by 2040   |
|  | 6B | Increase restoration of natural heritage system   | Increase restoration and enhancement management to 45ha/year  |
|  | 6C | Integrate natural assets into the City's asset management program   | Determine a dollar value for the City's natural assets  |
| Communications, Engagement, and Monitoring | 7A | Increase awareness of the importance of energy planning among residents and businesses  | Establish a Community Organization (e.g. CCET) to engage in ongoing outreach and education  |
|  | 7B | Engage with businesses, non-profits, institutions, residents, utilities   | At minimum engage with: large energy users, Brampton Board of Trade, Sheridan College, Ryerson University, Algoma University, BILD, Enbridge Gas, and Alectra Utilities |



|  |    |  |  |
|--|----|--|--|
|  | 7C | Partner with other municipalities and levels of government   | At minimum, partner with neighbouring municipalities and the Region of Peel  |
|  | 7D | Integrate with corporate performance metrics (KPI)   | Establish a community GHG emissions and energy efficiency target on the Corporate Performance Dashboard and update regularly |
|  | 7E | Establishment of self-supporting Community Organization (e.g. CCET) that is focused on delivering community energy planning excellence | Attain recognition as a regional centre for energy excellence  |

## Priority Projects: 2020 - 2025

The Community Task Force approved six priority projects for the next five years.

1. Ensure the City of Brampton policies and programs align with supporting the CEERP Objectives and Targets.
2. Establish a system to deliver standardized retrofits to Brampton homeowners.
3. Update the Transportation and Transit Master Plan (TTMP) to reflect complete streets and the integrated nature of mobility and built form.
4. Integrate District Energy Systems in appropriate locations within the City of Brampton.
5. Develop Integrated Energy Master Plans for public facilities and private development.
6. Establish a community organization to lead the development and implementation of select priority projects.

The rationale for these six priority projects is provided in Chapter 5, Section 5.6.



## Action Plan

Beyond the Priority Projects, the CEERP outlines additional actions to take in order to ensure the Plan's objectives and targets are met. These are on-going, short, medium, or long-term actions based on the goals and strategies. The Action Plan is in Chapter 5 (Section 5.7) of the report.

## Governance and Oversight of Implementation

Individual and independent action on climate change has been and will continue to be important. However, the scale of actions necessary to address the climate emergency and energy transition require coordinated and collective effort within Brampton and will need to involve the City, residents, businesses, agencies, and institutions to accelerate market transformation.

To ensure that the CEERP does not 'sit on a shelf' and implementation of the 2020-2025 Priority Projects is achieved and sustained, it is necessary for the City to consider identifying and dedicating resources to oversee, coordinate, implement, and report on the overall progress of achieving the Plan's targets.

The establishment of an independent community organization to work in parallel with the City's efforts to implement the CEERP is one way to accelerate, organize, and commence collective actions within the community. The Brampton 2040 Vision recommended the establishment of such an organization, called the Institute for Sustainable Brampton (ISB), which would facilitate "public-private actions to position Brampton in the vanguard of suburban sustainability."

In the fall of 2019, the City initiated a process to define a framework for a Community Organization. Through this process the Community Task Force and stakeholders, alongside the City, Region of Peel, and Sheridan College, developed a mandate for the ISB that focuses on achieving Brampton's urban and energy transition. As such, this Community Organization would be renamed the "Centre for Community Energy Transformation" (CCET) and could serve as a hub for coordinating and reporting on the progress made in implementing select CEERP community priority projects.

## Conclusion

Brampton is well positioned to be a leader in North America in this global urban and energy transition. The Brampton 2040 Vision has set the foundation for the urban change needed to succeed in this transition. By adopting the CEERP, Brampton will be joining the ranks of the global community of cities taking a leadership role in the fight against climate change and preparing for the opportunities provided by the energy transition underway. As a leader, Brampton can set an example of how a suburban city can come out economically stronger and improve resident's quality of life while successfully combating climate change.

The CEERP provides a more sustainable, urban, and vibrant future for our city, aligned with nature and "one planet" living. Our diverse community is energized and ready to take action towards energy and emissions reduction. The power of connections and our partnerships will allow us to work towards our vision of an energy future that is clean, sustainable, resilient, and supports the Brampton 2040 Vision. As Brampton moves towards achieving the economic, emissions, and energy savings goals of the CEERP, we also need to look beyond our targets to work towards eventual climate neutrality.

At the time of writing this report, the Covid-19 pandemic was occurring. It has shown us a glimpse of the impacts future climate threats could have on our communities. It has taught about the urgency of taking swift action collectively and the vital need to build resilient communities. If we wait to see further impacts of climate change, it will be too late.



## CHAPTER 1

# The Climate Reality

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### KEY TAKEAWAYS

- Climate change is already affecting Brampton through increases in local flooding, snow, ice, and wind storms, hotter summers, and a rise of vector-borne diseases.
- The scientific community warns that the consequences of climate change for all living things will become more severe if the average global temperature continues to rise. Limiting global average temperatures to 1.5°C requires carbon emissions to be cut by at least 45% from 2010 levels by 2030, and to zero by mid-century.
- Canada is one of the top ten GHG emitters in the world and one of the top five emitters per capita.
- Along with 195 signatories, Canada committed through the U.N. Paris Climate Agreement to reduce its GHG emissions by 80% from 1990 by the year 2050.
- All levels of government, including the City of Brampton and the Region of Peel, have started to move on climate action; however, current data shows that an urgent response to climate change is needed now.
- The CEERP, as a climate mitigation plan, is Brampton's call to action for all sectors of the community to take steps that reduce our contributions to a changing climate.
- Working together, Brampton's residents, business, institutions, community organizations, and local governments can reduce the local impacts of climate change while maximizing on the opportunities and benefits of climate actions to create a healthier, stronger, and more resilient city.
- A full glossary of terms is available at the beginning of this report. Some of the key terms used in this chapter include: Greenhouse Gases (GHGs), Climate Mitigation, and Community Energy Planning.





## 1.0 The Climate Reality

Climate change is expected to be one of the biggest challenges in the 21st century, and is considered one of the greatest threats to our livelihoods, security, and well-being. An increase in atmospheric greenhouse gases (GHGs) is warming the planet, and as global temperatures rise, climate patterns around the world are changing. Impacts of climate change are already being experienced around the world, including in Canada.

Ontario is already experiencing the effects, such as more severe precipitation, snow, ice, and wind events, greater temperature fluctuations and extremes, changing species migration patterns, and an increase in the presence of vector-borne diseases (e.g. Lyme disease).

In the next quarter century, the types of impacts and their severity are expected to increase. These impacts all have economic, social, and environmental costs to municipalities and residents.

### 1.0.1 The Climate Emergency

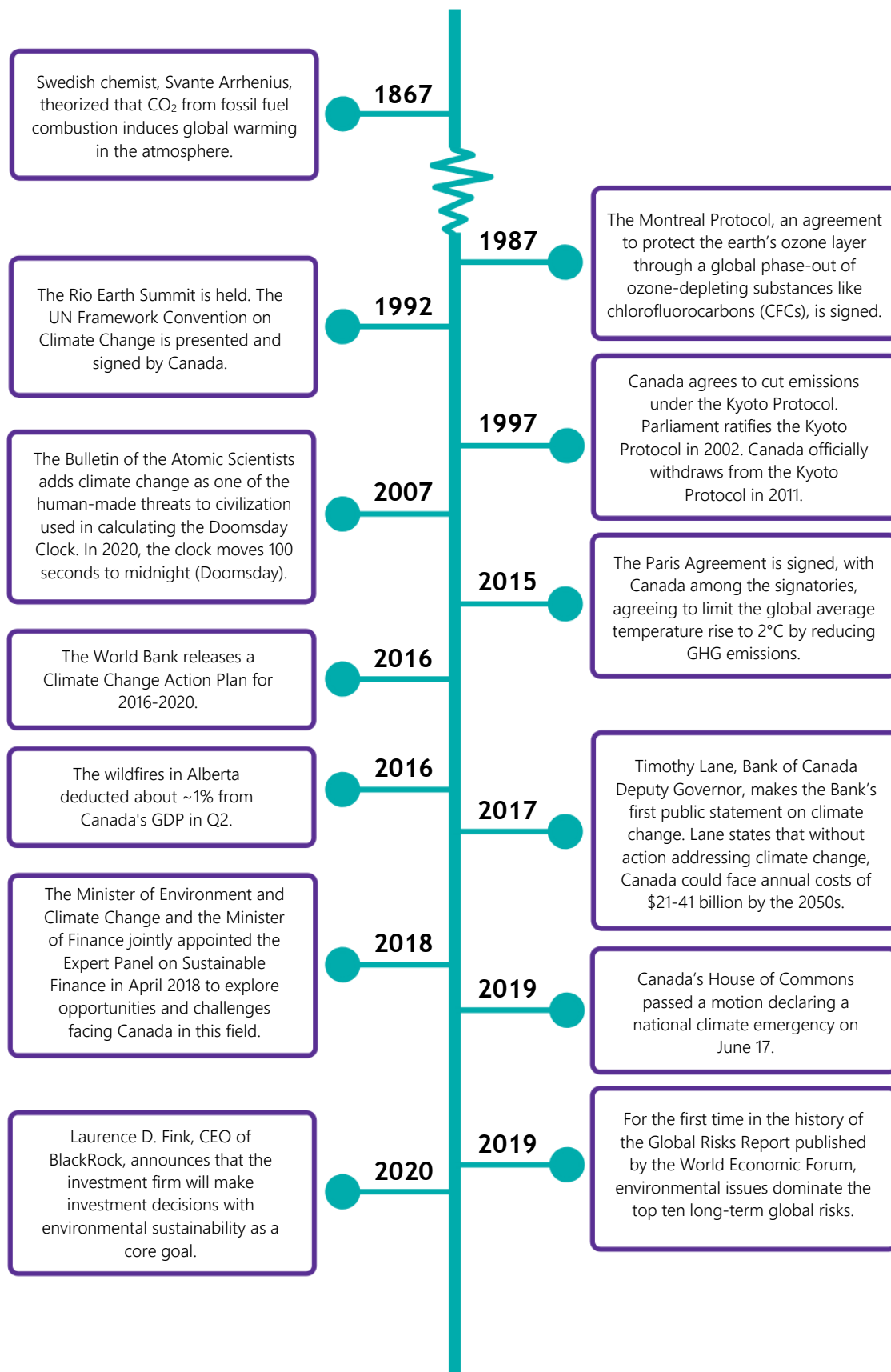
Human activities, such as the burning of fossil fuels to power our homes, vehicles, and industrial processes, have contributed to the drastic increase in global GHG emissions. In 2015, the historic UN Paris Climate Agreement was signed by 195 countries with the central aim to strengthen the international response to the threat of climate change by keeping a global temperature rise to well

below 2°C and to pursue efforts to limit the increase to 1.5°C. As one of the signatories, Canada committed to reducing its GHG emissions by 80% by the year 2050. This is a call to action for all sectors and levels of society – governments, business, civil society, and individuals.

As of early 2020, over 1,468 jurisdictions in 28 countries have declared a climate emergency, including 501 Canadian municipalities.<sup>1</sup> In June 2019, the City of Brampton bolstered their commitment to battling climate change when Council unanimously voted to declare a climate emergency, acknowledging that to address this crisis, we must urgently reduce carbon emissions and prepare for the consequences of a warming planet. The development of the Community Energy and Emission Reduction Plan (CEERP), a climate mitigation strategy, is one of the City of Brampton's response to this emergency. It is a plan that will establish a pathway for Brampton to reduce GHG emissions by at least 80% by 2050, from 2016 levels.



# Climate Policy Snapshot





## What is climate change?

An increase in atmospheric greenhouse gases (GHGs) is warming the planet. As global temperatures rise, climate patterns around the world are changing.

## What are Greenhouse Gases (GHGs)?

A greenhouse gas is any gas that absorbs thermal radiation from the sun and emits it back into the earth's atmosphere, such as water vapour, carbon dioxide, methane, nitrous oxide, and ozone. Without them, the average temperature at the surface of our planet would be around -18 °C rather than 15°C.

## Why is the average global temperature rising?

Human activities since the first industrial revolution have caused a 40% increase in carbon dioxide concentrations in the atmosphere.

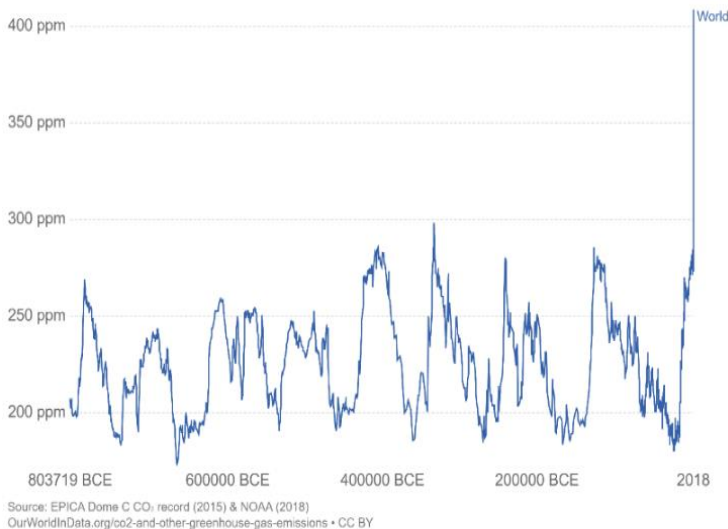
## Why are higher Carbon Dioxide (CO<sub>2</sub>) levels a concern?

The unprecedented rise in carbon dioxide levels is warming the planet. Global average temperatures are currently 1 °C warmer than the pre-industrial average.<sup>2</sup> Temperature increases are more pronounced in higher latitudes, such as in Canada, where temperature increases are up to twice the global average.

Temperature increases are changing climate patterns around the world. Canadians are already feeling the effects of a changing climate with an increase in the frequency and severity of floods, droughts, wildfires, diseases, and heatwaves.

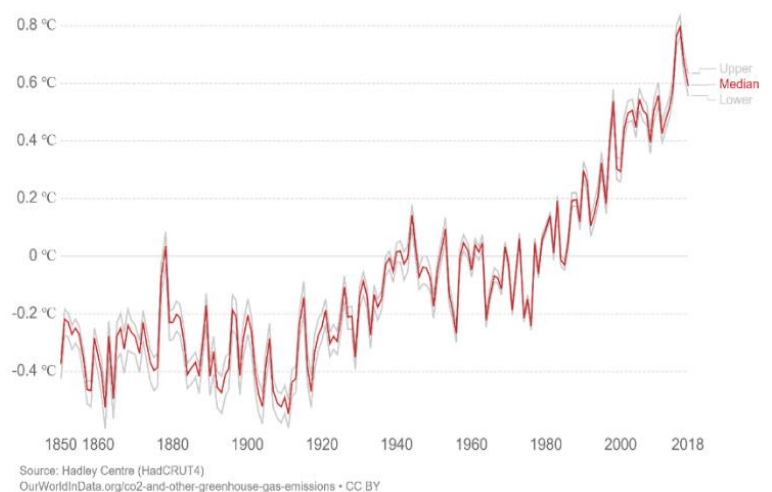
Scientists warn that the consequences of climate change for humans, animals, and plants will become more severe if the average global temperature continues to rise.<sup>3</sup> Carbon emissions would need to be cut by at least 45% by 2030 and be lowered to zero by mid-century, to keep temperatures within a 1.5 °C.<sup>4</sup>

**Global Average Long-Term Atmospheric Concentrations of Carbon Dioxide**



*Measured in parts per million (ppm).*













**Global Average Land-Sea Temperature Anomaly Relative to the 1961 - 1990 Average Temperature**



*Measured in degrees Celsius (°C). The red lines represent the median average temperature change, and grey lines represent the upper and lower 95% confidence intervals.*



# What Will Climate Change Look Like in Brampton?

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



1.0.2 A Climate Mitigation Strategy

Globally, two types of measures have emerged in the search to address climate change and its impacts: climate mitigation and climate adaptation.

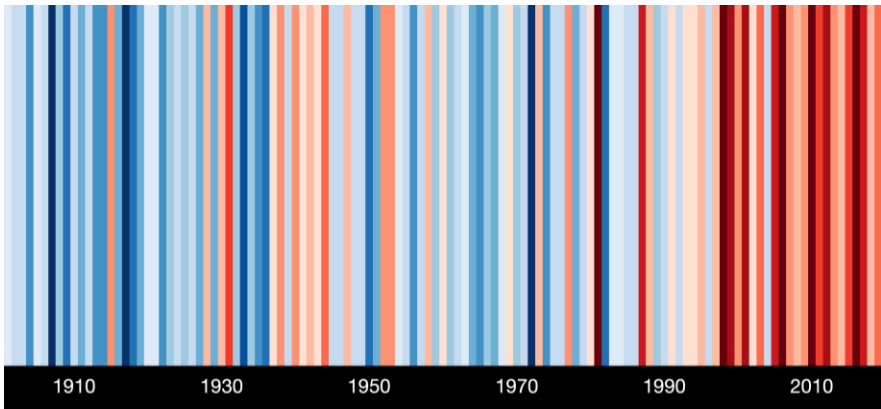
Climate mitigation focuses on decreasing the human-induced sources of climate change in order to reduce future impacts, such as minimizing the amount of GHG-emitting fossil fuels burned for energy or enhancing carbon sinks that store GHGs. The effects and benefits of climate mitigation measures are long-term, however, the more successful we are, the less severe future climate impacts will be to communities and the less costly adaptation measures will be.

The CEERP is Brampton’s key mitigation strategy. Utilizing a community energy planning lens, the CEERP focuses on the neighbourhood and community-wide priorities and actions to mitigate climate change by reducing GHG emissions, increasing energy efficiency, ensuring energy security, creating economic advantage, and increasing Brampton’s resilience to climate change.



| Mitigation   | Adaptation  |
|--|---|
| Mitigation describes all actions taken by humankind to reduce emissions into the atmosphere. | Adaptation describes all actions taken by humankind to adjust to the impacts of a changing climate. |
| Mitigation: the causes of climate change are removed by reducing GHG emissions.              | Adaptation: the impacts of climate change are met by adjusting to predicted impacts.                |
| "Avoid the unmanageable..."  | "... and manage the unavoidable."   |

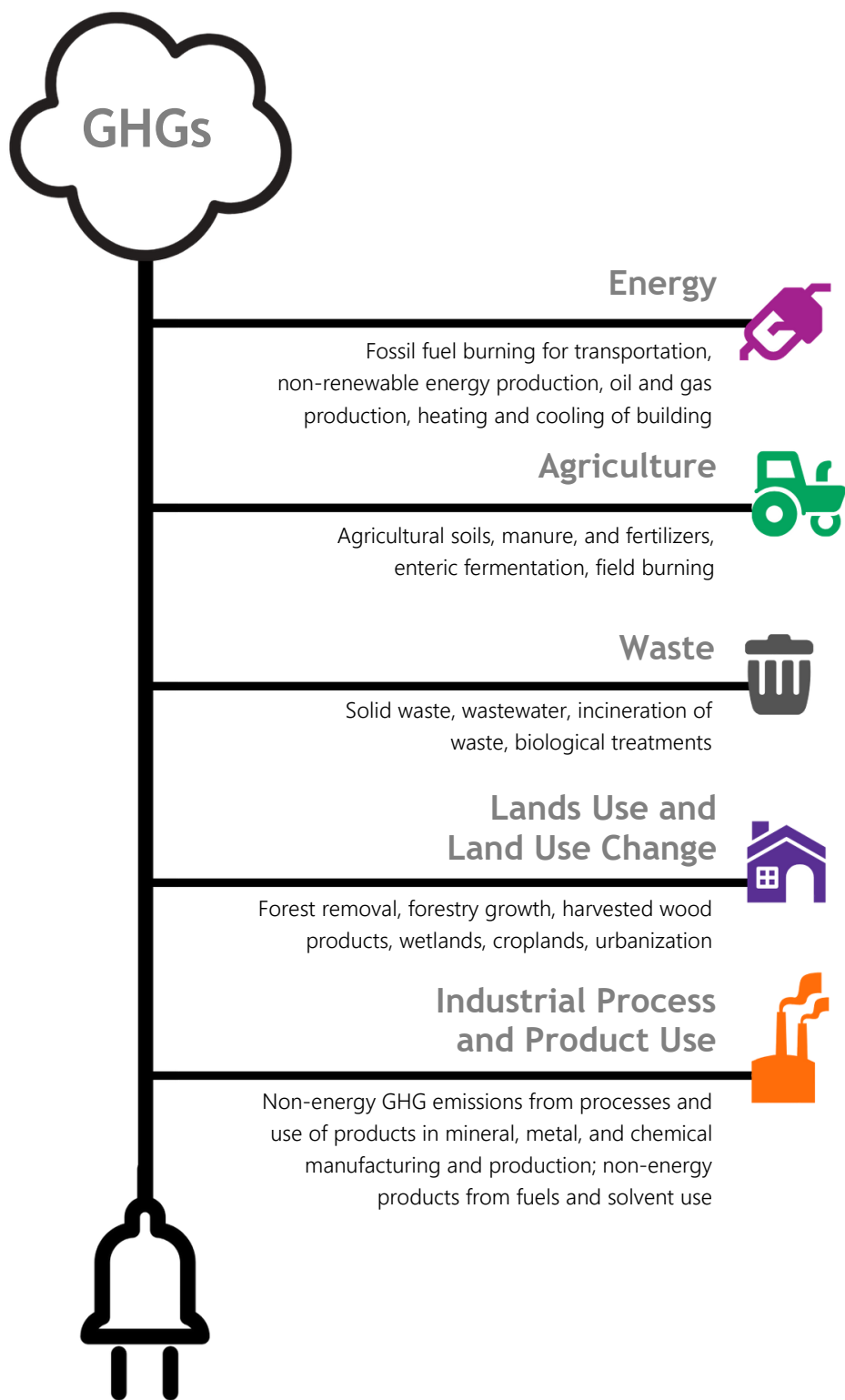
Warming Stripes: Annual Average Temperature in Canada from 1901 to 2019 <sup>5</sup>



Representation of annual average temperatures in Canada from 1901 to 2019. Each stripe represents the average temperature over a year, with blue represent cooler temperatures and red representing warmer temperatures.



## Sources of Greenhouse Gas Emissions





## 1.1 The Connection between Energy and GHG Emissions

A step towards addressing climate mitigation is understanding where GHG emissions come from. Naturally, carbon cycles through various stages and forms within our environment, from our planet's atmosphere to large deposits in the ground and back. Naturally occurring GHGs are part of this cycle; however, human activities have interrupted the natural balance of the carbon cycle leading to the significant increase of GHGs in our atmosphere and the subsequent warming of the planet.

GHG emissions can come from a variety of human-led activities, but are primarily an outcome of burning fossil fuels for energy to heat our homes, drive our cars, and run our factories. Other GHG contributors include human-created waste products, industrial and manufacturing processes and byproducts, agricultural practices, soil erosion, and land use changes such as deforestation.

The majority of human-created GHG emissions result from the energy needs of today's society. Globally, 78% of GHG emissions come from the production and consumption of energy. In Canada, this increases to 81%, while in Ontario, it is slightly under the global average at 75%.<sup>6</sup> The largest emitting sectors in Ontario include transportation (35% of total GHG emissions), residential and commercial buildings (21%), and heavy industries such as iron, steel, and chemical manufacturing (19%).

## 1.2 Climate Adaptation

Climate adaptation focuses on measures needed to adjust to life under a changing climate. It looks to reduce communities' vulnerability to future climate changes through measures, such as:

- managing climate-based risks like flooding and heat islands;
- planning more resilient communities and protecting the most vulnerable;
- utilizing the benefits of nature's multiple services to improve adaptation capacity;
- adjusting governance and best practices to meet and respond to current and future needs; and
- building community awareness of climate impacts.

Climate adaptation is outside the scope of the CEERP, however, many mitigation measures result in climate adaptation benefits as well. The development of a climate adaptation plan is considered the next step in the City of Brampton's overall climate action planning.

## 1.3 Why is Climate Change a Municipal Issue?

According to the Federation of Canadian Municipalities, 45% of national GHG emissions in Canada are under the direct or indirect control of municipal governments.<sup>7</sup>

The City has direct control over a range of everyday services that impact how energy is consumed, such as housing and transportation systems. The City controls where and how growth will occur through the designation of land and in the development and enforcement of zoning by-laws.

The City can develop land use policies and tools to mitigate climate change through increases in strategic urban density, mixed use developments, pedestrian-friendly subdivision design, and transit oriented development. The tools and policies are also linked to broader social goals of the municipality such as aging in place, affordable housing, and mobility hub/intensification studies and could include:

- targeted introduction of height/density bonusing;
- community improvement plans focusing on energy conservation (district energy, green roofs, solar);
- minimum/maximum zoning standards;
- incentive programs for specific development applications focusing on energy/emission reduction;
- web-based energy modelling of development applications; and
- incentive programs for developers/builders who exceed the Ontario Building Code.

Municipalities can play a significant role in realizing the co-benefits and opportunities of climate action in their area that address GHG emissions and social goals of affordable housing. They can bring agendas together, align Master Plans, and apply for federal and provincial funding sources to ensure "win-win" outcomes for the local community.



## 1.4 Climate Action

Considering 60% of energy consumption and over half of all GHGs in Canada are influenced by our communities – e.g. the transportation of people, goods, and services; the powering of local industry; and the heating, cooling and lighting of homes and buildings – all levels of government play a role in enabling local action on climate change.<sup>8</sup>

### 1.4.1 Federal Climate Action

Canada has the highest GHG emissions per capita of several world regions, and is often shown to be one of the top ten emitters in the world and within the top five emitters per capita.<sup>9</sup> Canada's economy is also significantly more carbon intense than global best practice (e.g. European Union and Japan), indicating an opportunity to use energy more efficiently and increase the supply of renewable energy sources.

As a signatory to the Paris Climate Agreement, the Government of Canada set a target to reduce GHG emissions by 80% below 1990 levels by 2050. In 2016, the [Pan-Canadian Framework on Clean Growth and Climate](#) was approved, which among other things put a price on carbon. Carbon pricing impacts energy decisions by making certain low-emission alternatives more appealing, and encourages the use and creation of more efficient energy systems and technologies. Funds collected through carbon pricing are reinvested into communities through funding local climate actions and activities. Federal funding has also been allocated to support local action on climate change, including funding through the Municipalities for Climate Innovation Program administered by the Federation of Canadian Municipalities.

### 1.4.2 Provincial Climate Action

The Province of Ontario has also committed to reducing GHG emissions to 30% below 2005 levels by 2030, as outlined in the [Preserving and Protecting our Environment for Future Generations: A Made-in-Ontario Environment Plan](#) released in 2018. For several years, changes in Provincial legislation have been mainstreaming energy and climate policy-making at the municipal level including:

#### *Provincial Policy Statement*

In 2014, the [Provincial Policy Statement](#) (PPS) on land use planning was updated to give direction on energy efficiency, renewable energy systems, alternative energy systems, and climate change. The most recent 2020 update to the PPS further directed municipalities to prepare for the impacts of a changing climate. It also continues to encourage transit-supportive development and intensification to improve the mix of employment and housing uses that will shorten commute journeys and decrease transportation congestion.

#### Regional Carbon Dioxide Intensity per Capita and per Gross Domestic Product<sup>10</sup>

| Region         | CO <sub>2</sub> /Capita | CO <sub>2</sub> /GDP |
|----------------|-------------------------|----------------------|
| USA            | 100                     | 100                  |
| Canada         | 103                     | 107                  |
| European Union | 43                      | 62                   |
| Japan          | 61                      | 67                   |
| China          | 46                      | 332                  |
| India          | 11                      | 299                  |
| World          | 30                      | 149                  |

#### *Growth Plan for the Greater Golden Horseshoe*

In 2017, the [Growth Plan for the Greater Golden Horseshoe](#) was updated to require upper-tier municipalities to include climate change targets, policies, and strategies in their official plans. The updated Growth Plan encourages the development of official plan policies that encourage energy conservation and efficiency, integrated waste management, renewable energy, alternative energy, and district energy systems.

#### *Made-in-Ontario Environment Plan*

In late 2018, the Provincial government released the [Preserving and Protecting our Environment for Future Generations: A Made-in-Ontario Environment Plan](#) to replace the previous government's Climate Change Action Plan. The Plan indicates the Provincial Government's intent to work with municipalities to develop climate and energy plans, and consult with them on tax policy options to make it easier for homeowners to increase energy efficiency and save money.

#### *Municipal Act and Planning Act*

Changes to Ontario's [Municipal Act](#) and [Planning Act](#) in 2017 increased municipal powers to combat climate change.

#### *Ontario's Long-Term Energy Plan*

The [2017 Long-Term Energy Plan: Delivering Fairness and Choice](#) acknowledges the role of regional and community energy plans in meeting energy conservation targets and sustaining a reliable and secure supply for Ontario's energy customers.

#### *Municipal Energy Plan Program*

The Ministry of Energy, Northern Development and Mines' Municipal Energy Plan Program provides funds to municipal governments to complete or update a Municipal Energy Plan.<sup>11</sup> MEP funding supported the development of Brampton's CEERP.





### 1.4.3 Region of Peel Climate Action

The Region of Peel has established several policies that create an enabling environment for CEERP implementation, including:

#### *Official Plan for the Region of Peel*

The Region of Peel's Official Plan (December 2018 Office Consolidation) includes objectives to address energy and climate through land use planning, low carbon energy systems, and energy conservation. The Official Plan encourage area municipalities to incorporate policies on energy efficiency, district energy, renewable energy, low carbon vehicles, and building retrofits into their own Official Plans.

#### *Peel Climate Change Strategy*

The Peel Climate Change Strategy (2011) resulted from a partnership between the Region of Peel, City of Brampton, City of Mississauga, Town of Caledon, Credit Valley Conservation, and Toronto and Region Conservation Authority. The Strategy sets a long-term GHG reduction target of 80% below 1990 levels by 2050, and includes an action to "prepare a joint feasibility study to determine how to optimize the use of alternative energy sources through community energy planning and through pilots of district energy systems in Peel".

#### *Climate Change Master Plan*

The Region's Climate Change Master Plan: 2020-2030 (CCMP) sets forth directions for how the Region as a corporation will lead by example through the management of its assets, infrastructure, and services in a changing climate over the next decade. The Region will substantiate the influence necessary to support the community as it transforms in response to climate change. In doing so, the CCMP will complement and support the efforts of partners in the broader community. The Master Plan also establishes a corporate GHG emissions reduction target of 45% below 2010 levels by 2030.

Action 8 of the Region's CCMP calls for "Enabl[ing] alignment of Regional actions with the transition toward diversified and decentralized energy systems."



#### 1.4.4 City of Brampton Climate Action

As a corporation, the City of Brampton has taken many actions to reduce GHG emissions, including through its role in managing the growth and development of the city. Several policies are supported and strengthened by the development of the CEERP.

##### *City of Brampton Official Plan*

The City of Brampton's Official Plan 2006 (September 2015 Office Consolidation) speaks to the importance of finding sustainable alternatives in order to conserve energy and reduce GHG emissions, including in its corporate operations. It provides support for sustainable development practices such as mixed-use, compact, and transit-oriented development and specifically supports the use of renewable and district energy systems in the city. The Official Plan also includes policies specific to energy and climate and refers to creating a long-term energy plan for the city's downtown. The Official Plan is currently in the process of being updated and is expected to take on a climate change lens.

##### *Brampton Grow Green Environmental Master Plan*

The Brampton Grow Green Environmental Master Plan aims to conserve, enhance, and balance the City's natural and built environments to create a healthier, resilient, and environmentally sustainable city. It provides goals, actions, and targets for improving Brampton's environmental performance in the areas of People, Air, Water, Land, Energy, and Waste. It establishes objectives to reduce impacts on air quality, including decreasing GHG emissions and reducing energy consumption, and manage the impact of energy usage on the environment. The Plan sets out supportive actions, including the development of a community energy plan and a GHG emissions reduction strategy.

##### *Sustainable Communities Program: New Development*

The Sustainable Communities Program: New Development promotes a comprehensive approach to planning, designing, and evaluating sustainability of new development. The program relies on three primary tools: the Sustainable Community Development Guidelines (SCDGs) to help guide sustainable design; the Sustainability Metrics and associated Sustainability Score; and Thresholds that provide quantitative measures and targets for sustainability performance of development proposals.

The program encourages energy conservation and clean energy production in a variety of ways, including but not limited to guidelines and metrics related to energy conservation, renewable energy production, district energy, electric vehicle charging infrastructure, green/white roofs, embodied energy, active transportation infrastructure, as well as complete and compact communities.

## Brampton Grow Green Environmental Master Plan

In 2014, Brampton City Council adopted Brampton Grow Green, the City's first Environmental Master Plan (EMP). Brampton Grow Green directs the City's environmental sustainability approach around six core components of People, Air, Water, Land, Energy, and Waste, including goals, actions, and metrics for each. The EMP is considered the City's first climate change mitigation plan.

While conserving energy and reducing greenhouse gas emissions are embedded throughout the Brampton Grow Green EMP, they are primarily captured under the core components of Air and Energy. The goals and example actions are summarized below.

### ENERGY

Goal: Reduce energy consumption and manage the impact of energy usage on our environment.

- Develop a comprehensive Energy Management Strategy for City building and facilities.
- Prepare a feasibility study for district energy opportunities in Brampton's Central Area.
- Work with Peel Climate Change Strategy (PCCS) partners to develop a Community Energy Plan.
- Develop a Renewable Energy Strategy for City buildings and facilities.
- Develop Official Plan policies to explicitly promote urban development forms and buildings that support reduced energy consumption and increased use of renewable energy.

### AIR

Goal: Reduce impacts on air quality.

- Develop a Corporate GHG Emissions Reduction Strategy.
- Develop a Community GHG Reduction Strategy with PCCS partners.
- Work with PCCS partners to develop a comprehensive community education strategy to encourage GHG reductions.

The City of Brampton is undertaking a refresh of the Brampton Grow Green EMP Action Plan and Metrics, and this update will further recognize and reinforce the need for climate change mitigation and adaption at both the corporate and community level.



## *Energy and Emissions Management Plan 2019-2024*

Brampton's corporate Energy and Emissions Management Plan 2019-2024: A Zero Carbon Transition aims to achieve a zero-carbon transition for the City's new and existing corporate facilities. It focuses on minimizing emissions and energy intensity and maximizing cost recovery within its facilities construction, management, and operations. Through this Plan, the City is working to reduce its own emissions, increase its energy efficiency, and lead by example. It also outlines major successes already achieved. The corporate has done significant work to reduce energy use and GHG emissions of its operations. Corporate contribution to community-wide energy use and emission is small.

## *Active Transportation Master Plan*

In 2019, Council endorsed the Active Transportation Master Plan that includes goals and objectives for creating a pedestrian and cycling-friendly city. It aims to improve the safety of walking and cycling; provide options to all residents, including enhancing the accessibility of the transportation network; improve access to transit; and provide active transportation options for the first/last mile. By providing residents with more viable non-emitting transportation options, the Active Transportation Master Plan supports and assists in meeting the CERP's energy and GHG emission reduction targets.

## *Transportation Master Plan*

The Transportation Master Plan (2015) is the City's blueprint strategic transportation planning and direction for the future. The Plan provides a direction towards increasing the use of transit and active transportation within Brampton, which will reduce energy demands and total emissions as Brampton continues to grow. As the Plan is updated, it will further explore the role transportation can take in achieving our energy and emission targets.

## *Complete Streets Guidelines*

The City of Brampton is currently developing Complete Streets Guidelines. Travel choices can have a significant impact on GHG emissions and energy consumption within a community. The safety, ease, and convenience of transportation modes greatly influence people's choice of transportation. Therefore, proper planning and design of our transportation networks are critical in creating viable, low emission alternatives of travel for residents such as transit, cycling, and walking. The Complete Streets Guidelines will address the safety, comfort, and accessibility of all users of streets and roads, not just the car.

## *Transit Investments*

Between 2010 and 2019, Brampton created and expanded its Züm transit system, which connects the city with employment hubs elsewhere in Peel as well as in the cities of Vaughan and Toronto.

In 2015, the Government of Ontario announced funding for the Hurontario Light Rail Transit project along Hurontario Street from Port Credit in Mississauga to Steeles Avenue in Brampton. Construction of this \$1.6 billion project is expected to be completed in 2024.

## *Climate Emergency Declaration*

In June 2019, Brampton City Council voted unanimously to declare a climate emergency, joining close to 500 Canadian municipalities in expressing their commitment to act on lowering emissions.

## *Other City Initiatives*

The City of Brampton has various ongoing initiatives that support the CEERP and reflect the City's actions on climate. Some of the most recent include:

- the electric bus pilot project;
- an accessibility app to encourage more riders to take transit;
- the One Million Trees Program; and
- the Brampton Eco Park Strategy.

## **1.4.5 Community Climate Action**

Individuals, businesses, and civil society have also been taking steps to reduce GHG emissions by adopting new technologies and changing patterns of behaviour. While a full summary of these actions is beyond the scope of this report, the actions of Sheridan College are highlighted, considering their role as a founding partner of the CEERP and contributor of funding.

## *Sheridan College Integrated Energy and Climate Master Plan*

Sheridan College has set ambitious energy and GHG reduction targets for the institution. Reinvestment in Sheridan's existing district energy systems at the Brampton and Oakville campuses is a major element of their Integrated Energy and Climate Master Plan. The reinvestment provides an opportunity for Sheridan to work with its local municipal partners to extend these existing systems outside of the campus borders and thereby support broader energy conservation and GHG reduction efforts at the community-wide scale.

Sheridan College is constructing a fully integrated, college-wide district energy network using global best practice. Their goal is to demonstrate that off-the-shelf design and expertise found in leading jurisdictions can be used to build an effective district energy system in Canada. Sheridan aims to be a leader for how district energy can be done successfully in this country, including being a role model for district energy systems and developing a living training laboratory to address common barriers to district energy.





## 1.5 Taking Action

Many municipalities and regional governments are developing climate Action Plans, and it is important that Brampton develops its own, locally relevant plan. Some municipalities are developing mitigation plans, while others are working towards adaptation plans.

Brampton's CEERP takes on a local lens to focus on community-wide priorities and actions to reduce GHG emissions, increase energy efficiency, ensure energy security, create economic advantage, and increase Brampton's resilience to climate change. The CEERP is considered a mitigation strategy and focuses on mitigation measures. However, mitigation and adaptation are closely linked, and measures for one may result in positive benefits for the other. Some actions within this plan may also facilitate climate adaptation, but an adaptation plan is considered the next phase in Brampton's climate Action Planning.



## Notes

<sup>1</sup> Source: Climate Emergency Declaration, statistics retrieved February, 2010 from <https://climateemergencydeclaration.org/climate-emergency-declarations-cover-15-million-citizens/>

<sup>2</sup> Source: IPCC. (2018). Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels. In Press. [https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15\\_Full\\_Report\\_High\\_Res.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_High_Res.pdf)

<sup>3</sup> Sources: Buis, Alan. (2019). "A Degree of Concern: Why Global Temperatures Matter." NASA's Global Climate Change. <https://climate.nasa.gov/news/2878/a-degree-of-concern-why-global-temperatures-matter/>; U.N., 2019: Climate Change. <https://www.un.org/en/sections/issues-depth/climate-change/>; IPCC. (2013). Climate Change 2013: The Physical Science Basis. Cambridge University Press. <https://www.ipcc.ch/report/ar5/wg1/>

<sup>4</sup> Source: IPCC. (2018). Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels. In Press. [https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15\\_Full\\_Report\\_High\\_Res.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_High_Res.pdf)

<sup>5</sup> Image retrieved from Climate Lab Book. <https://showyourstripes.info/>

<sup>6</sup> Source: Environment and Climate Change Canada. (2018). National Inventory Report (NIR) 1990-2016: GHG sources and sinks in Canada. Annual submission of national GHG inventory to the United Nations Framework Convention on Climate Change (UNFCCC). <https://www.canada.ca/content/dam/eccc/documents/pdf/climate-change/emissions-inventories-reporting/nir-executive-summary/National%20Inventory%20Report%20Executive%20Summary%202018.pdf>

<sup>7</sup> Source: Federation of Canadian Municipalities. (2009). Act Locally: The Municipal Role in Fighting Climate Change. <https://fcm.ca/sites/default/files/documents/resources/report/act-locally-municipal-role-fighting-climate-change.pdf>

<sup>8</sup> Source: Quest. (2016). Community Energy Planning: The Value Proposition Environmental, Health and Economic Benefits. [https://questcanada.org/wp-content/uploads/2018/08/Community-Energy-Planning-The-Value-Proposition\\_Full\\_Report\\_2016.pdf](https://questcanada.org/wp-content/uploads/2018/08/Community-Energy-Planning-The-Value-Proposition_Full_Report_2016.pdf)

<sup>9</sup> Source: BP. 2019. Statistical Review of World Energy 2019. 68th Edition. <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2019-full-report.pdf>

<sup>10</sup> Table data retrieved from 2017 International Energy Agency (IEA) data.

<sup>11</sup> A Municipal Energy Plan is the equivalent of a Community Energy Plan or a Community Energy and Emissions Reduction Plan.



## CHAPTER 2

# Energy Transitions

## Brampton's Urban & Energy Evolution

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### KEY TAKEAWAYS

- Climate change is one of many reasons to develop a Community Energy and Emissions Reduction Plan. Another reason is ensuring Brampton is well positioned to manage the opportunities and risks associated with the modern energy transition underway.
- Energy transitions are not new - Ontario has already experienced two energy transition since European settlement: 1) the wide use of coal and steam power, and 2) the move to centralized energy systems and use of fossil fuels. Both brought on significant economic growth and quality of life improvements.
- Brampton's reliance on a centralized energy system results in the loss of significant local economic opportunities. Today, Brampton spends over \$1.8 billion on its energy as a community, and almost 80% of those energy dollars leave the city to support the economic development of other communities that house power plants and refineries.
- The growing reliance on fossil fuels in these centralized systems is also contributing to the current global climate emergency. Today, Ontario relies on fossil fuels to meet 75% of its energy needs associated with electricity, natural gas, and gasoline and diesel.
- The latest global energy transition is being driven by two main factors: decarbonization and the localized distribution of energy.
- Urbanization has been a driving force of shaping Ontario's and Brampton's energy systems and use.
- Seen through an energy lens, the Brampton 2040 Vision is a community energy plan. The CEERP supports the Vision, providing a roadmap that takes us steps closer to achieving it.
- Community energy planning involves establishing local priorities for reducing energy use and energy-related emissions through approaches such as distributed energy systems, decarbonization of energy sources, energy technologies, green infrastructure, sustainable transportation options, well-designed complete communities, and local jobs.
- A full glossary of terms is available at the beginning of this report. Some of the key terms used in this chapter include: Energy Transition, Latest Energy Transition, Centralized Energy Systems, Decentralized/Distributed Energy Systems, and Urbanization.





Looking east on Queen St. at Main St. <sup>1</sup>

## 2.0 Energy Transitions

Climate change is one of many reasons to undertake a community energy plan. Another reason is ensuring Brampton is positioned to manage the risks and opportunities associated with the latest energy transition.

The last two centuries have seen several energy transformations in Ontario and Brampton. Each time, the resulting impact on the life of citizens and businesses has been immense. Evidence of these transformations can be seen in Brampton's urban and natural environment.

### 2.0.1 History of Energy Transitions in Ontario

Energy transitions are not new, and Ontario has experienced two major energy transitions since European settlement.<sup>2</sup>

#### *Indigenous Peoples Relationship with Energy<sup>3,4</sup>*

The relationship the Indigenous peoples in Ontario had with energy before European settlement varied greatly between tribes, however, relationships were closely tied to the land and its practical application to survival. In its many sources and applications, energy use often had deeply ingrained cultural and spiritual significance.

In its application for livelihood, fire was often utilized for heat to stay warm, cooking, and the preservation of food through smoking. The type of sources of fuel used for each application was shaped by generations of knowledge and observations, and was often guided by spiritual traditions and teachings.

Fire also greatly impacted the landscape, significantly affecting the location and type of resources available. Indeed, there are indications that certain tribes may have used fire intentionally to modify or manage their landscapes and resources. Other sources of energy came through the use of existing resources and systems already naturally present, such as using rivers for transportation, or dogs to help carry loads.

The area known as Brampton today is the traditional territories of the Anishinabek, Huron-Wendat, Haudenosaunee, and Ojibway/Chippewa.

#### *Pre-industrial Energy System*

Early European settlers in Upper Canada relied on a pre-industrial system for their energy comprised primarily of burning wood for heat, using work animals, and harnessing the movement of water to grind grain and saw logs.



The reliance on wood for fuel and building material was one of the causes behind Brampton losing almost 90% of its woodland cover by the early 1900s. Today, some of the traditional territories of remnants of this pre-European landscape are found in Brampton's valleys and woodlands.

Reliance on animal and human power also resulted in walkable hamlets that formed the basis of economic and social centres for local residents.

### ***First Energy Transition: Coal and Steam Power***

The first energy transition in Ontario and Brampton was fueled by the introduction of coal-fired steam engines in the mid-1800s. By the end of the 1800s, U.S. coal and local steam engines powered most of Ontario's industrial growth.

The introduction of steam engines and railroads offered economic and social opportunities and challenges to Brampton's hamlets. Goods, once produced for local markets, could now be imported from large urban centres and the world. Brampton's cut-flower industry was quick to seize this opportunity to become the Common Wealth's largest producer of cut roses, leading Brampton to be known as the Flower Town.

However, by the turn of the century rising coal prices and coal shortages were threatening local prosperity. Municipal politicians and boards of trade began to turn their attention towards the promise of a new energy technology - electricity.

### ***Second Energy Transition: Centralized Electricity and Fossil Fuels***

The first time the movement of water was used to produce electricity in Canada was at Chaudière Falls in 1881, which powered streetlights and local mills in Ottawa. Subsequently, electricity companies sprung up across Ontario. By the early 1900s, most of Ontario's electrical systems were owned by municipal governments eager to expand service to more homes and businesses. Demand for electricity increased and to meet that need, 14 Ontario towns formed the "Power for the People" movement. These local leaders were instrumental in the formation of the Hydro-Electric Power Commission of Ontario. Sir Adam Beck, the commission's first chairman, was an early champion of centralized power as the Mayor of London, Ontario. Abundant and cheap hydroelectric power from Niagara arrived in Ontario homes for the first time in 1910.



Brampton received electricity for the first time in 1886 when a 2,200 volt electrical line was built to connect downtown Brampton to the McMurchy woolen mill and generating station along the Credit River in Huttonville, lighting the first electrical street lamp in Brampton.

The centralization of electricity came to Brampton in February 1912, when Brampton taxpayers voted to allow the Hydro-Electric Power Commission to purchase Mr. McMurchy's rights to the electricity supply in Brampton "to prevent needless competition". This move led to the creation of the Brampton Hydro-Electric Power Commission.

Another key aspect of this second energy transition was the availability of fossil fuels. In the late 1800s, Brampton used natural gas to light its streets and coal to heat homes. It wasn't until the late 1950s that engineering breakthroughs facilitated the widespread use of natural gas for home heating and industry. Today, the majority of homes in Brampton use natural gas as their primary source of heating.

The widespread availability of fossil fuels also supported the monumental growth in the use of personal automobiles in the 20th century. The introduction of the personal automobile led to a significant transformation of the built environment, creating communities focused around the use of a car.



## District Heating Powers Flower Town<sup>5</sup>

From 1915 to 1960, Brampton was known internationally as “The Flower Town of Canada”. During this time there were over 48 nurseries in Downtown Brampton devoted to growing hothouse flowers. The Dale Estate was known as having the third largest number of greenhouses in the world.

To heat these greenhouses, the growers joined forces to build Brampton’s first district heating system, which relied on a network of underground pipes and shafts to deliver heat to the greenhouses.

At its peak, the district heating system required approximately 6,000 to 19,000 tons of coal annually. Some estimates suggest there were over 100 miles of steam pipes under Brampton.

A 300-foot chimney, once a local landmark, was constructed for this heating plant to push the coal fumes high into the air.

In addition, several homes were added to the system including the Dale homes. Altogether, a total of 15 homes were heated by the district heat system. In the years after WWII, the company converted the boilers to oil. This transition was more efficient and improved Brampton’s air quality. At this time seven boilers were installed, burning 15,000 gallons of oil daily, or approximately three million gallons a year, with a capacity of 7000 HP.

With each energy transition, communities have become less involved and less aware of where their energy comes from and how it is produced. Each energy transition resulted in changes to the urban landscape as increased energy inputs allowed cities to grow, gave people more freedom to travel more frequently and farther, and provided businesses the ability to trade over wider distances.

### *Ontario’s Current Energy System*

The result of the last energy transition has been a complete centralization of Ontario’s current energy system. In Brampton, electricity, home heating, and gasoline are produced elsewhere in a centralized power station or refinery and distributed to the city through a network of wires and pipelines.

This centralization of power has powered both Ontario’s and Brampton’s economic and urban growth, but reliance on fossil fuels is also contributing to the current global climate emergency. Today, Ontario relies on fossil fuels to meet 75% of its energy needs associated with electricity, natural gas (home heating) and gasoline and diesel (cars and trucks).

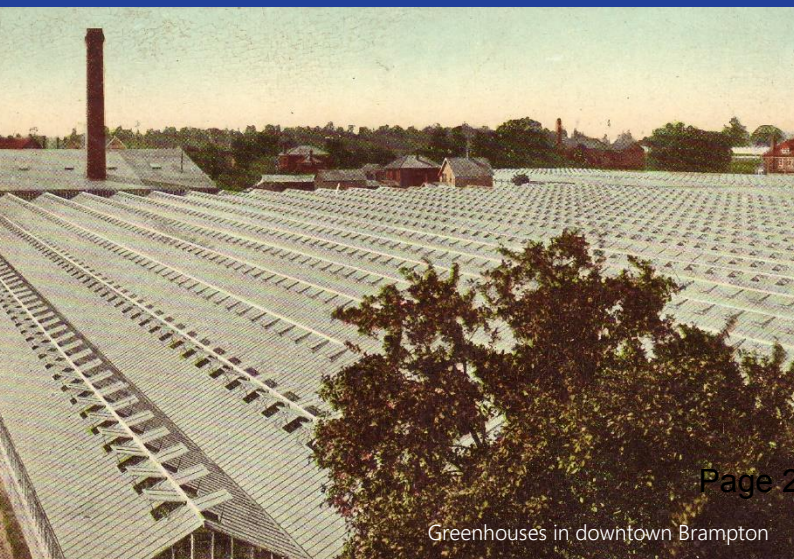
In addition, Brampton’s reliance on this centralized system results in the loss of significant local economic opportunities. In the past, energy production required local businesses and workers, which fed the local economy. Today, almost 80% of Brampton’s energy dollars leave the city to support the economic development of other communities that house power plants and refineries.

### *Electricity*

Ontario’s electricity mix in early 2020 was 34% nuclear, 29% natural gas, 23% hydro, 12% wind, 1% solar, and <1% biofuel. However, in 2016, approximately 90% of Ontario’s electricity came from non-GHG emitting sources, and up until the 1950s, Ontario’s electricity system was almost 100 percent renewable hydroelectric power.<sup>6,7</sup>

The centralization of the electricity system and the introduction of non-renewable energy sources (i.e. fossil fuel and nuclear) to meet the demands of increasing population, industrialization and urbanization has had two consequences:

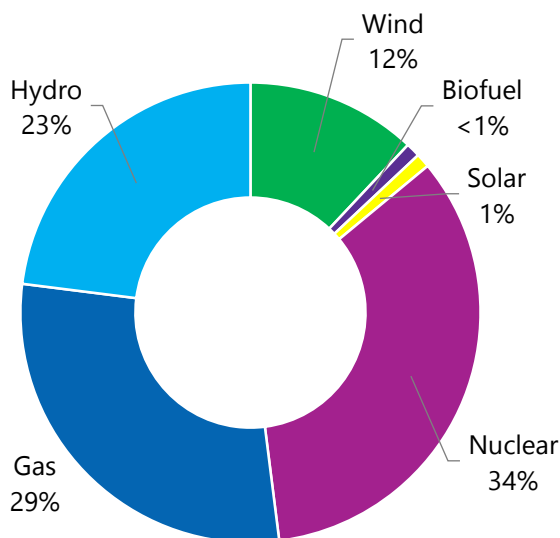
1. the creation of waste by-products, including GHG emissions and nuclear waste; and
2. increased system losses from conversion and transmission.



Greenhouses in downtown Brampton



## 2020 Installed Energy Capacity by Fuel Type on Ontario's Transmission System<sup>8</sup>



|         |           |
|---------|-----------|
| Nuclear | 13,009 MW |
| Gas/Oil | 11,270 MW |
| Hydro   | 9,065 MW  |
| Wind    | 4,486 MW  |
| Biofuel | 295 MW    |
| Solar   | 478 MW    |

In 2014, Ontario completed the closure or conversion of all coal-fired power plants to natural gas, which resulted in several environmental and health benefits, including a significant reduction of GHG emissions.<sup>9</sup> It also resulted in cleaner air. For example, in 2005, there were 53 smog days recorded in Toronto, but ten years later, in 2015 with comparable temperatures, there were none recorded.<sup>10</sup>

### Natural gas

Natural gas is a non-renewable energy source that is used primarily to heat homes and domestic water. It is also a primary energy source for industrial steam and process heat. As noted above, about 29% of Ontario's electricity generation currently comes from natural gas.

Most of Ontario's natural gas comes from outside the province, mainly from western Canada, and has been delivered by interprovincial pipelines since 1958. Natural gas used for home heating and industrial processes is a major contributor to GHG emissions in the Greater Toronto Area (GTA).

### Gasoline and diesel

Gasoline and diesel are nonrenewable sources of energy that are primarily used as engine fuel for various types of transportation vehicles. In Brampton, automobiles are used for over 80% of trips in the city, including commuting to work and to the grocery store.

Gasoline and diesel used in the transportation sectors are mostly sourced from crude oil, almost all of which come from outside Ontario, exported from western Canada, the Atlantic offshore, and the United States. Gasoline and diesel use in cars and trucks is a significant contributor to GHG emissions in Brampton and the GTA.



# Brampton's Energy Milestones



**1873**

Brampton is incorporated as a town. Most homes are heated by local wood or coal imported from the United States. Streetlights were powered by natural gas. Transportation was mostly by foot, but richer residents might use a horse or bike.



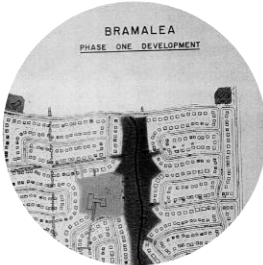
**1886**

Electricity arrives in Brampton when a 2,200 volt electrical line was built to connect downtown Brampton to the McMurchy woolen mill and generating station along the Credit River in Huttonville.



**Early 1900s**

Brampton sees its first district heating system to heat the ever-growing greenhouses in the town. By 1929, the district heating system had approximately 160 km of steam pipes, six furnaces, and used 18,000 tons of coal each year.



**Early 1960s**

Bramalea, one of Canada's first master planned communities, is developed. Marketed as a "new town", Bramalea was built with a mix of residential areas, commercial and industrial uses and green space, but most residents still had to primarily rely on their cars to commute to work.



**1945**

After World War II, urban sprawl begins in Brampton. New neighbourhoods are built to be car dependent and rely on large roads and highways. This was aided by the second energy transition that provided centralized energy systems and the wide availability of fossil fuels. Sprawl continues into the 21st century.



**1912**

Although electricity first came to Brampton in 1886, Brampton voted to become part of the Ontario Hydro-Electric Power Commission power grid. Can you spot Brampton on this old power grid map?



**2019**

Between 2015 and 2019, Brampton Transit ridership increases by 50% from 1.6 million to 2.4 million rides per month. Despite this, 80% of trips are taken by car.



**2041**

Brampton's population is projected to grow by 300,000 for a total of 900,000 by 2041. If the current suburban form is replicated to accommodate this growth, Brampton will face significant economic, social, and environmental issues.



## 2.1 The Latest Energy Transition

The latest energy transition is being driven by two main factors: decarbonization and localized distribution of energy. In some regions of the world, notably in Nordic countries, this energy transition has been going on since the 1970s. In other regions, such as North America, the transition commenced only in the last decade. According to the 2019 Global Trends in Renewable Energy Investment report, renewable energy capacity quadrupled across the planet over the last ten years.<sup>11</sup>

To take advantage of this latest energy transition, Canadian communities are beginning to assert themselves in energy planning. By being proactive, these communities are trying to get ahead of the energy transition to reap the associated economic, social, and environmental benefits.

### 2.1.1 Decarbonized Energy System

The primary driver of the latest energy transition is the changing social values that are increasingly demanding more efforts to reduce global GHG emissions. In 2019, Brampton Council joined almost 1,468 jurisdictions in 28 countries in declaring a climate emergency and recognizing the need to dramatically reduce GHG emissions in the next 10 to 20 years to keep global warming below 1.5°C. To meet this goal, the energy transition needs to include a deep decarbonization of the energy system, which involves shifting away from the use of GHG-emitting fuels (e.g. gasoline, natural gas, coal) and towards the consumption of carbon neutral fuels (e.g. wind, solar, nuclear, hydro).

Global energy demand has doubled since 1980 as populations grow, nations develop, and fuels become more accessible and tradable. Global carbon emissions have increased by 52% in the past 25 years. Canada’s emissions have increased by 33% over the same period.<sup>12</sup>

While Canada only generates 1.7% of global GHG emissions, the Organization for Economic Co-operation and Development (OECD) notes Canada’s status as one of the most GHG emission-intensive economies in the world, and the fourth largest emitter of GHGs in the group of OECD nations. The Conference Board of Canada ranks Canada in last place compared to 17 peer countries for energy intensity, and assigns Canada a “D” grade for its energy intensity and GHG emissions.<sup>13</sup>

The Conference Board of Canada gives Ontario a grade of “B” with 12.6 tonnes of GHG emission per capita compared to the Canadian average of 20.7 tonnes of GHG emissions per capita. Since 2005, Ontario has reduced its GHG emissions by 22%, while the rest of Canada’s emissions rose by 6%. Most of Ontario’s GHG reductions can be attributed to the closing of coal plants.

However, being a leader in Canada does not mean that much, since Canada’s energy use per Gross Domestic Product (GDP) is higher than the USA, European Union, and Japan. If Brampton wants to be a global leader in energy efficiency and reducing GHG emissions, it needs to adopt global best practices in energy production and efficiency. This will help the city realize significant competitive economic advantages, including competitive energy costs, energy reliability, and an increase in quality of life.

Carbon Dioxide Emissions per Capital<sup>14</sup>

| Region         | CO <sub>2</sub> /Capita |
|----------------|-------------------------|
| USA            | 100                     |
| Canada         | 124                     |
| European Union | 69                      |
| Japan          | 57                      |
| China          | 243                     |
| India          | 270                     |
| World          | 140                     |



### 2.1.2 Distributed Energy Systems

The latest energy transition calls for more localized and renewable non-GHG energy sources. Distributed Energy Systems (DES) involve the local generation and operation of energy (e.g. solar panels on buildings, micro generators, heat waste power, district energy systems, etc.) often close or next to its point of use.

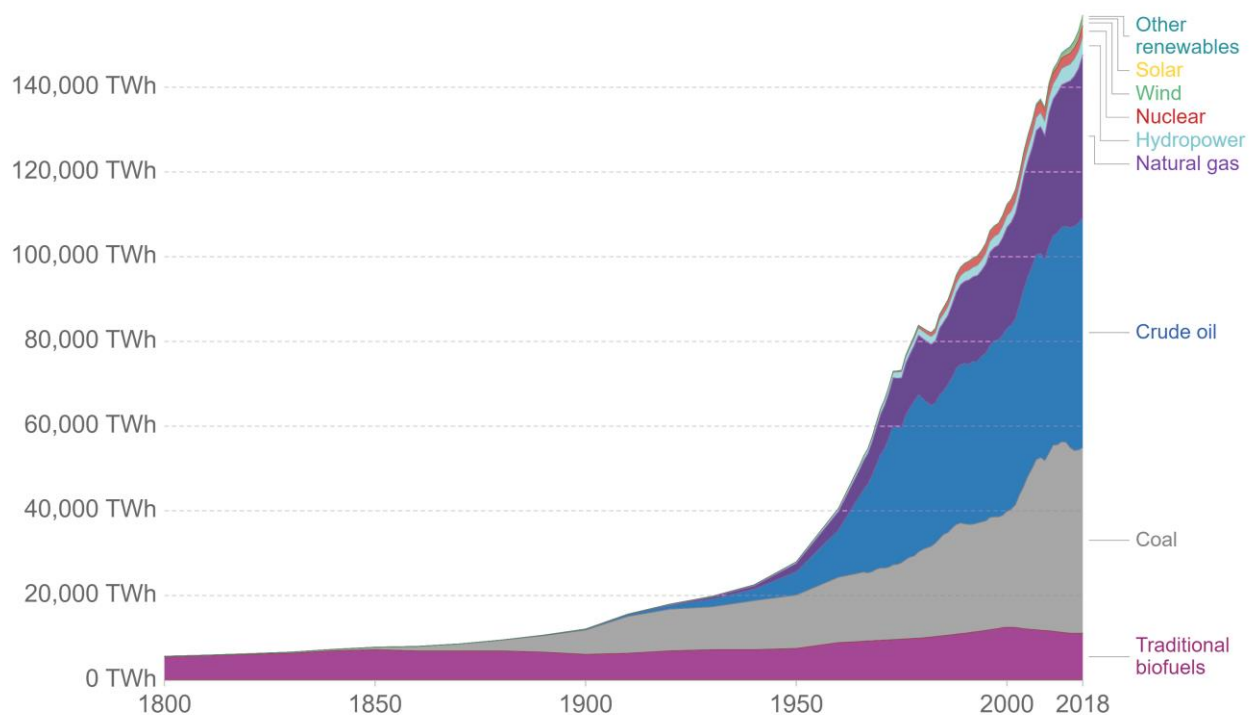
According to Ontario's Independent Electricity System Operation (IESO), "one of the most significant changes to electricity systems around the world has been the rapid expansion of distributed energy resources (DERs)".<sup>15</sup> DERs can include solar panels, combined heat and power plants, electricity storage, small natural gas-fueled generators, electric vehicles, and controllable loads, such as HVAC systems and electric water heaters.

IESO defines DERs as electricity-producing resources or controllable loads that are connected to a local distribution system or connected to a host facility within the local distribution system. These resources are typically smaller in scale than the traditional generation facilities that serve most of Ontario's demand.<sup>16</sup>

While the rise of Distributed Energy Systems is being driven by climate change concerns, a confluence of other developments are making the transition more feasible, such as:

- a rise in cost-effective technologies for generating and distributing energy locally;
- the convergence of communication and energy technologies;
- systemic inefficiencies that have grown over time in our current centralized energy system; and
- growing concerns about energy security, which includes consumer issues of affordability, accessibility and reliability.

**Growth in Global Primary Energy Consumption from 1800 to 2017 (Terawatt Hours per Year)<sup>17</sup>**

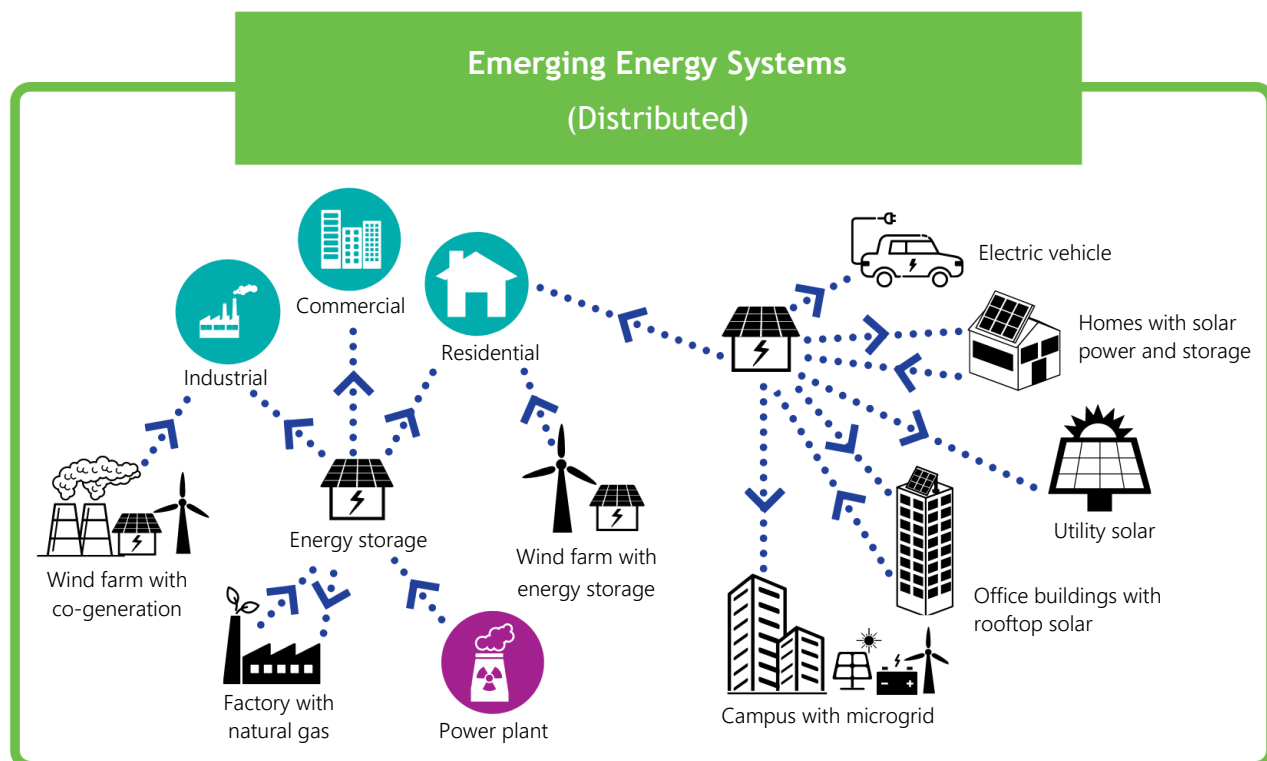
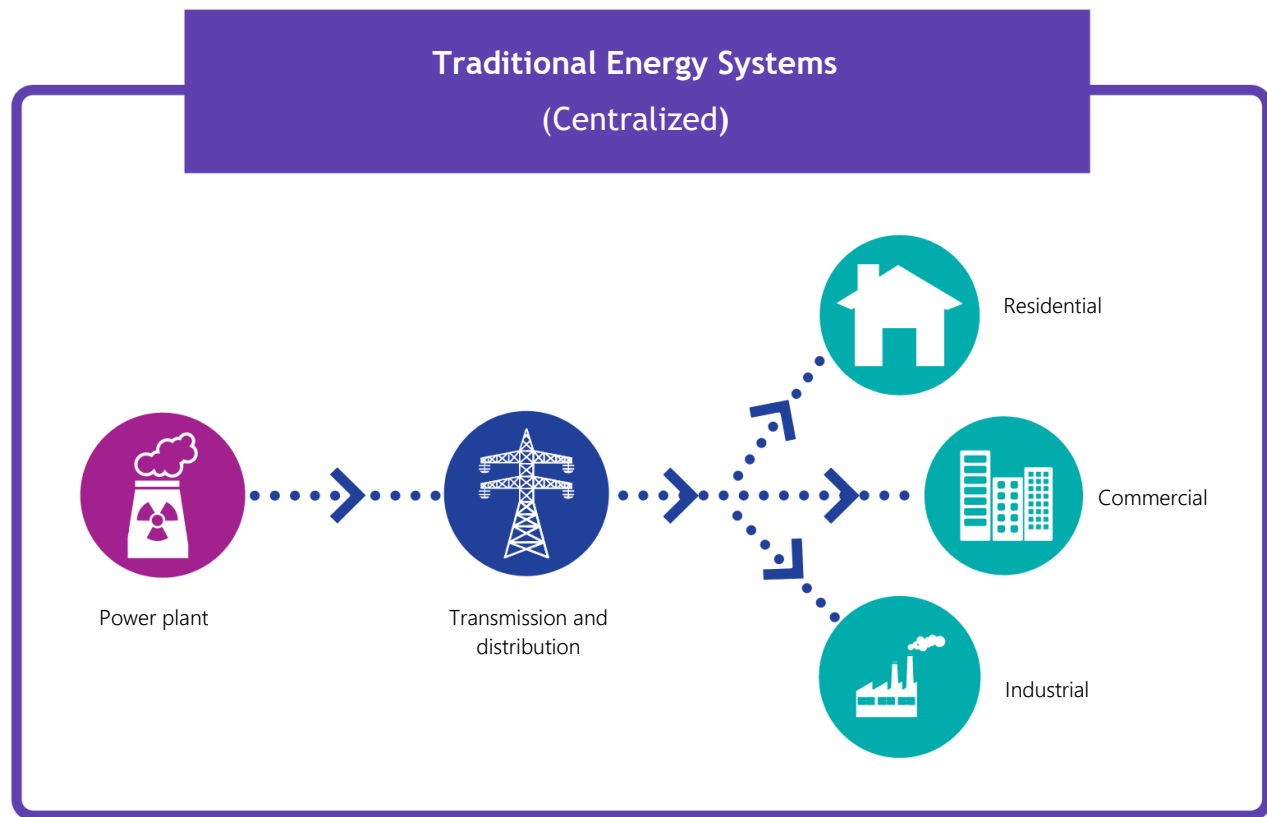


Source: Vaclav Smil (2017) and BP Statistical Review of World Energy

CC BY



## Traditional Versus Emerging Energy Systems





### 2.1.3 Community Energy Planning

In some regions of the world, this next energy transition has been going on for 50 years, as the oil crises of the 1970s revealed how vulnerable world economies were to fluctuations in global oil supply. In Canada, this transition is just starting. In the last decade, over 400 Canadian communities have developed community energy plans that establish local priorities for reducing energy use and energy-related emissions.

Copenhagen, Denmark is one region that is considered a global leader in community energy planning. In 1973, Copenhagen exclusively relied on fossil fuels to heat its homes and drive its cars. Overnight, in October 1973, when the Organization for Arab Petroleum Exporter Countries declared an oil embargo, Copenhagen residents faced a substantial increase in home heating and transportation costs.

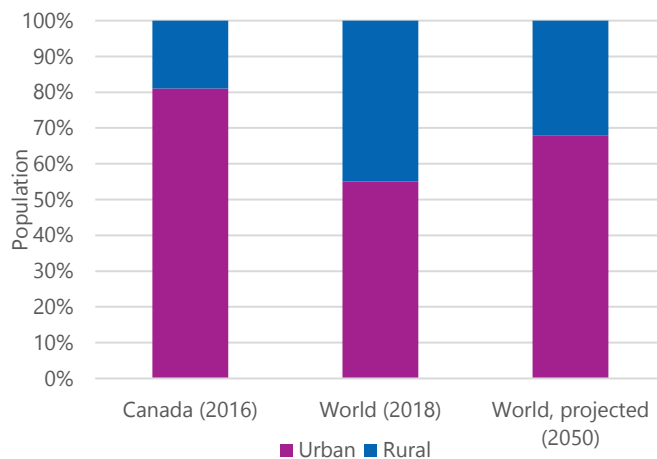
In response, Copenhagen focused its energy planning efforts on establishing a comprehensive district energy strategy and home insulation program. In addition, Copenhagen began to transform its transportation system, placing greater emphasis on sustainable modes of transportation like cycling and transit. Today, Copenhagen has set the goal of becoming the world's first carbon-neutral city by 2025.

Denmark and other Nordic countries are leaders in the latest energy transition, and are exporting their energy technologies and expertise around the world. In 2019, the City of Brampton hosted Nordic City Solutions to help inform the future development of Bramalea and Uptown Brampton urban centres. Nordic City Solutions is a public-private platform facilitated by the five Nordic governments of Denmark, Finland, Iceland, Norway, and Sweden.

The Nordic workshops, which looked at pursuing a path towards lower GHG emissions and a more energy conscious and resilient city, were part of a strategic partnership with the City of Brampton based on the Nordic strengths around sustainability and the Brampton 2040 Vision. Two key lessons for Brampton emerged from the workshops:

1. municipal governments have a key role in creating the conditions to accelerate the next energy transition; and
2. it is vitally important to engage businesses and citizens in planning, building, and operating the energy transition.

Proportion of Population Living in Urban Areas



## 2.2 Urbanization

Global urbanization is proceeding at an unprecedented rate. More than half of the world's population lives in urban centres. By 2050, it is expected to reach two thirds, and more urban areas and infrastructure will be built than currently exists.

Nationally, more than 8 out of 10 Canadians live in urban or suburban areas, and this ratio is expected to increase. By contrast, in 1851, nearly 9 out of 10 Canadians lived in rural areas. At that time, the Canadian economy was based more on the primary sector, led by agriculture and the exploitation of natural resources, such as wood or coal.<sup>18</sup>

Early Canadian communities were limited in size and wealth by their local energy resources. Typical communities relied on the surrounding forest for home heating and hydroelectric power from dammed rivers for industrial power.

To overcome these growth limits, communities began to search for alternatives, which usually meant importing external energy inputs. This search resulted in the first and second energy transitions described earlier. With a cheap infusion of imported coal, then centralized electricity and imported natural gas and gasoline, Canada experienced a dramatic increase in the size and shape of its communities.

In southern Ontario, hamlets, towns, and cities grew to become the sprawling modern Greater Toronto Area, with millions of citizens and jobs. The modern city is planned, designed, and constructed around a vast network of roads and highways to facilitate the movement of vehicles running on imported gasoline.



Eventually, all of this sprawling growth led to significant economic, social, and environmental impacts, including but not limited to congestion, intensive energy demands, loss of energy dollars, and a significant rise in GHG emissions.

### 2.2.1 Brampton's Urban History

Brampton was incorporated as a town in 1873. At the time, it mostly served as a service and retail area for the surrounding agricultural communities. Most homes were heated by local wood sources or coal imported from the United States. During this period, towns and cities were dirty places due to the burning of coal and wood to fuel local power plants and factories, and the use of wood stoves in buildings.

To escape Toronto's foul air, wealthy residents fled to the outskirts and established Toronto's first suburbs, such as the Annex and Yorkville. This flight from Toronto's core was facilitated by new electric streetcars and bicycles.

The area known as Brampton today contained a bustling downtown and a dozen or so small hamlets that served local agricultural communities. Water was sourced locally, either from the ground or from a nearby river. If the river was large enough, it was dammed to produce energy for the local industry.

Almost all jobs at this time were locally accessible by foot, horse, or bicycle. Transportation between towns and cities was slow and uncomfortable.

After the Second World War, there was a drastic change in Brampton's hamlets and towns. The personal automobile gave residents the ability to live and work in separate, distant places. Single-family homes on large "green" lots were constructed to accommodate the post-war baby boom.

As it became widely adopted, and as the costs and infrastructure improved, the personal automobile offered city dwellers the opportunity to move away from their local job and the associated city smog for new "greener" suburbs.

In the early 1960s, the development of Bramalea commenced, Canada's first satellite city and one of the earliest master-planned communities. It was planned as an innovative "new town", a self-sustaining community outside the city. It was a community planned, designed, and constructed around widespread automobile use.

The automobile focused model of development expanded across Brampton and the Greater Toronto Area and was aided by the second energy transition that provided a



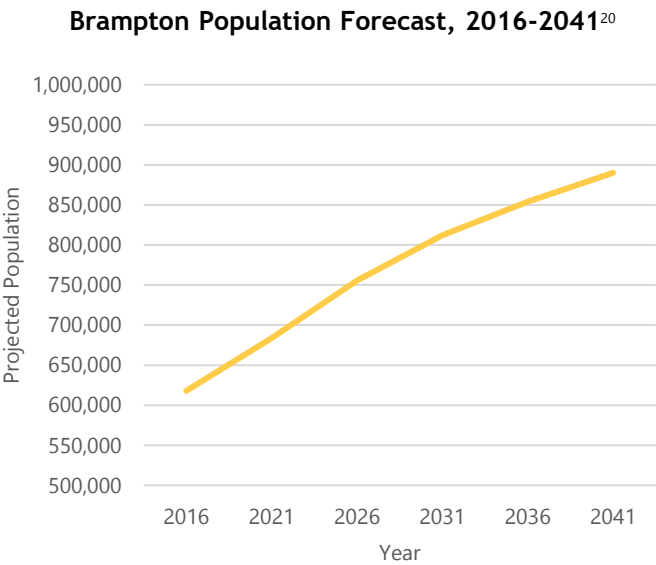


centralized electricity system and imported fossil fuels. The GTA transformed into a vast region containing sprawling communities connected by an immense network of roads with each city blending into each other.

Today, the GTA sprawls across 7000 km<sup>2</sup> and has a population of about 6 million. Within this vast region, Brampton is now 260 km<sup>2</sup> with a population of 600,000, and considered a modern suburban city characterized by the widespread use of the automobile, segregated land uses, low densities, and single-detached homes.

This postwar modern urban form is resulting in several economic, social, and environmental issues that threaten the future prosperity of this region and the globe. It is energy inefficient, costing each Brampton resident an average of \$3000 in gasoline, electricity, and heating costs, annually. It is also responsible for 60% of Brampton’s GHG emissions. According to a 2009 study by the OECD, the annual economic cost of congestion in the GTA is \$3.3 billion. The financial impacts on the region ballooned by an additional \$7.8 billion when productivity and health care costs were considered.<sup>19</sup>

By 2041, Brampton’s population is projected to grow by 300,000 for a total population of 900,000. If the current urban form is continued to accommodate this growth, Brampton will be faced with significantly more economic, social, and environmental issues.



# Brampton 2040 Vision: Living the Mosaic

In 2017, Brampton’s Council directed staff to look at the city in a more holistic approach to envision a future Brampton in 2040 and beyond. The City sought the expertise of Larry Beasley, a world renowned planner and global urban visionary, to develop a Vision for what Brampton will become in the next 20 years.

Developing the Brampton 2040 Vision involved the City’s largest engagement campaign to date, which included over 90 engagement events such as an interactive website, targeted workshops/focus groups, participation at community events, a children’s drawing contest, and two intensive public workshops.

Feedback from the community was foundational for transforming ideas into a vision. The Brampton 2040 Vision is a conceptual document that reflects the principles of the community and the objectives of what Brampton needs to achieve in order to become an innovative and forward thinking suburb.

Unanimously approved in 2018, the “Brampton 2040 Vision: Living the Mosaic” consolidates the aspirations of more than 13,000 members of the community who devoted their days, nights and weekends to participate in envisioning a future Brampton. This is a vision for the people, by the people.





## Brampton 2040 Vision: Vision Statements





## Notes

<sup>1</sup> Archival images sourced from the Peel Art Gallery, Museum & Archives, and the Toronto Public Library.

<sup>2</sup> Content for the section on Energy Transitions is largely drawn from the curriculum of the Energy Conscious Community: A Professional Development Course for Planners.

<sup>3</sup> Source: Miller, A.M and Davidson-Hunt, I. (2010). Fire, Agency and Scale in the Creation of Aboriginal Cultural Landscapes. *Human Ecology* 38:401-414. [https://www.lakeheadu.ca/sites/default/files/uploads/53/outlines/2014-15/NECU5311/MillerDavidsonHunt\\_2010\\_HE\\_FireAgencyScale.pdf](https://www.lakeheadu.ca/sites/default/files/uploads/53/outlines/2014-15/NECU5311/MillerDavidsonHunt_2010_HE_FireAgencyScale.pdf)

<sup>4</sup> Source: Sayles, J. S., and Mulrennan M. E. (2010). Securing a future: Cree hunters' resistance and flexibility to environmental changes, Wemindji, James Bay. *Ecology and Society* 15(4): 22. <https://www.ecologyandsociety.org/vol15/iss4/art22/>

<sup>5</sup> Source: O'Hara, D. (2007). *Acres of Glass: the Story of the Dale Estate and How Brampton Become "The Flower Town of Canada"*. Toronto: Eastendbooks.

<sup>6</sup> Source: The Conference Board of Canada. (2019). *Powering Down Emissions: Case Studies of Electricity Generation in Three Provinces Report*. <https://www.conferenceboard.ca/e-library/abstract.aspx?did=10308>

<sup>7</sup> Source: IESO. (2016). *Year-end Data, 2016*. ieso. <http://www.ieso.ca/en/Corporate-IESO/Media/Year-End-Data/2016>

<sup>8</sup> Source: IESO. (n.d.). "Ontario's Supply Mix". ieso. Retrieved April, 2020 from <http://www.ieso.ca/en/Learn/Ontario-Supply-Mix/Ontario-Energy-Capacity>

<sup>9</sup> Source: CAPE. (2017). "Ontario's Coal Plant Phase-out Produced Many Health and Environmental Benefits". CAPE. <https://cape.ca/ontarios-coal-plant-phase-out-produced-many-health-and-environmental-benefits/>

<sup>10</sup> Source: CBC News. (June 8th, 2017). "Smog study shows 'significant decreases' in pollutants in Ontario". CBC. Retrieved from: <https://www.cbc.ca/news/canada/windsor/smog-study-shows-significant-decreases-in-pollutants-in-ontario-1.4151183>

<sup>11</sup> Source: Frankfurt School – UNEP Collaborating Centre for Climate & Sustainable Energy Finance. (2019). *Global Trends in Renewable Energy Investment 2019*. [https://www.fs-unesp-centre.org/wp-content/uploads/2019/11/GTR\\_2019.pdf](https://www.fs-unesp-centre.org/wp-content/uploads/2019/11/GTR_2019.pdf)

<sup>12</sup> Source: National Energy Board. (2019). *Historical and Future Changes to Energy Systems update*. Federal Government of Canada. <https://www.cer-rec.gc.ca/nrg/ntgrtd/mrkt/cndsnrgtrnstn/cndsnrgtrnstn-eng.pdf>

<sup>13</sup> Source: National Energy Board. (2019). *Historical and Future Changes to Energy Systems update*. Federal Government of Canada. <https://www.cer-rec.gc.ca/nrg/ntgrtd/mrkt/cndsnrgtrnstn/cndsnrgtrnstn-eng.pdf>

<sup>14</sup> Derived from International Energy Agency 2017 data.

<sup>15</sup> Source: IESO. (n.d.). "Distributed Energy Resources". ieso. Retrieved September, 2019 from <http://www.ieso.ca/en/Learn/Ontario-Power-System/A-Smarter-Grid/Distributed-Energy-Resources>

<sup>16</sup> Source: IESO. (n.d.). "Distributed Energy Resources". ieso. Retrieved September, 2019 from <http://www.ieso.ca/en/Learn/Ontario-Power-System/A-Smarter-Grid/Distributed-Energy-Resources>



<sup>17</sup> Source: Ritchie, H. and Roser, M. (2020). "Energy". Our World In Data. <https://ourworldindata.org/energy>

<sup>18</sup> Source: Statistics Canada. (2015). "Canada's rural population since 1851". [https://www12.statcan.gc.ca/census-recensement/2011/as-sa/98-310-x/98-310-x2011003\\_2-eng.cfm](https://www12.statcan.gc.ca/census-recensement/2011/as-sa/98-310-x/98-310-x2011003_2-eng.cfm)

<sup>19</sup> Source: Wood, T. (2016) "The Real Cost of Congestion in Toronto." Torontoist. <https://torontoist.com/2016/09/the-real-cost-of-congestion-in-toronto/>

<sup>20</sup> Source: City of Brampton. (2018). *Population Growth*. City Dashboard. Retrieved on April, 2020 from <https://geohub.brampton.ca/pages/urban-form-population>



## CHAPTER 3

# The Opportunity of a Century

## Benefits and Opportunities of Energy and Emissions Planning

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### KEY TAKEAWAYS

- The energy transition offers untapped opportunities and the CEERP lays out a path to realize the benefits of this latest energy transformation.
- The CEERP is a comprehensive plan to drive innovation, employment, and economic development, and simultaneously support environmental and social goals.
- Its implementation will keep more energy dollars within the community and increase local jobs by spurring local energy investments and improving local energy efficiency.
- It will also result in multiple health benefits and quality of life enhancements for local residents, such as improved local air quality, more active lifestyle choices, more socially connected community, and reduction in health-related issues from climate change (e.g. heat waves, vector borne diseases).
- The CEERP advances social equity in Brampton through social benefits such as more affordable living, housing choices, accessible transportation options, accessibility to services, and comfortable homes and buildings.
- The CEERP will provide direct local environmental benefits in both the short and long term, such as cleaner air and water, greener streets, lower GHG emissions, and the reduction in severity of impacts from climate change.
- Realizing these community benefits requires combined efforts of the City, federal, provincial, and regional governments, institutions, local utilities, businesses, developers, community stakeholders, and residents.
- The CEERP is the collaborative effort of the City of Brampton, Sheridan College, and the Community Task Force, with funding support from the Province of Ontario.
- A full glossary of terms is available at the beginning of this report. Some of the key terms used in this chapter include: Latest Energy Transition.





### 3.0 Building a Community Energy and Emissions Reduction Plan

Through the approval of the Brampton Grow Green Environmental Master Plan, and more recently the 2018 - 2022 Term of Council priorities, Brampton Council directed staff to develop a Community Energy and Emissions Reduction Plan. The CEERP aims to improve energy efficiency, reduce GHG emissions, ensure energy security, create economic advantage, and increase the city's resilience to climate change.

This is the City's first comprehensive plan to address these issues. It integrates efforts of the municipality, local utilities, and community stakeholders to set out and implement priority projects from 2020-2025.

### 3.1 What is the Community Energy and Emissions Reduction Plan?

The CEERP is a comprehensive plan to drive innovation, employment, and economic development, while at the same time achieve environmental and social goals.

#### 3.1.1 Energy Related Emissions

Community energy planning places emphasis on reducing energy related emissions. Energy related emissions arise

from the heating and cooling of our homes and buildings, the powering of industries, and the movement of people and goods. Community energy planning may also consider measures that address non-energy related sources of emissions, like local opportunities for waste-to-energy or methane-to-energy.<sup>1</sup>

#### 3.1.2 Energy Costs

Community energy planning also identifies opportunities to keep energy dollars local by promoting energy conservation and efficiency as well as opportunities for local energy supply and distribution. In the long term, community energy plans can also reduce energy costs for residents.

### 3.2 Seizing Opportunity

The modern energy transition promoted in the CEERP is a source of untapped opportunities and a vital step in our energy evolution. The CEERP allows us to fully capitalize on the multiple potential benefits available through this transition such as economic, health and wellness, social equity, and environmental improvements.

#### 3.2.1 Economic Benefits

Each new energy transition comes with significant potential to generate economic opportunities. Currently, the



community of Brampton spends over \$1.8 billion annually on energy. Of those energy dollars, \$1.4 billion leaves the community. This implies significant unrealized economic potential that the community can tap into. The CEERP can keep more energy dollars within the community by spurring local energy investments and improving local energy efficiency.

The CEERP helps identify where and how local energy investments can provide the greatest opportunity for Brampton's local economy such as investing in the local generation and distribution of energy, manufacturing of energy technologies and infrastructure, and retrofitting of buildings.

In turn, new jobs and skills will be needed to support the businesses and organizations driving the implementation of the CEERP, such as knowledge and skills in home retrofits and infrastructure development to facilitate distributed energy systems. From post-secondary institutions (education for skills) to manufacturing (energy/construction technology and materials) to construction (installing retrofits), retrofitting buildings for energy efficiency can stimulate local economy and job growth.

Thirty percent of the energy users pay for is lost before it reaches end use. By increasing energy efficiency in our energy systems and at user end, it will help reduce energy waste and lead to lower energy costs.





The more energy-related goods and services are provided by our community, the more energy dollars and benefits re-circulate within the Brampton's economies and industries, creating a ripple effect of benefits throughout the whole community.

In addition to helping keep dollars within the community, more local jobs and new sources of income can be realized. As local industries establish themselves within Brampton, expertise, materials, and technologies will need to be sourced. By situating Brampton as a leader in this energy transition, we will increase the benefits of establishing these markets by creating a competitive edge. Additionally, building a more energy-efficient and cleaner city would provide advantages that would motivate businesses to locate to Brampton.

### 3.2.2 Health and Quality of Life

Energy use reduction and efficiency coupled with lower emissions result in a range of health benefits and overall quality of life improvements for local residents. Less GHG emissions can improve local air quality. Communities planned with energy efficiency in mind result in neighbourhoods that promote active living and foster social cohesion, which contribute to physical and mental health. Furthermore, retrofitting buildings for energy efficiency can drastically improve indoor air quality and thermal comfort for occupants. The integration of green infrastructure provides additional health benefits by reducing the impacts of climate events, such as heatwaves.

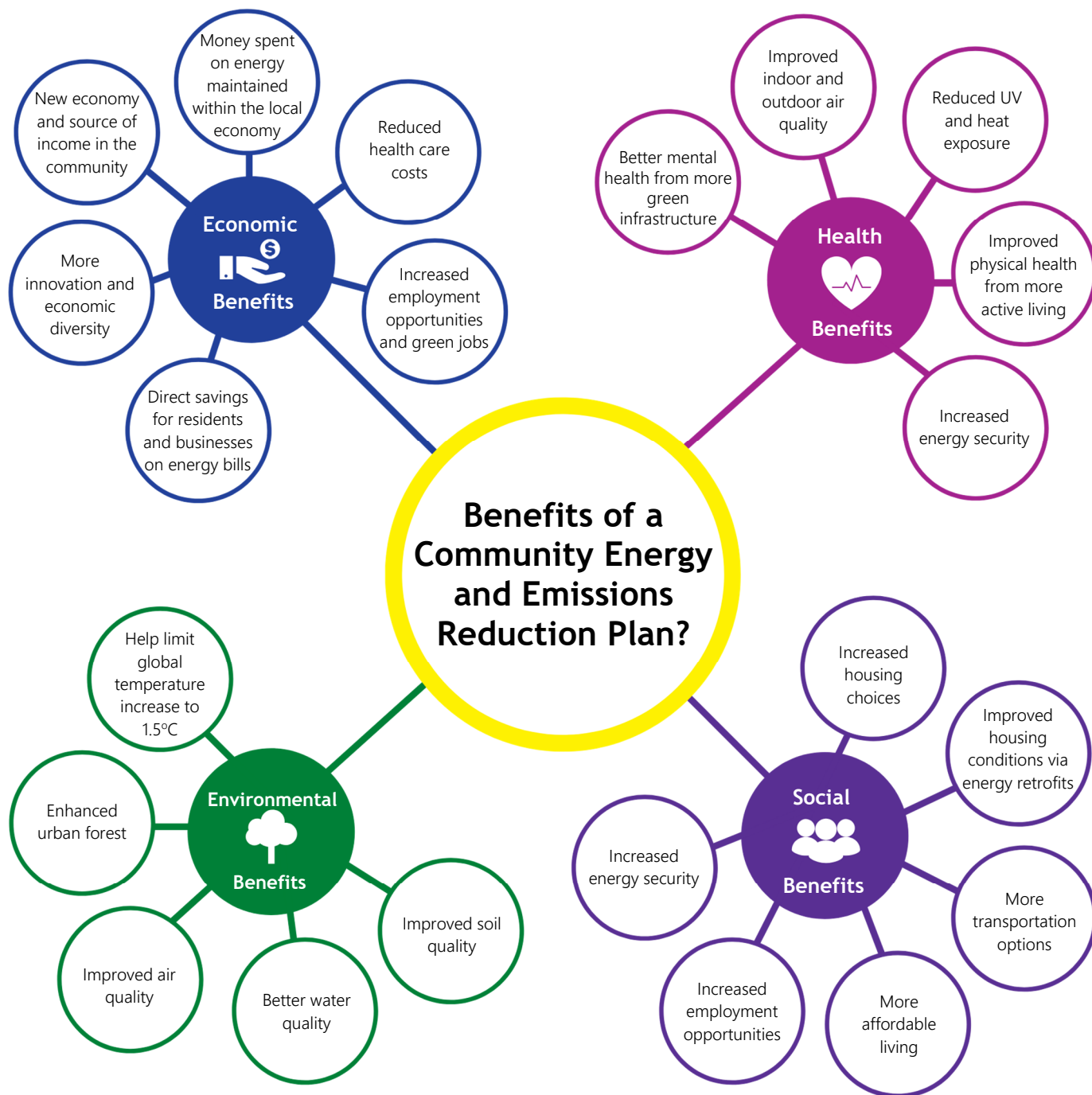
### 3.2.3 Social Equity

Social equity and climate equity are increasingly becoming integrated, especially in plans like the CEERP addressing both energy and GHGs. This integration speaks to the principle of promoting solutions that give equal opportunity for everyone to benefit from investments in climate change mitigation/adaptation and energy system transformation, while ensuring marginalized or vulnerable populations do not bare an unequal burden.

Ensuring that all Brampton residents have equal access to the benefits of community energy planning is a critical component of the success and lasting benefits of the CEERP. Social equity is instrumental to long term prosperity within communities.









**“Canadian communities have untapped opportunities to strengthen local economics, reduce current and future energy costs and GHG emissions, and create jobs by investing in smarter and more integrated approaches to energy use at the local level.”**

**- QUEST (Canadian smart energy NGO)**

### 3.2.4 Environmental Benefits

The next energy transition has the potential for significant environmental gains. Though a key goal of the CEERP is to contribute toward global efforts to limit temperature rise to 1.5°C, this also brings many long and short term local environmental gains such as cleaner air, green streets, and cleaner water. These benefits are generally a result of reduced emissions and the increase in green infrastructure within the community resulting from CEERP actions.

### 3.2.5 Community Transformation

With the initiation of its first Community Energy and Emissions Reduction Plan, Brampton is following in the path of world energy leaders endeavoring to reap the environmental, social, health, and economic benefits of the next energy transition. This is done by ensuring reliable, cost-competitive energy services for residents and businesses.

To be a leader in this energy transition of deep decarbonization and distributed energy, Brampton will need to initiate a transformation that involves well-designed communities, including;

- more investment in sustainable transportation options;
- a shift away from natural gas as a primary source of home heating;
- more efficient homes;
- more use of cleaner and electric vehicles;
- more walkable and mixed-use communities;
- more housing choices, such as low and mid-rise options;
- more local jobs; and
- more trees.

## 3.3 Working Together

Achieving these community benefits requires combined efforts of the municipality, federal, provincial, and regional governments, institutions, local utilities, businesses, developers, community stakeholders, and residents.

Collaboration and shared efforts were the main ingredients that launched the development of the CEERP. The Plan was initiated when the City of Brampton and Sheridan College came together with a common purpose. They organized a Community Task Force representing community stakeholders to provide governance and oversight of the



planning process. This Task Force consists of 28 individuals from 20 different stakeholders representing a diverse range of sectors who have come together to help create and champion the CEERP.

The City secured funding from the Government of Ontario to support the planning of the CEERP. Both the City of Brampton and Sheridan College contributed funding towards the completion of the CEERP and assigned staff to a Project Working Team to support the Community Task Force.

The successful implementation of the CEERP will require the combined efforts of all community sectors. Section 5.8 in Chapter 5 further defines the roles each community sector will need to play. Additionally, the Action Plan in Section 5.7 identifies the leads for each action of the CEERP.

The establishment of the Task Force and building more partnerships was the first milestone in this journey together. The creation of a Community Organization will be the next.

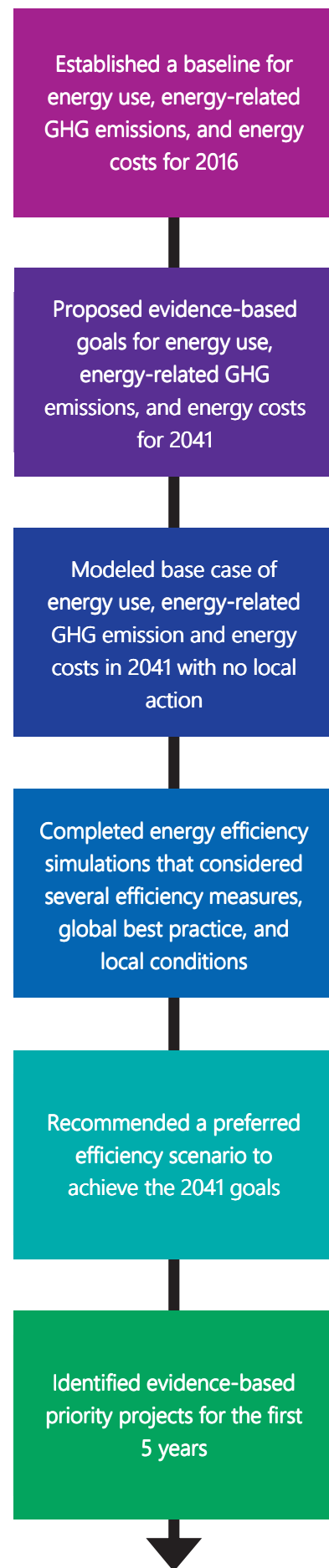
### *Global Covenant of Mayors*

In 2019, the City joined the Global Covenant of Mayors (GCoM) for Climate and Energy, which is a first of its kind and largest global alliance of cities leading the fight against climate change with over 9000 municipalities participating worldwide. The GCoM supports ambitious, locally relevant solutions. Collaboration across multiple levels of government results in increased sharing of city-level data and fosters momentum for investment in low carbon municipal operations and infrastructure. As part of GCoM, Brampton was selected to participate in the Showcase Cities, which provides the City with technical support and access to networking opportunities.

The GCoM framework includes three levels: "Commitment", "Mitigation" (Inventory, Target, Plan), and "Adaptation" (Assessment, Goal, Plan). The CEERP will allow Brampton to achieve the "Mitigation" level.

## 3.4 The CEERP Planning Process

To achieve the benefits and opportunities offered through community energy planning, the CEERP planning process employed six key steps summarized to the right.





## Notes

<sup>1</sup> Non-energy related measures can include anaerobic composting, landfill gas capture, and methane capture at wastewater treatment facilities.



## CHAPTER 4

# Brampton Today

## Living the Mosaic

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### KEY TAKEAWAYS

- The CEERP planning process began with understanding where Brampton was starting from in 2016 (Baseline) and where it would be in 2041 if no coordinated action is taken (Base Case; business as usual).
- Transportation is currently Brampton's biggest GHG emitter, energy user, and community cost, followed by the residential, industrial, commercial, and institutional sectors, respectively.
- The community of Brampton spent \$1.8 billion on energy and water in 2016, and at least \$1.4 billion of those energy dollars left the community in payment for energy services to companies located outside of the city.
- Thirty percent of energy paid for by Brampton users is lost during energy conversion and transmission.
- Brampton's population and the workforce are expected to increase by 51% and 73%, respectively, by 2041.
- If we continue with business as usual, by 2041 Brampton's emissions will increase by 13% and remain twice that of global best practice, energy use will increase by almost 30%, and energy costs will increase by over 200%.
- A full glossary of terms is available at the beginning of this report. Some of the key terms used in this chapter include: Latest Energy Transition, and Deep Decarbonization.





## 4.0 How Brampton Uses Energy

Brampton's largest users of energy are transportation and residential buildings, with the transportation sector representing 35% and the residential sector representing 26% of source energy use. In Brampton, 65% of dwellings are considered low density, and the remainder medium density.

In Brampton, 80% of trips are done using single occupant vehicles, and according to the 2016 Census data, over 50% of Brampton's employed labor force commute more than 30 minutes to work. This is a result of Brampton's low activity rate and its built form being dominated by low density and separated uses. Together, these issues cause more residents to commute to jobs outside Brampton and drive for daily errands, which increases traffic congestion and the city's GHG emissions.

Brampton's activity rate, or the ratio of residents to jobs within the city, is 34%. That is, there are only enough jobs in Brampton to employ 34% of its residents. This is a low activity when compared to neighbouring municipalities (Mississauga - 60%, Vaughan - 50%, and Caledon - 50%).

Furthermore, compared to older city forms, where walking was the primary mode of transportation, Brampton occupies a vast area. For example, Copenhagen, which has the same population as Brampton, takes up only 30% of the land area (88 km<sup>2</sup>) of Brampton's 266 km<sup>2</sup>.

### 4.01 Residential

People need buildings to live, learn, work, and play in, and these buildings use energy. Houses and buildings account for 44% of Brampton's energy use and 28% of its GHG emissions.

According to Statistics Canada, the majority of people in Brampton live in single-detached homes. Just over 51% of private dwellings in Brampton are single detached homes, while 21.9% are apartments, 13.7% are semi-detached and 12.3% are row houses.

As such, increasing residential energy efficiency is critical to achieving CEERP goals and addressing the climate emergency. While new construction methods result in better energy efficiency than previous methods, the majority (52%) of Brampton's neighbourhoods were



# ENERGY, EMISSIONS, AND BRAMPTON



**9th**

LARGEST CITY IN  
CANADA

**2nd**

FASTEST GROWING CITY IN  
CANADA

**650,000**

RESIDENTS

**~14,000**

NEW RESIDENTS EACH YEAR

## HOUSING STOCK



**65% LOW DENSITY**

52% SINGLE DETACHED  
13% SEMI DETACHED



**35% HIGH DENSITY**

22% APARTMENTS  
13% ROW HOUSES

## ACTIVITY RATE

**34%**

THAT MEANS THERE ARE ONLY ENOUGH JOBS IN  
BRAMPTON FOR 34% OF ITS POPULATION

## METHOD OF TRANSPORTATION



**65%**

PRIVATE AUTOMOBILE



**8%**

PUBLIC TRANSIT



**18%**

CARPPOOLING



**2.5%**

WALKING AND CYCLING

**54.6%**

OF PEOPLE IN BRAMPTON HAVE  
A COMMUTE OF HALF AN HOUR  
OR LONGER



## HOW DOES ALL OF THIS EFFECT BRAMPTON'S GREENHOUSE GAS EMISSIONS AND ENERGY USE?



OUR COMMUNITY SPENDS  
**\$1.8 BILLION**  
ON ENERGY EACH YEAR

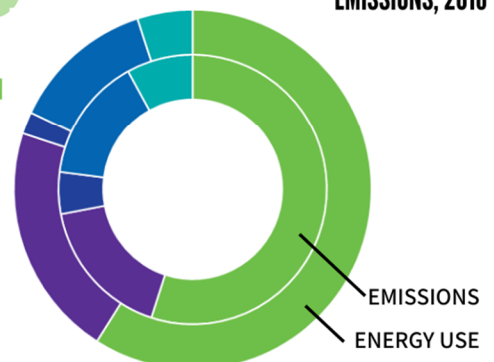
**\$1.4 BILLION**  
OF THOSE ENERGY DOLLARS LEAVE  
THE COMMUNITY

**27%**

OF THE ENERGY WE BUY DOES NOT  
REACH US DUE TO SYSTEM LOSSES



BRAMPTON'S ENERGY USE AND  
EMISSIONS, 2016



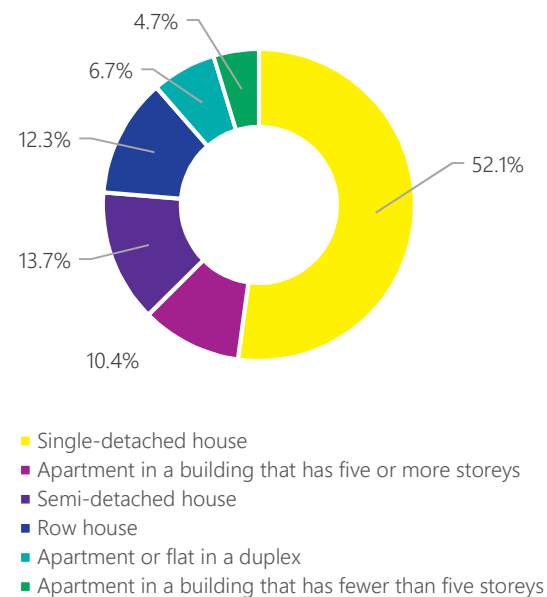


registered prior to 1989. Older homes use more energy and produce more emissions than newer homes, as older Ontario Building Codes did not consider energy efficiency. At the most basic level, these homes are likely lacking proper insulation and/or experiencing air leakage around windows and doors.

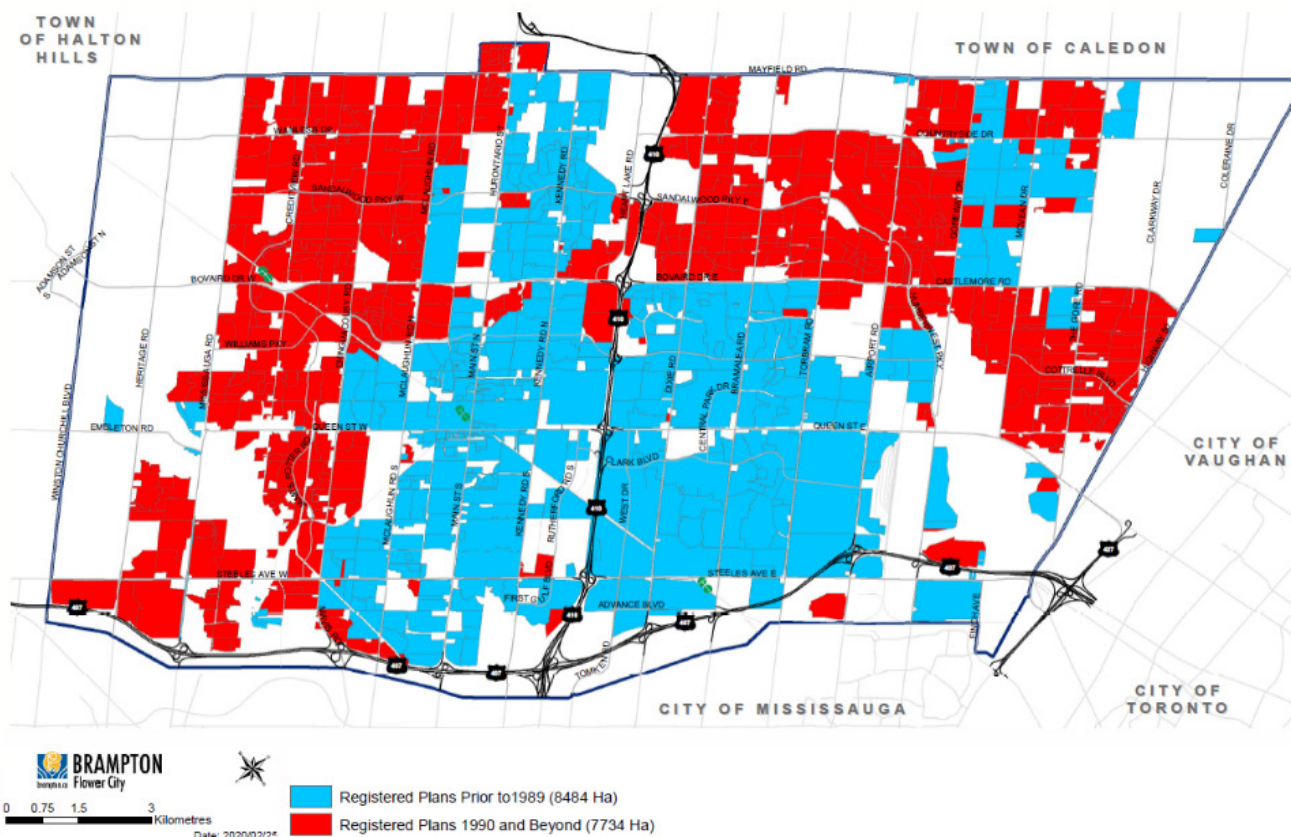
## 4.0.2 Transportation

Brampton is largely car-dependent and transportation accounts for almost 60% of community-wide GHG emissions and 50% of the total dollars spent on energy. For the most part, Brampton's growth has occurred as a typical automobile-oriented suburban form, characterized by separated land uses, low-density residential communities, large format retail, abundant parking, and a transportation network made up of wide arterial roads. This urban form that separates land uses does not encourage walking and cycling, making access to employment and commercial areas by active modes challenging.

**Dwelling Types in Brampton, 2016**



**Registered Plans of Subdivision in Brampton**





This urban form is, in part, a result of Brampton’s main employment types. Approximately one in every four jobs in Brampton is in either part of the goods movement, warehousing, or the manufacturing sectors. These industries require large plots of land across vast spaces and a road network that can accommodate trucking.

In addition to these challenges, Brampton has other physical features, including two 400-series highways, two rail corridors, and a number of watercourses and utility corridors. These features can act as major barriers for active transportation users unless specific connectivity along and across them can be accommodated.

### 4.1 Brampton’s Energy Use: Baseline and Base Case

In order to understand where we can be more energy efficient and cut emissions, we need to know how much energy we are using and where we are using it. The following section provides the details of Brampton’s energy use, including:

- where Brampton was starting from in 2016 (Baseline); and
- where Brampton would be in 2041<sup>1</sup> without any coordinated climate change mitigation or energy efficiency actions (i.e. business as usual, Base Case).

The following is a summary of the main findings for Brampton’s:

1. energy use,
2. water use,
3. energy-related emissions, and
4. energy and water costs.

#### 4.1.1 Energy Use

In 2016, Brampton’s total source and site energy use were 92 million gigajoules and 67 million gigajoules, respectively. Site energy use in Brampton was 109 gigajoules per capita. The transportation sector represented 35% of source energy use, the residential sector represented 26%, and the industrial, commercial, and institutional sectors combined represented 39%.

System losses accounted for approximately 30% of source energy use. System losses occur when one form of energy is converted to another (e.g. natural gas used to generate electricity) or when energy is moved from one location to another (transmission). This highlights the importance of considering efficiency solutions that will also address system losses.

By 2041, Brampton’s population and workforce are expected to increase by 51% and 73%, respectively, which is estimated to increase source energy use by 28% and site energy use by 26%, during this time.

#### How Much is a Gigajoule?

1 Gigajoule (GJ) = 1,000,000,000 Joules (J)  
That’s enough energy to....

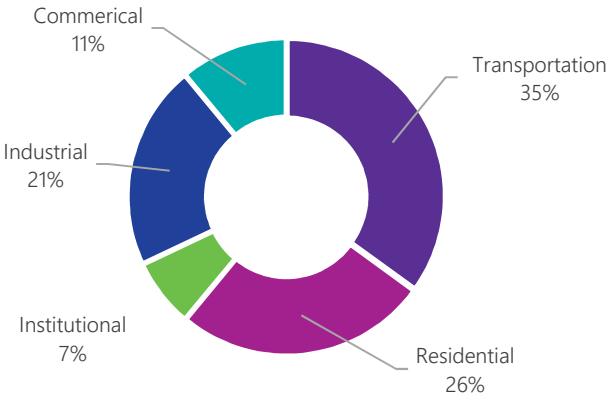
Make 1000 pots of coffee  
(that’s 4286 medium cups of coffee)



Keep a 60-watt light bulb running continuously for six months



#### Brampton Source Energy Use by Sector, 2016

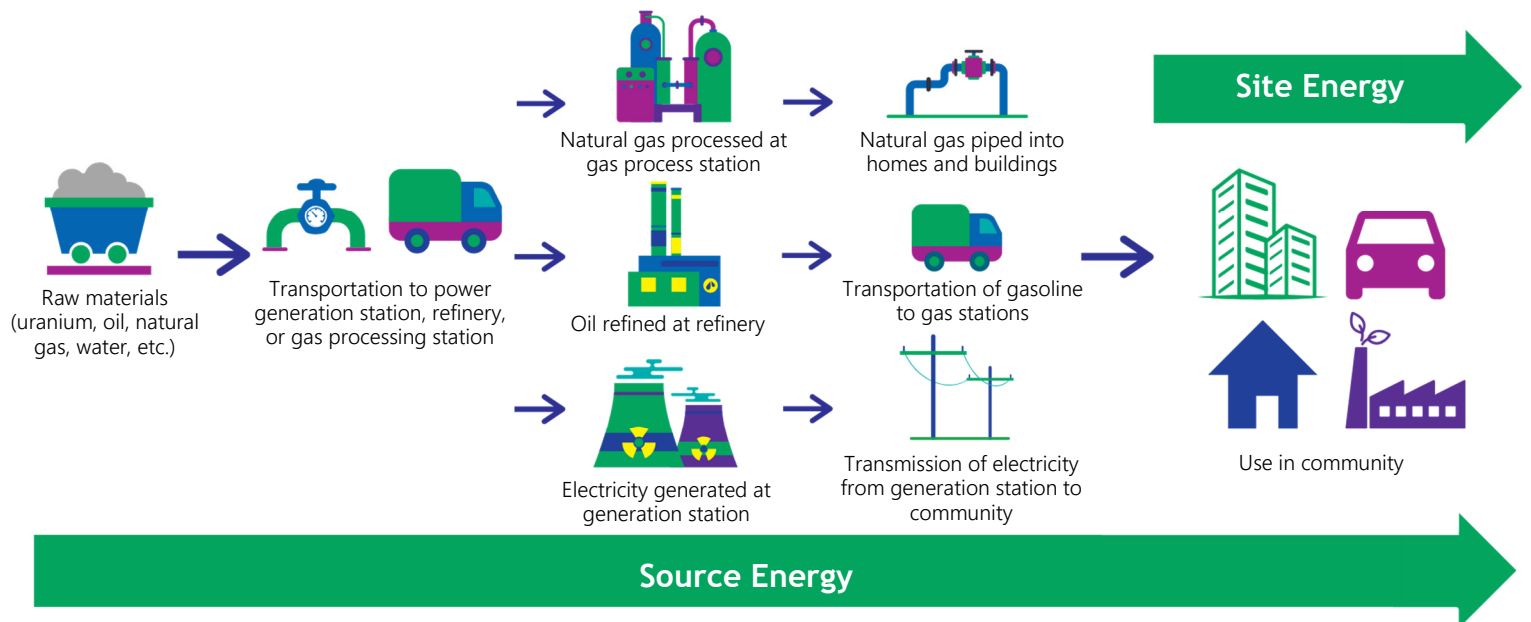




## What is the Difference between Source and Site Energy and Why Does it Matter?

Site energy refers to the energy purchased by consumers at the utility meter or gas pump. Source energy not only considers the energy purchased at the utility meter or gas pump but all the energy required in production and distribution to consumers.

As consumers, we tend to think that the emissions and costs associated with the energy we consume is limited to what we purchase at the utility meter or gas pump. However, there are considerable upstream emissions and costs associated with our sources of energy, and community energy planning can identify local opportunities to reduce them. Therefore, it is important to consider source energy demand when making energy planning decisions that focus on reducing GHG emissions.



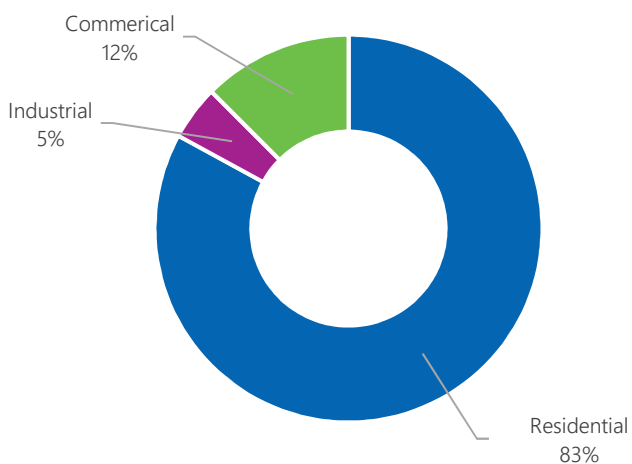


### 4.1.3. Brampton's Water Use

The residential sector accounts for almost three quarters (73%) of the water consumption in Brampton. The industrial sector represents 4%, and the commercial sector 23% of water use in the community. In 2041, water consumption will increase based on anticipated population and employment growth. The Base Case assumes water use in existing homes and buildings is constant, while new homes and buildings are projected to be 20% more efficient with current and future enhancements to the Ontario Building Code.

The relationship between water and energy production is extremely close and co-dependent. It takes a massive amount of water to generate energy, and it takes a huge quantity of energy to process water so that it can be utilized by humans for drinking and other purposes.<sup>2</sup> Therefore, it is important that water and energy policies are not developed in isolation from each other.

**Water Use in Brampton by Sector,  
2016**



**“Without enough water, you can’t have power; without enough power, you can’t have water.”**

- Sunpower (solar energy company and innovator)





# 4.2 Brampton’s Energy-Related Emissions

## 4.2.1 Brampton Emissions by Sector

In 2016, Brampton’s GHG emissions were 3.5 million tonnes, or 5.6 tonnes for every Brampton resident. Transportation accounted for almost 60% of emissions, while the residential sector accounted for 21%. The industrial, commercial, and institutional sectors accounted for the remaining 19% of the emissions.

## 4.2.2 Brampton Emissions by Utility Type

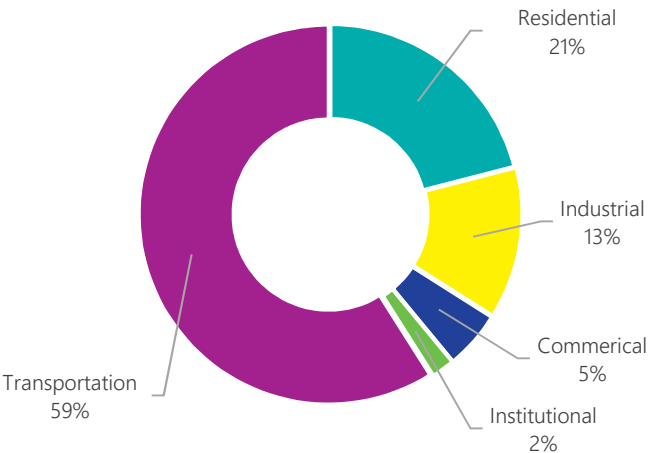
In 2016, the use of natural gas contributed 38% of Brampton’s GHG emissions, while the use of gasoline and diesel contributed 59%. Only 3% of emissions arise from the community’s use of electricity.

This data underscores the need to build compact communities that will support transit and active transportation, as well as the need to address heating, which is the primary use of natural gas in buildings.

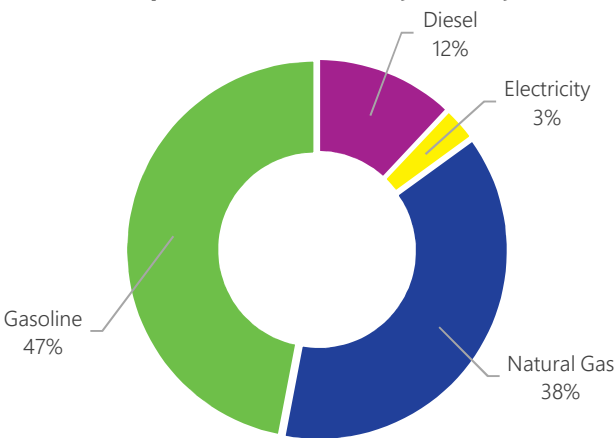
Despite population and employment growth, increases in GHG emissions are expected to be relatively moderate, at approximately a 13% increase by 2041. This is reflected in the Brampton Base Case scenario that projects improvements in average vehicle efficiency, more efficient new construction, and reduction in the carbon intensity of the natural gas grid.<sup>3</sup> However, Brampton’s Base Case emissions remain approximately twice the global best practice and ten times the Government of Canada’s target for 2050 based on the Paris Climate Agreement.

The effects of a warming climate will also impact the energy use and energy reliability profile of the community. Obvious examples include increased demand for air conditioning and less demand for space heating, with collateral impacts on energy supply and distribution demands. These are not factored into the Base Case outlook.

Brampton Emissions by Sector, 2016



Brampton Emissions by Utility, 2016





## 4.3 Brampton's Energy and Water Costs

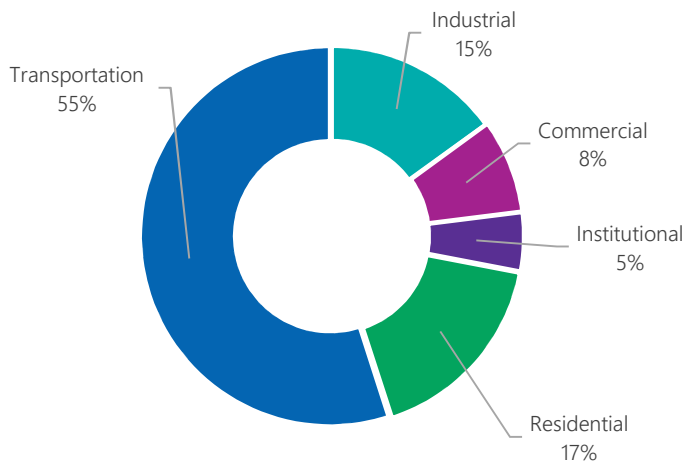
The community of Brampton spent \$1.8 billion on energy and water in 2016. At least \$1.4 billion of those energy dollars left the community in payment for energy services located in other jurisdictions.

### 4.3.1 Brampton Energy and Water Costs by Sector

In 2016, gasoline and diesel (transportation fuel) accounted for 55% of energy costs, while electricity accounted for 31%. Natural gas use only represented 13% of total energy costs, which presents a key obstacle to meaningful action on reducing GHG emissions associated with residential heating.

Approximately 30% of the energy that the community of Brampton pays for does not reach the end-user. This energy is primarily lost as heat when one form of energy is converted to another and through transmission and distribution. Electricity accounts for most of this loss.

**Brampton Energy and Water Costs by Sector, 2016**

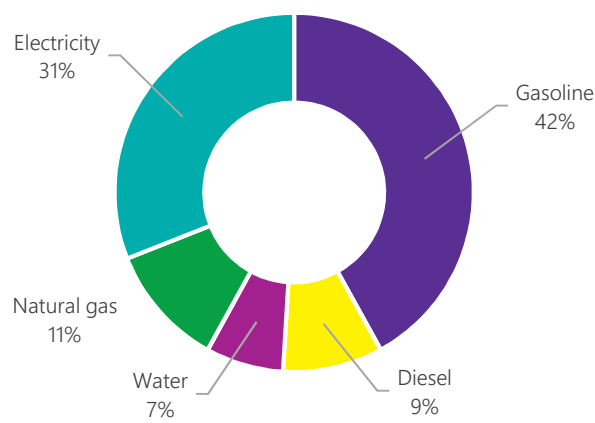




4.3.2 Brampton Energy Costs by Utility Type

Energy costs are projected to increase by a range of 200% to 410% by 2041 (see the CEERP Analytical Report<sup>4</sup> for more details). These increases reflect both higher prices, as well as population and employment growth. If energy prices are held at 2016 levels, the overall increase would be 68%.

Brampton Energy Costs by Utility, 2016



4.4 Benchmarking: How Do We Compare Globally and Locally?

One of the principles approved by the Community Task Force for developing the CEERP is to work toward global best practices.

On average, buildings in Brampton are approximately half as efficient as global benchmarks - a likely outcome of cheap oil and gas and less action on climate change.

Energy use per Brampton home is 2% less than the provincial average, but 40% higher than the Danish average.<sup>5</sup> Denmark is widely recognized as having one of the most efficient housing stocks due to the early adoption of efficient new construction and retrofit standards with regular updates.

Energy use in Brampton’s residential sector per square metre is 37% lower than the Canadian average, due to Brampton having a higher percentage of smaller, newer homes relative to Ontario and the rest of Canada.<sup>6</sup> However, Brampton’s residential sector per square metre is more than twice that of a German A-rated home. German A-rated homes are above local code and represent a significant portion of the new construction market in Germany.<sup>7</sup>

Local, Provincial, National, and Global Comparison of Energy Use and GHG Emissions<sup>8</sup>

| Indicator  | Brampton Baseline | Canada Average | Ontario Average | Comparable Best Practice |
|--|-------------------|----------------|-----------------|--------------------------|
| Energy use/household (Gigajoule - GJ)                                      | 99                | 106            | 107             | 68                       |
| Residential sector energy use per metre <sup>2</sup> (GJ)                  | 0.6               | 0.79           | N/A             | 0.29                     |
| Non-residential sector energy use per meter <sup>2</sup> (GJ)              | 1.4               | 1.65           | N/A             | 0.72                     |
| Emission per capita (tonnes carbon dioxide equivalent - CO <sub>2</sub> e) | 5.6               | 9.7            | 6.2             | 3.5                      |



Energy use in Brampton's commercial and institutional buildings per square metre is 37% higher than the Canadian average.<sup>9</sup> They are also more than twice the German average.<sup>10</sup> However, generalized comparisons in this sector are always challenging due to the mix of uses, property type, data quality, and climate.

GHG emissions per capita in Brampton is 40% less than the national average and 25% less than the provincial average.<sup>11</sup> However, this is approximately twice that of the City of Copenhagen, widely recognized as a global benchmark.<sup>12</sup> Brampton's current level is about ten times the Government of Canada's target for 2050 based on the Paris Climate Agreement. Water use per home is about 5% above the Ontario average and 7% above the national average when adjusted for household size.<sup>13</sup>

### Comparing Apple to Oranges: Benchmarking to Neighbouring Cities

Benchmarking GHG emissions and energy use to other local cities, towns, or regions can be a challenge due to the wide variety of calculation methods used and the diversity in built form and land uses seen between cities. Total GHG emissions and energy use or per capita outputs do not reflect the differences between cities, and as such may not be ideal for comparisons. For example, the presence of heavy manufacturing, cement plants, airports, or other high emitters in a city that also services multiple surrounding cities, may heavily skew the host municipality's GHG emissions, while unduly, reflect positively on the surrounding cities that rely on it.

## 4.5 Summary of Findings

The following is a summary of the main Base Case findings for source energy, site energy, emissions, and energy costs for Brampton in 2041.<sup>14</sup> The table that follows provides a summary of modelled changes between 2016 and 2041. These findings demonstrate the opportunity for the CEERP to have positive economic, social, and environmental impacts in Brampton.

### *Energy Consumption*

By 2041, population and employment growth are estimated to increase site energy use by 26% and source energy use by 28%. Both the population and the workforce are expected to increase by 51% and 73%, respectively, during this time.

### *GHG Emissions*

Despite high population and employment growth, increases in GHG emissions are expected to be relatively moderate (approximately a 13% increase) by 2041. This is due to a projected increase in vehicle efficiency and reduction in the carbon intensity of the natural gas grid (note: this does not include pipeline leaks). However, emissions in Brampton, remain approximately twice the global best practice and ten times the Government of Canada target for 2050 based on the Paris Climate Agreement.

### *Energy Costs*

Energy costs are estimated to increase by a range of 200% to 410% by 2041. These increases reflect both higher prices as well as population and employment growth. If energy prices are held at 2016 levels, the overall increase would be 68%.



## Summary of Projected Changes in Brampton Energy Use, Energy Costs, and GHG Emissions

| 2016 Baseline  | 2041 Base Case   |
|--|--|
| Brampton used 92 million gigajoules of energy.   | Growth in population and employment increase energy use by about 30%.  |
| The transportation sector represented 35% of source energy use. The residential sector represented 26% of source energy use, and the industrial, commercial, and institutional sectors represented 39% of source energy use. | No material change.  |
| On average, homes and buildings in Brampton are approximately half as efficient as global benchmarks.  | Gap widens against global best practice.   |
| Systemic and end-user inefficiencies represent approximately half of the total energy use in Brampton.   | No material change.  |
| The City of Brampton's corporate source energy use for facilities, transit, and municipal fleet represents 1.88% of the community's source energy use.   | No material change.  |
| On average, Brampton residents release 5.6 tonnes of GHG emissions per capita each year.   | Reduces to 4.4 tonnes per capita due to a projected increase in vehicle efficiency, a reduction of carbon intensity of the natural gas grid, and higher efficiency of new homes and buildings. |
| Emissions are twice global best practice and 10 times what is needed to meet the Paris Climate Agreement's goals.  | No material change.  |
| \$1.8 billion spent on electricity, natural gas, gasoline, and diesel within the community.  | Spending is estimated to increase to \$5.4 billion (low risk) to \$9.4 billion (high risk).  |
| Less than 22% of the money spent on energy remained in the Brampton economy.   | No material change.  |



## Notes

<sup>1</sup> While much of the literature around energy and emissions planning uses a time horizon of 2050, the City's Official Plan and other master plans are aligned with the Provincial Growth Plan for the Greater Golden Horseshoe Area, which assigns regional population growth targets to 2041.

<sup>2</sup> Sunpower. (February 17, 2017). "Understanding the essential relationship between water and energy production". <https://businessfeed.sunpower.com/articles/understanding-the-essential-relationship-between-water-and-energy-production>

<sup>3</sup> Exclusive of pipeline leaks.

<sup>4</sup> Community Energy and Emissions Plan Analytical Report. (2020). City of Brampton

<sup>5</sup> Determined from data retrieved from the Danish Energy Agency and Statistics Canada.

<sup>6</sup> Determined from data retrieved from Statistics Canada plus the average home estimates.

<sup>7</sup> KfW Effizienzhaus 70 ("Efficiency House") using typical average of 75kW.

<sup>8</sup> Benchmarks attributed to Brampton in this table are sourced from Canada and Ontario inventories made available through the United Nations Framework Convention on Climate Change (UNFCCC). Factors included in the Canadian/Ontario UNFCCC inventories that are NOT included in the community inventory are: Petroleum Refining Industries, Mining and Upstream Oil and Gas Production, Agriculture and Forestry, Domestic Aviation, Off-Road Agriculture and Forestry Transportation, Off-Road Mining and Construction Transportation and Pipeline Transportation. Factors included in the Canadian/Ontario UNFCCC inventories that are PARTIALLY included in the community inventory are: Manufacturing Industries, HDV Gasoline Trucks, HDV Diesel Trucks and Railways. In order to allow for comparison, all benchmarks provided (national, provincial, municipal) reflect these adjusted criteria; therefore, the resulting benchmarks provided in the table will, by definition, be less than those provided by the UN.

<sup>9</sup> Determined from data retrieved from Natural Resource Canada 2014 Building Surveys, <https://www.nrcan.gc.ca/energy-efficiency/energy-star-benchmarking-commercial-and-institutional-buildings/energy-benchmarking-technical-information/building-energy-use-surveys/19454>

<sup>10</sup> Determined from data retrieved from the Federal Statistical Office of Germany (Destatis) and the Working Group Energy Balances (AGEB) an energy market research group set up by several major German energy industry associations and economic research institutes.

<sup>11</sup> Determined from data retrieved from Canada's UNFCCC national and provincial inventories adjusted for municipal equivalent.

<sup>12</sup> City of Copenhagen. (2016). Copenhagen Climate Projects - 2016 Annual Report. <https://international.kk.dk/artikel/carbon-neutral-capital>

<sup>13</sup> Determined from data retrieved from the Environment Canada and Statistics Canada.



## CHAPTER 5

# Brampton's Community Energy & Emissions Reduction Plan

## Securing Our Future

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### KEY TAKEAWAYS

- Community Energy Planning is an evidence-based approach to understanding where and how energy is used and emissions released in a community to identify local opportunities and priorities for increasing energy efficiency, reducing GHG emissions, and lowering energy costs.
- The CEERP Framework is endorsed and recommended by the Community Task Force.
- The CEERP Energy Goal is to reduce community-wide energy end use by at least 50% from 2016 levels by 2041.
- The CEERP Emissions Goal is to reduce community-wide emissions by 50% from 2016 levels by 2041, and to establish a pathway to reduce emissions by at least 80% in 2050 to meet or exceed federal and provincial targets.
- The CEERP Economic Goal is to retain at least \$26 billion in cumulative energy costs within the community by 2041.
- Twenty-four objectives organized around seven strategic directions are identified that, if realized, will lead to the successful achievement of the three CEERP Goals.
- Six priority projects were identified as critical projects for the next five years.
- Each sector of the community (i.e. municipal governments, utilities, industry, businesses, institutions, development, community organizations, and residents) have a role to play in the successful implementation of the CEERP.
- To ensure that the CEERP does not “sit on a shelf” and implementation of the 2020-2025 priority projects are achieved and sustained, dedicated resources are needed to coordinate, oversee, and report on overall progress. These resources range from political, regional, municipal, and community stakeholders to individuals.
- A full glossary of terms is available at the beginning of this report. Some of the key terms used in this chapter include: Latest Energy Transition, and Carbon Neutrality.





## 5.0 Community Energy and Emissions Reduction Plan

Community energy planning is an evidence-based approach for understanding where and how energy is used and emissions released in a community to identify local opportunities and priorities for increasing energy efficiency, reducing GHG emissions, and lowering energy costs.

The CEERP is driven by the following energy and data realities and context:

- an urgent response to climate change is needed now (Chapter 1);
- a global energy transition is currently underway (Chapter 2);
- major energy transitions have happened before, resulting in vast societal improvements (Chapter 2);
- there are significant economic and social opportunities in the modern energy transition (Chapter 3);
- community energy planning helps take advantage of opportunities during this energy transition and mitigate present and future risks (Chapter 3);
- there are multiple benefits to robust community energy planning and climate mitigation actions (Chapters 1-3);
- currently, Brampton's largest GHG emitter, energy user, and community cost is transportation, followed by the residential, industrial, commercial, and institutional sectors (Chapter 4);
- in the Base Case (i.e. if no coordinated action is taken), it is estimated that Brampton's emissions will continue to be twice that of global best practice, energy use will increase by almost 30%, and energy costs will increase more than 200% by 2041 (Chapter 4); and
- it will take the combined effort of all community sectors in Brampton to successfully undertake this energy transition and mitigate climate risks (Chapters 1-5).

An energy and emissions reduction strategy allows Brampton to address the above, and create a roadmap to achieve a clean, sustainable, and resilient energy future.



The Plan was developed for Brampton based on:

- knowledge of Brampton's Baseline and Base Case;
- an understanding of Brampton's population and employment growth;
- community engagement;
- the results of simulations employing several efficiency measures (refer to the 2019 Analytical Report for more details);
- global best practice, and
- an assessment of local opportunities.

The Community Task Force was instrumental in the development of the Plan, and endorsed the final framework. As part of the development of the CEERP, the Community Task Force:

1. met monthly over a course of eight months;
2. identified key opportunities in the city;
3. shaped and vetted the CEERP framework;
4. communicated to their respective communities about the CEERP and provided input from them;
5. reviewed and provided input in the actions; and
6. reviewed and endorsed the final CEERP document.

Successful implementation of the Plan will require all parts of Brampton to undertake dozens of activities aligned with the priority projects. The primary aim of the CEERP is to shape Brampton's energy future by creating the right conditions for public and private sector community action.

Activities required to support the implementation of the Priority Projects are in the Action Plan (see Section 5.7).

Energy and climate policies are changing rapidly, as governments respond to international pressure to reduce GHG emissions. Therefore, the market will continue to innovate, and more cost-effective technologies will emerge to accelerate the uptake of low-carbon local energy supply and distribution technologies designed for rapidly urbanizing communities like Brampton. Therefore, the strategy should be reviewed and updated, as appropriate, every five years. The Community Task Force developed and endorsed the following framework.





**Brampton's energy future is  
clean, sustainable, resilient,  
and supports the  
Brampton 2040 Vision.**





## 5.1 Vision

The CEERP is driven by the following vision statement:

Brampton's energy future is clean, sustainable, resilient, and supports the Brampton 2040 Vision.

## 5.2 Guiding Principles

Guiding principles are a set of core values that guide decision-making. They ensure decisions are made in a responsible and sustainable manner that do not deviate from the long-term vision of the CEERP. They direct the formation of goals, objectives, and targets and help prioritize actions. Guiding principles should be followed in every step of the Plan and its implementation and be a lens through which all decisions are made.

A sustainable community energy system balances opportunities to benefit the economic, social, and environmental future of Brampton. The following principles were used to develop the CEERP goals and will be used to guide the implementation of the Community Energy and Emissions Reduction Plan.

### *Environmental*

- Work towards climate neutrality.

### *Energy*

- Benchmark energy performance against global best practices.

### *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.



## 5.3 Goals

The CEERP will shape Brampton's energy future by creating the right conditions for public and private sector community action. Three goals were established based on the assessment of local energy and emissions data (where Brampton is today) relative to global best practice (where Brampton could be). The Community Task Force chose realistic goals over aspirational goals, recognizing that the Plan will need to be updated regularly to adapt to changes in climate policy, energy policy, and global best practice. The CEERP goals are based on:

### **Energy**

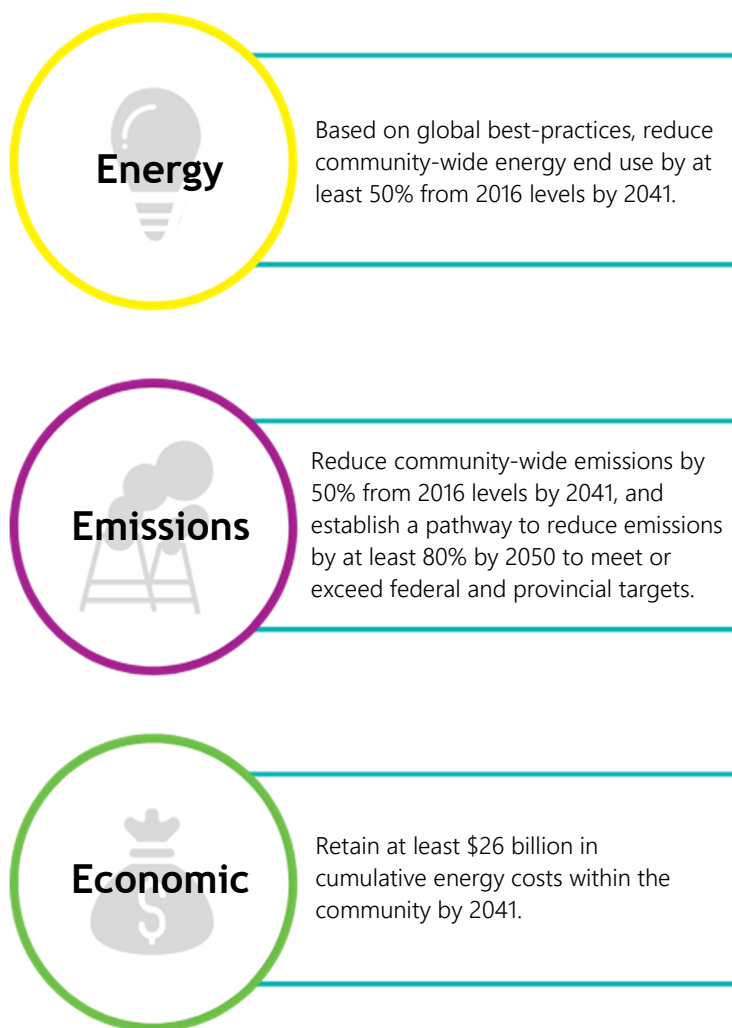
Energy is a vital component of our society. Its use has and continues to shape our communities, providing us many benefits but also current and future challenges. Through energy efficiency programs, consumers will realize substantial energy savings. These energy efficiency programs will identify opportunities for savings in the entire energy system, from supply, through distribution, and to end use. Rather than going to upstream energy suppliers, these energy dollars will remain in the community benefiting local consumers, improving housing affordability, and creating jobs.

Improving our energy efficiency can also increase energy security and improve our quality of life through more comfortable homes and buildings, cleaner air and more options and access to an active and connected lifestyle.

As we move through this energy transition, reducing energy use through energy efficiency will mitigate the risks and disadvantages while improving the opportunities and benefits for the local community.

### **Emissions**

As we move into the future, our energy needs will only increase. However, GHG emissions have become a dangerous byproduct of our energy needs. One of the driving forces of the global energy transition is the need to reduce and transition away from energy sources that produce GHG emissions. Reducing Brampton's GHG emissions not only ensures that Brampton is doing its part in the fight against climate change, it also ensures we are keeping up with the current opportunities, expectations, and needs of local and global economies.





In Brampton, transportation and the residential sector account for the majority of emissions (60% and 21% respectively). The City of Brampton, in collaboration with the Region of Peel, has the ability to align policies and programs to plan, design, and develop green communities and encourage the adoption of low carbon transportation. This would help to achieve the objectives of reducing the average trip length and increasing the number of trips taken by walking, cycling, and transit, which will reduce GHG emissions emitted through transportation. Reducing emissions from the built environment will require retrofitting homes and buildings and consideration toward how local supply and distribution can improve the efficiency of neighbourhoods.

By working to meet the emission reduction goal of 50%, a pathway towards reducing emissions by at least 80% by 2050 is also being established. As new breakthroughs in technologies, policies, and tools arise, an 80% reduction within the next several decades will become more achievable. Regular updates of the CEERP will provide opportunities to continue to highlight policies, procedures, and initiatives that can reach a more aspiring goal. The actions outlined in the CEERP should be considered a minimum. When opportunities arise, additional and more ambitious actions should be pursued to stay true to the first CEERP principle of working towards climate neutrality.

### ***Economy***

Economic health has strong ties to community health and quality of life. This modern energy transition provides opportunities to improve both economic health and quality of life within Brampton. Incorporating an economic goal ensures that Brampton fully makes use of all the economic benefits available, and also creates further opportunities that will lead the city to an economically robust future.

The economic goal is based on implementation beginning in 2020 and on a more conservative low-price range of projected energy cost increases (see the 2019 Analytical Report for more detail). Should energy costs rise more quickly, the potential return to the community would be greater. Given the unpredictability of energy costs, this goal should be reviewed every five years and adjusted, if necessary, to reflect actual costs and more current forecasts.





## What is Meant by Net-zero Emissions?

Attaining net-zero emissions means achieving a balance between GHG emissions released and GHG emissions removed from the atmosphere<sup>1</sup>. Human-caused emissions, like those from vehicles that run on fossil fuels, are reduced as close to zero as possible, and any remaining emissions are balanced with an equivalent amount of GHG emission removal, for example, by restoring forests or by carbon capture technologies.

### Challenges with Net-zero

Of the UN's 195 member nations, 67 have a net-zero emissions ambition in place. Of these countries, only 16 have developed roadmaps and intermediate targets, and only seven have instituted policy frameworks that could realistically support reaching the net-zero emissions goal.<sup>2</sup>

Nordic countries have been among the few to take truly decisive steps to achieve net-zero GHG emissions, which have been supported by favourable public opinion and social contexts.

Challenges associated with net-zero include<sup>3</sup>:

- demand for energy continues to increase due to population growth, and much of this demand is being met by high emission producing methods;
- growth in emissions-intensive industry sectors is projected to continue, such as cement (30% increase by 2040) and steel (10-15% increase by 2040). These sectors have few low-carbon alternatives, and those that exist are costly;
- transportation sectors are growing considerably, for example, freight demand is expected to triple by 2050, while aviation demand will likely double;
- consensus/cooperation among governments;
- resistance to undertake change in behavior; and
- required investment in Research & Development for low carbon technology.

The Community Task Force considered setting net-zero emissions as a goal in the CEERP. It was felt that at this time, a realistic roadmap could not be simulated to achieve this target. However; consensus was reached to include a goal to "reduce community-wide emissions by 50% in 2040 and to establish a pathway to reduce emissions by at least 80% in 2050 to meet or exceed federal and provincial targets." It is expected that as new opportunities appear, and new technologies become more widely available, this CEERP will evolve to support net-zero emissions. While the CEERP is not a net-zero plan, it does set targets that will contribute to the global climate change goals committed to by the Canadian federal government. Dealing with climate change will ultimately require net-zero GHG emissions over the course of this century, and Canada will need to transform all economic sectors, especially patterns of energy production and consumption, and make improvements to the way people live, work, play, and consume.<sup>4</sup>



## 5.4 Strategic Directions

The Strategic Directions are informed by the CEERP vision, principles, and goals and help structure the objectives, targets, and actions. They reflect Brampton's urban and energy transition, as well as the Brampton 2040 Vision. The seven strategic directions of the CEERP are:

### 5.4.1 Green Communities

Communities make up 60% of energy consumption and over half of all GHGs in Canada. The shape, structure, and form of a community greatly influences how and when energy is used. A green community focuses on improving the quality of life for residents and enabling more sustainable living through the application of environmentally-friendly strategies in every way feasible. Green communities incorporate features such as buildings constructed and insulated with recycled and/or biodegradable materials, transit-oriented development, mixed-use design, more housing choice, design that promotes active-living, circular economies, community gardens, and composting. They also provide general attention to using earth-friendly materials, products, and energy efficient appliances.

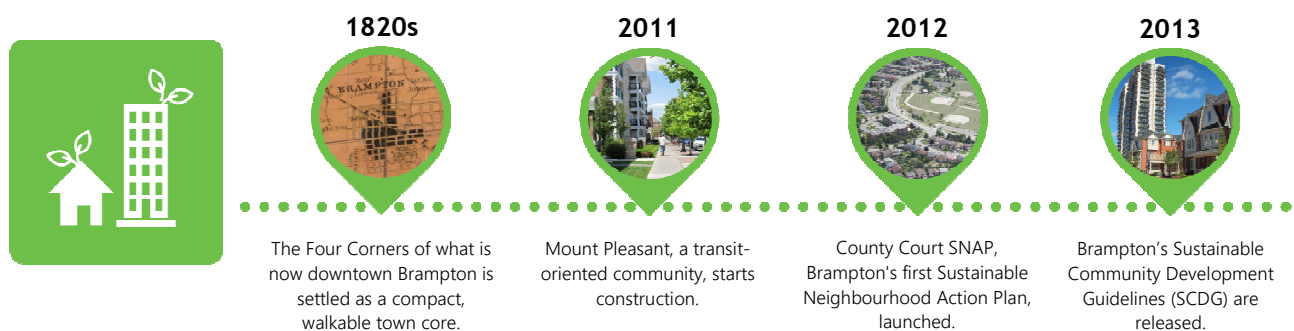
Green communities result in many co-benefits. For example, green communities improve air and water quality, and provide aesthetic, economic, and health benefits associated with incorporating more natural features and systems in our neighbourhoods. They also encourage a healthier lifestyle and provide more economical and equitable living, through focusing on improving transit and active transportation options, providing more affordable and varied types of housing, and creating accessible communities that allow residents to meet most of their needs within walkable distance from home.

This type of community design closely aligns with the Brampton 2040 Vision, which highlights the need for more sustainable and "green"<sup>5</sup> communities, transit-oriented neighbourhoods, and a move towards compact, decentralized, accessible landscapes revolving around Urban and Town Centres. The 2040 Vision provides the foundation upon which the city can evolve in this global energy transition through the progression towards green communities.

The features and benefits of green communities all tie into optimizing a community's energy demand, increasing system efficiencies and savings, and improving energy resilience. More walkable and transit-oriented communities means less cars on the road and reliance on gasoline. Circular economies can reduce energy waste and streamline production to be more energy efficient. More housing variety can also provide more energy efficient housing choices. For example, typical single detached dwellings are less energy efficient than denser forms of housing, like townhouses, row houses and mid-rise residential buildings. Providing a range of housing choices allow residents to pursue a dwelling suited to their individual needs and energy use and efficiency preferences.

A significant advantage of green communities is the potential for savings on energy from heating and cooling and transportation.

Municipalities and the development industry have a significant role to play within the Green Communities strategic direction. As a municipal government, the City of Brampton is responsible for local land use decisions that drive green communities. As previously mentioned, the 2040 Vision is one foundational document that can guide





Brampton towards becoming a greener community. The City of Brampton can further encourage green communities by ensuring that its Official Plan policies champion transit-oriented, mixed-use, complete communities.

The existing Sustainable Neighbourhood Action Plan (SNAP) program is another avenue for green community implementation at a neighborhood scale. It provides opportunities to tie together home and building retrofits, green community planning, and other on-the-ground actions to achieve community-level retrofits.

The Development Industry role in creating Green Communities involves planning, designing, and constructing mixed-use, compact communities with high efficiency homes and building serviced by alternative energy sources. Brampton's Sustainable Community Program for New Development provides a menu of sustainable options developers can choose from to implement in their development plans. In addition, developers will need to keep themselves informed on how to most effectively incorporate the latest green community design practices and include these energy efficient and sustainable features in their designs. Furthermore, both the municipality and development industry should strive to work together to implement net-zero communities.





### 5.4.2 Transportation Efficiency

Transportation in Brampton accounts for about 60% of community-wide GHG emissions and 50% of the total dollars spent on energy in the community, reflecting how Brampton is largely an automobile-dependent community. In 2015, active transportation (cycling and walking) accounted for approximately only 3% of trips in the city, while transit accounted for 8%.<sup>6</sup>

Increasing transportation efficiency can lead to cost savings for Bramptonians and healthier and more equitable communities. Providing various options for and investing in safe, reliable, and accessible sustainable transportation options, like transit, cycling infrastructure, and safe and walkable streets, allow residents to meet their daily needs while maintaining a more affordable, connected, and active life. Sustainable transportation provides all residents with affordable access to all the facilities, services, and opportunities the city has to offer.

In order to keep up with the modern energy transition, a significant shift in how we move around our community is needed. By addressing Brampton's unique needs, learning from global best practice, and adapting from local municipalities' mistakes and successes, this city can become a leader in transportation. The Brampton 2040 Vision has already started us on this path. Vision 4 states, "In 2040, Brampton will be a mosaic of safe, integrated transportation choices and new modes, contributing to civic sustainability, and emphasizing walking, cycling, and transit".

How we approach our transportation networks will need to be rethought. Different modes of transportation (e.g. car, transit, cycling, walking) should not be viewed and planned as separate isolated systems, rather as an interconnected system in which people and goods move between one mode to the other to get to their destination. Furthermore, road planning, design, and construction need to take into consideration more than just the car, and move towards a more integrated and holistic approach within Brampton.

Increased investment in sustainable transportation infrastructure is key to keeping pace with the modern energy and transportation shift and meeting the 2040 Vision goals. The growing demand in both personal and commercial electric vehicle use will require significant

expansion and upgrades in electric vehicle infrastructure. The Brampton 2040 Vision's shift towards Urban and Town Centres will require increased transit investment between and within these nodes, and the more widespread incorporation of complete streets and active transportation networks in our communities.

Brampton's strong dependence on automobiles poses one of the city's greatest energy challenges. Automobile-dependence shapes the physical and social fabric of our communities. Higher automobile dependence increases a community's energy use and emissions through increased vehicle trips, requires large amounts of land within our communities, and influences our daily decisions and life choices that in turn effect our carbon footprint and well-being.

The space requirement to accommodate vehicles (e.g. larger roads, major highways, and parking) leads to more sprawl. This increases the resources, infrastructure, and energy requirements needed per person to service this larger, sprawled area. Larger roads and highways also tend to discourage the use of alternative modes of transportation due to the increased safety risks and the general inconvenient and unpleasant experience of a pedestrian-unfriendly environment. The impacts of automobile-dependence also leads to other concerns. Larger roads and more sprawled cities can sever social networks and service support, increase social disparity, reduce community cohesion, decrease local community and economic vibrancy, and impact the health of residents and the environment.

Brampton faces many unique aspects in the transportation efficiency strategy. This will require the City to more deeply explore the relationship between built form and transportation systems - not only how transportation systems and buildings overlap, but also how built form and land use shapes transportation needs and vice versa. For example, moving towards more compact, mixed-use, and walkable neighbourhoods can significantly reduce the number of car trips taken by residents. Creating more local jobs also makes transit and cycling a more feasible commuting option.

Brampton's history and reputation of being a suburban/bedroom community with neighbourhoods built around single family dwellings and residents commuting daily out



to other cities has led to spread out and car centric neighbourhoods with wide roads and large big-box retail. Additionally, as a neighbour of Toronto and member of the GTA, there are several major highways bisecting the city, a large amount of goods and products movement through the city, and significant presence of warehousing and storage facilities within Brampton's borders. These are all factors that need to be considered in this transportation shift.

To address the impacts of transportation on climate change, the City's transportation planning efforts will need to include quantifiable emissions targets and develop ways to measure and forecast these. To that end, the City's transportation modeling and planning efforts will need to use a measure based on the percentage share of each mode of the total number of Passenger Kilometres Travelled (PKT) arising from travel choices in addition to the typical measure based on the percentages of the total number of trips made by each mode. The PKT-based approach more directly links transportation emissions and energy usage and efficiency to the mode of travel chosen. It should be noted that the two approaches are not directly comparable.

The City of Brampton will need to investigate the incorporation of PKT-based measures into transportation plans and transportation forecasting activities, in addition to maintaining the typical measure based on the percentages of the total number of trips made by each mode.

The City of Brampton and the Region of Peel are responsible for the planning, design, and construction of the transportation infrastructure in the City of Brampton, thus will have the most responsibility for achieving the actions under this strategic direction. However, the development industry, businesses, and residents play an important supporting role. The development industry can work towards designing more walkable and pedestrian-friendly communities oriented towards encouraging carpooling, transit, and active transportation. Businesses can encourage employees to work from home, take more sustainable transportation by providing amenities (e.g. EV charging stations, secure bicycle parking, showers, etc.) or by providing incentives to carpool, take transit, bicycle or walk.

Individuals can strive to develop sustainable transportation habits by:

- walking to do daily errands;
- cycling to work and for daily errands;
- taking transit more;
- carpooling to work;
- purchasing fuel efficient vehicles; and
- purchasing low carbon vehicles.

Furthermore, residents can contribute by staying informed on their transportation choices and communicating their sustainable transportation needs to their place of work, schools, and local governments.

Currently, the urban transition described in the Brampton 2040 Vision will support greater transportation efficiency, transit use, and active transportation. Further transportation policy, by-laws and street guidelines updates at both the City of Brampton and Region of Peel will be needed. Updating and aligning Brampton's Transportation Master Plan (TMP) with the CEERP goals and targets will be a significant milestone since the TMP is a driver of transportation decisions and projects within the City. Both the Region and the City of Brampton will need to invest in sustainable transportation infrastructure, taking into consideration the growing demand for electric vehicles, the move towards more complete streets, and need for more accessible transportation alternatives to single occupancy vehicles.



## What is Modal Split?

Modal split is the main monitoring and performance measure in the City of Brampton's current Transportation Master Plan. Modal split is the percentage share of travellers using a particular method of transportation (e.g. auto, transit, cycling, walking). The factors that inform what method of transportation a person will choose for a trip include cost (monetary and time), convenience, and comfort. Trips can be comprised of one or more modes of transportation (e.g. cycling to a station, then riding a train and then walking to the final destination). Energy usage and the resulting emissions vary widely for the different methods of transportation; therefore, cumulative energy usage and emissions produced must also be factored into assessments of the impacts of transportation on climate.

## What is Vehicle Kilometers Travelled (VKT)?

Vehicle Kilometers Traveled (VKT) is the total kilometers travelled by motor vehicles on the road network during a given period of time. VKT is directly linked to fuel consumption, vehicle emissions, environmental quality, and road network congestion and safety. The current TMP includes VKT in the comparison of alternative scenarios and as an indicator for road network congestion. VKT per capita is emerging as an important transportation performance measure. Reducing per capita VKT can help achieve air quality, climate change, and congestion reduction goals without penalizing for population growth and its addition in the TMP will be considered in the next update.

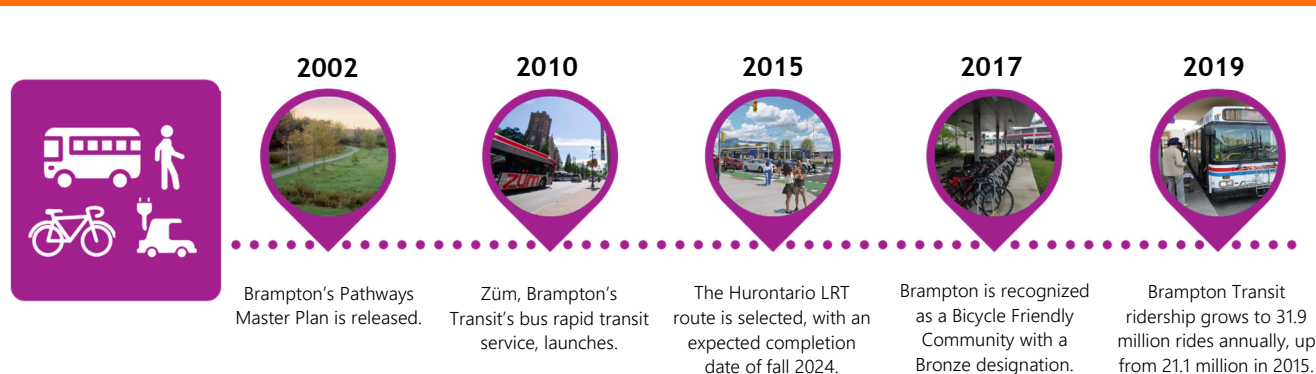
## What is Passenger Kilometers Travelled (PKT)?

Passenger Kilometres Travelled (PKT) is the product of multiplying the number of passengers in a vehicle by the distance travelled. Compared to Vehicle Kilometres Travelled (VKT), PKT provides a measure of transportation efficiency. For example, a bus with 20 passengers that travels 10 kilometres results in 200 PKT of service for 10 VKT. If those 20 bus passengers each used their own car, the same 200 PKT would result in 200 VKT, which would require significantly more energy and result in higher emissions. PKT is derived for all modes of transportation. For walking, cycling, and commercial vehicle trips, PKT is assumed to be the same as VKT.

## Why Passenger Kilometers Travelled (PKT)?

PKT reflects the basic goal of any mode of transportation: to move a person or goods to a desired destination. The factors that inform what mode of transportation to use for a trip include cost (monetary and time), convenience, and comfort. Trips can be comprised of one or more modes of transportation (e.g. cycling to a station, then riding a train, then walking to the final destination). Energy usage and the resulting emissions vary widely depending for the different modes of transportation. The cumulative energy usage and emissions produced must be factored into assessments of the impacts of transportation on the climate.

As noted previously, the City's transportation planning efforts will need to include quantifiable energy and emissions targets. The CEERP's PKT-based analytical approach supports this.





### 5.4.3 Home and Building Efficiency

Energy efficiency is the “first fuel” of a sustainable global energy system.<sup>7</sup> Homes and buildings are the third-largest emitting sector in both Brampton and Canada, and most existing buildings will still be in operation in 30 years’ time. It is less costly to construct energy efficient homes and buildings than to retrofit them to be more energy efficient once they are already built. Buildings account for 44% of Brampton’s energy use and 28% of its GHG emissions.

Building energy efficiency has historically been left to be addressed by the Province through the Ontario Building Code (OBC). However, this plan has shed light on the significant role buildings play in Brampton’s energy use and on the many opportunities available to significantly improve energy efficiency at the community level.

Retrofitting existing homes and buildings and ensuring new construction is delivered to the highest energy standards will be foundational to achieving the targets of the CEERP. On average, buildings in Brampton are approximately half as efficient as global benchmarks, a consequence of historically lower energy costs, less stringent building codes, and less action on climate change. Brampton residential buildings are the source of 21% of GHG emissions and almost three-quarters of Brampton’s water consumption.

As the construction requirements of buildings have been under the jurisdiction of the Provincial government through the Ontario Building Code, addressing building energy efficiency is a new field for municipalities and many aspects are currently beyond the City’s capabilities to address adequately. Therefore, this strategic direction will require significant community leadership and collaboration. Construction, trades, and the development industry will all need to have a strong leadership presence to achieve the targets under this strategic direction.

Residents also need to be educated on and stay informed about their energy efficiency options. A community organization that focuses on large scale community energy projects, such as a home retrofit program, can create a framework in which different community sectors can collaborate and mobilize under to successfully implement the actions under the CEERP that may be outside municipal jurisdiction or capacity.

The City of Brampton can advocate for Ontario Building Code enhancements, ensure buildings are built to code, provide incentives for builders to exceed the Ontario Building Code, and/or be open to new technologies. Furthermore, there is opportunity to expand the City’s SNAPs to include community energy retrofits.





#### 5.4.4 Local Energy Supply and Distribution

Local energy supply and distribution, also referred to as Distributed Energy Systems (DES), is the local operation and generation of energy close or next to its point of use. DES includes power generation (e.g. roof top solar panels), energy storage (e.g. batteries), and distributed energy management (e.g. building energy management systems, micro grids, district energy etc.). This is compared to the traditional centralized energy supply utilized today, where energy is sourced from larger generator facilities outside the community (e.g. in Ontario: Bruce Nuclear Power Plant or Niagara Falls Hydro-electric generation plant) and is sent through large transmission and distribution grids before reaching the end user.

Distributed Energy Systems offer communities the following benefits:

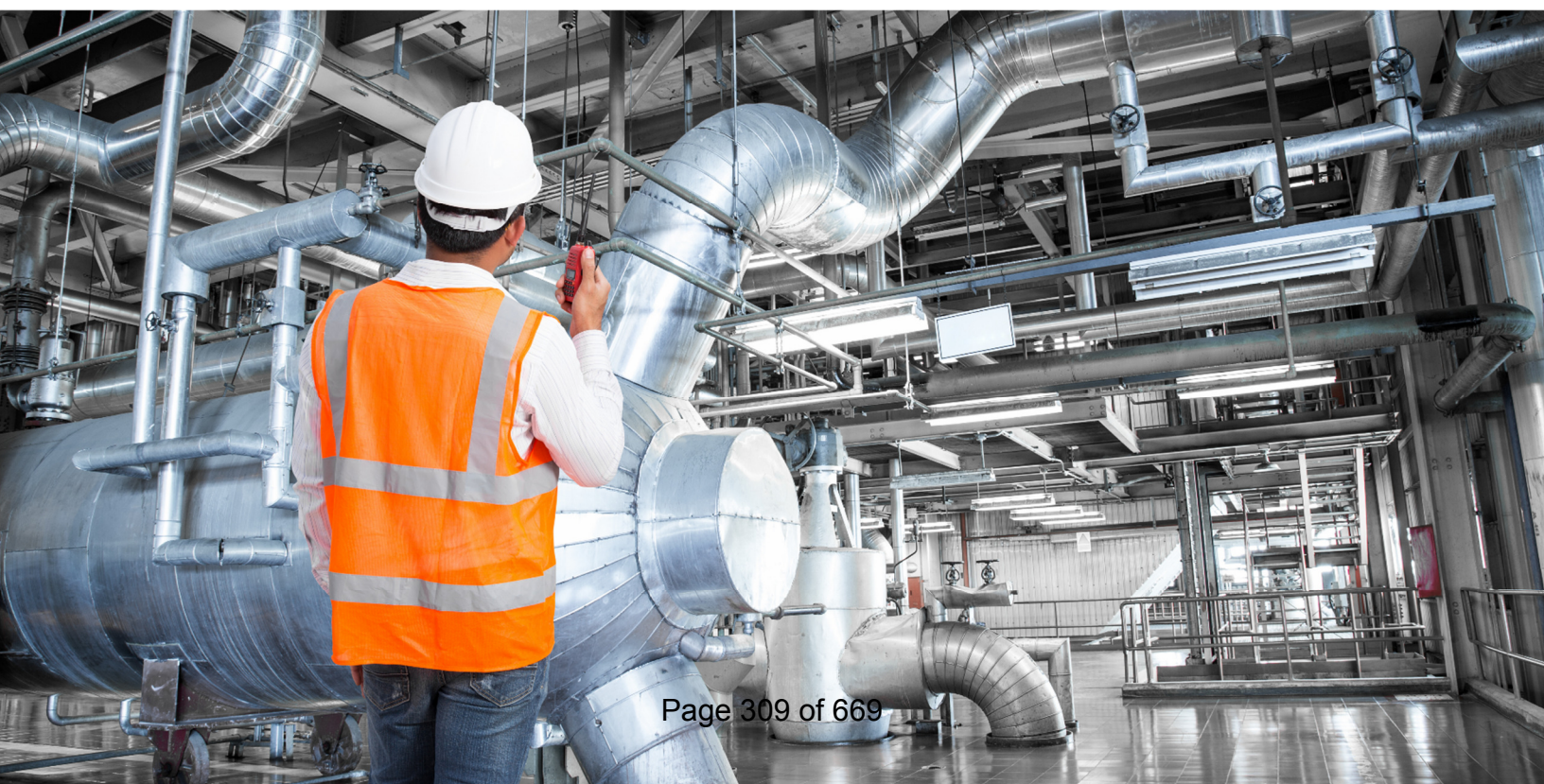
- lowering the carbon impact of meeting the heating, cooling, and hot water needs of buildings through the distribution of heating and cooling;
- reducing system losses associated with the current centralized energy system; and
- increasing the security, resiliency, and flexibility of local energy supply.

The use of natural gas to heat buildings contributes 38% of Brampton's GHG emissions, which underscores the need to identify measures that address the heating, cooling, and hot water needs of buildings. Opportunities are available to incorporate district heating and cooling in major growth and intensification areas, such as the Urban Centres and Town Centres described in the Brampton 2040 Vision. Using waste heat from large facilities (e.g. manufacturing, industrial facilities, waste facilities) is another opportunity to supply heating and cooling to buildings through waste heat power or combined heat and power district systems.

Modern district energy systems facilitate the use of many kinds of low carbon heat sources, including:

- large solar-thermal arrays;
- biofuel boilers and combined heat and power (CHP);
- sewage waste heat recovery;
- geothermal arrays; and
- boilers using renewable electricity.

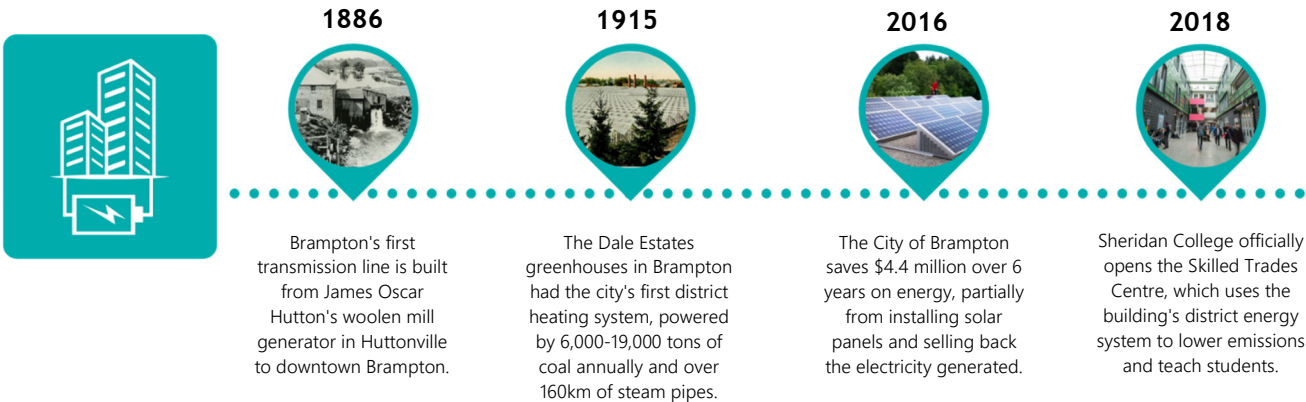
Of the five district energy systems noted above, only Combined Heat and Power (CHP) was considered in the CEERP's efficiency simulation, so any opportunities to include the other low carbon heat sources will further reduce the GHG impacts of heating and cooling.





In Brampton, the highest energy system losses were associated with electricity use. Increasing local electricity generation would reduce the economic impact of these losses on the community. In 2016, locally-generated solar power supplied less than 0.5% of Brampton’s electricity needs. Traditionally, municipalities have had a limited role in solar supply. There is opportunity for the City of Brampton, Region of Peel, and local community to play a bigger role in encouraging and building solar infrastructure through advocacy and other direct means. The Community Organization and the retrofit program are vehicles in which solar power can be advanced in Brampton.

Local utilities will play a major role in managing the migration of energy supply to a more decentralized system. Partnerships with and between local industry will also be needed to capitalize on the best opportunities within the city for Distributed Energy Systems. Individual residents and property owners will also play an important role as the option to generate energy off grid becomes more feasible.





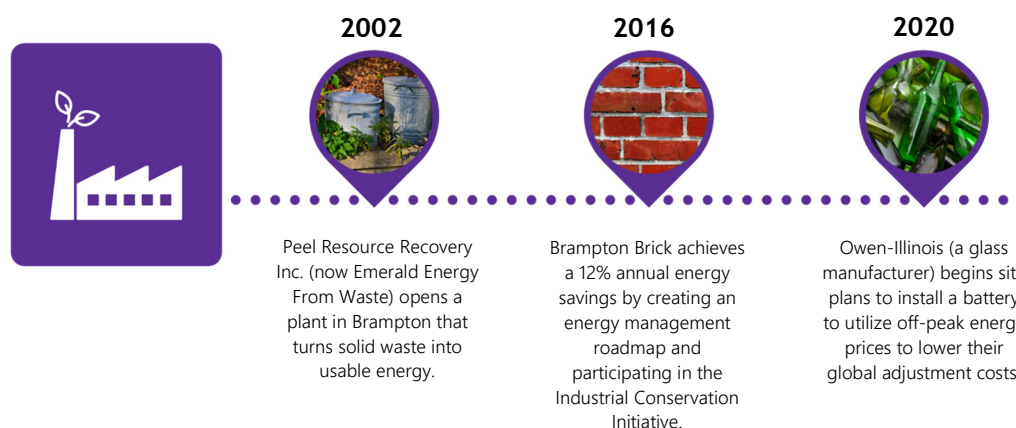
### 5.4.5 Industrial Efficiency

Industrial activity is most often regulated and guided by broader global best practices and standards because industry is driven to reduce their bottom line with continuous improvement in energy and water management. In addition, many larger multi-national companies have challenging corporate-wide emissions standards that are a direct response to both customer pressure and public opinion in many different countries.

Brampton's industrial sector consumes 21% of total source energy, although it only contributes 13% of emissions. The city's industrial sector demonstrates higher energy, emissions, and water performance relative to global best practice than other sectors, such as residential dwellings. As such, there is an opportunity for local industry leaders to share their energy and water management expertise with the community to help achieve world-class energy and water performance.

The Brampton 2040 Vision and Brampton's Economic Master Plan highlight the critical need to attract and retain local businesses and investment in the city. Retaining and attracting investment in the community through energy advantages is a key tool in which municipalities can utilize as part of the CEERP.

Brampton's Economic Master Plan highlights innovation through originality as one of its goals. Many industries are currently moving towards innovative ways to reduce energy costs to gain energy savings that will help their bottom line. Local municipalities can play a role in this by assisting industries that are exploring and pursuing opportunities to reduce their energy use and emissions. This could include providing additional assistance in advocating to other levels of government, navigating the planning processes, and promoting and facilitating joint opportunities with other agencies to achieve their energy use and emissions reduction targets.





## 5.4.6 Green Infrastructure

Green infrastructure can reduce a community's energy and infrastructure costs, improve residents' quality of life, promote economic growth, and create construction jobs. Green infrastructure is a strategically planned network of natural and semi-natural features and spaces managed to deliver a wide range of ecosystem services to the community. Examples of green infrastructure include features and spaces such as parks, wetlands, trees, community gardens, green roofs, rain gardens, and bioswales.

Green infrastructure can play a role in reducing community energy demand by mitigating heat island effects, reducing energy requirements for cleaning drinking water and managing stormwater, or reducing heat loss in buildings from cold winds.

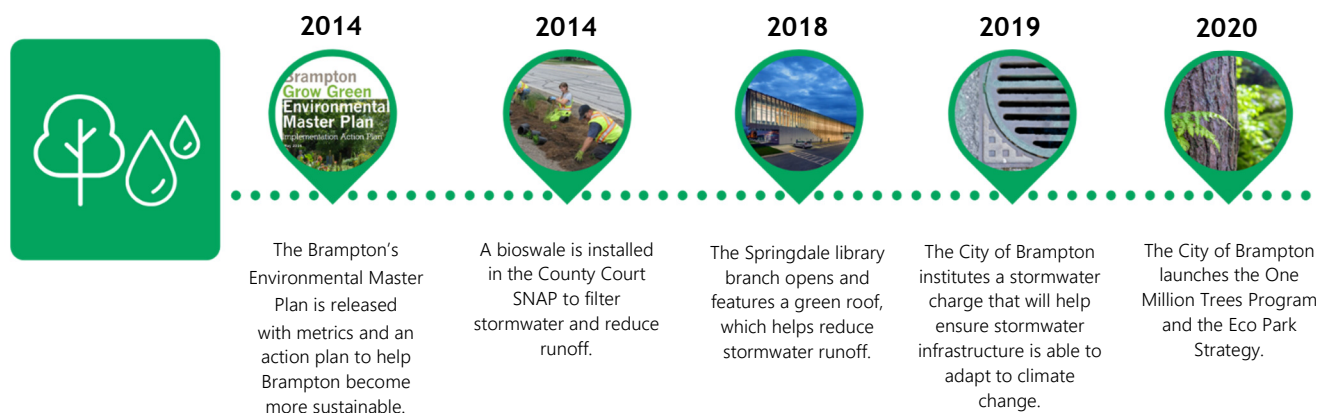
A unique contribution of green infrastructure to the CEERP is its ability to directly remove CO<sub>2</sub> from the atmosphere by sequestering carbon. For example in 2008, Brampton's urban forest was sequestering approximately 7,700 tonnes of carbon per year as trees grew – equivalent to the amount of carbon that was being emitted at that time in the city in 1.2 days.<sup>8</sup> Over 175,000 tonnes of carbon was stored in the urban forest – equivalent to 27 days of the city's carbon emissions. The largest trees store proportionately more carbon – for example, trees greater than 68.6 cm diameter at breast height (dbh) make up less than 1 percent of the total tree population but store more than 30 percent of the total stored carbon. Average sequestration rates are also positively correlated with tree size – larger trees sequester more carbon on an average annual basis than smaller trees.

Carbon sequestration strategies are outside of the scope of the CEERP, however, this additional benefit of green infrastructure can still be a tool within the City's larger comprehensive climate action strategy and be layered into other City strategies such as the City's Urban Forest Management Plan.

Through the Brampton 2040 Vision and the Brampton Grow Green Environmental Master Plan, the City of Brampton has already established the groundwork for meeting the Green Infrastructure goals and targets of the CEERP. The first Vision statement of the 2040 Vision is that of the "Environment and Sustainability". It includes growing our green infrastructure and protecting our natural systems within the city. Meanwhile, the City's Environmental Master Plan, as well as the One Million Trees Program and the Eco Park Strategy, encourage the integrated use of green infrastructure within Brampton's green and urban spaces.

The local municipalities (City of Brampton and Region of Peel) and conservation authorities (Toronto and Region Conservation Authority and Credit Valley Conservation) will all have a leading role to play in implementing actions under this strategic direction. Municipal policy, development guidelines, and capital projects should be updated to include green infrastructure where appropriate, and the City of Brampton, often in partnership with the conservation authorities, will continue to implement its green infrastructure programs.

Local community organizations/not-for-profits and local residents can also play a supporting role by partnering with, or participating in, the many green infrastructure and environmental programs provided by the municipality.





### 5.4.7 Communication, Engagement, and Monitoring

Communicating the CEERP's priority projects and Action Plan will increase alignment among partners, empower stakeholders and the community to actively implement the priority projects, and help maintain the focus on what's important. It will be important to clearly communicate to the public and City staff, the importance and benefits of the CEERP, how they can play a role in achieving its goals and targets, and how they can take advantage of this modern energy transition.

The scale of action required to address the climate emergency necessitates a coordinated and collective effort to speed up change. Engaging and working with partners across the community will increase the successful implementation of the CEERP. Indeed, the first two key lenses used to guide the implementation of the Brampton 2040 Vision is that of Engagement (Lens 1) and Collaboration (Lens 2). These two lenses will be vital in the successful implementation of the many of the CEERP Priority Projects. The Community Organization proposed in this Plan and the 2040 Vision (i.e. CCET- see Section 5.7.8), will be a critical component to achieving the objectives of this Strategic Direction.

Finally, ongoing data collection and monitoring, as well as the refinement of the Priority Projects over time, is required to ensure project effectiveness and to gauge the impact of the CEERP. Though some monitoring is currently underway (e.g. EMP indicators, utility data, etc.), data sources are uncoordinated and there are still many large gaps in the type of data needed. Additionally, there will need to be a standardized system to collect, analyze, and report energy and emissions data.







## 5.5 Objectives and 2041 Targets

Each Strategic Direction has associated objectives (what is hoped to be achieved to support the Strategic Direction) and targets (indicators to determine how successfully each objective is being achieved).

Objectives and targets under Transportation Efficiency, Home & Building Efficiency, Local Energy Supply & Distribution, and Industrial Efficiency reflect the preferred scenario and the measures considered in the Plan's energy efficiency simulations.

Objectives and targets for Green Communities, Green Infrastructure, and Communication, Engagement & Monitoring were not included in the energy simulations. Instead, these Strategic Directions help achieve the objectives, targets and actions under the other Strategic Directions.

Achieving these strategic objectives and targets requires collaboration and the alignment of government, business, the community, and individual activities.



## Objectives and Targets by Strategic Direction

| Strategic Direction          | #  | Objective   | 2041 Target   |
|------------------------------|----|---|---|
| Green Communities            | 1A | Achieve near net-zero communities                         | Attain near net-zero GHG emissions for new communities in Heritage Heights and new buildings in Town Centres and Major Urban Growth Areas |
|                              | 1B | Policy is aligned   | Complete all policy updates as identified in the Action Plan and its subsequent updates   |
|                              | 1C | Establish Major Growth Areas and Town Centres             | Meet the Brampton 2040 Major Growth Areas and Town Centres density and job targets (to be revised through the OP Review process)          |
| Transportation Efficiency    | 2A | Reduce average trip length                                | Reduce average trip length by 3.75% for light-duty vehicles from 2016 levels  |
|                              | 2B | Increase trips by walking and cycling                     | Increase the share of passenger kilometres travelled walking and cycling to 7%  |
|                              | 2C | Increase trips by Brampton Transit                        | Increase the share of passenger kilometres travelled by Brampton Transit to 9.0%  |
|                              | 2D | Increase trips by GO Transit                              | Increase the share of passenger kilometres travelled by GO Train to 8.5%  |
|                              | 2D | Increase use of electric vehicles                         | Increase electric share of light-duty vehicles to 22% and heavy-duty vehicles to 7%   |
|                              | 2E | Increase efficiency of vehicles                           | Increase efficiency of gas/diesel vehicles by 36% and electric vehicles by 20% from 2016 levels   |
| Home and Building Efficiency | 3A | Increase efficiency of existing homes                     | Achieve a 35% residential sector efficiency gain from 2016 levels by retrofitting 80% of existing homes                                   |
|                              | 3B | Increase efficiency of other existing buildings           | Achieve a 22% commercial and institutional sector efficiency gain from 2016 levels by retrofitting 60% of existing buildings              |
|                              | 3C | Increase delivered efficiency of new property             | Achieve a 17% Ontario Building Code efficiency gain from 2016 levels  |
|                              | 3D | Increase water efficiency of existing homes and buildings | Achieve a 34% water efficiency gain from 2016 levels  |

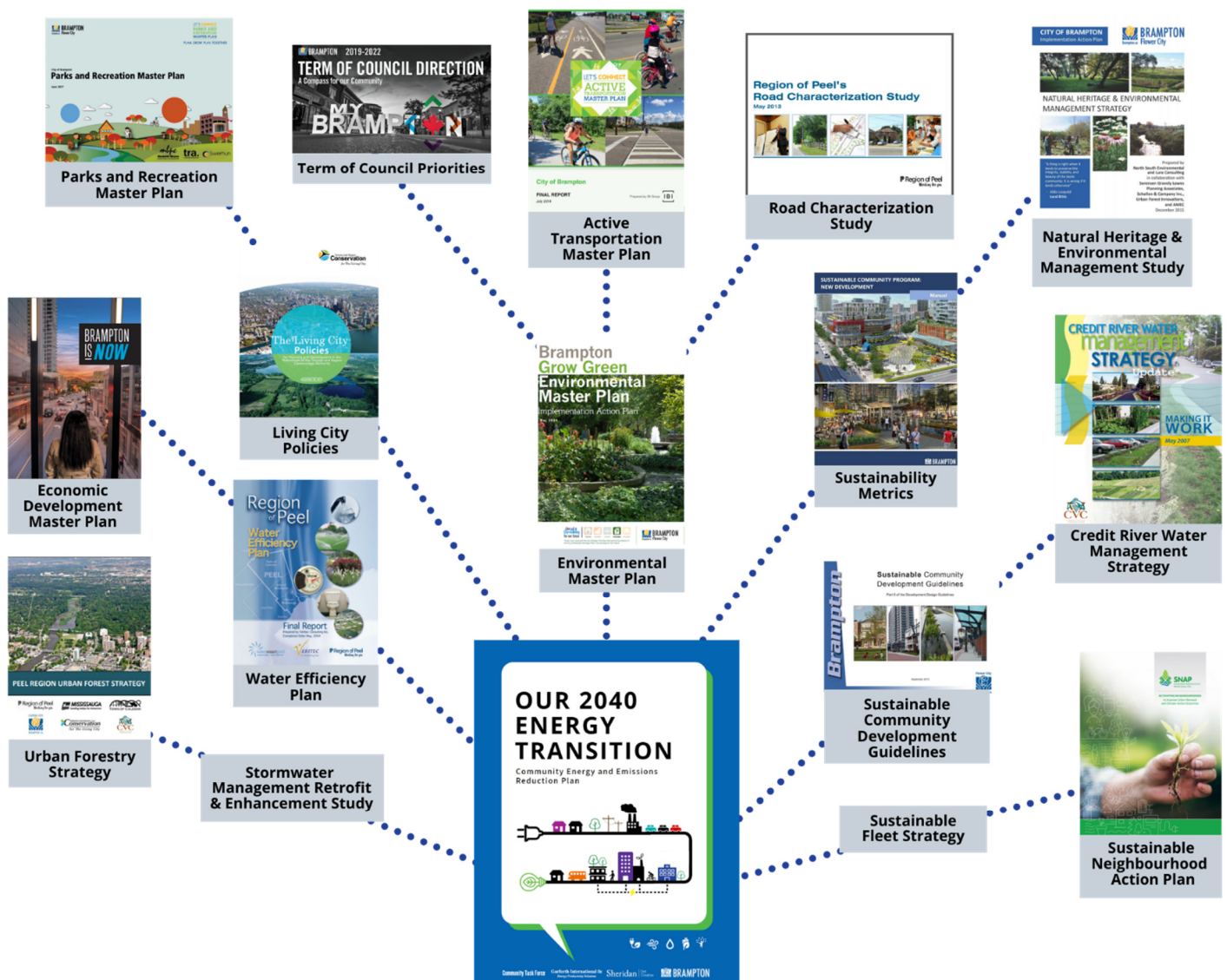


|  |    |   |   |
|--|----|---|---|
| Local Energy Supply and Distribution       | 4A | Implement district energy in high growth districts with a mix of combined heat and power and other low-carbon heating and cooling sources | Serve 70% of existing high growth Energy Planning Districts and 80% of new high growth Energy Planning Districts with district energy                                   |
|  | 4B | Install solar hot water in stable residential areas (low growth districts)  | Serve 10% of hot water and heating needs in homes not served by district energy with solar hot water  |
|  | 4C | Generate significant amounts of solar power installed on suitable rooftops and other locations  | Supply 8% of Brampton's electricity needs with locally generated solar power  |
| Industrial Efficiency                      | 5A | Proliferate best practice to all local industry   | Achieve a 20% industrial sector efficiency gain from 2016 levels  |
| Green Infrastructure                       | 6A | Expand the Urban forest   | Plant 1 million trees by 2040   |
|  | 6B | Increase restoration of natural heritage system   | Increase restoration and enhancement management to 45ha/year  |
|  | 6C | Integrate natural assets into the City's asset management program   | Determine a dollar value for the City's natural assets  |
| Communications, Engagement, and Monitoring | 7A | Increase awareness of the importance of energy planning among residents and businesses  | Establish a Community Organization (e.g. CCET) to engage in ongoing outreach and education  |
|  | 7B | Engage with businesses, non-profits, institutions, residents, utilities   | At minimum, engage with large energy users, Brampton Board of Trade, Sheridan College, Ryerson University, Algoma University, BILD, Enbridge Gas, and Alectra Utilities |
|  | 7C | Partner with other municipalities and levels of government  | At minimum, partner with neighbouring municipalities and the Region of Peel   |
|  | 7D | Integrate with corporate performance metrics (KPI)  | Establish a community GHG emissions and energy efficiency target on the Corporate Performance Dashboard and update regularly  |
|  | 7E | Establishment of self-supporting Community Organization (e.g. CCET) that is focused on delivering community energy planning excellence    | Attain recognition as a regional centre for energy excellence   |



## CEERP as a Foundational Document

Guided by the Brampton 2040 Vision, the CEERP is foundational document that will guide and support decision making within the City of Brampton. It provides direction for climate change mitigation and energy considerations for all City plans, policies, and programs. Current and future City documents and decisions will need to consider how they impact and work towards achieving the CEERP goals and its actions. All departments within the City have a role to play to help the community of Brampton achieve its energy and emissions goals.





## 5.6 Priority Projects: 2020 - 2025

Priority Projects are identified as critical projects that need to be started within the next five years to put Brampton on the path to achieving its energy and GHG targets and objectives. Priority Projects help prioritize investments and efforts.

Priority Projects were identified through the CEERP planning process and were based on the research of industry best practices and broad municipality experience, expert advice from all City departments and environmental partners, and input from conservation agencies and community stakeholders. The final list of Priority Projects were approved by the Project Working Team and Community Task Force.

The following six projects were identified as a priority for the next five years:

1. ensure the 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.

The Priority Projects are primarily focused on transforming the market for:

- energy efficient homes and buildings;
- energy efficiency retrofits;
- near-net-zero neighbourhoods;
- district energy; and
- active transportation and transit.

The rationale for these priority projects is provided below. Actions associated with these Priority Projects are identified in the CEERP Action Plan (see Section 5.7).

### *Priority Project 1: Municipal Policy and Program Alignment*

Regional and local municipal governments approve policies and by-laws that guide the growth and development of the community. Consequently, they have the responsibility of ensuring their policies and by-laws are aligned with the vision and goals of the CEERP. By doing so, they can establish a policy and program framework that enables local stakeholders, businesses, residents, and developers to take action to initiate Brampton energy transition.

### *Priority Project 2: Home Energy Retrofits*

Homes and buildings account for 44% of Brampton's energy use, 17% of energy cost, and 28% of GHG emissions. While energy efficiency gains in new construction has resulted in more energy efficient homes, older homes can be significantly less energy efficient. Considering 52% of Brampton's residential building stock was built prior to 1989, reducing energy use in homes through energy retrofits provides a high return in decreasing the city's overall energy use.

### *Priority Project 3: Transportation Master Plan Update*

The transportation sector makes the largest contribution to source energy use and GHG emissions in Brampton. The City of Brampton and Region of Peel have a critical role and responsibility to align their policies and programs. They should work to reduce the average length of regular trips taken by residents and visitors and increase the number of trips taken via walking, cycling, carpooling, and transit. This includes decisions on urban design, complete streets, and investment in transit and cycling infrastructure.

The City's Transportation Master Plan provides a blueprint for sustainable transportation planning within Brampton. It provides a framework for how the City of Brampton will continue to move forward to serve its growing population through its investments in its transportation networks. The TMP directs future transportation investment decisions, priorities, and projects, making this a critical document for the achievement of the community's energy and emissions targets and actions for transportation. Aligning the TMP with the CEERP's objective and targets will provide significant movement towards achieving Brampton's energy and emissions goals.



As the TMP is updated, it must further explore the role transportation can take in achieving our energy and emission targets. The TMP update will need to provide direction in the city's transition towards the increasing use of sustainable modes of transportation, including transit and active transportation within Brampton, which will reduce energy demands and total emissions as the city continues to grow. Additionally, it will need to address the integration of mobility and built form to create more economical and energy efficient networks and services.

The City's current Transportation Master Plan (TMP), dating from 2015, includes a rudimentary analysis of transportation-related emissions based on forecasts of Vehicle Kilometres Travelled (VKT). The next version of the TMP will need to include quantifiable emissions targets and reflect more refined analysis based on Passenger Kilometres Travelled (PKT) in order to more fully support the CEERP and address the transportation-related targets included in it. As noted previously, a PKT-based approach more directly links transportation emissions and energy usage to the mode of travel chosen than a VKT-based approach does. The updated TMP will also supplement the existing mode share targets based on the percentage of the total number of trips made by each mode with targets based on the percentage of total PKT made by each mode. The TMP, and other transportation planning initiatives, will integrate and support the achievement of the directions of the CEERP.

#### ***Priority Project 4: Integration of District Energy Systems***

A significant portion of energy use in Brampton goes towards the heating and cooling of homes and buildings. Some of this energy is lost through waste heat. District Energy Systems can provide a more efficient and flexible option for heating and cooling.

A district energy network is typically run as a thermal utility by a company that operates all the energy plants and networks, ensures high service quality, and manages the metering and billing of the heating and cooling services. The network allows for economies of scale, since the generation of heat in a few larger plants is more efficient than having thousands of boilers each heating their individual building. It also enables valuable energy currently

wasted in electricity generation, industrial, and other processes to be cheaply captured and delivered to other consumers. By aligning Energy Planning Districts with Brampton's Urban and Town Centres and growth plans, Energy Planning Districts were identified as candidates for district energy (see Appendix A).

#### ***Priority Project 5: Public and Private Sector Integrated Energy Master Plans***

Integrated Energy Master Plans are the equivalent of a CEERP, but developed at the site, portfolio, neighbourhood, or community scale. In addition to identifying opportunities to improve the energy efficiency of the built form, they also identify options for integrating local supply and distribution at a neighbourhood or community scale.

#### ***Priority Project 6: Development of a Community Organization***

It is recognized that to achieve the CERRP key objectives and actions must be completed that are outside the control, influence, or capacity of the municipality. As such, the achievement of these objectives, targets, and priority projects can be accelerated through the establishment of a Community Organization that will engage in and drive the required changes within the community.



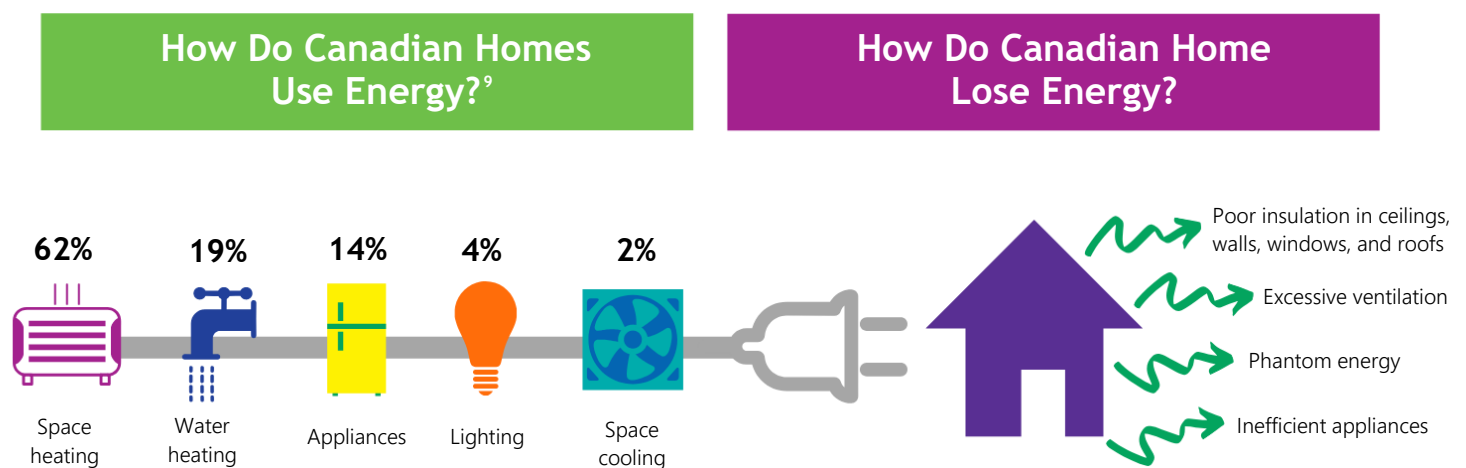
## Home Retrofits

The current energy efficiency retrofit market for home and building owners and contractors is not very successful. Historically, market uptake of retrofit programs has been low. From the perspective of the contractor, the effort to prepare customized proposals is high and the closing rate is low. Low volumes and the fact that every project is specific to each household means that material costs are expensive and performance guarantees are risky. From the home and building owners' perspective, obtaining understandable bids from various contractors is time consuming. They are responsible for finding their own sources of funding based on their individual credit rating. Finally, the low volumes result in retrofit costs that typically exceed the value of the energy saving, even over many years.

To address these challenges, the Community Task Force and the Project Working Team recommend that an entity be established to offer standardized energy retrofits to homes, commercial, and institutional buildings at high volumes. Contractors benefit from increased project predictability, improved margins, and vastly higher project volumes. Homeowners benefit from a simplified transaction, guaranteed pricing, lower cost pre-financed retrofits, and a simple billing and payment mechanism.

In addition, property-assessed financing has the distinct advantage of tying the efficiency investment to the property, mitigating the risk to home and building owners that their payback period is longer than the time they remain (or intend to remain) in the home or building.

To address the objective for water efficiency, a water efficiency package should be included in the standard energy retrofit package. While the initial program would focus on delivering retrofits to the residential sector, the program would be well positioned to offer retrofits to the non-residential sector in the future.





## 5.7 CEERP Actions

The following table contains identified actions for each strategic direction that need to be accomplished in order to help achieve the twenty-four objective and targets. This table will be revised and updated every five years.

Short Term = 1-2 years    Medium Term = 3-5 years    Long Term = 5-10 years    \* = Priority Project Action

| Accronyms                |     |                        |      |                           |      |
|--------------------------|-----|------------------------|------|---------------------------|------|
| City of Brampton         | COB | Community Organization | COMM | School Boards             | SB   |
| Region of Peel           | ROP | The Atmospheric Fund   | TAF  | Brampton Board of Trade   | BBOT |
| Development Industry     | DEV | Clean Air Council      | CAC  | Official Plan             | OP   |
| Sheridan College         | SH  | Ryerson University     | RY   | Algoma University         | AL   |
| Utilities                | UT  | Businesses/Industry    | BUS  | Partners in Project Green | PPG  |
| Conservation Authorities | CA  | Non-Profits/NGOs       | NP   | Community Task Force      | CTF  |

## Accelerating the Transition Internally

| #   | Action  | Lead | Partner(s)         | Timeline    |
|---|---|------|--------------------|-------------|
| Municipal Resources                       |   |      |                    |             |
| 1.1.1                                     | Assign CEERP implementation to a specific department/division/section that will administer responsibility for each municipal priority project and facilitate interdepartmental collaboration, funding, communication, education, and reporting on the City's performance. | COB  | -                  | Short-Term  |
| 1.1.2                                     | Identify staff resourcing gaps and allocate resources (e.g. staff and funding) to ensure that the CEERP municipal priority projects are completed.  | COB  | -                  | Short-Term  |
| Build Awareness and Move Projects Forward |   |      |                    |             |
| 1.2.1                                     | Assign department/division/section to act as an internal resource for CEERP education and outreach.   | COB  | -                  | Short-Term  |
| 1.2.2                                     | Establish a Community Organization to lead the development and implementation of select priority projects and champion the CEERP to Brampton residents, businesses, and stakeholders.*  | COB  | COMM, ROP, SH, CTF | Short-Term  |
| 1.2.3                                     | Develop a comprehensive communication strategy that highlights the benefits of implementing the CEERP, like economic or community resilience benefits.  | COB  | -                  | Short-Term  |
| 1.2.4                                     | Host an annual CEERP event in partnership with Brampton's Environment Advisory Committee to share and learn about best practices being implemented.   | COB  | -                  | Medium-Term |
| 1.2.5                                     | Develop an annual environmental recognition program for businesses, institutions, and citizens.   | COB  | -                  | Short-Term  |
| Establishing Performance Monitoring       |   |      |                    |             |
| 1.3.1                                     | Identify and assign responsibilities for monitoring of Corporate and Community CEERP targets, including data management and reporting.  | COB  | -                  | Short-Term  |



|   |  |     |      |             |
|---|--|-----|------|-------------|
| 1.3.1.1                                 | Identify corporate resources/expertise to collect data and monitor energy usage/emissions.   | COB | -    | Short-Term  |
| 1.3.1.2                                 | Establish protocols for data collection, analysis, and reporting for each CEERP priority project.  | COB | -    | Short-Term  |
| 1.3.3                                   | Provide a CEERP progress snapshot to Council biennially.   | COB | COMM | Medium-term |
| 1.3.4                                   | Provide a comprehensive CEERP Implementation Progress Report to Council every five years.  | COB | COMM | Medium-Term |
| 1.3.4.1                                 | Align CEERP reporting with the Environmental Master Plan reporting process.  | COB | -    | Short-Term  |
| 1.3.5                                   | Investigate opportunities to update the Council report templates to incorporate climate change/environmental implications of development applications.                                       | COB | DEV  | Short-Term  |
| Budgeting and Decision-making Framework |  |     |      |             |
| 1.4.1                                   | Allocate a portion of the City's Environmental Reserve Fund to implement the CEERP's recommended priority projects.  | COB | -    | Short-Term  |
| 1.4.2                                   | Incorporate CEERP framework into decision making process for all program and projects.   | COB | -    | Short-Term  |
| 1.4.3                                   | Ensure annual City budget report addresses how it contributes to achieving CEERP goals and targets.  | COB | -    | Short-Term  |
| 1.4.4                                   | Explore opportunities for disclosing clear, comparable, and consistent information within the City's annual financial reports about the opportunities and risks presented by climate change. | COB | -    | Medium-Term |
| 1.4.5                                   | Develop a strategy to secure external funding opportunities and partners to help supplement municipal resources for environmental initiatives.   | COB | -    | Short-Term  |
| 1.4.6                                   | Require all City strategies and master plans to align with the CEERP.*   | COB | -    | Ongoing     |
| Municipal Operations and Procurement    |  |     |      |             |
| 1.5.1                                   | Develop a Green Purchasing Strategy and by-law to require climate change considerations for procurement of goods and services.   | COB | -    | Short-Term  |
| 1.5.2                                   | Develop a Sustainable Fleet Strategy to lower emissions of municipal fleet.  | COB | -    | Short-term  |
| 1.5.3                                   | Develop operational procedures to minimize the emissions of City practices (e.g. anti-idling policy for Fleet users).  | COB | -    | Short-Term  |
| 1.5.4                                   | Establish a training program for the responsible use of equipment to minimize energy consumption and GHG emissions.  | COB | -    | Short-Term  |



## Green Communities

| #                | Action  | Lead | Partner(s)    | Timeline   |
|------------------|---|------|---------------|------------|
| Community Design |   |      |               |            |
| 2.1.1            | Design new communities to facilitate future distributed energy systems.   | COB  | DEV           | Ongoing    |
| 2.1.2            | Design new communities to achieve sustainable transportation targets as defined by the Transportation Master Plan.  | COB  | DEV           | Ongoing    |
| 2.1.3            | Design new communities to expand Brampton's tree canopy cover.  | COB  | DEV           | Ongoing    |
| 2.1.4            | Design new communities to improve building energy efficiency.   | DEV  | COB           | Ongoing    |
| 2.1.5            | Promote local employment opportunities in new communities, support retention of local employment in existing communities, and work to increase diversity of employment, especially in green economy sector.   | COB  | DEV           | Ongoing    |
| 2.1.6            | Design communities for higher density in appropriate locations.   | COB  | DEV           | Ongoing    |
| 2.1.7            | Partner with landowners and/or developers to create Integrated Energy Master Plans for Urban Centres, Town Centres, Corridors, and large infill opportunities.*   | COB  | DEV           | Ongoing    |
| 2.1.8            | Design new, infill, and intensification developments to support trips using sustainable modes of transportation.  | DEV  | COB           | Ongoing    |
| 2.1.9            | Ensure new neighbourhoods establish cycling and pedestrian networks to complement the Active Transportation Master Plan, and includes: <ul style="list-style-type: none"> <li>• strong connectivity;</li> <li>• an appropriate variety of route types;</li> <li>• separated bike paths; and</li> <li>• end-of-trip facilities for key commercial, institutional, and transit destinations.</li> </ul> | COB  | DEV           | Ongoing    |
| 2.1.10           | Develop and implement a strategy to require finer grain road and active transportation networks in large redevelopment areas.   | COB  | DEV           | Ongoing    |
| Policy           |   |      |               |            |
| 2.2.1            | Complete the Official Plan update to implement the Brampton 2040 Vision and the CEERP.*   | COB  | OP Consultant | Short-term |
| 2.2.1.1          | Update the Official Plan to include Transportation Demand Management requirements for new development.  | COB  | DEV           | Short-term |
| 2.2.1.2          | Update the Official Plan to require the establishment of Integrated Energy Master Plans for greenfield and larger redevelopment sites and other specific types of development (government buildings, other institutional, mid-rise and high rise, large commercial, warehouses, and industry).*   | COB  | DEV           | Short-term |
| 2.2.1.3          | Ensure City policies and programs are aligned with supporting district energy and low carbon energy systems.*   | COB  | DEV           | Short-term |



|         |  |     |     |             |
|---------|--|-----|-----|-------------|
| 2.2.1.4 | Build on existing policies and plans to direct residential and commercial growth to high growth areas/hubs to encourage the success of rapid transit infrastructure investment.  | COB | DEV | Short-term  |
| 2.2.1.5 | Update the Official Plan to encourage the planning, design and development of near-net zero buildings and neighbourhoods.  | COB | DEV | Short-term  |
| 2.2.1.6 | Update Official Plan, including Secondary Plan, policies to emphasize mixed use, higher density development in Urban Centres, Town Centres, Mobility Hubs, and along intensification corridors to support future district energy options.*     | COB | DEV | Short-term  |
| 2.2.1.7 | Require all new developments in Urban Centres to achieve a Sustainability Score within at least a Silver Threshold.  | COB | DEV | Short-term  |
| 2.2.2   | Establish an Activity Rate (ratio of jobs to population) target for the city.  | COB | -   | Short-term  |
| 2.2.3   | Explore the opportunity to establish an incentive program for development applications that undertake and implement Integrated Energy Master Planning.*  | COB | DEV | Short-term  |
| 2.2.4   | Develop district energy policies, guidelines, and technical requirements for Urban Centres, Town Centres, Mobility Hubs, and along intensification corridors (e.g. ensure home and buildings are district energy ready in high growth areas).* | COB | DEV | Short-term  |
| 2.2.5   | Plan the Heritage Heights Secondary Plan as a near net zero community.   | COB | DEV | Short-term  |
| 2.2.6   | Update the Sustainable Community Program: New Development (i.e. Development Design Guidelines, Sustainability Metrics) to align with the goals and targets of the CEERP.*  | COB | DEV | Short-term  |
| 2.2.7   | Update the complete submission requirements for development applications to align with the goals and targets of the CEERP.*  | COB | DEV | Medium-term |
| 2.2.8   | Identify opportunities to introduce new legislative, policy, and/or programs, including by-laws and incentive programs, to require implementation of climate resilience measures (e.g. green roof by-law) in new buildings.                    | COB | DEV | Medium-term |

## Transportation Efficiency

| #       | Action   | Lead | Partner(s) | Timeline    |
|---------|--|------|------------|-------------|
| Transit |  |      |            |             |
| 3.1.1   | Advocate to Provincial and Federal governments for service, infrastructure, and policy improvements to interregional transit services that serve Brampton (e.g. schedule improvements, fare integration, etc.).      | COB  | ROP        | Ongoing     |
| 3.1.2   | Implement network improvements and undertake planning to increase transit service within Brampton (e.g. new routes, increased headways, higher order transit, transit priority measures, advanced technology, etc.). | COB  | -          | Ongoing     |
| 3.1.3   | Prioritize transit as the preferred mode of travel in the City's Transportation Master Plan.   | COB  | -          | Medium-term |



|                            |  |     |             |             |
|----------------------------|--|-----|-------------|-------------|
| 3.1.4                      | Develop a Sustainable Fleet Strategy for Brampton Transit's revenue service vehicles (buses) based on the outcomes of 3.1.4.1.   | COB | -           | Short-term  |
| 3.1.4.1                    | Undertake a Network Electrification Feasibility Analysis for Brampton Transit's fleet (modelling both battery-electric and hydrogen fuel cell electric bus technologies).  | COB | -           | Short-term  |
| 3.1.5                      | Complete the Pan-Canadian Battery Electric Bus Demonstration & Integration Trial in partnership with Canadian Urban Transit Research & Innovation Consortium (CUTRIC).   | COB | CUTRIC, BUS | Medium-term |
| 3.1.6                      | Construct and electrify the new Third Transit Facility to support a zero tailpipe emission fleet from this new location.   | COB | -           | Medium-term |
| 3.1.7                      | Continue to promote car-sharing and facilitate discussions around the uptake of car sharing within the city.   | COB | ROP         | Ongoing     |
| 3.1.8                      | Embed transportation-related emissions and energy targets in the City's transportation and land use planning documents.  | COB | DEV         | Medium-term |
| 3.1.9                      | Launch a pilot project for electric vehicle shuttles between Light Rail Transit and large employment and/or residential areas.   | COB | -           | Long-term   |
| Sustainable Transportation |  |     |             |             |
| 3.2.1                      | Embed Multimodal Level of Service (LOS) analysis in all transportation studies, including identifying target service levels for each transportation mode in the location and context of specific areas and transportation projects.                    | COB | DEV         | Medium-term |
| 3.2.2                      | Foster the development of services or platforms that facilitate the seamless use of multiple modes; for example, an app that allows users to seamlessly plan, pay, and manage an entire trip across multi-modes and transportations service providers. | COB | -           | Long-term   |
| 3.2.3                      | Elevate the priority of sustainable transportation measures, such as active transportation, in the City's Transportation Master Plan.  | COB | -           | Medium-term |
| 3.2.4                      | Explore and/or support micro mobility initiatives (e.g. bike share, etc.).   | COB | -           | Medium-term |
| 3.2.5                      | Develop, support, and/or promote Transportation Demand Management initiatives (e.g. car pooling, teleworking) to reduce the number of trips made and/or increase trips made by sustainable modes of transportation.                                    | COB | ROP         | Medium-term |
| 3.2.6                      | Develop and incorporate Sustainable Transportation targets in the Transportation Master Plan.*   | COB | -           | Medium-term |
| 3.2.7                      | Investigate work from home program to examine reducing peak traffic time periods.  | COB | -           | Medium-term |
| 3.2.8                      | Investigate opportunities to offer staff City fleet vehicles for work related purposes to help reduce the need to drive work and encourage the use of transit and active transportation.   | COB | -           | Medium-term |
| 3.2.9                      | Examine free transit as per the Brampton 2040 Vision.  | COB | -           | Medium-term |
| 3.2.10                     | Explore and implement efforts to incorporate new technology in the transportation system.  | COB | -           | Medium-term |
| 3.2.11                     | Identify and implement strategies to reduce GHG emissions resulting from goods movement.   | ROP | COB         | Medium-term |



| Active Transportation |  |     |          |             |
|-----------------------|--|-----|----------|-------------|
| 3.3.1                 | Implement projects in the Active Transportation Master Plan to enhance/complete the Active Transportation network and support a walking and cycling culture.   | COB | ROP      | Ongoing     |
| 3.3.2                 | Encourage school-oriented programs to increase active transportation initiatives, such as Peel Safe and Active Routes to School (PSARTS) Committee, and the Peel Public Health (PPH) School Health Team and Active Living Team.                  | COB | ROP, SB  | Medium-term |
| 3.3.3                 | Improve safe cycling and walking access to schools and end-of-trip facilities for students and school staff, such as Peel Vision Zero initiative.  | COB | SB       | Medium-term |
| 3.3.4                 | Advocate to the Province to include active transportation infrastructure as standard practice for infrastructure projects, including an active transportation corridor as part of the Hwy 413/GTA West Corridor and within MTO bridge crossings. | COB | ROP      | Medium-term |
| 3.3.5                 | Improve integration of land use and transportation planning such that new development generates fewer or shorter trips.  | COB | -        | Short-term  |
| 3.3.6                 | Explore and support micro mobility initiatives (e.g. bike share, etc.).  | COB | -        | Medium-term |
| Zero Emissions Fleet  |  |     |          |             |
| 3.4.1                 | Explore opportunities through business licensing to promote sustainable/green fleets.  | COB | BBOT     | Medium-term |
| 3.4.2                 | Explore opportunities to provide incentives for low and zero emission vehicles (e.g. priority parking spots).  | COB | -        | Medium-term |
| 3.4.3                 | Increase the number of EV charging stations at municipal facilities.   | COB | -        | Ongoing     |
| 3.4.4                 | Update Zoning By-law to set a minimum number of EV charging stations at private facilities.  | COB | -        | Medium-term |
| 3.4.5                 | Provide incentives to encourage new construction to be EV-ready.   | COB | DEV      | Medium-term |
| 3.4.6                 | Advocate the Federal government for higher vehicle efficiency standards.   | COB | ROP      | Ongoing     |
| Complete Streets      |  |     |          |             |
| 3.5.1                 | Embed the Complete Street Guidelines in transportation planning, infrastructure planning, and urban design plans and processes.  | COB | ROP, DEV | Medium-term |
| 3.5.2                 | Incorporate complete streets design standards for all new and reconstructed arterial and collector roads unless demonstrated that it is not feasible to do so.   | COB | ROP      | Medium-term |
| 3.5.3                 | Implement recommendations identified in the Complete Streets Guidelines.   | COB | -        | Medium-term |
| Policy and Plans      |  |     |          |             |
| 3.6.1                 | Collaborate with Provincial, Regional, and municipal partners on sustainable transportation land use policy and infrastructure implementation initiatives.   | COB | ROP      | Ongoing     |



|         |   |     |     |             |
|---------|---|-----|-----|-------------|
| 3.6.2   | Update the Official Plan to require new development to be transit friendly by requiring applicant to submit Transit Feasibility Studies.  | COB | DEV | Short-term  |
| 3.6.3   | Increase local employment opportunities for residents and reduce outbound commuting.  | COB | DEV | Long-term   |
| 3.6.4   | Ensure City policies and programs support transportation efficiency and CEERP goals and targets.*   | COB | ROP | Medium-term |
| 3.6.4.1 | Update the Transportation Master Plan to align with the CEERP targets.*   | COB | -   | Medium-term |
| 3.6.4.2 | Update Transportation Master Plan to include Passenger Kilometres Travelled performance indices and targets.*   | COB | -   | Medium-term |
| 3.6.5   | Embed transportation-related direction from the Brampton Vision 2040 into the City's transportation and land use plans, such as priority of modes, providing travel choices, and ensuring safety. | COB | -   | Medium-term |
| 3.6.6   | Explore the feasibility of implementing a road pricing program alongside Regional and Provincial partners.  | COB | ROP | Medium-term |
| 3.6.7   | Advocate the Provincial government for high occupancy vehicle (HOV) lanes on all 400 series Highways.   | COB | ROP | Medium-term |
| 3.6.8   | Undertake a feasibility study for HOV lanes on regional and municipal roads.  | COB | ROP | Medium-term |
| 3.6.9   | Undertake, with Regional partners, a feasibility study of implementing a parking spot pricing program   | COB | ROP | Medium-term |
| 3.6.10  | Participate in the Region of Peel's Goods Movement Task Force and Smart Freight Centre program.   | COB | ROP | Short-term  |

## Home & Building Efficiency

| #               | Action  | Lead | Partner(s)              | Timeline    |
|-----------------|---|------|-------------------------|-------------|
| Home Efficiency |   |      |                         |             |
| 4.1.1           | Develop a Home Retrofit Program (HRP) to achieve deep energy efficiency savings.*   | COMM | COB, TAF, CAC, DEV      | Short-term  |
| 4.1.1.1         | Develop a targeted program based on energy mapping, community GHG emissions, age of community.  | COMM | COB, TAF, CAC           | Short-term  |
| 4.1.1.2         | Update energy and GHG emissions data on regular cycles (e.g. annually, every five years).   | COMM | COB, TAF, CAC           | Ongoing     |
| 4.1.1.3         | Investigate the establishment of a home energy efficient retrofit company to offer standardized energy efficient retrofits and other energy technologies (e.g. solar hot water) to homes and other buildings.   | COMM | COB, TAF, CAC, DEV, ROP | Short-term  |
| 4.1.1.4         | Investigate partnership opportunities (e.g. The Atmospheric Fund and Clean Air Council) to deliver comprehensive home retrofit program, including the use of property assessed financing (i.e. Local Improvement Charges), to assist homeowners with financing standardized energy and water retrofits. | COMM | COB, TAF, CAC, DEV      | Medium-term |



|                     |   |      |                         |             |
|---------------------|---|------|-------------------------|-------------|
| 4.1.1.5             | Explore a Home Retrofit Program focused on a Property Assessed Clean Energy (PACE) program approach.  | COMM | COB, TAF, CAC, DEV      | Short-term  |
| 4.1.1.6             | Investigate impacts of a Home Retrofit Program on the City's Building Permit review process.  | COMM | COB                     | Medium-term |
| 4.1.1.7             | Identify opportunities within SNAPS to implement community retrofit programs and/or related projects.   | COB  | DEV                     | Short-term  |
| 4.1.2               | Investigate multi-municipal collaboration on delivering a regional Home Retrofit Program.   | COMM | COB, ROP, TAF, CAC, DEV | Medium-term |
| 4.1.3               | Develop an energy efficient retrofit program/strategy for high-density residential buildings.   | COMM | COB, ROP, TAF, CAC, DEV | Medium-term |
| 4.1.4               | Develop an energy efficient retrofit program/strategy affordable housing buildings.   | COMM | COB, ROP, TAF, CAC, DEV | Medium-term |
| 4.1.5               | Encourage the Region of Peel to integrate water efficiency programs into the Home Retrofit Program.   | COMM | ROP                     | Medium-term |
| Building Efficiency |   |      |                         |             |
| 4.2.1               | Develop an energy efficient retrofit strategy/program for the Institution, Commercial, and Industrial (ICI) sector.   | COMM | COB, ROP, TAF, CAC, DEV | Medium-term |
| 4.2.2               | Develop minimum Energy Performance Targets for all new municipal buildings.   | COB  | COMM                    | Short-term  |
| 4.2.3               | Explore land-use tools and incentives to help property owners and managers undertake deep energy and GHG emissions retrofits of existing buildings.   | COB  | COMM                    | Medium-term |
| 4.2.3.1             | Investigate the use of business licenses to promote a business retrofit program for more energy intensive sectors (e.g. grocery stores, small industry, food services).   | COB  | COMM                    | Short-term  |
| 4.2.3.2             | Investigate the opportunity to provide density bonusing for energy efficiency in appropriate zones and for specific building types.   | COB  | COMM                    | Mid-term    |
| 4.2.4               | Investigate the opportunity to develop a Community Improvement Plan (CIP) to promote energy efficiency and GHG emissions reduction in buildings.  | COB  | COMM                    | Medium-term |
| 4.2.5               | Work with the development industry to continually improve energy performance of new construction.   | COB  | DEV, COMM               | Ongoing     |
| 4.2.6               | Complete a business case for establishing a new or adopting an existing Energy Performance Label program for homes and buildings.   | COB  | DEV, COMM               | Medium-term |
| 4.2.7               | Promote skilled training in retrofits in high schools and post-secondary institutions.  | COB  | SB, SH, RY, AL, COMM    | Medium-term |
| Policy              |   |      |                         |             |
| 4.3.1               | Ensure City policies and programs are aligned with supporting the objectives for Home and Building Efficiency.*<br><ul style="list-style-type: none"> <li>• Update Official Plan Policies</li> <li>• Update Design Guidelines and Sustainability Metrics</li> </ul> | COB  | COMM                    | Short-term  |



- Update Secondary Plan Policies

## 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 CEERP.*   | 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 the CEERP energy district mapping. * | 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.*   | 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.*  | COM  | COB, ROP, UT       | Short-term  |
| 5.2.4                     | Identify and pursue opportunities for combined heat and power (CHP) partnerships for district energy.*  | COB  | COMM               | Medium-term |
| Low Carbon Energy Sources |   |      |                    |             |
| 5.3.1                     | Investigate opportunities to streamline the Building Permit process for zero GHG emissions technologies, such as electric vehicle charging, heat pumps, solar panels, etc.  | COB  | COMM               | Medium-term |
| 5.3.2                     | Advocate for national and provincial Building Code amendments that require buildings of a certain size, location and use to be built compatible for future low carbon district energy connections and solar PV.*  | COMM | COB, ROP           | Medium-term |
| 5.3.3                     | Establish policies and plans to guide the City and private sector to transition to renewables to reduce the carbon intensity of buildings on low carbon district energy systems.*   | COB  | COMM, ROP          | Long-term   |
| 5.3.4                     | Develop a Waste Heat Strategy that identifies reliable sources and has a clear set of planning and design objectives to support district energy.*   | COMM | COB, ROP           | Medium-term |
| 5.3.5                     | Investigate municipal tools to facilitate uptake of rooftop solar hot water systems and solar photovoltaic installations.   | COB  | COMM, ROP          | Medium-term |



|        |   |      |          |             |
|--------|---|------|----------|-------------|
| 5.3.6  | Identify and designate potential large-scale solar photovoltaic installation locations, such as car parking structures, commercial rooftops, etc. | COMM | COB, ROP | Medium-term |
| Policy |   |      |          |             |
| 5.4.1  | Ensure City policies and programs are aligned with supporting the objectives for Local Energy Supply and Distribution.*                           | COB  | -        | Short-term  |
| 5.4.2  | Identify policies to support local power generation options, including off-grid and distributed grid options.*                                    | 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, PPG | 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 |

## Green Infrastructure

| #                    | Action  | Lead | Partner(s)       | Timeline    |
|----------------------|---|------|------------------|-------------|
| Green Infrastructure |   |      |                  |             |
| 7.1.1                | Implement the City’s One Million Trees Program.   | COB  | ROP, DEV, CA, NP | Ongoing     |
| 7.1.2                | Develop and implement an Urban Forest Management Plan.  | COB  | CA               | Short-term  |
| 7.1.3                | Investigate opportunities to encourage the use of green roofs and white roofs on large buildings.           | COB  | -                | Medium-term |
| 7.1.4                | Implement the City’s Natural Heritage Restoration Program.  | COB  | CA               | Ongoing     |
| 7.1.5                | Continue to collaborate on the restoration and expansion of Brampton’s natural heritage system.             | COB  | CA               | Ongoing     |
| 7.1.6                | Continue to expand the Community Garden Program.  | COB  | -                | Short-term  |
| 7.1.7                | Develop a mechanism to value green infrastructure assets and the benefits of these assets to the community. | COB  | CA               | Medium-term |



|         |   |     |         |         |
|---------|---|-----|---------|---------|
| 7.1.7.1 | Partner with the Credit Valley Conservation on the development of a business case for natural assets. | COB | CA, ROP | Ongoing |
|---------|---|-----|---------|---------|

## Communication, Engagement, and Monitoring

| #   | Action  | Lead | Partner(s) | Timeline    |
|---|---|------|------------|-------------|
| Communication, Engagement, and Monitoring |   |      |            |             |
| 8.1.1                                     | Develop a communication strategy to increase public awareness of energy planning and climate mitigation.              | COB  | COMM, ROP  | Short-term  |
| 8.1.2                                     | Develop an engagement strategy to raise the awareness of energy saving opportunities.                                 | COB  | COMM       | Medium-term |
| 8.1.3                                     | Pursue collaborations with community groups and other organizations to build awareness of the CEERP.                  | COMM | COB        | Ongoing     |
| 8.1.4                                     | Expand the mandate of the Grow Green Team to include CEERP implementation.  | COB  | COMM       | Short-term  |
| 8.1.5                                     | Create targeted outreach programs based on energy use in residential, commercial, and industrial sectors.             | COMM | COB        | Medium-term |
| 8.1.6                                     | Develop data collection and monitoring protocol for measuring and reporting on community and corporate GHG emissions. | COB  | COMM       | Short-term  |
| 8.1.7                                     | Coordinate the monitoring protocol with the monitoring and reporting for the Environmental Master Plan.               | COB  | COMM       | Short-term  |
| 8.1.8                                     | Commence the update of the CEERP every 5 years.   | COB  | COMM       | Long-term   |
| 8.1.9                                     | Explore a rewards based program to encourage individual and business behavioral changes.                              | COB  | COMM       | Medium-term |



## 5.8 Roles: Working Together

The success of the CEERP depends on the combined efforts of the municipality, local utilities, industry, businesses, residents, and community stakeholders.

Consequently, a wide variety of local stakeholders were engaged in its development to:

- earn community buy-in for the vision and goals;
- grow the capacity of the community to implement the plan; and
- motivate the public and community stakeholders to act.

Guided by an extensive Engagement Plan (see CEERP Engagement Plan, 2019), various channels were developed to engage the appropriate stakeholders and community-at-large in the development of the CEERP.

The sub-section below provides an overview of the roles of different community sectors and stakeholders. Further discussion and details can be found under each Strategic Direction of the CEERP (see Section 5.4) as well as in the Action Plan Table (see Section 5.7).

### 5.8.1 What is the City of Brampton's Role?

While implementation is a community-wide effort, the City of Brampton is a key stakeholder and has five essential roles, which include community facilitation, municipal policy alignment, economic development, corporate leadership, and education.

#### *Community facilitator*

The City of Brampton is able to organize stakeholders to establish a vision and goals for its community. An important success factor in the implementation of broad, system-wide change is municipal endorsement and support of the vision and goals. The initiation and completion of the CEERP is a demonstration of this role.

#### *Municipal policy alignment*

The City of Brampton approves policies and by-laws that guide the growth and development of the community, including housing and transportation systems.

Consequently, the City has an important role in ensuring its policies and by-laws are aligned with the vision and goals of the Plan. By doing so, the City can establish a policy framework that supports and activates local stakeholders and product and service providers in the transitioning energy market.

#### *Economic development*

The City of Brampton, through their Economic Development department and partners, can play a key role in retaining and supporting existing businesses and attracting new businesses through the value-added opportunities identified by the Plan. An excellent example was the City of Brampton facilitating two Nordic Urban Labs to identify investment opportunities in Bramalea and Uptown during the development of the CEERP.

#### *Corporate leadership and role model*

The City has an important role in demonstrating corporate leadership in the community. The City can update its own internal policies and processes and apply standards in its capital projects and municipal operations (i.e. facilities, fleet, and transit) that reflect the CEERP objectives. The City of Brampton's Corporate Energy and Emissions Management Plan (2019 – 2024): A Zero Carbon Transition is an example of the commitment to the minimizing of energy use and emissions in existing and new facilities.

#### *Education*

The City of Brampton has many opportunities to engage with residents and business owners to promote the benefits of community energy planning and raise energy literacy. The City is in a position to be a reliable and trusted source of information and guidance during this energy transition and to communicate expectations and community benefits resulting from the CEERP, particularly its Priority Projects.



### 5.8.2 What is the Role of the Region of Peel?

The City of Brampton is a lower-tier municipality located in the Regional (upper-tier) Municipality of Peel. The Region of Peel works with residents and partners to create a healthy, safe and connected community for more than 1.5 million people and 175,000 businesses in the Cities of Brampton and Mississauga and the Town of Caledon. The Region provides daily and vital services, including water supply, wastewater and waste management, Regional roads and transportation, affordable housing support, long term care, and public health (chronic and infectious disease prevention), as well as Regional land use planning and growth management.

The Region of Peel provides a wide range of programs and services to those living and working in Peel, on the basis of cooperation with the local municipalities. The Region can lead and support, where appropriate, the identified actions that are in alignment with the Region's established long-term strategic framework and policies, which provides the foundation and basis for the delivery of Regional programs and services.

The Region of Peel, in solidarity with its local municipalities, declared a climate emergency in October 2019. At the same time, Regional Council approved its Climate Change Master Plan (CCMP) that has a corporate GHG reduction target of 45% below 2010 levels by 2030. Similar to Brampton's municipal operations, the Region's corporate emissions are a small percentage of community emissions, making "leading by example" a consistent theme of the two levels of government. To help strengthen the Region's position and support for community energy planning, the CCMP includes actions such as "enable alignment of Regional actions with transition towards diversified and decentralized energy systems".

With the seven strategic directions of the CEERP, there is clear alignment with Regional services and priorities, for example:

- Green Communities align with the Region's Official Plan policy amendments and growth management planning that will look to incorporate district energy planning and climate change considerations as part of achieving complete communities.

- Home and Building Efficiency relates to the state of good repair and building improvements that target energy efficiency and GHG reductions for Regionally-owned affordable housing complexes and other Regional facilities.
- Local Energy Supply and Distribution as an enabling action in the Region's Climate Change Master Plan and emerging direction in Region's Official Plan policy.
- Transportation Efficiency corresponds with the Region's Sustainable Transportation Strategy and opportunities with the Region's Goods Movement Task Force.
- Green Infrastructure relates to the direction in the Climate Change Master Plan to protect and increase green infrastructure throughout Peel, which includes implementing green infrastructure elements contained in the Region's future Stormwater Servicing Master Plan for Regional road infrastructure. It also supports the Region's investment in developing best practice urban forestry guidelines through the Peel Climate Change Partnership.

The Region's Office of Climate Change and Energy Management (OCCCEM) builds upon climate change and energy management initiatives happening across Peel and integrates that work towards achieving climate change outcomes.

Working with Regional departments and community partners, OCCCEM is:

- developing solutions to reduce GHG emissions;
- setting actions in place that will prepare Peel for changes in our weather and seasons;
- ensuring that the Region of Peel is positioned to respond to climate change; and
- ensuring climate change and energy management measures are effectively integrated and implemented into policy design and decision-making.

The installation of Electric Vehicle charging stations is just one way that the Region has taken action on climate change by reducing GHG emissions and helping build a greener, healthier, low-carbon community. There are



currently 43 EV charging stations across 11 Regional sites with two locations offering public charging during the daytime.

Ongoing consultation with the Region of Peel will continue to further define roles, service outcome alignment, and identify opportunities for collaboration with the City of Brampton as the CEERP moves into implementation phase.

### 5.8.3 What is the Role of Utilities?

Brampton's utilities play an integral role in the successful implementation of the CEERP and its near and mid-term Priority Projects. In Brampton, there are currently two energy utilities. Enbridge provides natural gas heating and Alectra provides electricity to Brampton homes and businesses.

Utilities provide energy conservation programs to better manage customers' energy consumption, and consequently, their carbon emissions. Their residential, municipal, institutional, commercial, and industrial customers benefit from advice on efficient and cost-effective energy use, incentives to help cover energy project costs, and enabling programs that promote lasting behaviour changes that lead to a culture of conservation and environmental sustainability.

Since 1995, energy efficiency and conservation programs from Enbridge Gas have saved their customers about 20 billion cubic metres of natural gas and reduced CO<sub>2</sub> emissions by about 40 million tonnes, lowering energy costs at the same time.

Collaborative utility and municipal-led energy efficiency programs have made significant contributions towards the advancement of municipal (and higher-level government) policy goals and energy efficiency and GHG reduction targets.

In relation to the Priority Projects, Enbridge's Home Retrofit Program promotes deep energy retrofits through a multitude of channels, such as HVAC contractors, residential energy auditors, and other product and service providers. Leveraging this program as a foundation for Brampton's Home and Building Efficiency Strategy will minimize

program duplication, optimize resources/program networks and process efficiencies, create new funding opportunities for customers, and gain higher participation and engagement from the community. Similarly, experiences with implementing their energy management program for small to very large industrial customers can be valuable in establishing the community of practice as part of the Industrial Efficiency project.

Alectra is also a key player as it distributes locally generated electricity. As an innovation hub for green technology solutions, their Green Energy and Technology Centre identifies, evaluates, develops, and accelerates emerging and clean energy solutions. Through grid innovation, Alectra will leverage grid modernization technologies to enable a more sustainable grid.

In 2015, Alectra launched a residential solar storage pilot, POWER.HOUSE. This is a fully integrated, digitally controlled solution that is providing key insights about the potential to deploy residential solar at scale, as well as determining consumers' readiness to take an active role in managing their homes' energy efficiency. The pilot evaluates the economic and grid benefits of residential solar storage for consumers and Ontario's electricity system.

Alectra's POWER.HOUSE Hybrid pilot shifts energy generation from large centralized GHG emission-intensive sources to decentralized, clean generation using solar panels, in-home EV charging stations, battery storage, dispatchable hybrid heating (dual fuels, gas and electric), and combined heat and power (CHP).

Alectra has demonstrated further energy innovation through its Alectra Drive for the Workplace program. The goal of Alectra Drive for the Workplace is to demonstrate the value of a smart EV charging system that manages the flow of electricity needed to serve the building and EV charging stations. This ensures that electricity costs are minimized while EV drivers have an easy and accessible charging solution. This program aims to encourage the adoption of EV technology while helping businesses to manage their energy costs.



Collaboration between Brampton and its utilities to develop well-designed programs is crucial to achieving CEERP's goals.

#### 5.8.4 What is the Development Industry Role?

Since Brampton's largest users of energy are transportation and residential uses, with the transportation sector representing 35% of source energy use and the residential sector representing 26% of source energy use, the design and construction of our communities and homes is an important aspect of reducing energy use and emissions.

Through responsible planning and management of environmental resources, the development industry can be a key driver in building green communities. They can plan for communities that strive for responsible construction and promote sustainable living, including elements such as green development standards (e.g. LEED, PassiveHouse), energy efficient community design, mixed uses, trails to promote active transportation, natural heritage conservation, urban infill projects, green rooftops, and alternative energy systems.

#### *Building Industry and Land Development Association*

The Building Industry and Land Development Association (BILD) is a leading voice of the home building, land development, and professional renovation industry in the Greater Toronto Area. BILD has more than 1,500 member companies from all corners of the industry. In addition to home builders, land developers, and professional RenoMark™ renovators, BILD members include financial and professional service organizations, trade contractors, and manufacturers and suppliers of all types of home-oriented products.

BILD's mission is to enhance the health, vitality and reputation of the home building, residential and non-residential land development, and professional renovation industry. It encourages innovations and excellence in the planning and building of sustainable communities and in the redevelopment and renovation of existing communities.





### 5.8.5 What is the Role of Business?

For a variety of reasons (consumer interest, high and volatile energy prices, and brand image/public relations) many businesses have taken actions to reduce their energy consumption and GHG emissions. Companies can reduce embedded emissions of their products by working with their suppliers to help reduce GHG emissions in the product's manufacturing, support and adopt circular economy business models, and lower emissions from transportation and logistics. Companies can also offer reusable or low emission products and services to customers and educate consumers through product labelling and tips that customers can take to reduce their carbon footprints.

### 5.8.6 What is the Role of Industry?

Industry contributes directly and indirectly (through consumption of electricity) to Brampton's GHG emissions. However, industries are continuously improving their energy efficiency through their corporate energy management standards. Companies of all sizes use energy audits to identify opportunities for reducing energy use. Companies can use benchmarking programs developed through trade associations to compare their operations with others, to the industry average, or to best practice, in order to improve energy efficiency. When industries improve energy efficiency, they are saving money as well as emissions.

Industries may consider energy recovery techniques such as heat, power, and fuel recovery. They can re-use the discarded heat in other processes on-site, or it can be used by other nearby industries in their processes. Cogeneration involves using energy losses in power production to generate heat and/or cold for industrial processes and district heating, which provides higher system efficiencies. Co-siting of industries can achieve GHG mitigation by integrating energy systems and allowing the use of byproducts as useful energy. Industries may also consider the use of new technologies which increases competitiveness while reducing GHG emissions and improving energy efficiency.

The City of Brampton can assist industries that are exploring opportunities to reduce their energy use and emissions by providing additional assistance when navigating the

planning process in order to achieve their energy and emissions reduction targets. The City can also advocate to other levels of government and promote joint outreach opportunities with other agencies to advise on the resources available to support them.

### 5.8.7 What is the Role of Institutions and Non-Profits?

Institutions and non-profit organizations within the GTA offer partnership opportunities and vital information to assist Brampton in achieving its CEERP objectives and targets. Below is just a snapshot of some of the leading institutions and non-profits working in the energy sector.

#### *Sheridan College*

Sheridan College is a primary partner in the development of the CEERP by providing funding and staff resources towards the completion of the plan. Sheridan will play an important role in assisting the City and the community in implementing many of the CEERP actions.

Founded in 1967, Sheridan has grown from a local college of 400 students to one of Ontario's leading postsecondary institutions, educating approximately 24,500 full-time and 18,500 continuing and part-time studies students every year on three campuses – Oakville, Brampton, and Mississauga. As an academic institution, employer, investor, and community partner, Sheridan strives to become the institutional model for how a 21st century organization embraces sustainability. It also aims to foster an institutional culture defined by informed and responsible decision making that reflects the crucial balance between economic, social, and environmental priorities, and has built its leadership and reputation by using their campuses as 'living laboratories' for sustainability transition, curricular innovation, and interdisciplinary teaching and learning.

The Davis Campus in Brampton is Sheridan's largest campus, home to more than 12,000 students. This campus is home to the applied health, community services, and engineering and technology programs. In 2017, Davis officially opened its new Skilled Trades Centre. That same year Sheridan completed its Energy Centre that showcases modern systems for the simultaneous production of thermal and electrical energy, and will also be used as an



educational tool for engineering technology programs, as well as a training facility for the numerous trades programs.

In 2016, Sheridan received federal and provincial funding to build on its established district energy expertise and infrastructure by reaching beyond its campus boundaries to collaborate with municipal and public partners in Brampton and Oakville. The goal of the project is to extend Sheridan's networks into community district energy nodes, establish appropriate governance, and validate a replicable and scalable model for academic-municipal collaboration on district energy.

### *Clean Air Council*

The Clean Air Council (CAC) is a network of over 30 municipalities and health units from across Ontario. Since 2000, CAC members have been working collaboratively on the development and implementation of clean air, sustainability, and resilience actions. The Clean Air Council is based on the premise that municipalities benefit from actions that reduce energy use, reduce emissions, make the movement of people and goods more efficient, and make communities more livable, competitive, and resilient.

CAC recently launched a new program called Collaboration on Home Energy Efficiency Retrofits in Ontario. The overall goal of this project is to collaboratively design a high-quality, multi-municipality pilot that will: a) assess the effectiveness of the Local Improvement Charge (LIC) financing powers in accelerating deep residential energy retrofits and b) provide insights and guidance regarding full-scale implementation. The priority focus will be on the residential sector in Ontario, both single-family and multi-unit.

### *The Atmospheric Fund*

The Atmospheric Fund (TAF) is a regional climate agency that invests in low-carbon solutions for the Greater Toronto and Hamilton Area and helps scale them up for broad implementation. TAF is experienced in collaborating with stakeholders in the private, public, and non-profit sectors who have ideas and opportunities for reducing carbon emissions. It advances the most promising concepts by investing, providing grants, influencing policies, and running programs. TAF is primarily focused on programs/projects that offer benefits beyond carbon reduction such as improving people's health, creating new green jobs, boosting urban resiliency, and contributing to a fair society.

### *Partners in Project Green*

The development of Partners in Project Green (PPG) was the culmination of more than a decade of partnership between the Greater Toronto Airports Authority (GTAA) and Toronto and Region Conservation Authority (TRCA). In 2008, after extensive consultation with businesses and various levels of government, Partners in Project Green: A Pearson Eco-Business Zone was officially launched with the goal of creating a Pearson Eco-Business Zone known for its competitive, high-performance, and eco-friendly business climate.

PPG is committed to helping businesses turn sustainable practices into bottom-line success. It brings like-minded organizations together to talk about sustainability issues, share creative ideas and success stories, and collaborate on green business initiatives. PPG's unique peer-to-peer learning and collaboration opportunities help businesses to achieve breakthrough results in energy performance, waste management, water stewardship, and stakeholder engagement.

### **5.8.8 What is the Role of Citizens?**

The CEERP requires buy-in from citizens since many of the changes to achieve energy efficiency and GHG emission reductions will need to be championed and implemented by residents. Through the 2040 Vision engagement process, Bramptonians expressed their support for the environment. Vision 1: Sustainability and the Environment states that in 2040, "Brampton will be a mosaic of sustainable urban places, sitting within an interconnected green park network, with its people as environmental stewards – targeting 'one-planet' living."

Achieving the CEERP targets and the Vision's "one-planet" living will require all Brampton residents to make behavioural changes to their everyday lives, including walking instead of driving to the corner store, carpooling, taking transit to work, or buying "green" products. It will also require larger decisions such as to purchase energy efficient appliances, undertaking home energy retrofits, and investing in an electric vehicle. Finally, it means getting more involved in the community, by planting trees, organizing a green event, and supporting the actions of leaders who strive to address climate change.



### 5.8.8 What is the Role of the Community Organization?

One of the CEERP's priority projects involves the establishment of a Community Organization to lead the development and implementation of select priority projects. As noted above, a number of CEERP objectives, targets, and priority projects will be achieved through actions taken by the City of Brampton, Region of Peel, utilities, business, developers, and residents. However, there is a gap in the capacity within the city to achieve some objectives, targets and priority projects. This includes the following priority projects:

1. Establish a system to deliver standardized retrofits to Brampton homeowners.
2. Develop Integrated Energy Master Plans for public facilities and private development.
3. Integrate District Energy Systems in appropriate locations within Brampton

The need for this type of Community Organization was first described in the Brampton 2040 Vision as the "Institute for Sustainable Brampton" (i.e. ISB).<sup>10</sup> The Vision described an entity intended to mobilize a massive, community-wide effort to shift the trajectory of the whole city by marshalling financial and social capital to secure the practical capacity for sustainability.

Recognizing the importance of the CEERP and the gaps in implementing some of the priority projects, a framework for a Community Organization based on the initial ISB vision was formed around energy and emissions action. This Community Organization, now renamed by the Community Taskforce as the Centre for Community Energy Transformation (CCET), will be an action oriented arms-length organization focused on creating a sustainable energy future with a mission to lead an inclusive suburban energy transformation.

The Community Organization will make it easier to develop those good ideas and one-off pilots that often get stuck, allowing them to be implemented more broadly and scaled up more quickly. For example, funding might support training for trades development in order to implement building retrofits.

The role of the Community Organization in implementing the CEERP is outlined on the following page.

Additional details and the framework of the Community Organization are provided in the City of Brampton's CCET report: Establishing a Centre for Community Energy Transformation: Report with Recommendations, 2020.





## Role of the Community Organization in Implementing the CEERP

- |   |   |
|---|---|
| Program Planning and Delivery           | <ul style="list-style-type: none"><li>• Plan, coordinate, and deliver select 2020-2025 priority projects with partners</li><li>• Specific projects are included in the Action Plan (attached to the CEERP), and include projects related to:<ul style="list-style-type: none"><li>○ Home efficiency</li><li>○ Building efficiency</li><li>○ District energy</li><li>○ Low carbon energy sources</li><li>○ Industrial efficiency</li><li>○ Community outreach</li><li>○ Ensure program governance, funding, and resources align with the strategic objectives and priority projects</li><li>○ Provide strategic oversight and technical advisory services for project delivery</li><li>○ Access global knowledge base and subject matter experts</li></ul></li></ul> |
| Community Engagement and Communications | <ul style="list-style-type: none"><li>• Build a network of cross-sector stakeholders and partners</li><li>• Provide direction as well as strategic, promotional, and funding support to delivery partners</li><li>• Secure funding opportunities from the private and public sector</li><li>• Communicate and engage regularly with stakeholders, the public, and funding partners</li><li>• Develop a brand and virtual presence</li></ul>   |
| Transparency and Accountability         | <ul style="list-style-type: none"><li>• Identify key performance metrics related to management and administration of priority projects</li><li>• Validate business cases and verify results</li><li>• Link and coordinate priority projects to identify resource efficiencies and accelerate implementation where possible</li><li>• Report on progress to the public, investors, and funders</li></ul>   |
| Management                              | <ul style="list-style-type: none"><li>• Anticipate and plan for future resourcing on an as-needed basis</li><li>• Write and partner to submit grant applications</li><li>• Develop a budget and medium to long-term revenue model</li></ul>   |



## 5.9 Getting There

### 5.9.1 Accelerating the Transition

The City of Brampton has been doing well with its actions as a corporation and now needs to accelerate the urban and energy transition envisioned in the Brampton 2040 Vision and the CEERP. To do so, the City needs to take certain actions (as identified in the above Action Plan) to prepare itself for the acceleration needed to achieve the goals of the CEERP.

These corporate actions will focus on five areas:

#### ***1. Municipal resources (define and assign municipal resources)***

Successful implementation of the CEERP requires a city champion, resources, and support from staff and leadership.

The CEERP must be embedded in the organizational configuration and composition of City departments and their associated divisions. A City department is typically responsible for specific goals, responsibilities, and tasks relevant to its departmental mandate/function. The way the CEERP is positioned within the City structure will influence collaboration between departments, promote corporate awareness of environmental/energy initiatives and performance, and enhance public messaging about the priority of environmental and energy sustainability within the City.

It is recommended in the CEERP Action Plan that the City take the following actions to help the CEERP succeed in the long term:

- assign CEERP implementation to a specific department/division/section that will administer responsibility for each municipal priority project and facilitate interdepartmental collaboration, funding, communication, education, and reporting on the City's performance.
- identify staff resourcing gaps and allocate resources (e.g. staff and funding) to ensure that the CEERP municipal priority projects are completed.

#### ***2. Build Awareness and Move Projects Forward (build awareness and move projects forward within and beyond the Corporation)***

Communication of CEERP goals, principles, and priority projects within the Corporation and to the community will be an important element of the CEERP's success.

Internal and external education must focus on engaging stakeholders and building support to undertake the CEERP's priority projects. The public and City staff must understand what they are expected to do, what supports are in place to assist them, and what benefits are expected from their actions.

It is recommended in the CEERP Action Plan that the City take the following actions to expand awareness and initiate action amongst its departments and staff and the community at large about the CEERP:

- assign department/division/section to act as an internal resource for CEERP education and outreach;
- establish a Community Organization to lead the development and implementation of select priority projects and champion the CEERP to Brampton residents, businesses, and stakeholders;
- develop a comprehensive communication strategy that highlights the benefits of implementing the CEERP, like economic or community resilience benefits;
- host an annual CEERP event in partnership with Brampton's Environment Advisory Committee to share and learn about best practices being implemented; and
- develop an annual environmental recognition program for businesses, institutions, and citizens.



### ***3. Performance Monitoring (establish data collection and performance monitoring methods)***

Ongoing data collection, monitoring, and refinement of the priority projects over time is required to ensure effectiveness and to gauge the impact of the CEERP. Quantitative tracking of Baseline data will demonstrate whether the city is making progress towards its 2041 targets and provide evidence to support additional initiatives.

It is recommended in the CEERP Action Plan that City take the following actions to establish the basis for successful long-term monitoring of progress:

- identify and assign responsibilities for monitoring of Corporate and Community CEERP targets, including data management and reporting;
- identify if there are corporate resources/ expertise to collect data and monitor energy usage/emissions;
- establish protocols for data collection, analysis, and reporting for each CEERP priority project;
- provide a CEERP progress snapshot to Council biennially;
- provide a comprehensive CEERP implementation progress report to Council every five years;
- align CEERP reporting with the Environmental Master Plan reporting process; and
- investigate opportunities to update the Council report template to incorporate climate change/environmental implications of development applications.

### ***4. Budgeting and Decision-making Framework (detail a budgeting and decision-making framework)***

How Brampton budgets for and makes decisions about energy performance and emissions reduction initiatives and programs is fundamental to the implementation of the CEERP. Successful implementation of the CEERP will require a commitment of capital, staff, and institutional resources. The decision-making framework of each City department needs to closely consider the CEERP, as well as the cost of its action and inactions. The CEERP will also open up access to external funding resources such as provincial and federal funding programs, staff internships, and partnerships.

It is recommended in the CEERP Action Plan that the City take the following actions in order to provide support to the CEERP to assist with its long-term success:

- allocate a portion of the City's Environmental Reserve Fund to implement the CEERP's recommended priority projects;
- incorporate CEERP framework into the decision making process for all programs and projects.
- ensure annual City Budget report addresses how it contributes to achieving CEERP goals and targets;
- develop a strategy to secure external funding opportunities and partners to help supplement municipal resources for environmental initiatives; and
- require all City strategies and master plans to align with the CEERP.



## **5. Municipal Operations and Procurement (manage municipal operations and procurement standards)**

The City of Brampton's corporate operations (e.g. facilities, fleet, and transit) contributes a small portion of Brampton's community energy use, approximately 2%. Nevertheless, the City has an important role to demonstrate leadership in the community.

In regards to its facilities, the City of Brampton has a Corporate Energy and Emissions Management Plan (2019 – 2024): A Zero Carbon Transition. This is an example of the City's commitment to reducing its energy use and emissions as it aims to achieve a zero-carbon transition for new and existing corporate facilities. It focuses on minimizing emissions and energy intensity, while maximizing cost recovery within its facilities construction, management, and operations. Through the Corporate Energy and Emissions Management Plan, the City will continue to work to reduce its own emissions and increase its energy efficiency as well as lead by example to help ease the community through the necessary energy transformation.

The City fleet is an important component of the services the City provides to the local community. The majority of vehicles in the fleet and many types of equipment (e.g. lawn mowers, leaf blowers) within the fleet currently rely on gasoline or diesel as its main source of energy. There is opportunity to improve emissions and energy use within the fleet. Internal actions recommended in the CEERP Action Plan include:

- develop a Green Purchasing Strategy and by-law to require climate change considerations;
- update the Fleet Strategy to reflect CEERP targets;
- develop operational procedures to minimize climate change, i.e. anti-idling bylaw for fleet; and
- develop a training program in the best practices and use of equipment that minimizes energy use and GHG emissions.

Transit services currently operates over 400 buses, including 120 diesel-electric hybrid Züm rapid transit buses.

Brampton's transit is still predominately fueled by diesel, however, in 2019 the City of Brampton launched its electric bus pilot project that will include eight electric busses and four high-powered overhead on route charging stations. CEERP's Transportation Efficiency targets emphasizes the importance of transitioning towards an electric transit system, as the combined measures of increasing transit use and the electrification of the transit system can make significant headway towards reducing Brampton Transit emissions and meeting the CEERP goals. It is recommended that the City work towards transitioning to a fully electric transit system, starting with updating the Transportation Master Plan to include a pathway to achieve this.

In addition to increasing the energy efficiency and reducing the GHG emission of facilities, fleet, and transit, the City will need to apply the CEERP goals and objectives to its policies and plans. The CEERP supports and builds on the intent of many other strategic City plans and studies. Other City plans, in their updates or in their implementation, will need to reference the CEERP, particularly recognizing 2041 targets and priority projects. Cross-referencing and supporting the CEERP through the implementation of other plans will ensure that the targets and priority projects of the CEERP are entrenched in the City's decision and policy-making across its departments.



## 5.10 Monitoring and Evaluating to 2025

Individual and independent action on climate change has been and will continue to be important. However, a primary message of the CEERP is that the scale of action required to address the climate emergency requires coordinated and combined effort by the entire city.

To ensure that the CEERP does not “sit on a shelf” and implementation of the 2020-2025 priority projects are achieved and sustained, it is necessary to dedicate resources to oversee, coordinate, and report on overall progress. These resources range from political, regional, municipal, and community stakeholders to individuals. As well, there is a need for monitoring, measuring processes, providing regular updates, and implementation tools.

### 5.10.1 Staff Time

The majority of priority projects outlined in this plan will require staff time to implement. This time could be spent implementing the action, overseeing its implementation by another group, or working in partnership with other organizations to complete the project. Each action has been assigned a Lead at the City, the Region or within the community that will be responsible for its implementation. Additional staff resources may be required for items that cannot be integrated into annual work plans.

### 5.10.2 Monitoring and Measuring Progress

The City is committed to tangible results. It will monitor progress towards its 2041 objectives and targets by integrating the CEERP reporting process with that of the Environmental Master Plan to share the status of performance at regular intervals, including:

- an update of progress towards targets, with direct reference to priority projects;
- sharing success stories;
- sharing areas for improvement or future study; and
- reporting on collaboration/partnerships.

To measure Brampton’s progress over time, the City has developed a set of objectives, targets, and priority projects for each of the strategic directions:

- Green Communities
- Transportation Efficiency
- Home and Building Efficiency
- Local Energy Supply & Distribution
- Industrial Efficiency
- Green Infrastructure
- Communications, Engagement, and Monitoring





### 5.9.3 Updates

The City will review/update the CEERP every five years to:

- demonstrate achievement/progress towards the objectives and targets and revise as appropriate;
- integrate new climate science and risks;
- include ideas and work from partners and the community; and
- align with other important policy and guidance documents at the City, including:
  - Official Plan,
  - Term of Council Priorities, and
  - Other Master Plans.

### 5.9.4 Implementation

According to the National Report on Community Energy Plan Implementation<sup>11</sup>, the majority of communities with a Community Energy Plan are successfully implementing planning and policy measures (e.g. land-use policies such as an infill strategy, complete streets policies, design standards). Communities have less success implementing local financial incentives, renewable energy, district energy, and combined heat and power projects. The CCET (i.e. Community Organization) will play an important role in delivering these projects.

The study found other success factors that support the implementation of plans include:

- a champion or support from staff and leadership;
- close alignment with other planning documents; and
- plans that highlight co-benefits of actions (i.e. economic benefits, community resilience).

In moving forward, the City, the Community Organization, and other partners will ensure each department, utility, industry, business, resident, and community stakeholder clearly understand its responsibility for data collection and how that data should be organized and maintained for monitoring purposes to be used for annual and long-term reporting.

In reporting on energy and emissions reduction performance and progress, the City will ensure that the information provided is easily understood and relates to tangible outcomes. Where appropriate, the data will be stated in absolutes and will be extrapolated to reference information as percentages of the total population to ensure it remains relevant as the city grows.



## 5.11 Conclusion

In 2014, the Brampton Grow Green Environmental Master Plan set the stage for a more healthy, resilient and environmentally sustainable Brampton.

While much remains to be accomplished, progress has been made in implementing Brampton Grow Green, moving us closer to achieving our ambitious targets. With this CEERP, Brampton is much closer to achieving our Grow Green vision of “a community that will conserve, enhance and balance our natural and built environments to create a healthy, sustainable city. We will carry out our responsibilities to meet the needs of the present community without compromising the ability of future generations to meet their own needs.”

The City of Brampton has a lot to be proud of, including:

- In June 2019, City Council declared a climate emergency and a GHG emission reduction target of 80% by 2050.
- In partnership with Sheridan College, the City developed this Community Energy and Emissions Reduction Plan.
- The City is also working in partnership with Sheridan College and the Region of Peel to define and establish a Community Organization, the Centre for Community Energy Transformation (CCET), based on the Institute for Sustainable Brampton (ISB) recommended by the Brampton 2040 Vision.
- In November 2019, the City signed the declaration to join the Global Covenant of Mayors for Climate and Energy.
- In January 2020, Brampton Eco Park Strategy was approved, which will implement a green framework by better integrating and enhancing natural heritage spaces into our community.
- In February 2020, the Brampton One Million Trees Program was approved, which will enhance the urban forest through a robust tree planting strategy.

As Brampton moves forward with achieving the economic, emissions, and energy saving goals of the CEERP, we also need to look beyond our targets and work towards climate neutrality. By adopting the CEERP, Brampton will be joining the ranks of the global community of cities taking a leadership role in the fight against climate change. We can set an example as to what a successful, growing, suburban city looks like for others to follow.

The CEERP provides a more sustainable, urban, and vibrant future for our city, aligned with nature and “one planet” living. Our diverse community is energized and ready to take action towards energy and emissions reduction. We believe in the power of connections, and our partnerships will allow us to work towards our vision of an energy future that is clean, sustainable, resilient, and supports the Brampton 2040 Vision.

At the time of writing this report, the Covid-19 pandemic was occurring. It has shown us a glimpse of the impacts future climate threats could have on our communities. It has taught us about the urgency of taking swift action collectively and the need to build resilient communities. If we wait to see further impacts of climate change, it will be too late.



## Notes

<sup>1</sup> Source: IPCC. (2018). *Global Warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels*. [https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15\\_Full\\_Report\\_High\\_Res.pdf](https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_High_Res.pdf)

<sup>2</sup> Source: World Economic Forum. (Dec, 2019). *The Net-Zero Challenge: Global Climate Action at a Crossroads (Part 1)*. Briefing Paper. [http://www3.weforum.org/docs/WEF\\_The\\_Net\\_Zero\\_Challenge\\_Part1.pdf](http://www3.weforum.org/docs/WEF_The_Net_Zero_Challenge_Part1.pdf)

<sup>3</sup> Source: World Economic Forum, (Dec, 2019).

<sup>4</sup> Source: Government of Canada. (2016). *Canada's Mid-Century Long-Term Low-Greenhouse Gas Development Strategy*. [http://unfccc.int/files/focus/long-term\\_strategies/application/pdf/canadas\\_mid-century\\_long-term\\_strategy.pdf](http://unfccc.int/files/focus/long-term_strategies/application/pdf/canadas_mid-century_long-term_strategy.pdf)

<sup>5</sup> "green" as in more nature, trees and natural systems present.

<sup>6</sup> Source: City of Brampton. (2015). *Transportation Master Plan*.

<sup>7</sup> Source: IEA. (n.d). "Energy efficiency: The first fuel of a sustainable global energy system". International Energy Agency. Retrieved from: <https://www.iea.org/topics/energyefficiency/>

<sup>8</sup> Source: TRCA.(2011).Peel Region Urban Forest Strategy

<sup>9</sup> Source: Natural Resources Canada. (2020). "Residential Secondary Energy Use (Final Demand) by Energy Source and End Use". Natural Resources Canada website. Retrieved from: <https://oee.nrcan.gc.ca/corporate/statistics/neud/dpa/showTable.cfm?type=HB&sector=res&juris=00&rn=1&page=0>

<sup>10</sup> Though described in the Brampton 2040 Vision as the Institute for Sustainable Brampton and referred to as the Community Organization throughout this plan, the final name is subject to change.

<sup>11</sup> Source: Quest. (2015). *National Report on Policies Supporting Community Energy Plan Implementation*. [https://questcanada.org/wp-content/uploads/2018/08/2015\\_National-Report-on-Policies-Supporting-Community-Energy-Plan-Implementation\\_Full\\_Report.pdf](https://questcanada.org/wp-content/uploads/2018/08/2015_National-Report-on-Policies-Supporting-Community-Energy-Plan-Implementation_Full_Report.pdf)



# Appendices

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Figure 1: Potential Brampton District Energy Districts Map

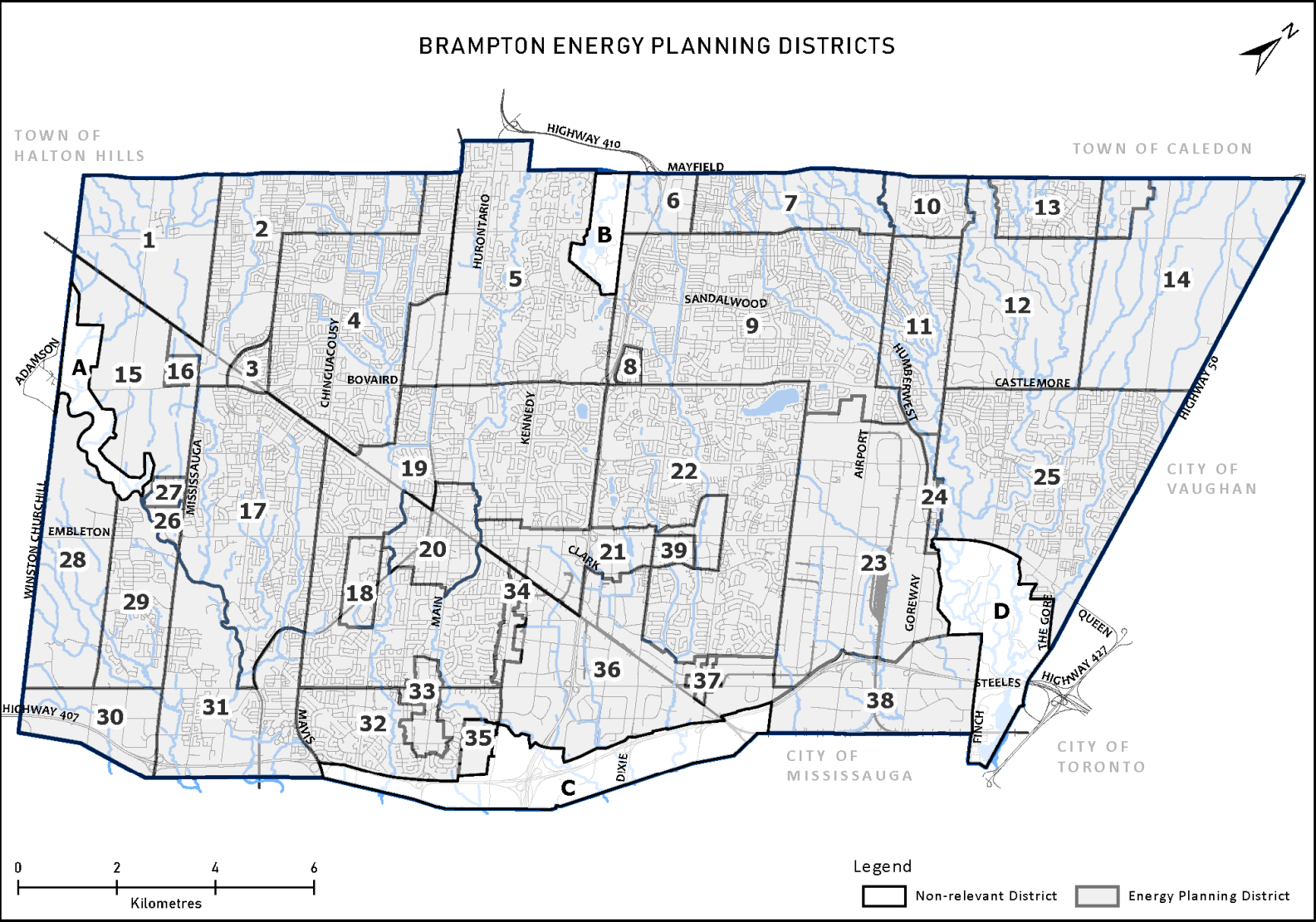
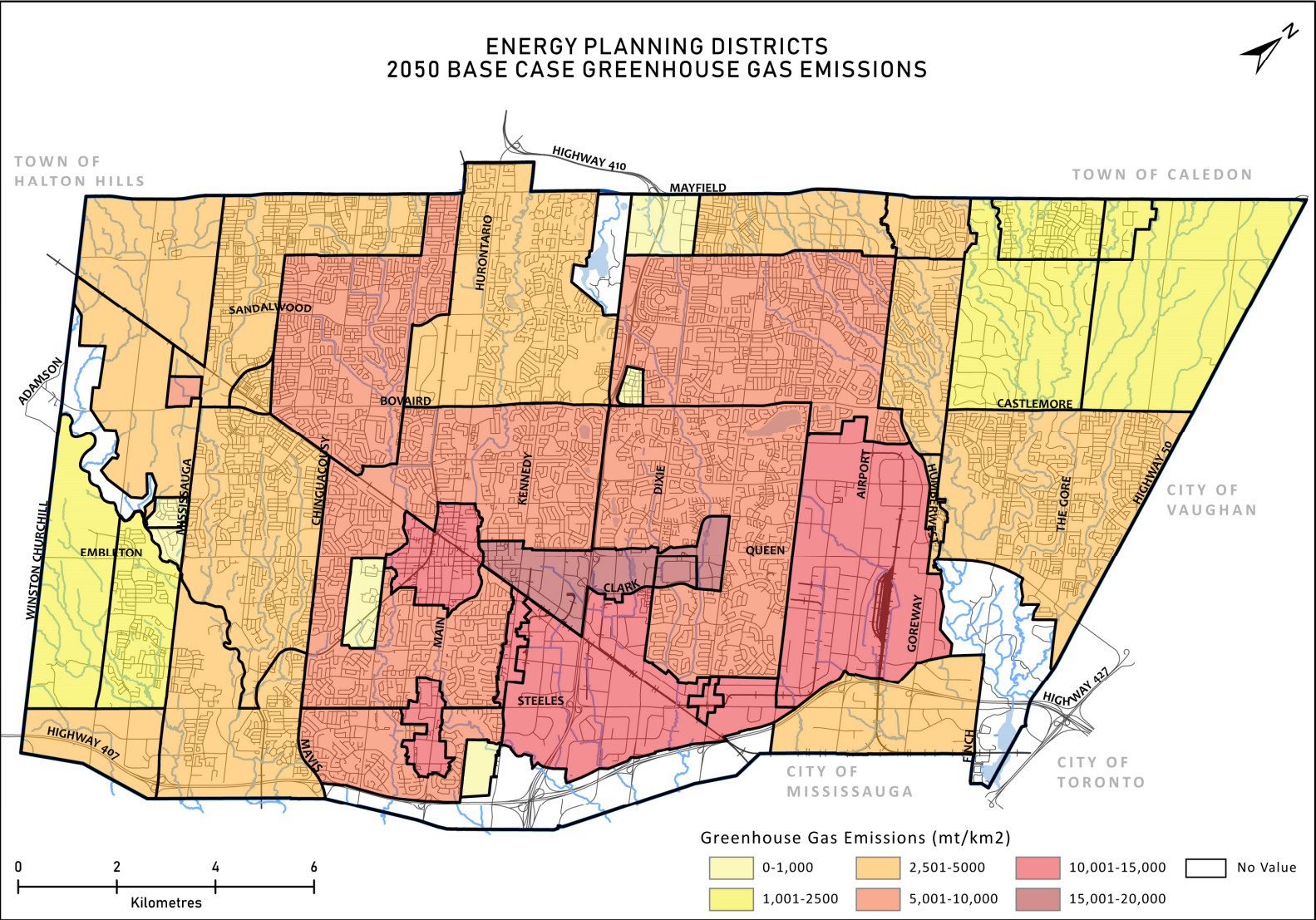




Figure 2: 2016 Base Case Source GHG Emissions









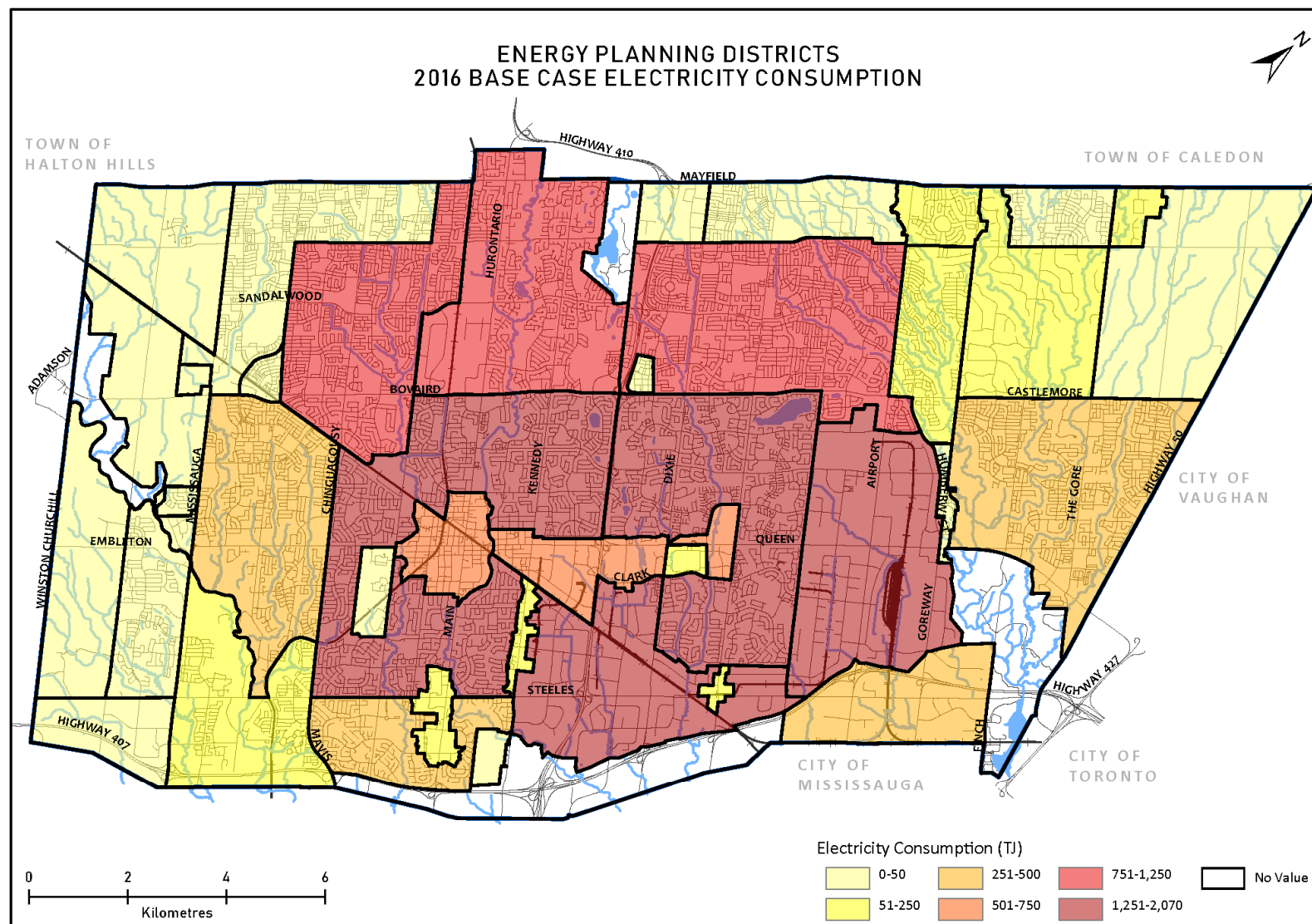




Figure 5: 2016 Base Case Water Use

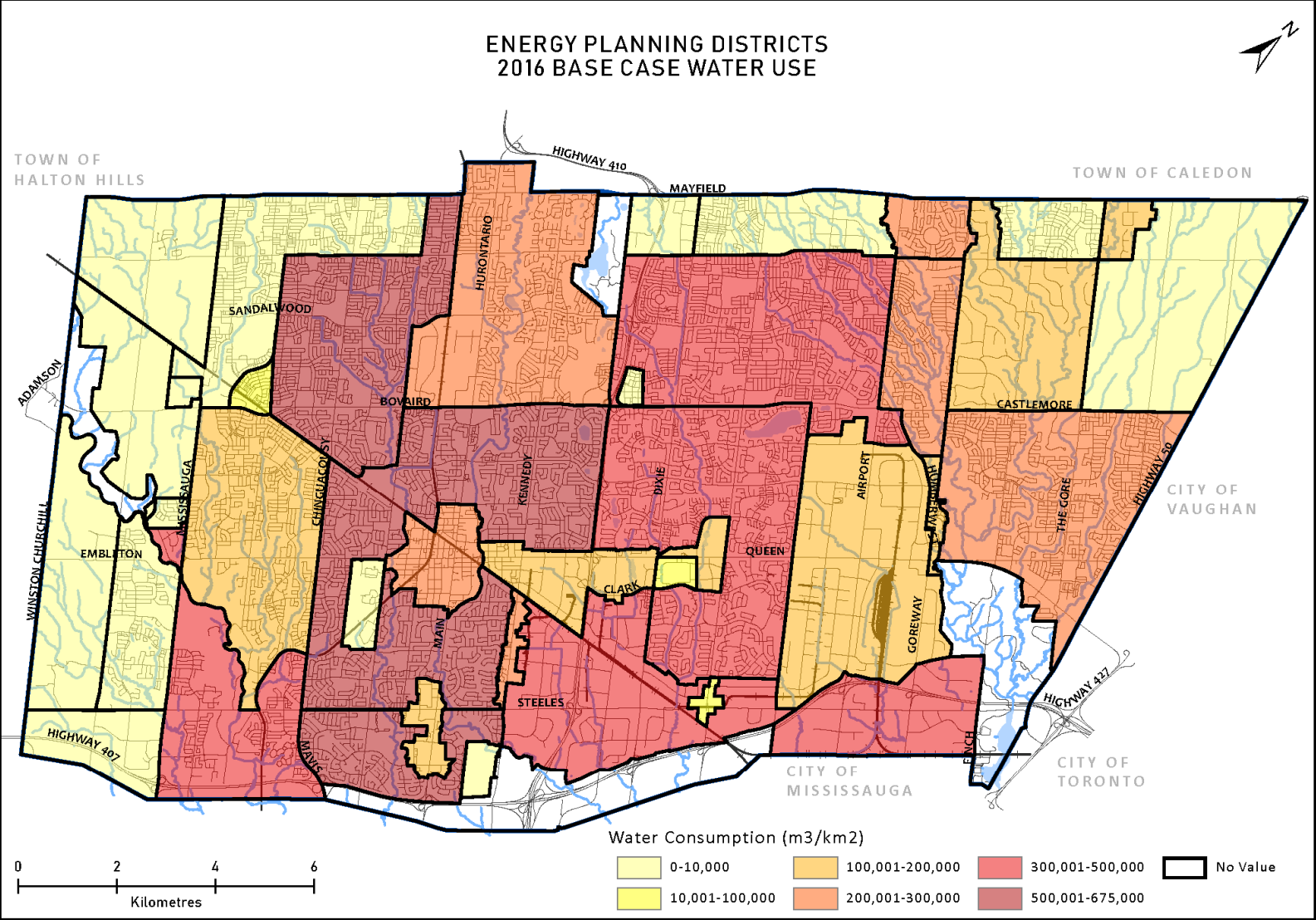




Figure 6: 2050 Base Case GHG Emissions

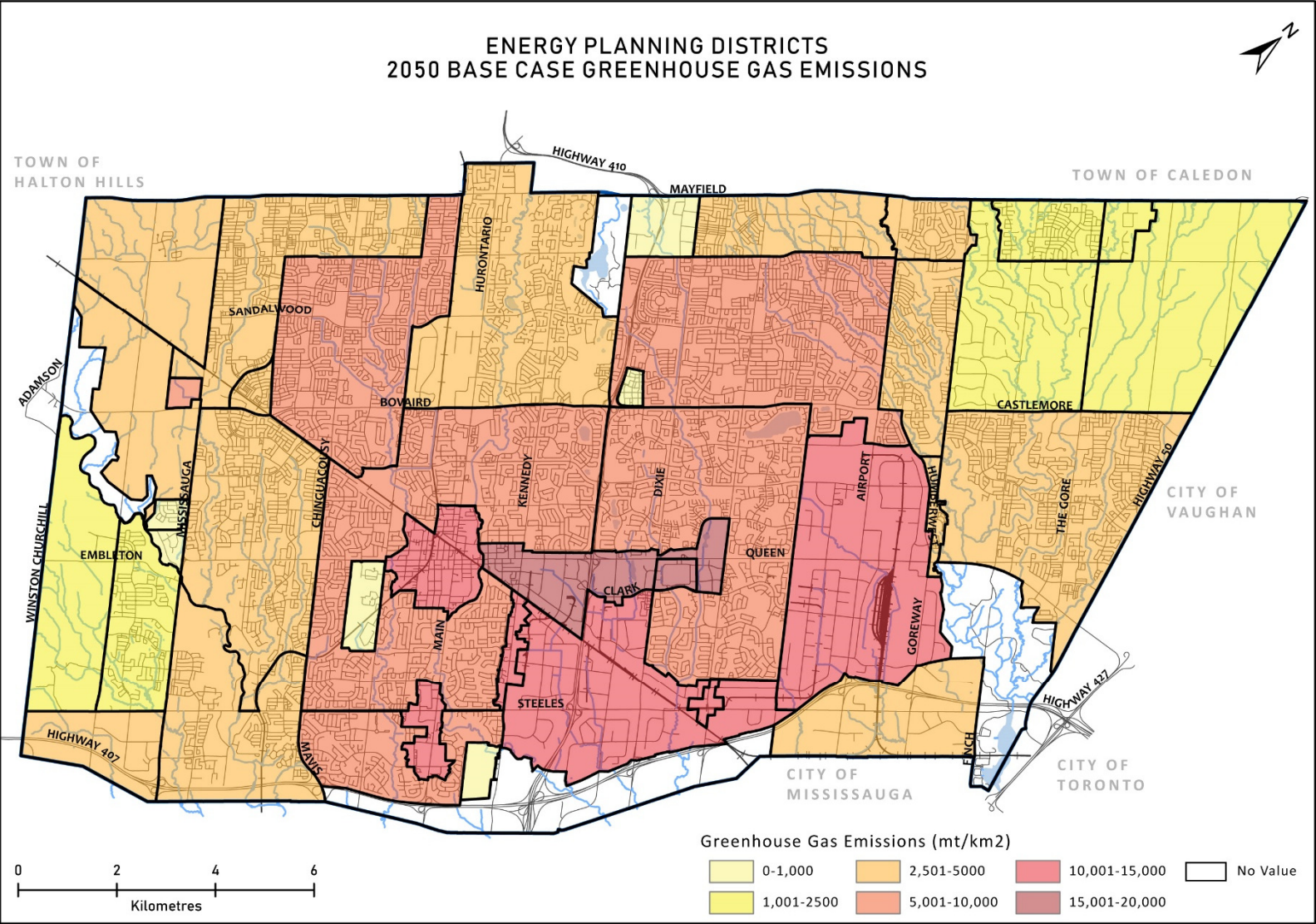








Figure 8: Base Case Source Energy Consumption Increase from 2016-2050

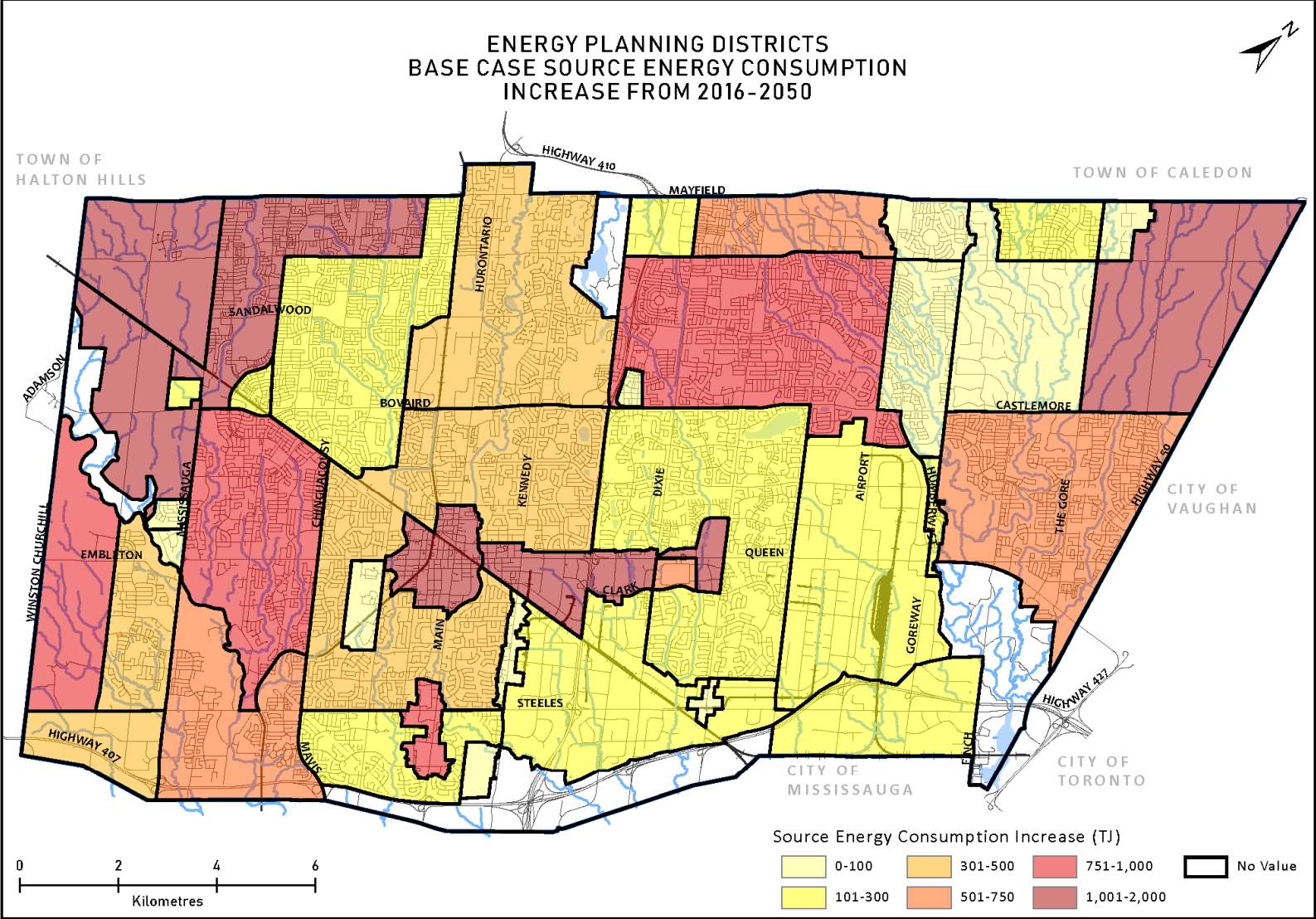




Figure 9: 2050 Base Case Water Use

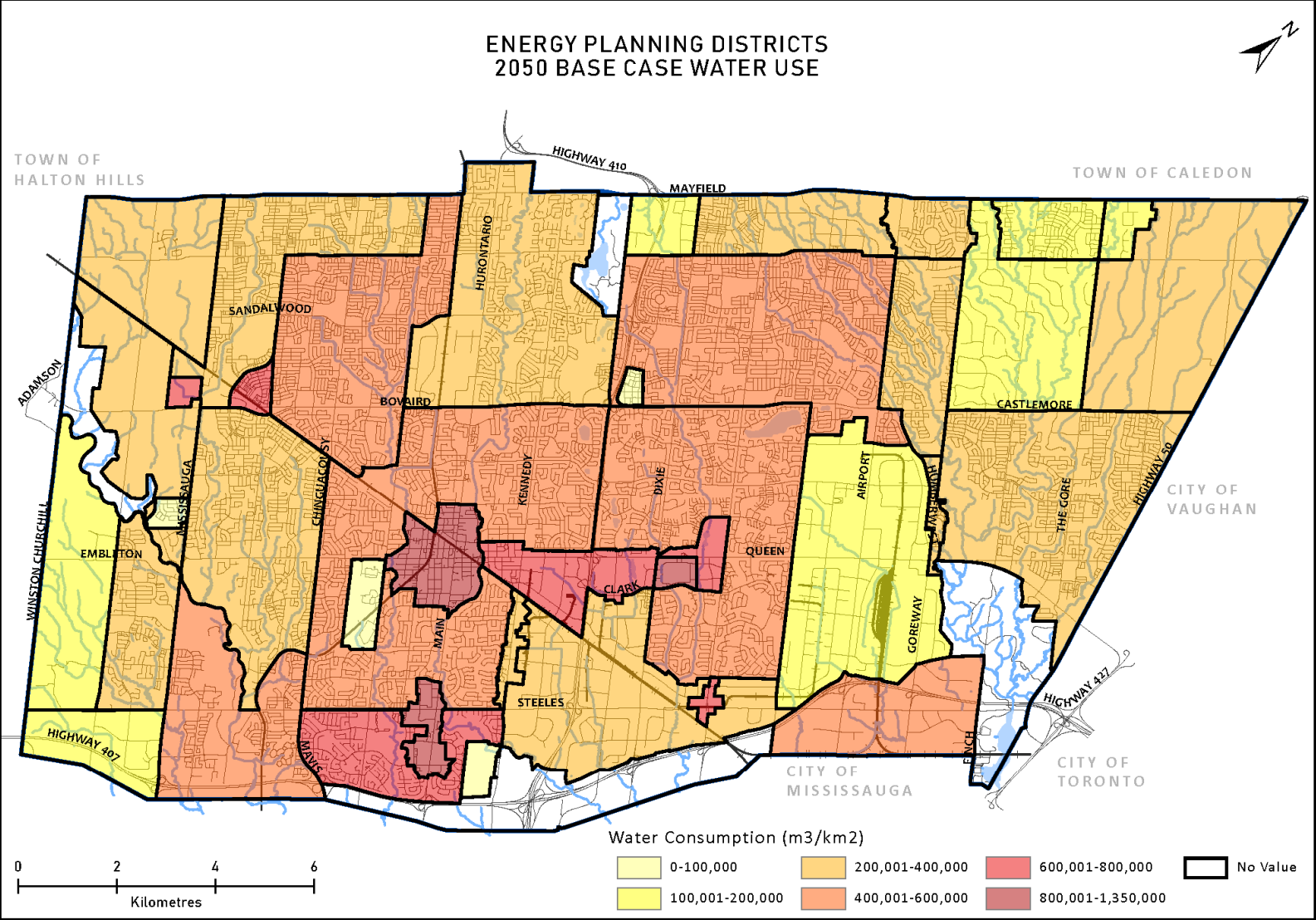
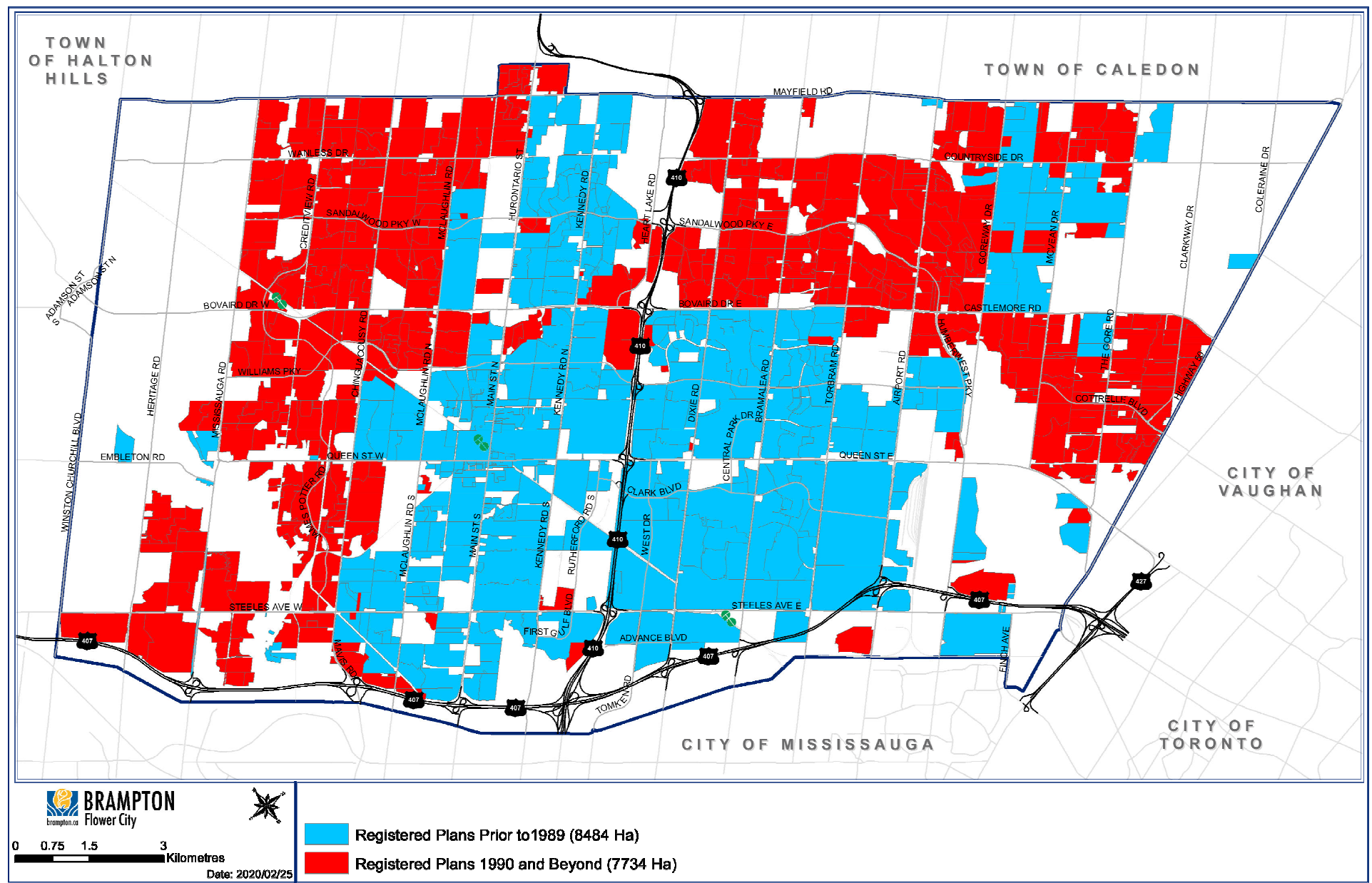




Figure 10: Registered Plans in Brampton







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or call 905.874.2000 or 311



# 2019 Analytical Report

BRAMPTON COMMUNITY ENERGY AND EMISSIONS  
REDUCTION PLAN (CEERP)  
PROJECT WORKING TEAM



## Contents

|  |    |
|--|----|
| 1. Introduction .....                            | 3  |
| 1.1 CEERP Documents .....                        | 3  |
| 2. Project Governance .....                      | 5  |
| 3. Analytical Framework.....                     | 6  |
| 4. Methodology .....                             | 10 |
| 4.1 Data and Information Gathering.....          | 10 |
| 4.2 Framing Goals .....                          | 10 |
| 4.3 Base Case Assumptions.....                   | 10 |
| 4.4. Data Assessment .....                       | 11 |
| 5. Baseline Findings.....                        | 12 |
| 5.1 Energy Consumption .....                     | 12 |
| 5.2 GHG Emissions .....                          | 13 |
| 5.3 Energy and Water Costs.....                  | 15 |
| 5.4 Water.....                                   | 17 |
| 5.5 Benchmarking .....                           | 17 |
| 5.6 Conclusion.....                              | 18 |
| 6. Business as Usual Findings .....              | 19 |
| 6.1 Energy Consumption .....                     | 19 |
| 6.2 GHG Emissions .....                          | 19 |
| 6.3 Energy Costs.....                            | 19 |
| 7. Efficiency Case Simulations and Results ..... | 21 |
| 8. CEERP Efficiency Case .....                   | 24 |
| 9. Brampton Energy Flows .....                   | 25 |
| 10. CEERP Recommendations .....                  | 27 |
| 10.1 Priority areas .....                        | 27 |
| 10.1.1 Home and Building Efficiency.....         | 27 |
| 10.1.2 Industrial Efficiency .....               | 27 |
| 10.1.3 Local Energy Supply and Distribution..... | 27 |
| 10.1.4 Transportation Efficiency .....           | 28 |
| 10.2 Strategic Objectives.....                   | 28 |
| 10.2.1 Strategic Objective 1A and 1B.....        | 30 |
| 10.2.2 Strategic Objective 1C.....               | 31 |



|  |    |
|--|----|
| 10.2.3 Strategic Objective 1D.....       | 32 |
| 10.2.4 Strategic Objective 2A.....       | 32 |
| 10.2.5 Strategic Objective 3A.....       | 32 |
| 10.2.6 Strategic Objective 3B.....       | 35 |
| 10.2.7 Strategic Objective 3C.....       | 36 |
| 10.2.8 Strategic Objective 4A.....       | 36 |
| 10.2.9 Strategic Objective 4B & 4C ..... | 36 |
| 10.2.10 Strategic Objective 4D.....      | 37 |
| 10.2.11 Strategic Objective 4E.....      | 37 |
| 11. List of Appendices.....              | 38 |



# 2019 Analytical Report

## Brampton Community Energy and Emissions Reduction Plan (CEERP)

### 1. Introduction

The City of Brampton, in partnership with Sheridan College embarked on the development of a Community Energy and Emissions Reduction Plan (CEERP) in 2018. The CEERP aims to integrate efforts of the municipality, local utilities and community stakeholders and create a roadmap that will improve energy efficiency, reduce greenhouse gas emissions, ensure energy security, create economic advantage (e.g., the repatriation of energy costs and generating jobs and businesses in the green economy) and increase resilience to climate change. The CEERP directly supports the goals of other City-approved plans including the Brampton 2040 Vision: Living the Mosaic, and Brampton Grow Green Environmental Master Plan and the Climate Change Action Plan as well as the Climate Emergency Declaration by Council.

Community energy plans (CEPs) consider all local energy flows that impact the activities within that community. CEPs identify solutions to increase efficiency for the entire energy value chain from supply through distribution to end-use. Improved energy efficiency and alternative energy sources can reduce overall energy costs for residents and local businesses as well as lower greenhouse gas (GHG) emissions. New technologies across the energy value chain are creating new opportunities at the community-level for the supply and distribution of energy. In addition to considering opportunities to reduce the release of carbon associated with energy use, the CEERP will also consider opportunities to sequester and stabilize carbon within the community.

Brampton's CEERP is a result of a two-year cross-sector collaboration that drew strength from the expertise and demonstrated leadership of the City, Sheridan College and members of a Task Force (TF), a team of community champions and principal advisors for the CEERP.

#### 1.1 CEERP Documents

The Brampton CEERP Report has been designed to support implementation and consists of a set of three documents:

| Document  | Purpose  | Owner                | Submitted to |
|---|--|----------------------|--------------|
| Community Energy and Emissions Reduction Plan                   | Provides context for the report and summarizes the recommended strategy and priority projects. | Task Force           | City Council |
| 2019 Analytical Report and Appendices<br><b>(this document)</b> | Summarizes the evidence-based rationale for the recommended strategy and priority projects.    | Project Working Team | Task Force   |
| 2019 Engagement Report and Appendices                           | Summarizes the year-long process that culminated in  | Project Working Team | Task Force   |



|  |  |  |  |
|--|--|--|--|
|  | the recommended strategy<br>and priority projects. |  |  |
|--|--|--|--|

See section 11 for a list of appendices that support this report.



## 2. Project Governance

A Project Working Team (PWT) was established and comprised of representatives from the City of Brampton, Sheridan College, Alectra, Enbridge, Peel Region and the consulting team of Garforth International llc. See Appendix 1 for the PWT organizational structure and composition.

The PWT reported the results of their analytical work to the Task Force (TF). See the 2019 Engagement Report for more information on the TF.



### 3. Analytical Framework

Table 1 describes the scope of the CEERP which established the analytical framework for the collection, assessment and presentation of data and information.

**Table 1: Brampton Community Energy Plan (CEERP) analytical framework**

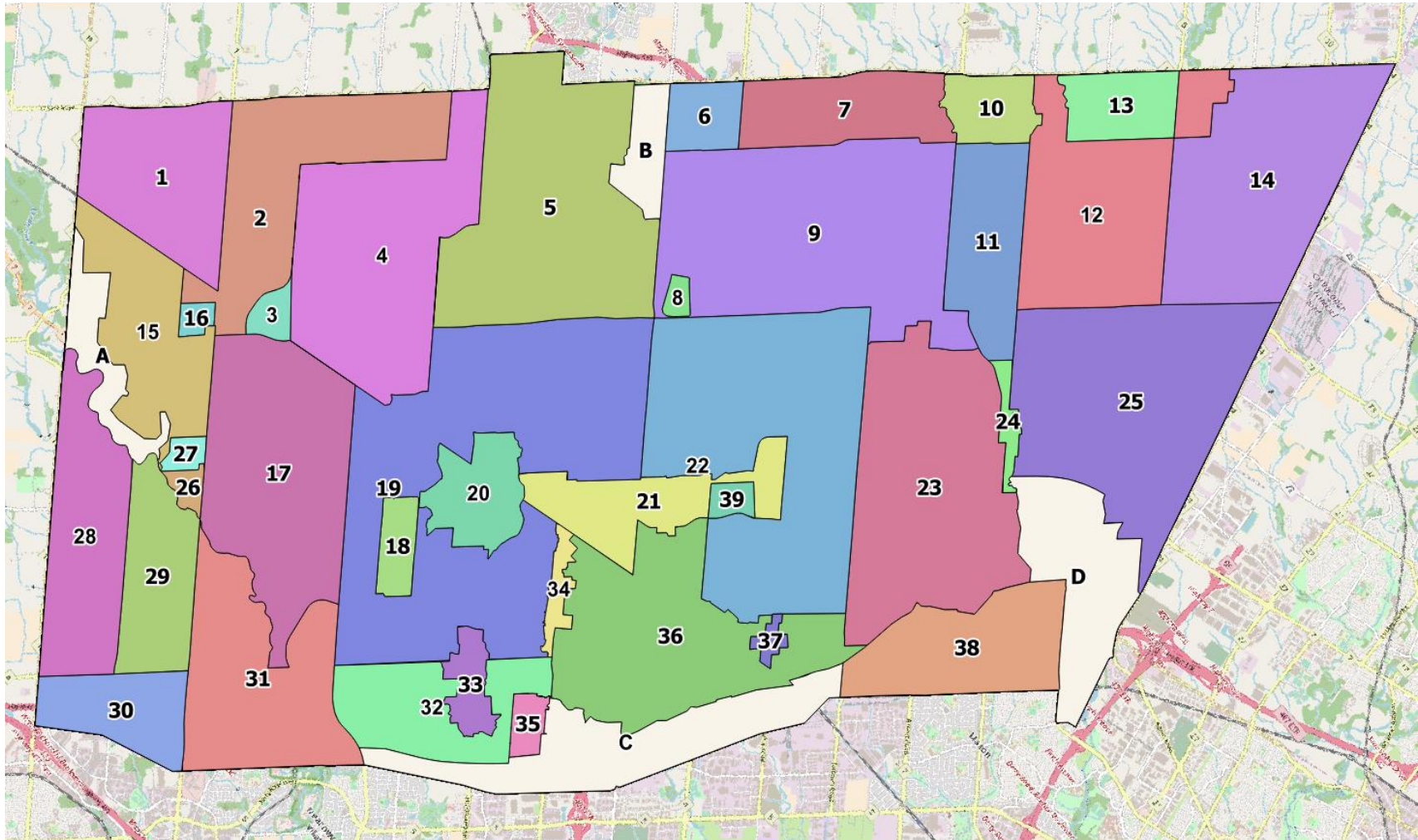
| Item                         | Scope   |
|------------------------------|---|
| <b>Geography</b>             | Brampton municipal boundary   |
| <b>Sub-geography</b>         | Energy Planning Districts (EPDs) (see below for description)  |
| <b>Virtual sub-geography</b> | corporate assets, regional assets   |
| <b>Baseline year</b>         | 2016  |
| <b>Planning horizon</b>      | 2041  |
| <b>End use sectors</b>       | homes, buildings, industry, transportation  |
| <b>Utilities</b>             | electricity, natural gas, transport fuels, other fuels, water   |
| <b>Energy end use</b>        | heating, domestic hot water, cooling, lighting, other power, industrial process, transportation   |
| <b>Energy distribution</b>   | electricity, natural gas, district energy   |
| <b>Analytical profiles</b>   | source energy use <sup>1</sup> , site energy use <sup>2</sup> , GHG emissions (based on source energy), cost (based on source energy), water use          |
| <b>Benchmarks</b>            | Canada, Ontario, selected international   |
| <b>Assessment profiles</b>   | Impacts of (or on) municipal, utility and other plans, economic development, health and social factors and policy, practice and institutional structures. |

Thirty-nine CEERP-relevant energy planning districts and 4 heritage or non-relevant districts (Figure 2) were established to align with City of Brampton's Official Plan and population and employment growth projections (Figure 3 and 4).

<sup>1</sup> Source energy considers all energy flows from production to end-use.

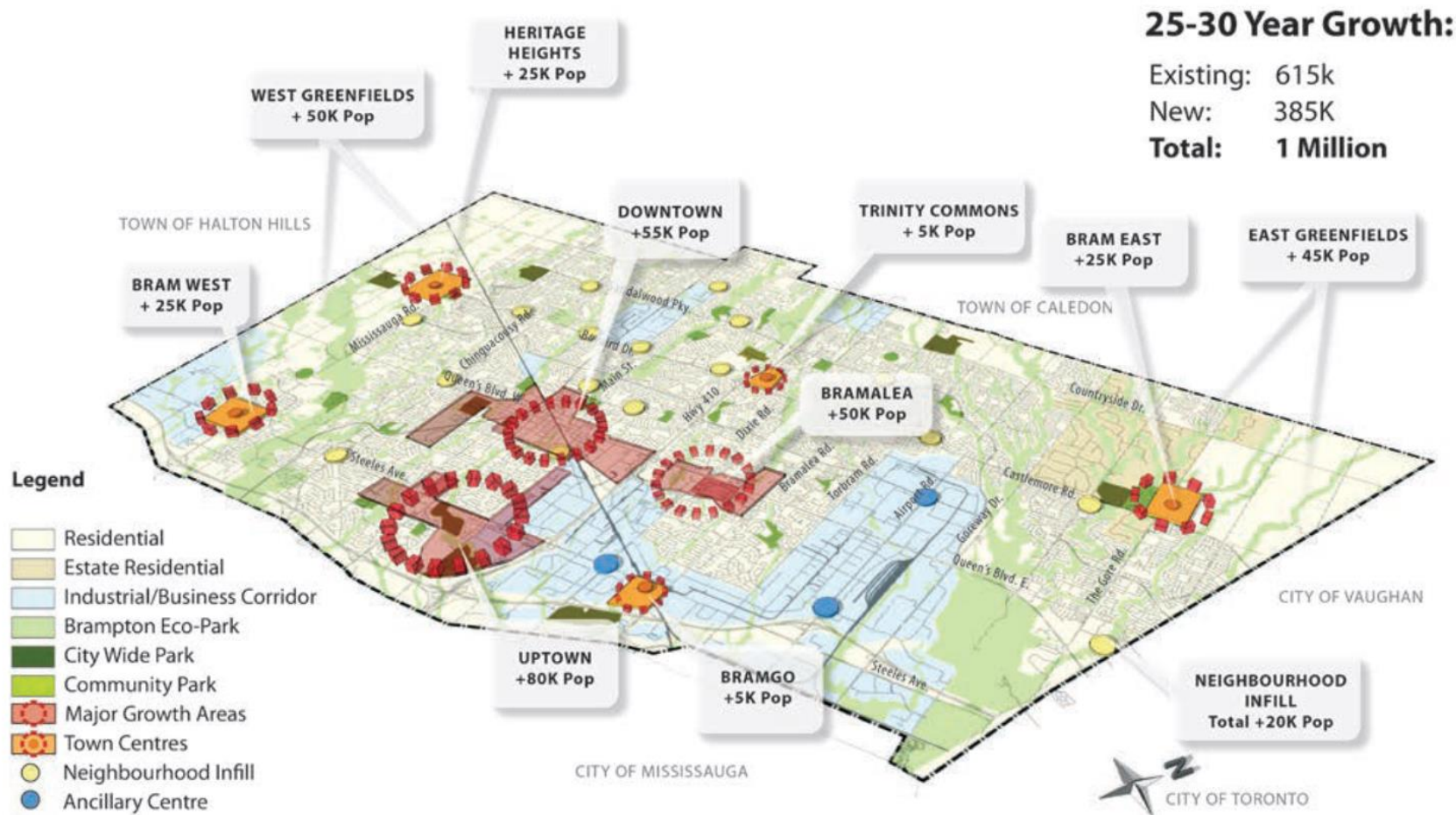
<sup>2</sup> Site energy considers the energy use of at the meter by end-users (e.g., homes, buildings, industry and transportation).





*Figure 1: Brampton energy planning districts (EPDS)*





*Figure 2: City of Brampton framework for population growth*



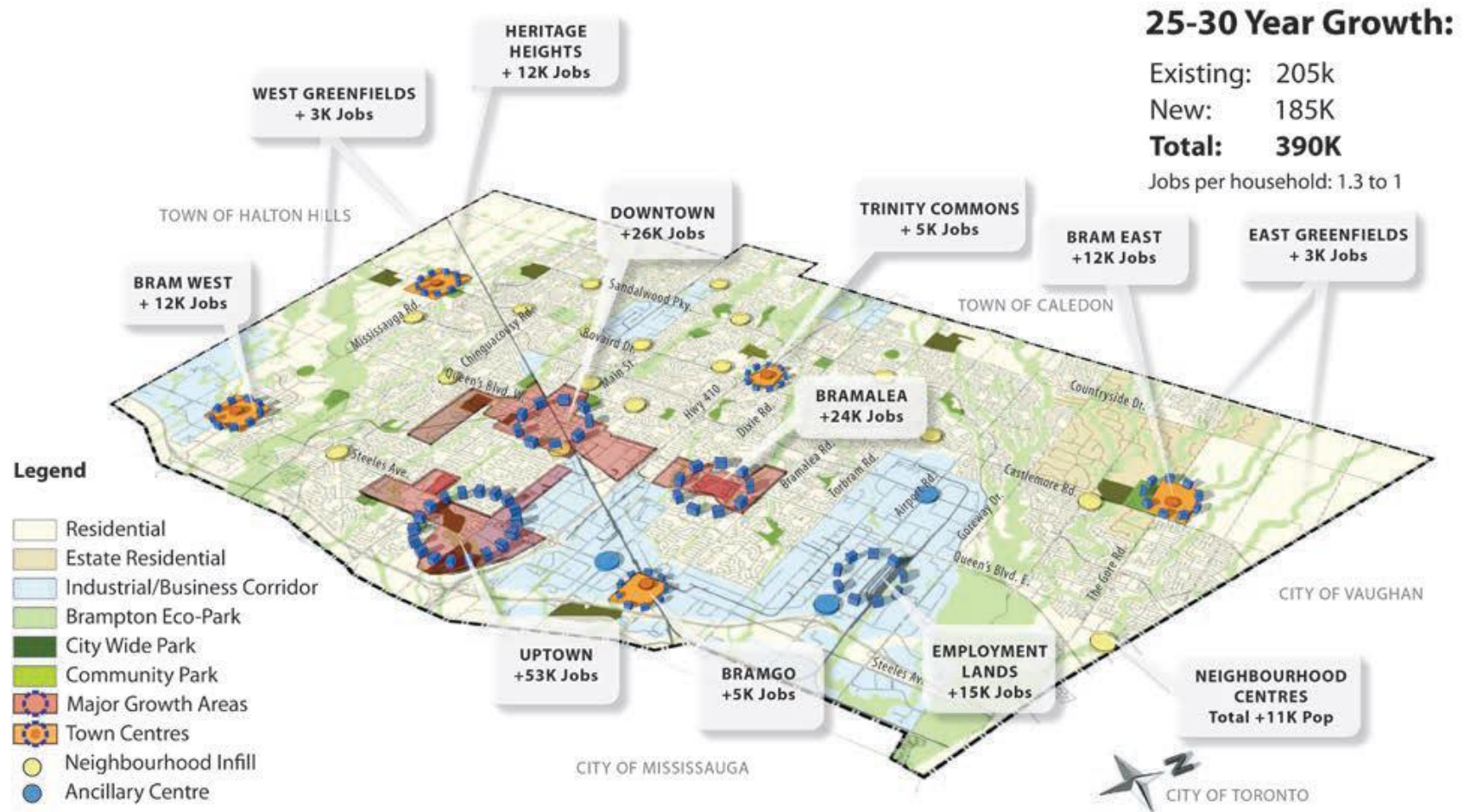


Figure 3: City of Brampton framework for employment growth



## 4. Methodology

what data will we need to inform the CEERP?

The following section is a summary of the data, information and assumptions that informed the analytical process.

### 4.1 Data and Information Gathering

Significant data and information were gathered to support the analytical process and the development of CEERP goals, strategic objectives, targets, priority projects and key performance indicators (KPIs). All data pertain to activity occurring within the municipal boundary of Brampton, Ontario. 2016 was chosen as the baseline year as it was the most recent Canadian Census.

See Appendix 2 for additional detail on the type, source and form of data and information collected.

### 4.2 Framing Goals

CEERP energy efficiency and emissions framing goals were established for 2041 to align with the City's planning framework. Framing goals were referenced to a 2016 baseline, as the most current census year, and selected independently of the Base Case (see next section for description). Framing goals were used to evaluate the performance of the Base Case and Efficiency Case simulations.

### 4.3 Base Case Assumptions

The Base Case is a "business-as-usual" picture of the future to 2041. To create this picture the PWT needed to establish several assumptions on what business-as-usual looks like. The approach was to include only short-term assumptions where legislation is already passed (e.g. Ontario Building Code) or where the technical evidence is overwhelming (e.g. average vehicle efficiency gains).

This means the Base Case does not reflect individual views of how Canada's energy and emissions future will evolve. The political shifts seen globally and in Canada demonstrate the risk of assuming a continuous bending of the curve by policy and practice towards lowering GHG emissions.

The PWT instead gave priority to measures that Brampton can influence, more-or-less, within the framework of current legislation. This underlines the opportunity and responsibility for individual communities to take the lead in dramatically reducing their GHG emissions, even with policy fluctuations going on around them.

This approach also underscores the need to update the CEERP every 5 years to respond to changes in legislation, policy and technical evidence.

The integrated analysis of the energy, GHG emissions and cost footprint of all energy end-use sectors in Brampton required alignment on a great number of interrelated assumptions. To ensure accuracy, PWT members with expertise across a range of disciplines collaborated to align assumptions and integrate data. See Appendix 2 for details on the assumptions used by the PWT to establish the Base Case.



#### 4.4. Data Assessment

A summary of the analytical tools used by the PWT to assess Brampton's data is provided in Appendix 2.



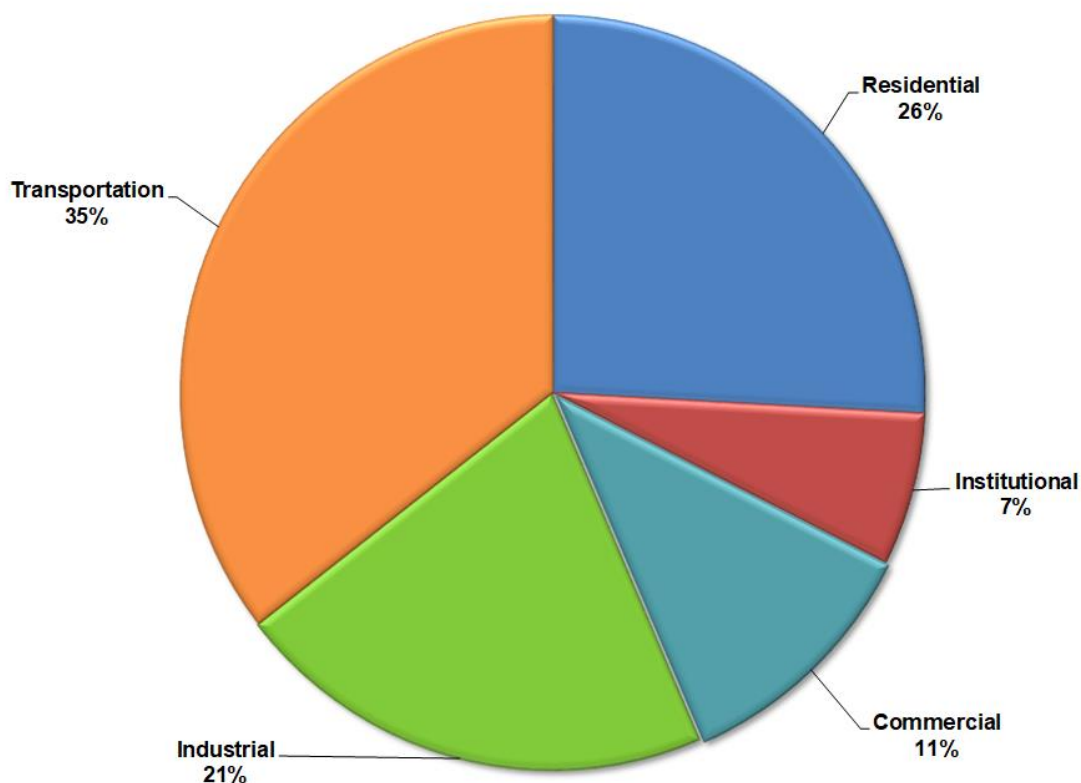
## 5. Baseline Findings

what is Brampton's starting point?

The following is a summary of the main baseline findings for source energy, emissions and cost for Brampton in 2016. See Appendix 3 for additional baseline analysis.

### 5.1 Energy Consumption

In 2016, Brampton's total source and site energy use were 92 million Gigajoules (GJ) and 67 million GJ, respectively.<sup>3</sup> Site energy use represented 109 GJ per capita. The transportation sector represented 35% of source energy use. The residential sector represented 26% of source energy use, and the industrial, commercial and institutional (ICI) sector represented 39% of source energy use (see Figure 4).



**Figure 4: Brampton source energy use (%) by sector in 2016**

The City of Brampton's corporate energy use (facilities, fleet and transit) represented 1.88% of the community's source energy use in 2016 (note: site energy was 1.75%). This highlights that while the City can lead by example, meaningful energy changes in Brampton require community-wide action (see Figure 1 in Appendix 3). The City of Brampton's *Corporate Energy and Emissions*

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<sup>3</sup> Source energy considers all energy flows from production to end-use. Site energy considers the energy use of at the meter by end-users (e.g., homes, buildings, industry and transportation).

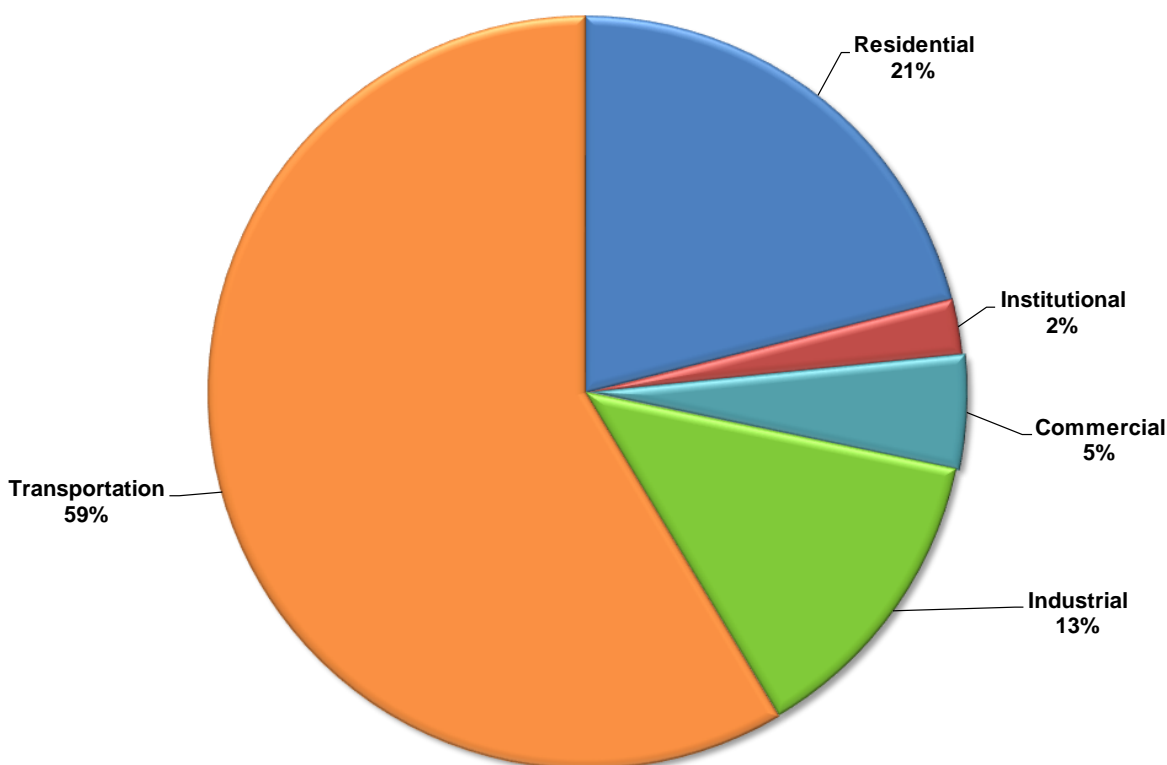


*Management Plan (2019 – 2024): A Zero Carbon Transition* provides a more detail to support the minimization of energy and emissions in existing and new facilities.

System losses<sup>4</sup> account for approximately 30% of source energy use (see Appendix 3 for more details). This highlights the opportunity to benefit the community by considering efficiency solutions that will also address system losses.<sup>5</sup>

## 5.2 GHG Emissions

In 2016, Brampton's emissions were 35 million tonnes (metric tons), or 5.6 tonnes for every Brampton resident. Transportation accounted for almost 60% of emissions while the residential sector accounted for 21% of emissions (Figure 5). The industrial, commercial and institutional (ICI) sector accounted for the remaining emissions (Figure 5).



**Figure 5: Brampton emissions (%) by sector in 2016**

The use of natural gas contributes 38% of Brampton's emission (Figure 6) while the use of gasoline and diesel contribute 58% of emissions. Only 3% of emissions arise from the

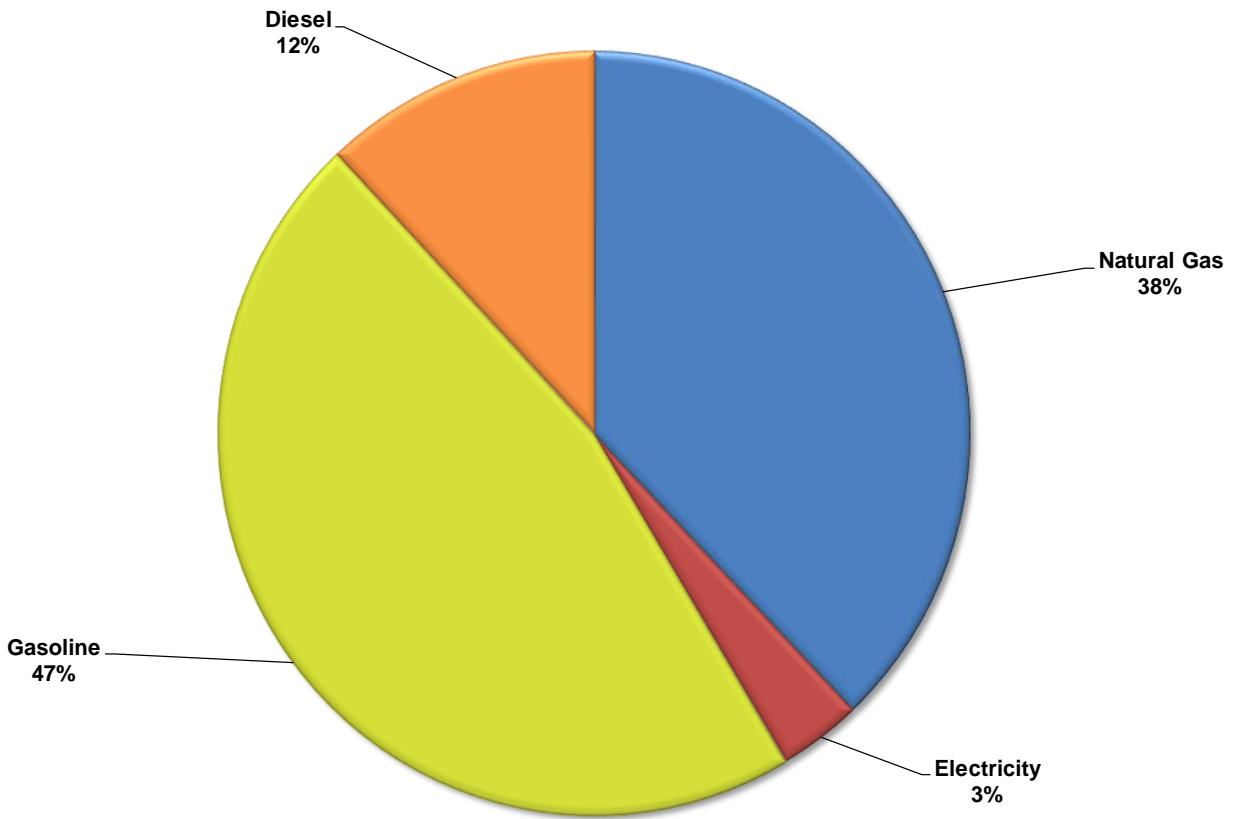
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<sup>4</sup> System losses include 1) conversion losses which occur when energy is transformed from one form to another (e.g., natural gas is used to create electricity) and 2) transmission and distribution losses which occur when energy is moved from one place to another (e.g., electricity is conveyed from generating facilities to end-users over transmission lines).

<sup>5</sup> The 30% site to source (conversion loss) is a combined number from the overall simulation effect of the source-to-site assumptions used for electricity (2.5:1), natural gas (1.047:1) and gasoline and diesel (1.1:1).



community's use of electricity (Figure 6). From a GHG emissions perspective, these results underscore the need to address heating which is the primary use of natural gas in homes and buildings and the need to build compact communities that will support transit and active transportation.



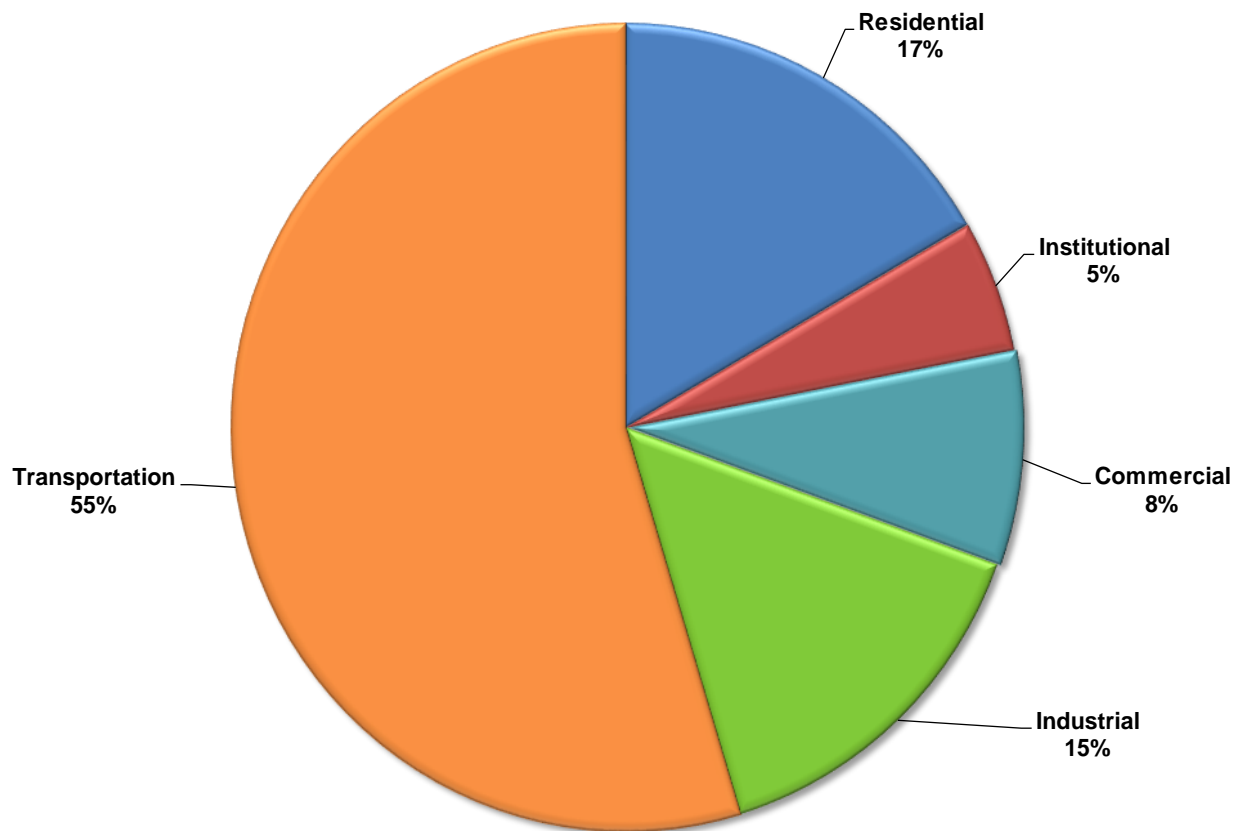
*Figure 6: Brampton emissions (%) by utility in 2016*



### 5.3 Energy and Water Costs

The Brampton community spent \$1.8 billion on energy and water in 2016. At least \$1.4 billion (77%) of those energy dollars left the community.

Transportation accounted for more than half of total costs (Figure 7).

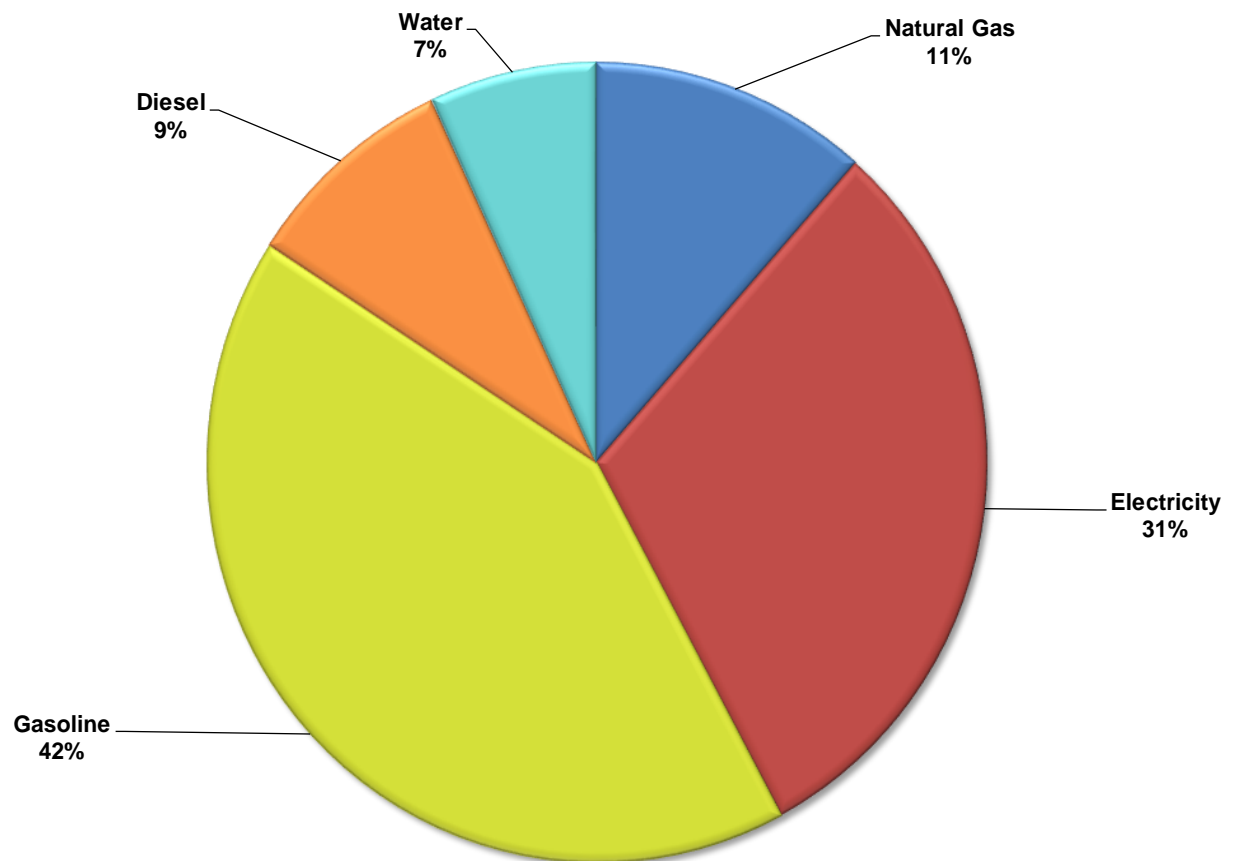


*Figure 7: Brampton energy and water costs (%) by sector in 2016.*



After fuels for transportation, electricity was then highest energy cost (31%) with natural gas use accounted for 11% of costs.

Approximately 30% of the energy that Brampton pays for does not reach homes, buildings or vehicles. This energy is primarily lost as heat when one form of energy is converted to another and through transmission and distribution. Electricity accounts for most of these costs.

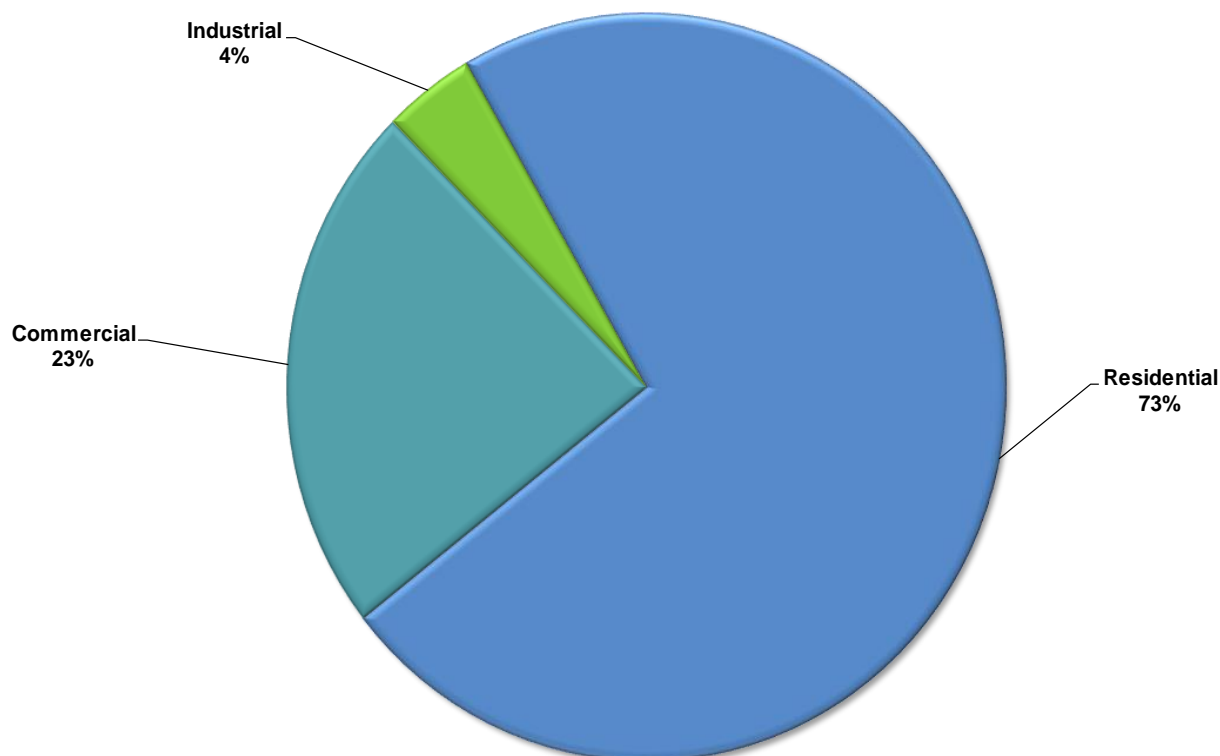


*Figure 8: Brampton energy costs (%) by utility in 2016.*



## 5.4 Water

The residential sector accounts for almost three quarters of the water consumption in Brampton (Figure 9). Energy is used to pump water and wastewater. Water conservation and efficiency program will also reduce the energy used to heat water.



*Figure 9: Brampton water use (%) by sector in 2016.*

## 5.5 Benchmarking

On average, homes and buildings in Brampton are approximately half as efficient as global benchmarks indicating an opportunity to improve energy performance (Table 2).

- Energy use per home is 7% less than the provincial average and 50% higher than the Danish average.
- Energy use in the residential sector per square metre (m<sup>2</sup>) is 32% lower than the Canadian average and more than twice the German A-rated home.
- Energy use in non-residential buildings per square metre (m<sup>2</sup>) is 18% lower than the Canadian average and more than twice the German average.
- Emissions per capita were 40% less than the national average, 25% less than the provincial average, approximately twice global best practice and ten times the Government of Canada target for 2050 based on the Paris Climate Agreement.



Water use per home is about 5% above the Ontario average and 7% above the national average, when adjusted for household size.<sup>6</sup>

**Table 2: Provincial, national and global comparison of Brampton energy use and GHG emissions.**

| Indicator   | Brampton Baseline | Canada Average | Ontario Average | Comparable Best Practice |
|---|-------------------|----------------|-----------------|--------------------------|
| Energy use/household (GJ)                                 | 99                | 106            | 107             | 68 <sup>7</sup>          |
| Residential sector energy use per m <sup>2</sup> (GJ)     | 0.6               | 0.79           |                 | 0.29 <sup>8</sup>        |
| Non-residential sector energy use per m <sup>2</sup> (GJ) | 1.4               | 1.65           |                 | 0.72 <sup>9</sup>        |
| Emission per capita (tonnes CO <sub>2e</sub> )            | 5.6               | 9.7            | 6.2             | 3.5 <sup>10</sup>        |

## 5.6 Conclusion

Most of Brampton's energy costs come from gasoline and diesel, most emissions come from gasoline and natural gas and most energy waste cost comes from electricity. The CEERP should be developed to address all three energy sources.

<sup>6</sup> Based on data from Environment Canada and StatsCan.

<sup>7</sup> Denmark

<sup>8</sup> German A-rated home

<sup>9</sup> Germany

<sup>10</sup> Copenhagen, Denmark



## 6. Business as Usual Findings

where is Brampton headed, if no local action is taken?

The following is a summary of the main Base Case findings for source energy, site energy, emissions and energy cost for Brampton in 2041<sup>11</sup>. Table 3 provides a summary of changes between 2016 and 2041. See Appendix 3 for additional Base Case analysis.

### 6.1 Energy Consumption

By 2041, population and employment growth are estimated to increase site energy use by 26% and source energy use by 28%. Both the population and the workforce are expected to increase by 51% and 73%, respectively, during this time.

### 6.2 GHG Emissions

Despite population and employment growth, increases in GHG emissions are expected to be relatively moderate (approximately a 13% increase) by 2041 due to a projected increase in vehicle efficiency and reduction in the carbon intensity of the natural gas grid (note: this does not include pipeline leaks). However, they remain approximately twice global best practice and ten times the Government of Canada target for 2050 based on the Paris Climate Agreement.

### 6.3 Energy Costs

Energy costs are estimated to increase 200% to 410% by 2041. These increases reflect both higher prices as well as population and employment growth.

**Table 3: Summary of projected changes between 2016 and 2041 in Brampton for energy use, emissions and energy costs.**

| 2016 Baseline  | 2041 Business-as-Usual  |
|--|---|
| Brampton used 92 million Gigajoules of energy.   | Growth in population and employment increase energy use by 30%. |
| The transportation sector represented 35% of source energy use. The residential sector represented 26% of source energy use, and the industrial, commercial and institutional (ICI) sector represented 39% of source energy use. | No material change  |
| On average, homes and buildings in Brampton are approximately half as efficient as global benchmarks.  | Gap widens against global best practice                         |
| Systemic and end-user inefficiencies represent approximately half of the total energy use in Brampton.   | No material change  |
| The City of Brampton's corporate source energy use for facilities, transit and fleet represents 1.88% of the community's source energy use.  | No material change  |

<sup>11</sup> While much of the literature around energy and emissions planning uses a time horizon of 2050, the City's Official Plan and other master plans are aligned with the Provincial Growth Plan for the Greater Golden Horseshoe Area which assigns regional population growth targets to 2041.



|  |   |
|--|---|
| On average, Brampton residents release 5.6 tonnes of greenhouse gas emissions each year.   | Reduces to 4.4 tonnes per capita due to a projected increase in vehicle efficiency, a reduction of carbon intensity of the natural gas grid and higher efficiency of new homes and buildings. |
| Emissions twice global best practice and 10 times the Paris Agreement.                     | No material change  |
| \$1.8 billion spent on electricity, natural gas, gasoline and diesel within the community. | Spending estimated increase to \$5.4 billion (low risk) to \$9.4 billion (high risk).   |
| Less than 22% of the money spent on energy remained in the Brampton economy.               | No material change  |



## 7. Efficiency Case Simulations and Results

how might Brampton change its energy future?

The following section provides a summary of the simulations that were conducted to identify a CEERP strategy for Brampton. See Appendix 2 and for more detail on the methodology and assumptions, respectively, supporting the simulations.

Three scenarios were developed and simulated to test their ability to achieve the following energy consumption and GHG emissions framing goals:

- Reduce energy use by 50% by 2041 from 2016,
- Reduce absolute greenhouse gas emissions by 50% by 2041 from 2016 and
- Reduce absolute greenhouse gas emissions to meet the 2050 national commitments.<sup>12</sup>

Scenario development was based on three combinations of the following priorities:

- Increase energy efficiency,
- Maximize heat recovery,
- Extend and integrate energy distribution and
- Maximize clean and renewable energy supply.

Scenarios included the following measures<sup>13</sup>:

- Efficiency of new homes and buildings,
- Efficiency of existing homes and buildings,
- Efficiency of industry,
- District energy in existing and new areas,
- Efficient local heat and electricity generation,
- Renewable solar heat and electricity generation,
- Transportation mix and efficiency,
- Ontario electricity grid generating mix and
- Natural gas network source mix.

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<sup>12</sup> Based on the Paris Climate Agreement, this represents an 80% reduction in absolute greenhouse gas emissions by 2050 based on 1990 levels or a 90% reduction based on 2016 levels.

<sup>13</sup> Geothermal, wastewater (sewer) heat recovery and hybrid solar systems (PV and thermal) are not analytically included. However, they are logical options to consider at the level of a specific building or neighbourhood. The creation of neighbourhood scale Generation 3 and 4 district energy, including the appropriate governance and institutional structures, will facilitate the wider use of multiple types of heat sources including ground-effect geothermal, and recovery from sewer, industrial, and chiller wastes. The Scenarios include Solar PV and Solar Thermal, which from a statistical standpoint, includes project specific hybrid combinations.



The three scenarios<sup>14</sup> were:

- Scenario 1
  - All end-use efficiency measures including transportation measures
- Scenario 2
  - All end-use efficiency measures including transportation measures
  - District heating
  - Solar thermal
- Scenario 3
  - All end-use efficiency measures including transportation measures
  - District heating
  - Solar thermal
  - Solar photovoltaic (PV)

Scenarios was simulated under three efficiency case implementation regimens:

- low action
- reference
- high action

In addition to energy and emission reductions, the energy savings that would flow to the community were also estimated.

Given the poor performance of Scenarios 1 and 2, the PWT eliminated these two scenarios from further consideration.

The simulation results for Scenario 3 were as follows:

- **Low Action Efficiency Case** – Scenario 3 failed to meet the City’s energy and emission framing goals.

Given the poor performance of the Low Action Efficiency Case for Scenario 3, it was eliminated from further consideration.

- **Reference Efficiency Case** – Scenario 3 missed the City’s energy framing goal by 9% and exceeded the City’s emissions framing goal by approximately 7% (Figure 10) and made major progress towards the national 2050 emissions goal (emissions would remain approximately 3 times higher).

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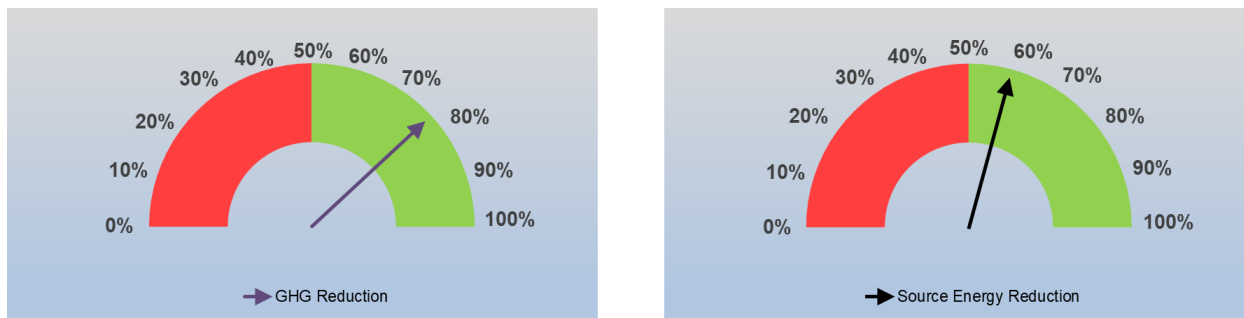
<sup>14</sup> Water was included as a utility in all three scenarios.





**Figure 10: Results for the Reference Efficiency Case for Scenario 3 against the 2041 50% reduction framing goals. Arrow indicates percent reduction achieved for greenhouse gas emissions (left) and energy use (right).**

- **High Action Efficiency Case** – Scenario 3 exceeded both the City's energy and emissions framing goals (Figure 11) but still missed the national 2050 emissions goal (emissions would remain slightly less than double).



**Figure 11: Results for the High Action Efficiency Case for Scenario 3 against the 2041 50% reduction framing goals. Arrow indicates percent reduction achieved for greenhouse gas emissions (left) and energy use (right).**

See Appendix 5 for additional information on the performance of the Reference and High Action Efficiency Cases.



## 8. CEERP Efficiency Case

The TF approved the Scenario 3 Reference Efficiency Case as the CEERP Efficiency Case. It is estimated that the Reference Efficiency Case would avoid between \$26 billion to \$39 billion in cumulative energy costs by 2041.<sup>15</sup>

Based on the results of the simulations, the TF aligned on:

- A goal to increase community-wide energy efficiency at least 50% by 2041 from 2016 levels recognizing selected efficiency measures will consider the entire system from supply through distribution to end-use.
- A goal to reduce GHG emissions by at least 50% by 2041. By doing so, the TF is respecting the science that supports the international emissions reduction target of the International Panel on Climate Change while setting an emissions reduction goal that can be demonstratively implemented based on current global best practice. Implementation of the CEERP will put Brampton on a path to achieve national targets. Regular 5-year CEERP updates will capture advances in local, regional and global best practice to accelerate the transition during later years of the CEERP implementation.

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<sup>15</sup> Price assumptions are provided in Appendix 2.



## 9. Brampton Energy Flows

Sankey diagrams were developed to visualize Brampton's energy, emissions and energy costs flow for the:

- 2016 Baseline
- 2050 Base Case
- 2050 CEERP Efficiency Case

Appendix 6 provides a complete set of the Sankey diagrams developed and explanation of their history and use.

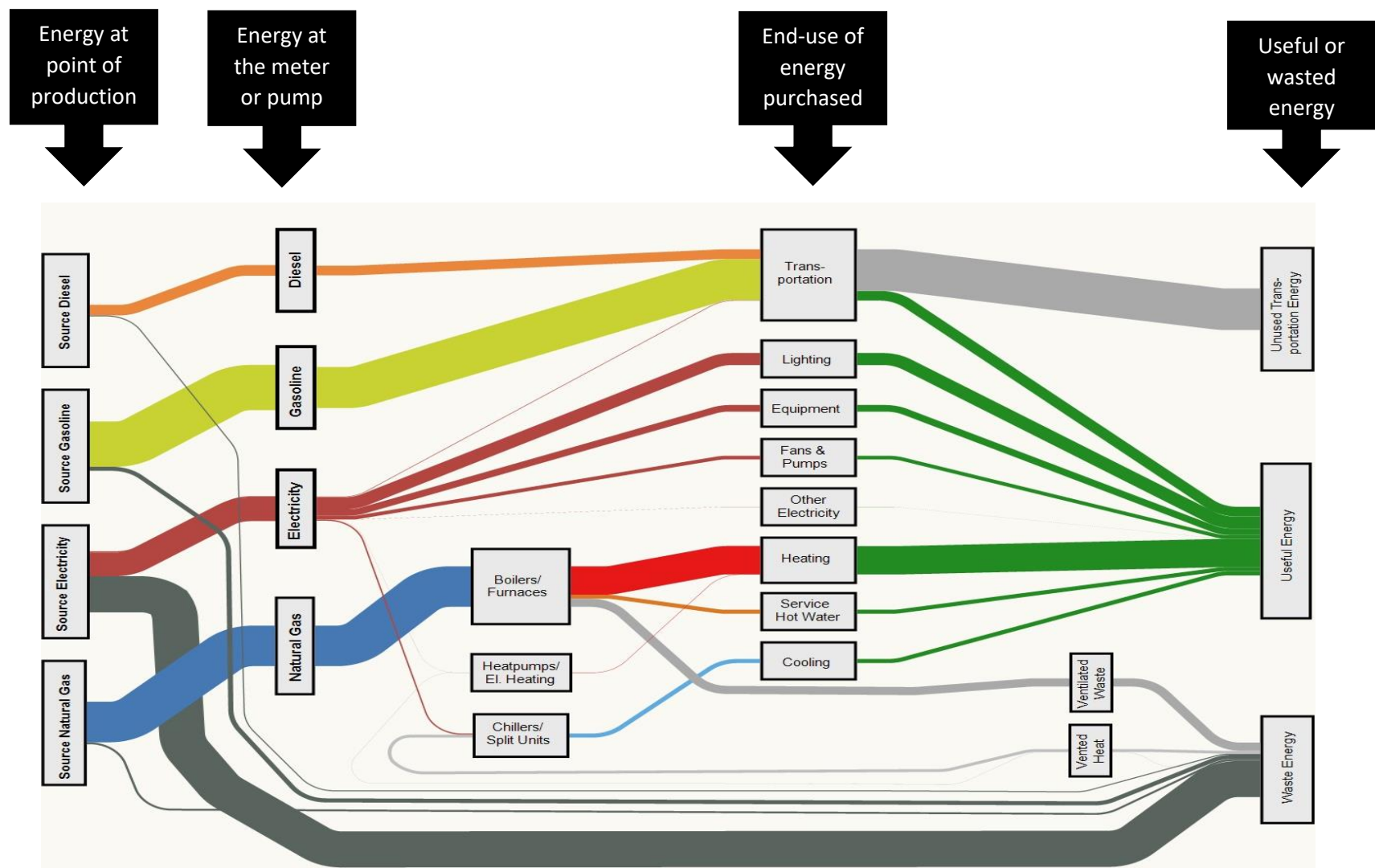
Figure 12 provides a sample of a Sankey diagram and how to read it. The Sankey represents the source energy for Oakville in 2016 (i.e., baseline)

Focusing on energy, examining the changes between the Sankey diagrams for the 2016 baseline and 2050 Base Case shows the increase in end-use energy consumption, waste energy and unused transportation energy from 2016 to 2050, if no local action is taken.

Again, focusing on energy, examining the changes between Sankey diagrams for the 2050 Base Case and 2050 CEERP Efficiency Case shows the decrease in end-use energy consumption, waste energy and unused transportation energy, if the CEERP is implemented.

The Sankey diagrams also highlights that system losses (i.e., conversion, transmission and distribution losses) and end-use inefficiency consume half of the energy we purchase. Brampton consumers pay for the energy at the point of production. However, Brampton consumers only get to use the energy that reaches the electricity or natural gas meter, or gasoline or diesel pump.





*Figure 12: How to read the Sankey diagram for source energy flow in Brampton in 2016. The grey colour on the right represents energy (regardless of source) that is paid for but not used. The green colour on the right represents useful energy.*



## 10. CEERP Recommendations

PWT recommendations were based on the CEERP Efficiency Case.

### 10.1 Priority areas

The PWT identified four priority areas. The following provides a high-level rationale for each priority area.

#### 10.1.1 Home and Building Efficiency

**Canada:** Energy efficiency is recognized as the first fuel of a sustainable global energy system.<sup>16</sup> The built environment is the third largest emitting sector in Canada and most existing homes and commercial and institutional buildings will still be in operation in 30 years.<sup>17</sup> Consequently, this sector has been identified a priority for action by the federal, provincial and territorial governments.

**Brampton:** The built environment accounts for 44% of Brampton's energy use and 28% of greenhouse gas emissions. Brampton homes are the source of 21% of greenhouse gas emissions. The residential sector also accounts for almost three quarters of the water consumption in Brampton.

#### 10.1.2 Industrial Efficiency

**Canada:** Industrial activity is most often regulated and guided by broader global best-practices and standards. Industry is driven to reduce their bottom line with continuous improvement in energy and water management. Many companies also have corporate-wide emissions standards responding to both customer pressure and public opinion in many different countries.

**Brampton:** Brampton's industrial sector demonstrates higher energy, emissions and water performance relative to global best practice than other sectors. However, there is still an opportunity to share this energy and water management expertise within the community to promote world class energy performance. The industrial sector in Brampton does consume 21% of total source energy.

#### 10.1.3 Local Energy Supply and Distribution

**Canada:** Energy is lost when it is converted from one form to another (e.g., when natural gas is used to generate electricity) and when it is moved from one location to another. Over half of the energy flow in Canada is lost before it reaches consumers. The cost of these system losses is borne by end-users. Bringing generation (e.g., solar photovoltaics, combined heat and power) and distribution (e.g., district energy) closer to home can reduce system losses. Modern district

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<sup>16</sup> Reference: <https://www.iea.org/topics/energyefficiency/>

<sup>17</sup> Source: Natural Resources Canada



energy distribution systems are recognized as an important pathway to decarbonize urban heating and cooling.<sup>18</sup>

**Brampton:** Close to half the energy spent to heat and power homes, buildings, and industry in Brampton is lost through end-user and system inefficiencies. The highest conversion losses are associated with electricity use. Increasing local electricity generation would reduce the economic impact of these losses on the community.

In 2016, solar photovoltaics accounted for less than 0.5% of total electricity generation in Brampton.

The use of natural gas contributes almost 40% of Brampton's emission which underscores the need to identify measures that address the heating, cooling and hot water needs of homes and buildings through the local distribution of heat and, to a lesser extent, cooling. As Brampton grows and increases urban density in certain areas, there is an opportunity to provide district heating and cooling. District energy worldwide is seen as a scale enabler to systematically reduce GHG emissions from heating and cooling. Combined heat and power would also contribute to increasing local electricity generation and reduced system losses. Establishing significant district energy, initially with gas-fired combined heat and power as one element, creates a pathway to effective thermal decarbonisation.

#### 10.1.4 Transportation Efficiency

**Canada:** The transportation sector represents almost 25% of national greenhouse gas emissions. Almost half of these emissions arise from the use of personal automobiles.

**Brampton:** Transportation accounts for almost 60% of community-wide greenhouse gas emissions and half of the total dollars spent on energy in Brampton.

#### 10.2 Strategic Objectives

The PWT made 13 recommendations based on these priority areas each with targets for 2041 (Table 4). These recommendations form the strategic objectives by which the Task Force can achieve the CEERP vision and goals.

Underlying these strategic objectives is an overarching enabling recommendation to make Brampton a "smart energy community" by continuing to use data and evidence-based decision making to optimize energy and climate performance.

The following recommendations are made for the consideration of the TF in identifying implementation priorities for the first five years:

- Implement interoperable smart metering for gas, electricity, heating, cooling and water
- Implement comprehensive traffic count and vehicle activity metering systems
- Create interoperable protocols to enable neighbourhood level building automation
- Implement an integrated "smart energy community" analysis and reporting platform

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<sup>18</sup> <http://www.districtenergyinitiative.org/>



- Ensure “smart energy community” measures align with wider “smart city” goals

**Table 4: Summary of CEERP priority areas, strategic objectives and 2041 targets.**

| Priority Area                      | #  | CEERP Strategic Objective   | 2041 Target  |
|------------------------------------|----|---|--|
| Home and Building Efficiency       | 1A | Increase efficiency of existing homes.  | Achieve a 35% residential sector efficiency gain by retrofitting 80% of existing homes.  |
|                                    | 1B | Increase efficiency of existing buildings.  | Achieve a 22% commercial and institutional sector efficiency gain by retrofitting 60% of existing buildings.                                   |
|                                    | 1C | Increase delivered efficiency of new property   | Achieve a 17% Ontario Building Code efficiency gain.   |
|                                    | 1D | Increase water efficiency of existing homes and buildings   | Achieve a 34% water efficiency gain  |
| Industrial Efficiency              | 2A | Proliferate best practice to all local industry   | Achieve a 20% industrial sector efficiency gain.   |
| Local Energy Supply & Distribution | 3A | Implement district energy in high growth districts with a mix of combined heat and power and other low-carbon heating and cooling sources | Serve 70% of existing target property and 80% for new target property with district heating in areas targeted for densification or new growth. |
|                                    | 3B | Install solar hot water in lower growth districts   | Serve 10% of hot water and heating needs in homes not served by district energy with solar hot water.  |
|                                    | 3C | Generate significant amounts of solar power installed on suitable rooftops and other locations  | Supply 8% of Brampton’s electricity needs with locally generated solar power.  |
| Transportation Efficiency          | 4A | Reduce average trip length  | Reduce average trip length by 7.5% for light-duty vehicles.  |
|                                    | 4B | Increase trips by bike and walking  | Increase the share of passenger kilometers travelled (PKT) by bus, bike and walking by 10%   |
|                                    | 4C | Increase trips by bus and GO Train  | Increase the share of passenger kilometers travelled (PKT) by GO Train by 15%  |
|                                    | 4D | Increase use of electric vehicles   | Increase electric share of light-duty vehicles by 30% and heavy-duty vehicles by 10%   |
|                                    | 4E | Increase efficiency of vehicles   | Increase efficiency of gas/diesel vehicles by 36% efficiency gain and electric vehicles by 20%   |



The following sections provide some additional commentary on the strategic objectives.

### 10.2.1 Strategic Objective 1A and 1B

The current energy efficiency retrofit market for home and building owners and contractors is relatively unattractive. Historically, market uptake of retrofit programs has been low. From the perspective of the contractor, the effort to prepare customized proposals is high and the closing rate is low. Low volumes and the fact that every project is specific to each household means that material costs are expensive and performance guarantees are risky. From the home and building owners' perspective, obtaining understandable bids from various contractors is burdensome. They are responsible for finding their own sources of funding based on their individual credit rating. Finally, the low volumes result in retrofit costs that typically exceed the value of the energy saving, even over many years.

To address these challenges, the PWT recommends offering standardized energy retrofits to homes and commercial and institution buildings at high volumes. Contractors benefit from increased project predictability, improved margins and vastly higher project volumes. Home and building owners benefit from a simplified transaction, guaranteed pricing, lower cost pre-financed retrofits and a simple billing and payment mechanism.

A similar program would be considered for commercial property owners once the program for the residential sector was running.

In addition, property-assessed financing has the distinct advantage of tying the efficiency investment to the property, mitigating the risk of the home and building owner that their payback period is longer than the time they remain (or intend to remain) in the home or own the building.<sup>19</sup> Attractive interest rates and borrowing terms can be achieved for home and building (residential and commercial) owners while reducing or eliminating their up-front capital costs.

The following recommendations are made for the consideration of the TF in identifying priorities for implementation during the first five years:

- Create a Retrofit Entity to:
  - offer quality-controlled standardized retrofits by property type and age
  - deliver by partnering with local contractors
  - offer property-assess financing to homeowners to encourage uptake
  - attract third-party financing
- Require energy performance labels when homes and buildings are rented or sold (see Strategic Objective 1C for details)
- Encourage Sheridan to develop supporting workforce programs

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<sup>19</sup> Provincial Local Improvement Charges (LIC) regulations were amended in 2012 to enable voluntary energy and water efficiency upgrades of private homes and buildings, allowing Ontario municipalities to provide long-term, low-cost financing for residential, commercial and industrial building energy and water conservation retrofits.



### 10.2.2 Strategic Objective 1C

The International Energy Agency (IEA) recommends mandatory energy labelling of homes and buildings to promote efficiency. Natural Resources Canada offers a voluntary home labelling program. However, European Union best practice includes emissions and source energy indicators.<sup>20</sup>

According to the Pembina Institute, the uptake of voluntary home labelling programs in Canada has been hampered by a lack of familiarity with the rating system and a shortage of comparator homes in the market.<sup>21</sup> Both barriers would be addressed through a mandatory program. Disclosure of the energy performance of homes and buildings transform the market for energy efficiency.

The following recommendations are made for the consideration of the TF in identifying priorities for implementation during the first five years:

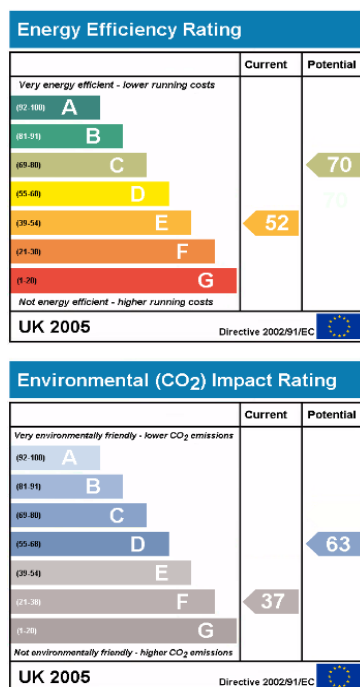
- Offer energy performance labels when buildings are rented or sold (see insert on previous page)
  - Raise customer awareness and expectations through comprehensive outreach
  - Engage mortgage lenders to provide energy-efficient mortgages
  - Engage Alectra, Enbridge, key builders and realtors as champions
- Explore opportunities for net zero neighbourhoods in target net-zero energy planning districts (see Strategic Objective 3A)
- Encourage Sheridan to develop supporting workforce programs

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<sup>20</sup> Intelligent Energy Europe, “Improving Dwellings by Enhancing Actions on Labelling of the EPBD” (2011). Found at: <https://ec.europa.eu/energy/intelligent/projects/en/projects/ideal-epbd>

<sup>21</sup> Pembina Institute, “Home Energy Labelling Requirement at Point of Sale: Pilot Program Design” (2012). Found at: <https://www.pembina.org/pub/home-energy-labelling-requirement-at-point-of-sale-pilot-program-design>





*Figure 13: Example of a Home Energy Performance Label from the United Kingdom*

### 10.2.3 Strategic Objective 1D

The following recommendations are made for the consideration of the TF in identifying priorities for implementation during the first five years:

- Include water efficiency package in standard energy retrofit (e.g., low flow faucets, showers, and toilets)
- Create rainwater harvesting, grey water and xeriscaping information and resource network
- Consider xeriscaping as option for the retrofit entity

### 10.2.4 Strategic Objective 2A

The following recommendations are made for the consideration of the TF in identifying priorities for implementation during the first five years:

- Encourage community industrial best practice networks or communities of practice
- Host global best practice events
- Share industrial energy management expertise in Brampton
- Encourage Sheridan to develop relevant workforce programs

### 10.2.5 Strategic Objective 3A

District energy (DE) systems supply thermal energy (heating and/or cooling) to multiple buildings from a central plant or from several interconnected but distributed plants; thermal energy is conveyed with water through a close network of pre-insulated pipes to meet end users' need for cooling, heating and domestic hot water. Historically, steam networks have been used and are still used in some older systems. A DE system is comprised of three sub-systems which include



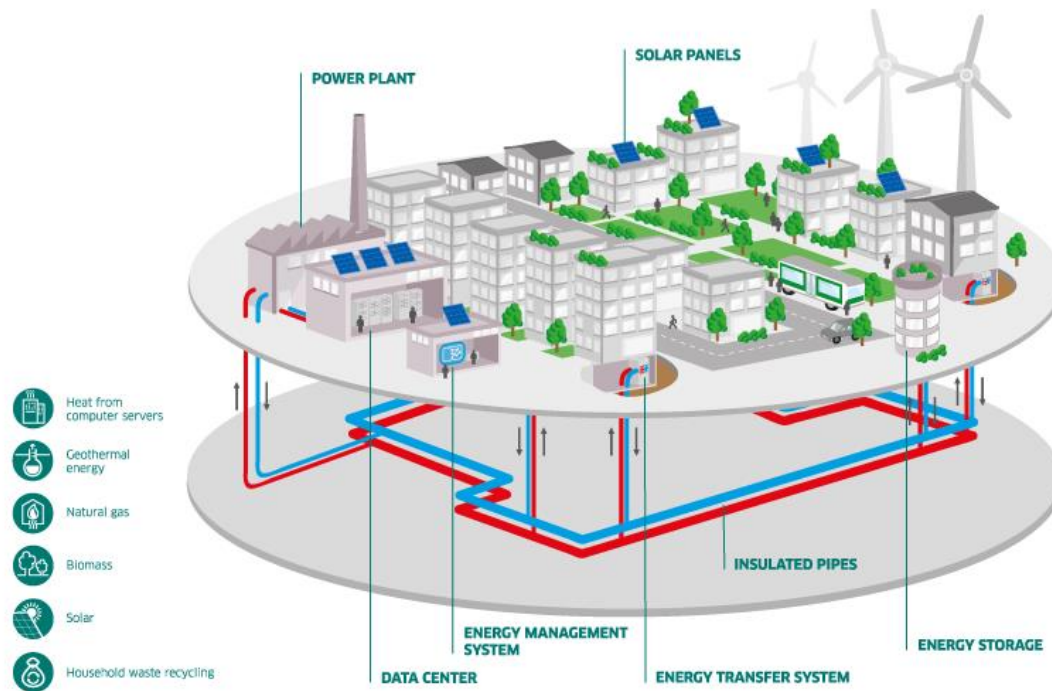
the collection and/or generation of thermal energy, the distribution of that thermal energy from the plant(s) to end-users and the transfer of the thermal energy to the energy consumer.

A barrier to the uptake of district energy is the lack of appropriate governance structures to manage long-term investment in infrastructure. A DE network is typically run as a thermal utility by a company that operates all the plants and networks, ensures service quality and manages the metering and billing of the heating and cooling services. The network allows for economies of scale since the generation of heat in a few larger plants is more efficient than having thousands of boilers each heating their individual building. It also enables valuable energy currently wasted in electricity generation, industrial and other processes to be cheaply captured and delivered to other consumers. Consequently, the creation of a district energy company with appropriate governance to offer heating and selected cooling services is considered an immediate priority.

Combined heat and power (CHP) systems produce electricity and thermal energy from a single fuel source (e.g. natural gas, biomass). When electricity is generated in large scale regional gas-fired power plants, as much as 60% of the energy value is lost (most as heat at the point of generation and the remainder during transmission). This systemic inefficiency can be addressed by generating electricity within the community and capturing the heat for use in a DE system.

Modern DE systems (Figure 2) facilitate creating a flexible portfolio of many kinds of low carbon heat sources. These include large solar-thermal, arrays, biofuel boilers and CHP, sewage waste heat recovery, geothermal arrays, and even boilers using renewable electricity. District energy enables the potential decarbonization of heating and cooling homes and buildings. None of these future possibilities to further reduce the GHG impacts of heating and cooling have been included in the current analysis and are possible upsides.





*Figure 14: Modern district energy system<sup>22</sup>*

By aligning the energy planning districts (EPDs) with Brampton’s urban structure and growth plans, the following EPDs were identified as candidates for district energy (Figure 3):

- Densification EPDs: 18, 19, 20, 21, 23, 32, 33, 34, 35, 36, 37, 39
- Net-zero development EPDs: 1, 2, 6, 7, 14, 15, 16, 26, 27, 28, 29, 30, 38

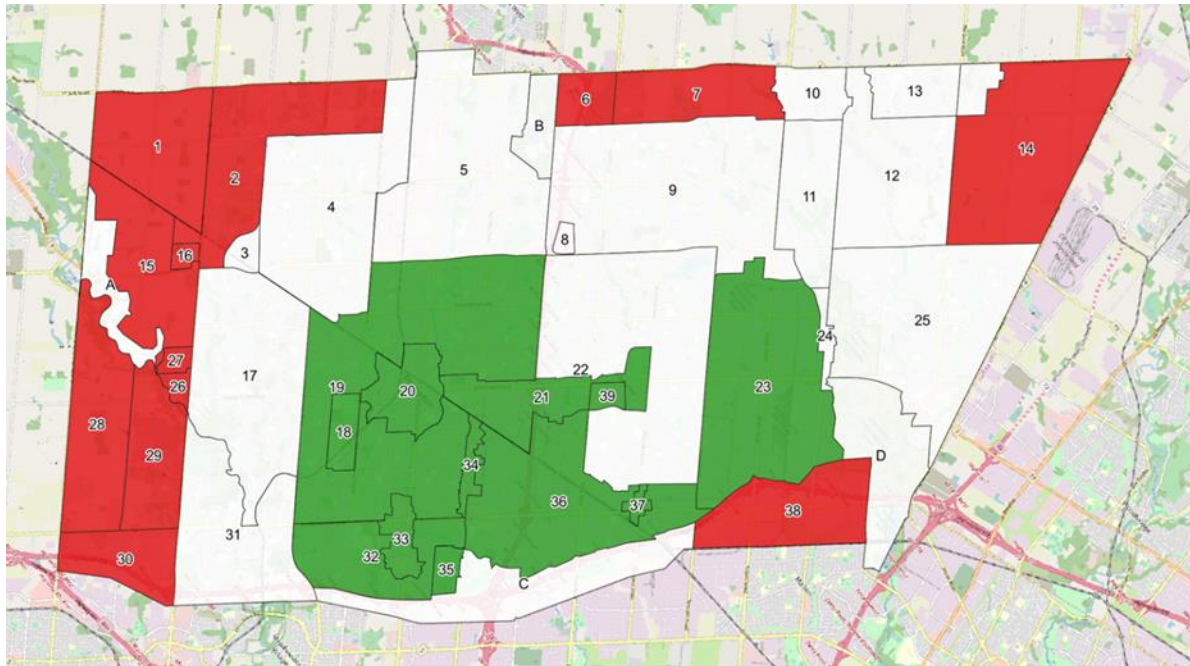
The following recommendations are made for the consideration of the TF in identifying priorities for implementation during the first five years:

- Create a district energy company with appropriate governance to offer heating and selected cooling services
- Raise customer awareness through comprehensive outreach
- Engage Alectra, Enbridge, key builders and realtors as champions
- Ensure the Official Plan, secondary plans and other planning and development tools include measures to promote district energy.
- Establish property, planning and construction guidelines to enable the development of district energy by the private sector
- Implement best-practice networks and energy centres
- Include significant combined heat and power in a balanced supply portfolio
- Showcase Sheridan College as a “living-example”

<sup>22</sup> Image Source: Enegie



- Encourage Sheridan to develop a district energy workforce program
  - Work to ensure alignment with Region of Peel's Official Plan to help influence the upcoming amendments that seek to incorporate energy planning policy
- Promote district energy as a priority with the Peel Climate Change Partnership (the Region's Climate Change Master Plan (2020 – 2030) contains the following Action 8: Enable alignment of Regional actions with transition toward diversified and decentralized energy systems.)



**Figure 15: Identification of Energy Planning Districts as candidates for district energy. Areas planned for densification are represented in green. Areas planned for new growth are represented in red.**

A detailed city-scale district energy business case is recommended as a high priority action after the approval of the CEERP as the logical first step in the due diligence to move strategy 3A foreword. Sheridan is a very small-scale example, and their experience is relevant background. Sheridan has achieved significant GHG reductions from their Integrated Energy and Climate Master Plan.

#### 10.2.6 Strategic Objective 3B

The following recommendations are made for the consideration of the TF in identifying priorities implementation during the first five years:

- Raise customer awareness through comprehensive outreach
- Engage Enbridge, key builders and realtors as champions
- Include in relevant policy, planning construction guidelines
- Include solar hot water system installation as an option in the efficiency package offered to homes and business by the Retrofit Entity (see Strategic Objective 1A and 1B)



- Encourage Sheridan to develop workforce program

#### 10.2.7 Strategic Objective 3C

The following recommendations are made for the consideration of the TF in identifying priorities implementation during the first five years:

- Raise customer awareness through comprehensive outreach
- Engage Alectra, key builders and realtors as champions
- Include in relevant policy, planning construction guidelines
- Include PV installation as an option in the efficiency package offered to homes and business by the Retrofit Entity (see Strategic Objective 1A and 1B)
- Encourage Sheridan to develop a workforce program
- Consider future alignment with the Region of Peel Renewable Energy Strategy (completion in fall 2020)

#### 10.2.8 Strategic Objective 4A

The following recommendations are made for the consideration of the TF in identifying priorities implementation during the first five years:

- Ensure the Official Plan, secondary plans, transportation and transit master plans include specific targets and measures to contribute to the objectives, including:
  - Mixed-use compact neighbourhood design
  - Increased local job to population ratios
  - Local social destinations
  - Shared vehicle services

#### 10.2.9 Strategic Objective 4B & 4C

The following recommendations are made for the consideration of the TF in identifying priorities implementation during the first five years:

- Ensure the Official Plan, secondary plan and transportation and transit master plans include specific targets and measures that will contribute to achieving these objectives, including:
  - Multi-modal transportation nodes
  - Competitive transit services
  - Pedestrian and transit-oriented development
  - Bike, e-bike and walking routes
  - Congestion pricing
- Consider future alignment with Peel Region's Sustainable Transportation Strategy (2018) with its set goal of a 50% sustainable mode share by 2041.
- Consider alignment with Peel Region's Strategic Goods Movement Network Study (enabling the off-peak delivery pilot) and the work of the Peel Goods Movement Task Force.



#### 10.2.10 Strategic Objective 4D

The following recommendations are made for the consideration of the TF in identifying priorities implementation during the first five years:

- Raise customer and fleet owner awareness of electric vehicles (EVs) through comprehensive outreach
- Engage vehicle dealers and manufacturers as champions of EVs in the community
- Ensure transportation and transit master plans include measures to promote EVs including:
  - EV parking and charging stations (including workplace, shopping and district charging stations)
  - Designated parking for electric vehicles
- Electrify municipal and transit fleets
- Ensure the Official Plan, secondary plans and other planning and development tools include specific targets and measures to promote EVs
- Include installation of an EV charging stations as an option in the efficiency package offered to homes and business by the Retrofit Entity (see Strategic Objective 1A and 1B)
- Embrace and lead changes in national & provincial policy

#### 10.2.11 Strategic Objective 4E

While it is recognized that the Brampton community does not have direct control over increasing the efficiency of vehicles, the following recommendations are made for the consideration of the TF in identifying priorities implementation during the first five years:

- Raise customer and fleet owner awareness of the benefits of increased fuel efficiency through comprehensive outreach
- Engage vehicle dealers and manufacturers as champions for increased vehicle efficiency
- Embrace and lead changes in national and provincial policy



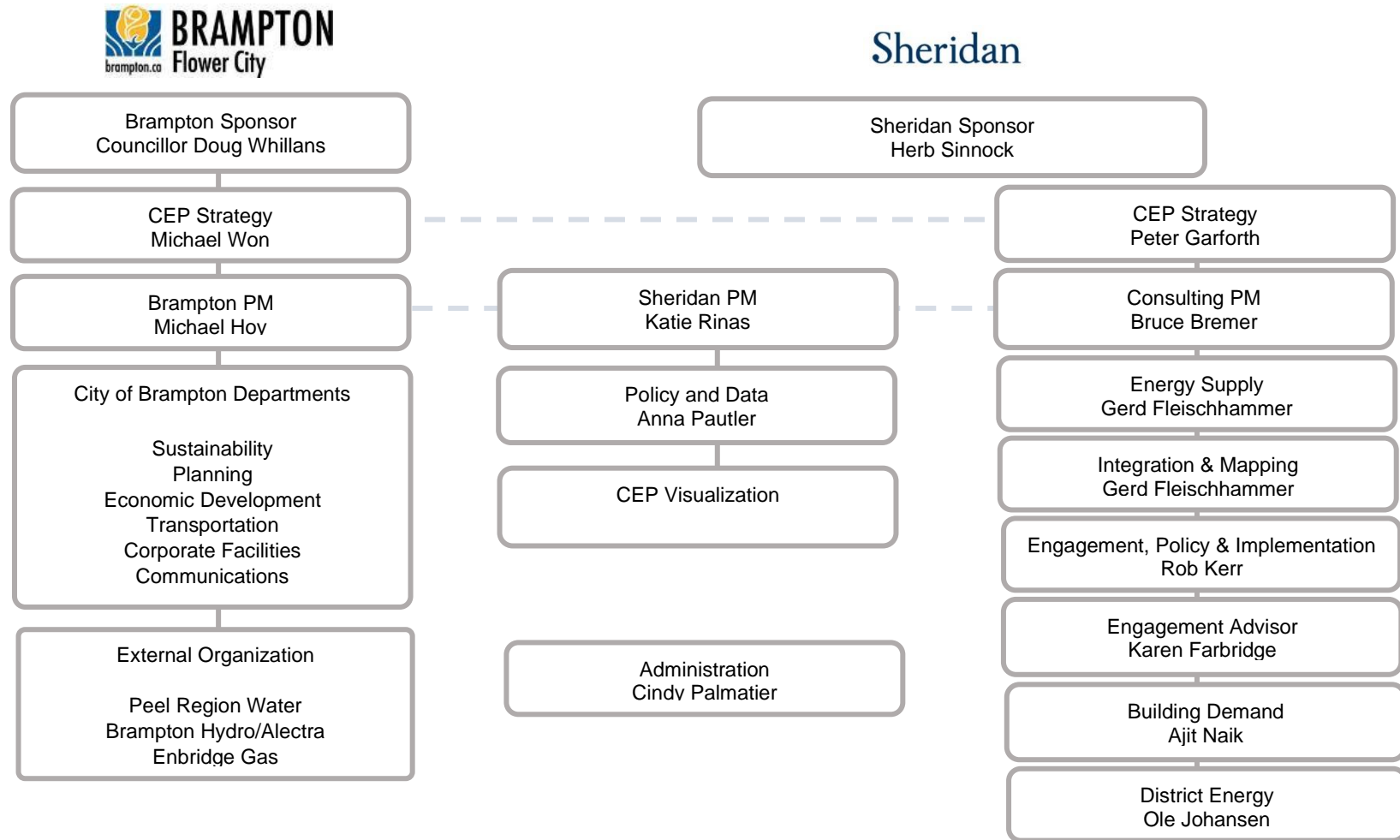
## 11. List of Appendices

|            |                                   |
|------------|-----------------------------------|
| Appendix 1 | Project Working Team Composition  |
| Appendix 2 | Methodology                       |
| Appendix 3 | Baseline and Base Case Findings   |
| Appendix 4 | Scenario 3 Simulation Assumptions |
| Appendix 5 | Efficiency Case Performance       |
| Appendix 6 | Brampton Sankey Diagrams          |



## Appendix 1 – Composition of the Project Working Team

Figure 1 outlines the organization and composition of the Project Working Team (PWT) for the development of the Brampton CEP.



**Figure 1: Organizational Structure and Composition of the CEERP Project Working Team (PWT)**



## Appendix 2 – Methodology

This appendix summarizes the data, information and assumptions that informed the analytical process.

### Contents

|   |   |
|---|---|
| Appendix 2 – Summary of Data and Information Gathering, Framing Goals, Base Case Assumptions and Data Assessment..... | 1 |
| 1. Data and Information Sources .....   | 1 |
| 2. Framing Goals.....   | 3 |
| 3. Base Case Assumptions.....   | 3 |
| 3.1 Efficiency of Existing Homes and Buildings.....   | 4 |
| 3.2 Efficiency of New Homes .....   | 4 |
| 3.3 New Commercial and Industrial Buildings .....   | 4 |
| 3.4 Transportation.....   | 5 |
| 3.5 Water .....   | 5 |
| 3.6 Energy Pricing.....   | 5 |
| 3.7 Energy Supply to Brampton .....   | 5 |
| 3.8 Greenhouse Gas Pricing.....   | 6 |
| 3.9 Water Pricing .....   | 6 |
| 4. Data Assessment .....  | 6 |

### 1. Data and Information Sources

Main sources of data for the development of the Brampton Community Energy and Emissions Reduction Plan (CEERP) are summarized in Table 1. All data pertain to activity occurring within the municipal boundary of Brampton, Ontario. 2016 was chosen as the baseline year as it was the most recent Canadian Census.



**Table 1: Main sources of data for the Brampton CEERP**

| Type                    | Source  | Form   |
|-------------------------|---|--|
| Municipal property      | City of Brampton (public website)                           | Residential and non-residential parcel and structures (Address points) and Building footprints |
| Building turn-over      | City of Brampton  | Demolition permits   |
| Natural gas             | Enbridge Gas  | 2016 consumption by six-digit postal code  |
| Electricity             | Brampton Hydro  | 2016 consumption data and generation (solar photovoltaic) by address                           |
| Water                   | Peel Region   | 2016 consumption data by sector and six-digit postcode   |
| Transportation activity | Transportation for Tomorrow Survey 2016<br>City of Brampton | Public transit, walking, cycling and motor vehicle use data – residential and commercial       |
| Region public transit   | Metrolinx   | GO Train and GO Bus activity   |
| Traffic counts          | City of Brampton<br>Peel Region<br>Province of Ontario      | Through traffic information as done on local, regional and provincial roads                    |
| Vehicle use             | IHS Markit  | Inventory by vehicle type, size and fuel type  |
| Fuel sales              | Kent Group Ltd  | Gasoline and diesel sales used to validate transportation analysis                             |
| Population growth       | City of Brampton  | City forecast from planning  |
| Employment growth       | City of Brampton  | City forecast from planning  |

Brampton population and employment data are summarized in Table 2 and 3, respectively.

**Table 2: Brampton Population Data**

| Indicator                  | 2016    | Year-to-year growth | 2031    | Year-to-year growth | 2041    | Year-to-year growth | 2050    |
|----------------------------|---------|---------------------|---------|---------------------|---------|---------------------|---------|
| Population (#)             | 614,100 | 2.2%                | 834,000 | 0.7%                | 886,700 | 0.5%                | 925,000 |
| Homes (#)                  | 169,304 |                     | 234,600 |                     | 250,500 |                     | 261,000 |
| Average home occupancy (#) | 3.63    |                     | 3.56    |                     | 3.54    |                     | 3.54    |



|                                     |     |  |     |  |     |  |     |
|-------------------------------------|-----|--|-----|--|-----|--|-----|
| Average home size (m <sup>2</sup> ) | 160 |  | 149 |  | 146 |  | 143 |
|-------------------------------------|-----|--|-----|--|-----|--|-----|

**Table 3: Brampton Employment Data**

| Indicator                     | 2016    | Year-to-year growth | 2031    | Year-to-year growth | 2041    | Year-to-year growth | 2050    |
|-------------------------------|---------|---------------------|---------|---------------------|---------|---------------------|---------|
| Jobs (#)                      | 194,927 | 2.4%                | 275,600 | 1.0 %               | 303,700 | 1.1%                | 334,000 |
| Jobs/population               | 0.32    |                     | 0.33    |                     | 0.34    |                     | 0.36    |
| Area (1000 m <sup>2</sup> )   | 14,728  |                     | 19,638  |                     | 20,948  |                     | 22,000  |
| Density (m <sup>2</sup> /job) | 76      |                     | 71      |                     | 69      |                     | 66      |

## 2. Framing Goals

CEERP energy efficiency and emissions framing goals were established for 2041 to align with the City's planning framework:

- Reduce energy consumption per capita 50% below 2016 levels; and
- Reduce absolute emissions by 50% from 2016 levels.

Framing goals were referenced to a 2016 baseline and selected independently of the Base Case. Framing goals were used to evaluate the performance of the Base Case and Efficiency Cases.

## 3. Base Case Assumptions

The Base Case is a "business-as-usual" picture of the future to 2041. To create this picture the PWT needed to establish several assumptions on what business-as-usual looks like. Their approach was to include only short-term assumptions where legislation is already passed (e.g. Ontario Building Code) or where the technical evidence is overwhelming (e.g. average vehicle efficiency gains).

This means the Base Case does not reflect individual views of how Canada's energy and emissions future will evolve. The political shifts seen globally and in Canada demonstrate the risk of assuming a continuous bending of the curve by policy and practice towards lowering GHG emissions.

The PWT instead gave priority to measures that Brampton can influence, more-or-less, within the framework of current legislation. This underlines the opportunity and responsibility for individual communities to take the lead in dramatically reducing their GHG emissions, even with policy fluctuations going on around them.



This approach also underscores the need to update the CEP every 5 years to respond to changes in legislation, policy and technical evidence.

The integrated analysis of the energy, GHG emissions and cost footprint of all energy end-use sectors in Brampton required alignment on a great number of interrelated assumptions. Ensuring that assumptions aligned, and integration of data was as accurate as possible relied on the collaboration of subject matter experts across the PWT.

The following is a list of the key assumptions used for the Base Case. Each assumption was aligned with the relevant subject matter experts within the City and PWT. For example, assumptions on annual population growth in each energy planning district (EPD) was validated by the City's Planning Department (see Figure 1).

### 3.1 Efficiency of Existing Homes and Buildings

- The pool of buildings existing in 2016 could reduce through demolition at a rate driven by recent history. However, in Brampton this was assumed to be “de minimus” and all buildings in 2016 were assumed to be operating in 2041 or demolished as part of a neighborhood-focussed redevelopment. This assumption was validated by demolition permit data.
- The pool average efficiency of each major category of existing property was assumed to be the same in 2041 as it was in 2016. While some buildings will be made more efficient in the normal course of business, others will deteriorate, resulting in the overall pool at average efficiency.

### 3.2 Efficiency of New Homes

- New homes are added at a rate driven by population growth estimates supplied by the City's Planning Department.
- The number of residents per home fall modestly between 2016 and 2041.
- New home types between single detached home, multi-unit home etc. are added to all EPDs based on the land-use development plans of each neighbourhood in dialogue with the City's Planning Department.
- New homes floor areas are somewhat smaller than historic averages.
- The efficiency of each home archetype is assumed to be 100% compliant with the current iteration (2012 and amendments) of the Ontario Building Code (OBC). The OBC is now one of the most efficient in North America. In the real world, full compliance from an energy performance perspective is not always the case, so this Base Case assumption represents an improvement over current market actual practice.

### 3.3 New Commercial and Industrial Buildings

- New commercial and industrial buildings are added at a rate driven by employment growth estimates agreed with the City's Economic Development Department.
- They are added to EPDs designated for mixed use and employment aligned with the City's Planning Department.
- Type and area of new buildings is based on assumed employment mix.
- As for new homes, the efficiency of each non-residential building archetype is assumed to be 100% compliant with the current iteration (2012 and amendments) of the OBC.



### 3.4 Transportation

- The 2016 Baseline represents vehicle kilometers travelled by vehicle category, passenger kilometers traveled by journey category, and resulting fuel use, cost and emissions was developed using the Transportation of Tomorrow Survey, Ministry of Transportation (MTO) highway transit data, retail fuel sales, wider benchmarking and adjustments aligned with the City's Transportation Strategy team.
- Base Case light duty vehicle kilometers are aligned with the City's population growth estimates to 2041.
- Heavy duty vehicle kilometers are driven by employment growth to 2041.
- Fleet mix remains the same to 2041.
- Fleet efficiency increases by 0.2% annually to 2041 (this is the pool average for all vehicles of all ages).
- Modality splits remain the same as 2016.
- Off-Road and domestic navigation emissions are estimated from Ontario emissions reports indexed for the City's planned population growth.<sup>1</sup>

### 3.5 Water

- Existing homes, buildings and industry is assumed to be unchanged
- New homes, buildings and industry is assumed to be 20% more efficient than current average

### 3.6 Energy Pricing

- Lower and higher price outlooks are used to estimate risk and opportunity.
- Lower range aligned with Independent System Electricity Operator's (IESO's) Ontario 2017 Long Term Energy Plan and discussions with Brampton Hydro and Enbridge Gas.
- Higher range based on utility risk planning estimates wherever possible and with discussions with Brampton Hydro/Alectra and Enbridge Gas.

See Figures 2, 3 and 4 for more detail on energy price outlooks.

### 3.7 Energy Supply to Brampton

- Electricity and natural gas continue to be supplied by sources outside the management of the Corporation of the City of Brampton.
- The mix of the functional use of electricity and natural gas for home heating, hot water, cooking, lighting, other home functions and for commercial and industrial process remains unchanged until 2041.
- The Ontario power generating mix between nuclear, gas, wind, solar and hydro remains broadly the same as in 2016, following The Atmospheric Fund (TAF) 2016 estimate with minimal average index reduction from 32 to 28 kg CO<sub>2</sub>e/MWh.
- The regional natural gas supply has a reduced greenhouse gas index assuming an added mix of biogas and power-to-gas from renewable electricity. The reduction of the index is assumed to be about 20% by 2041.

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<sup>1</sup> Canada National Inventory Report 1990 to 2016 <https://unfccc.int/documents/65715>



- Any new local power and heat generation inside Brampton's boundary is considered "de minimus".

### 3.8 Greenhouse Gas Pricing

- Ontario Cap and Trade was in effect in 2016 and its continuity was an underlying assumption at that time. The market was closed in 2018. A carbon tax was started in Ontario on April 1, 2019.
- For the Base Case, the lower and higher ranges of greenhouse gas process reflect experiences in comparable markets in North America and Europe, including the California/Quebec Emissions Trading Scheme, BC Carbon Tax and the European Union Emissions Trading Scheme.

### 3.9 Water Pricing

- Lower and higher price outlooks are used to estimate risk and opportunity.
- The price outlooks are PWT estimates, based Peel, York and Halton regional, and Provincial, narratives on long-term demand and supply outlooks.
- The outlooks assume significant price growth in coming decade driven by the demands of growth for new and improved infrastructure. This assumed to slow in the following decade.

Figure 5 provides more detail on water and wastewater costs.

## 4. Data Assessment

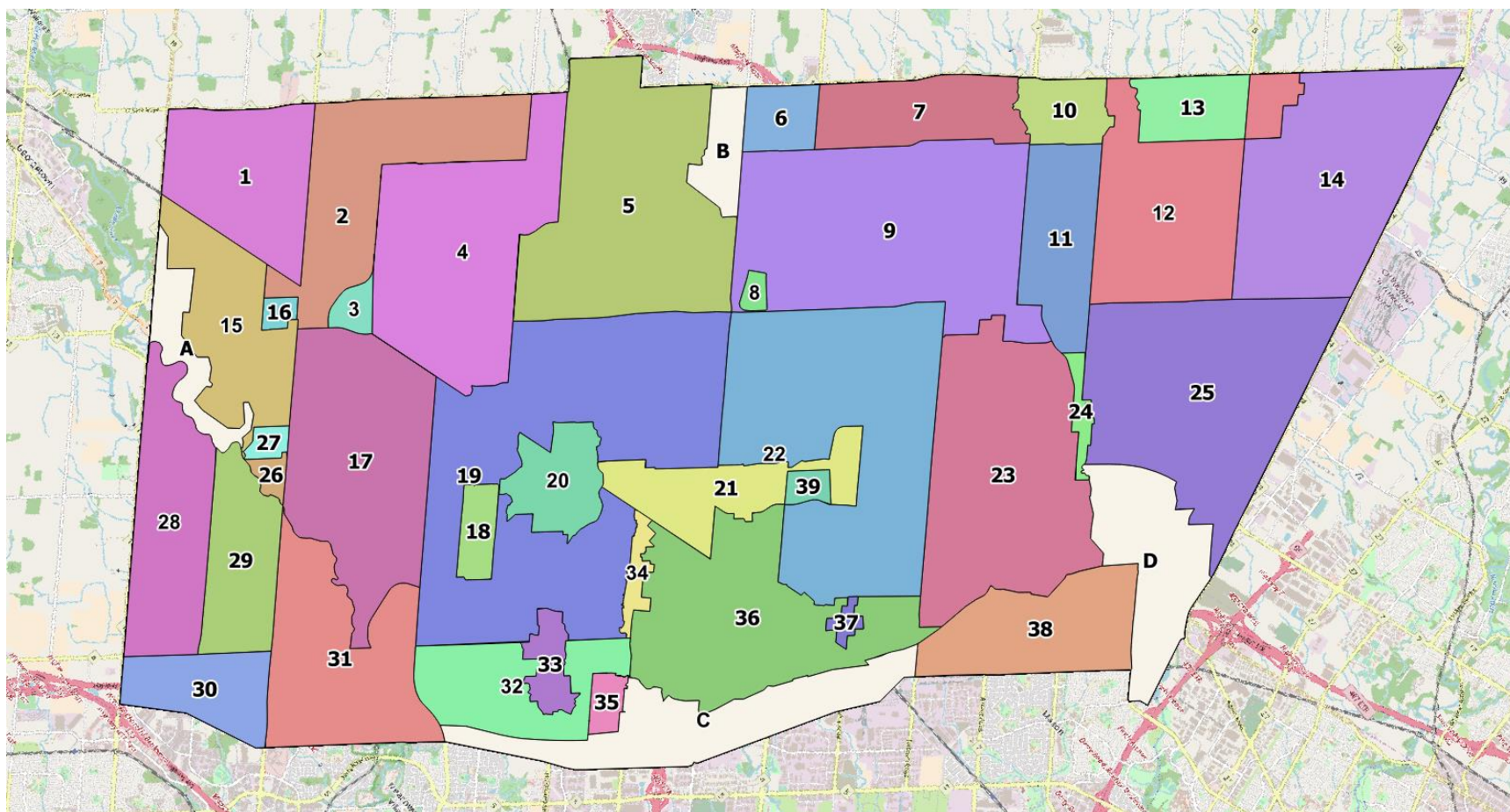
A summary of the robust analytical tools used to assess data is provided in this section.

Figures 6 illustrates how data was assessed to establish 2016 baselines for energy consumption, emissions and energy costs.

Figures 7 illustrates how data was assessed to establish the 2041/2050 Base Cases for energy consumption, emissions and energy costs.

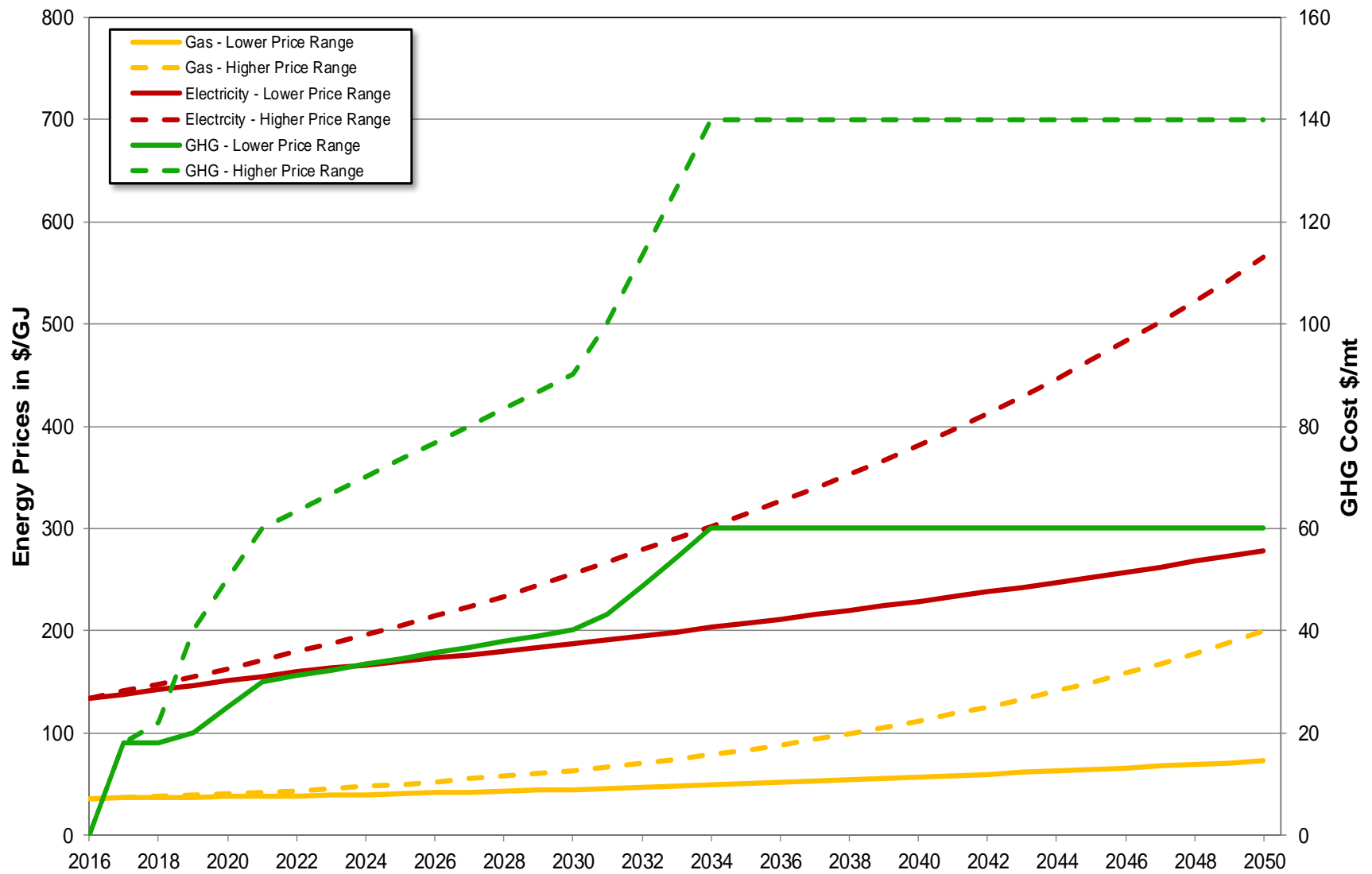
Figure 8 illustrates the Integrated Workbook (IW) that supported simulations of different efficiency scenarios ("Efficiency Cases") to test their ability to achieve energy and emissions goals. The IW was structured by EPD. The Efficiency Cases allow for a wide range of opinions to be simulated and tested against the conservative Base Case.





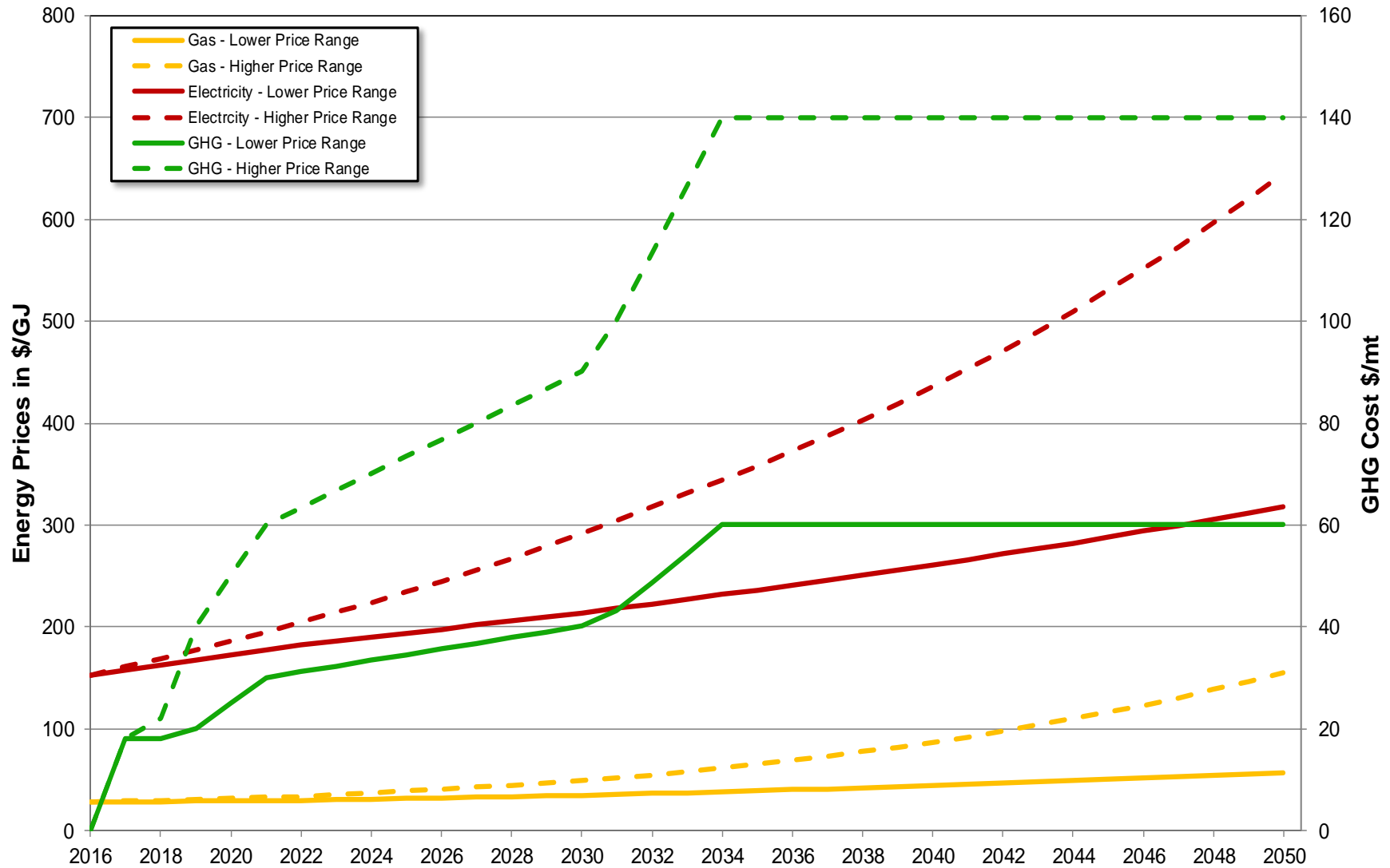
**Figure 1: Brampton Energy Planning Districts**





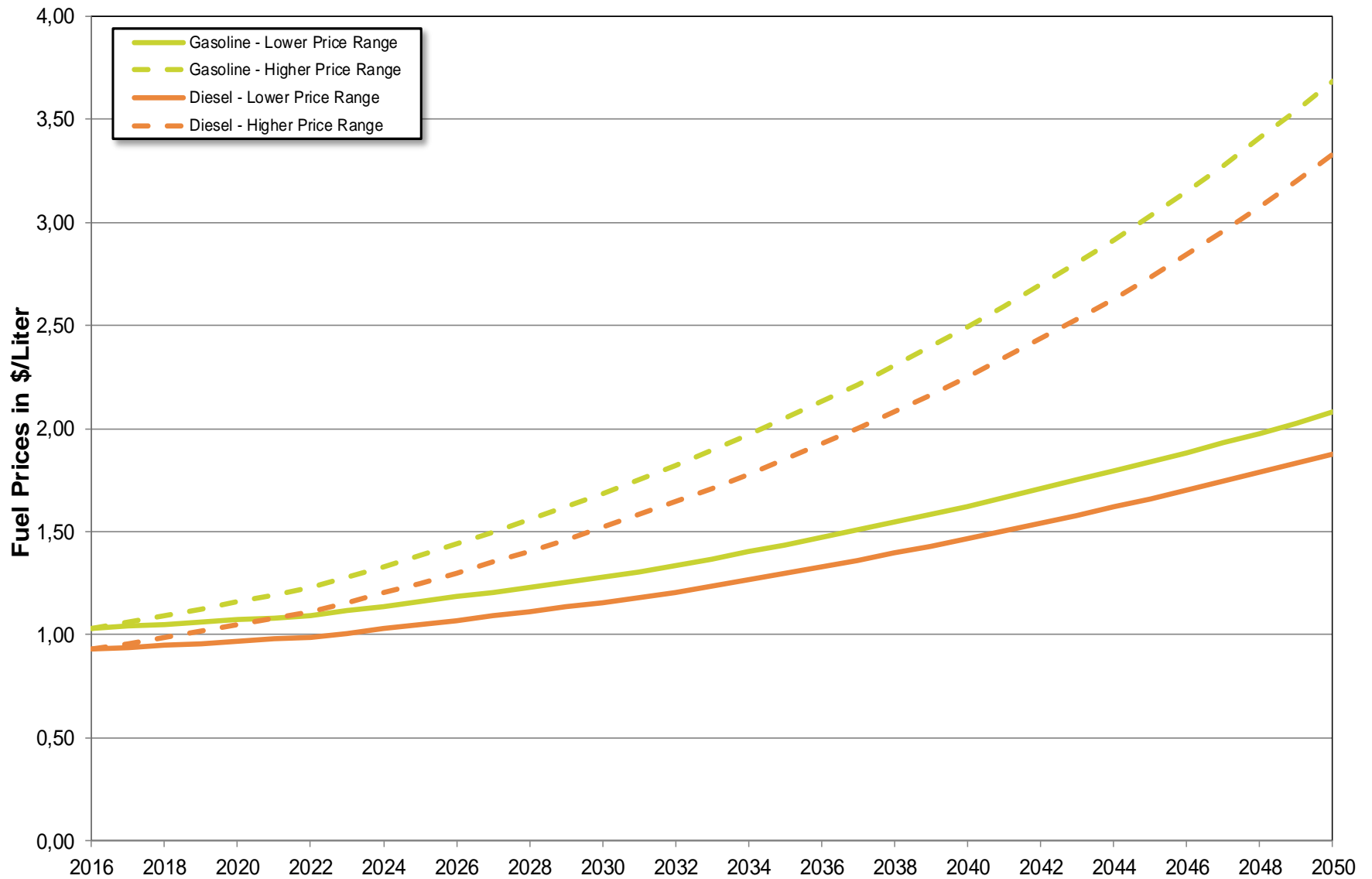
**Figure 2: Projected prices for natural gas and electricity (\$/GJ), and carbon price (\$/MT), for Brampton residential customers from 2016 to 2050.**





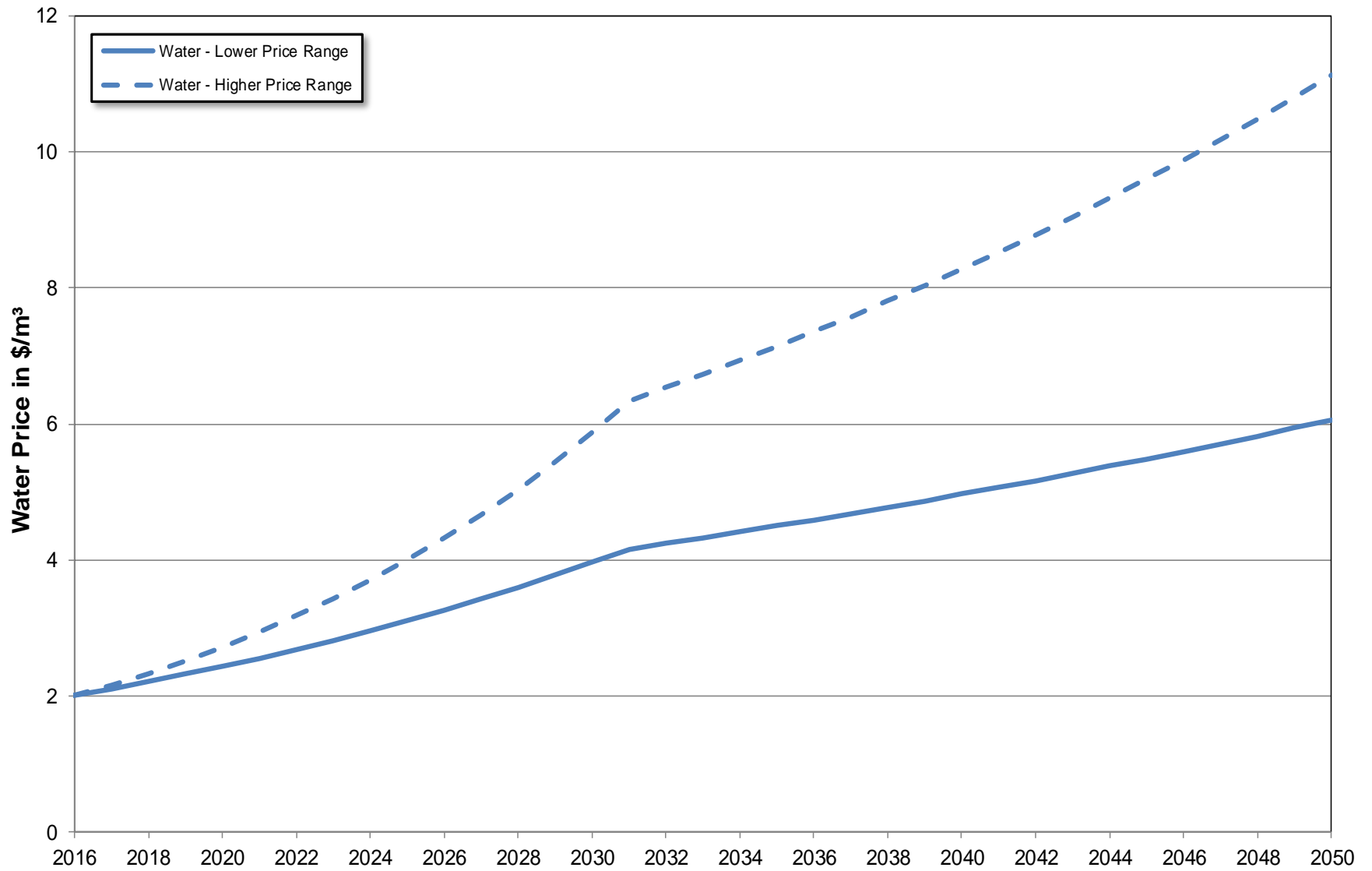
**Figure 3: Projected prices for natural gas and electricity (\$/GJ), and carbon price (\$/MT), for Brampton commercial and institutional customers from 2016 to 2050.**





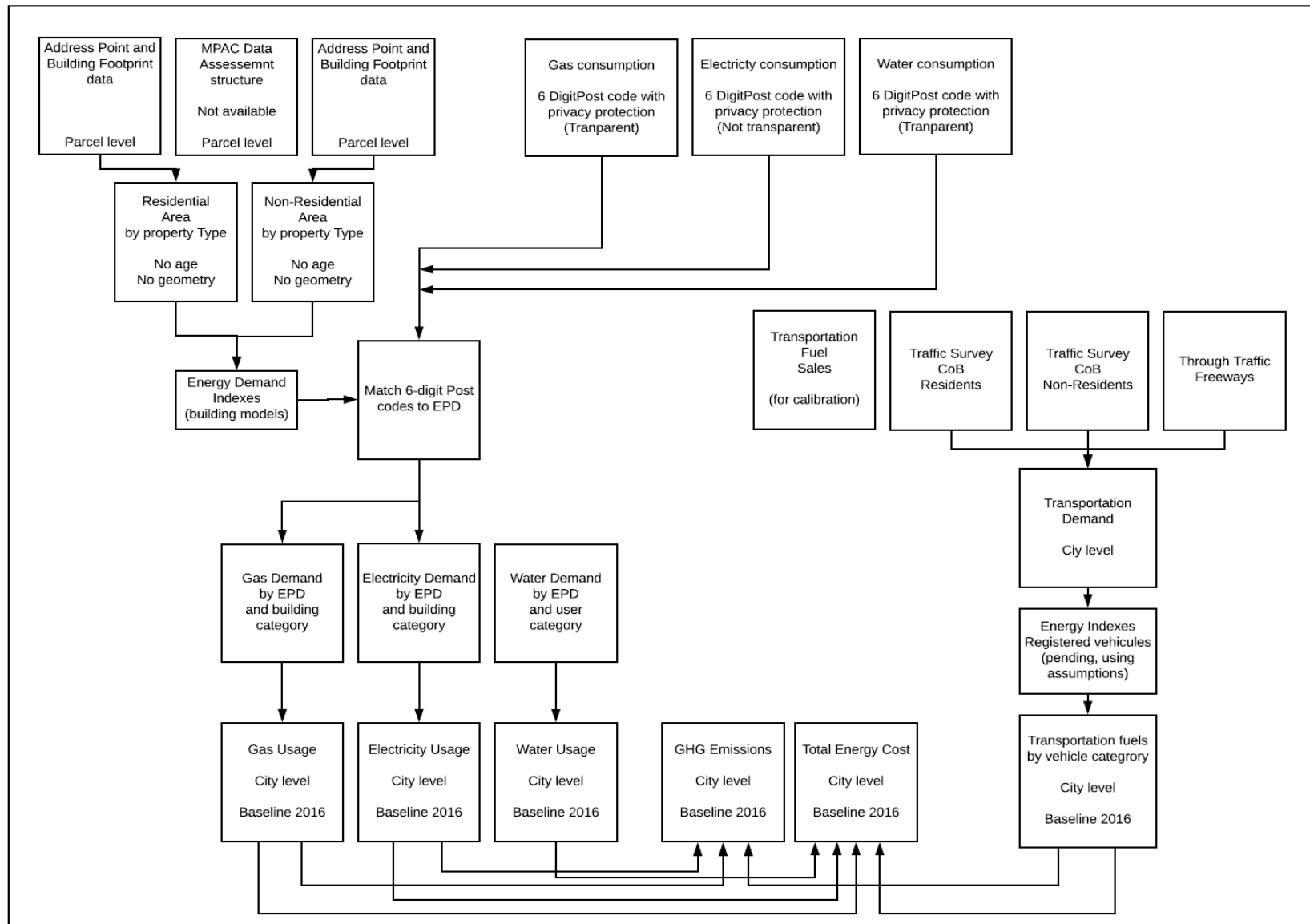
*Figure 4: Projected prices for diesel and gasoline (\$/litre) in Brampton from 2016 to 2050.*





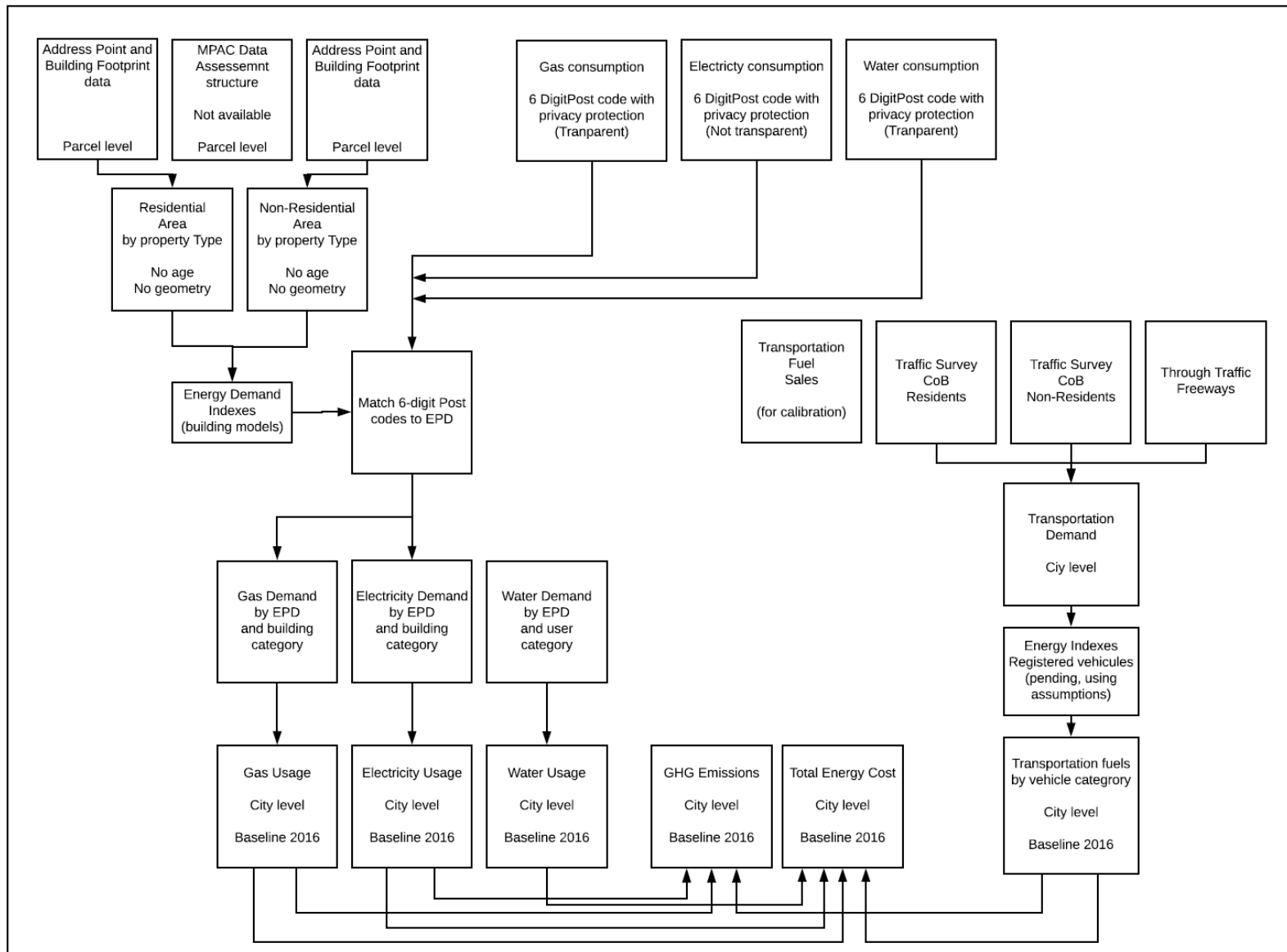
*Figure 5: Projected prices for water and wastewater (\$/m³) in Brampton from 2016 to 2050.*





**Figure 6: Assessment of data to establish Brampton 2016 baselines for energy, emissions and energy costs.**





**Figure 7: Assessment of data to establish Brampton 2041 and 2050 Base Cases for energy, emissions and energy costs.**



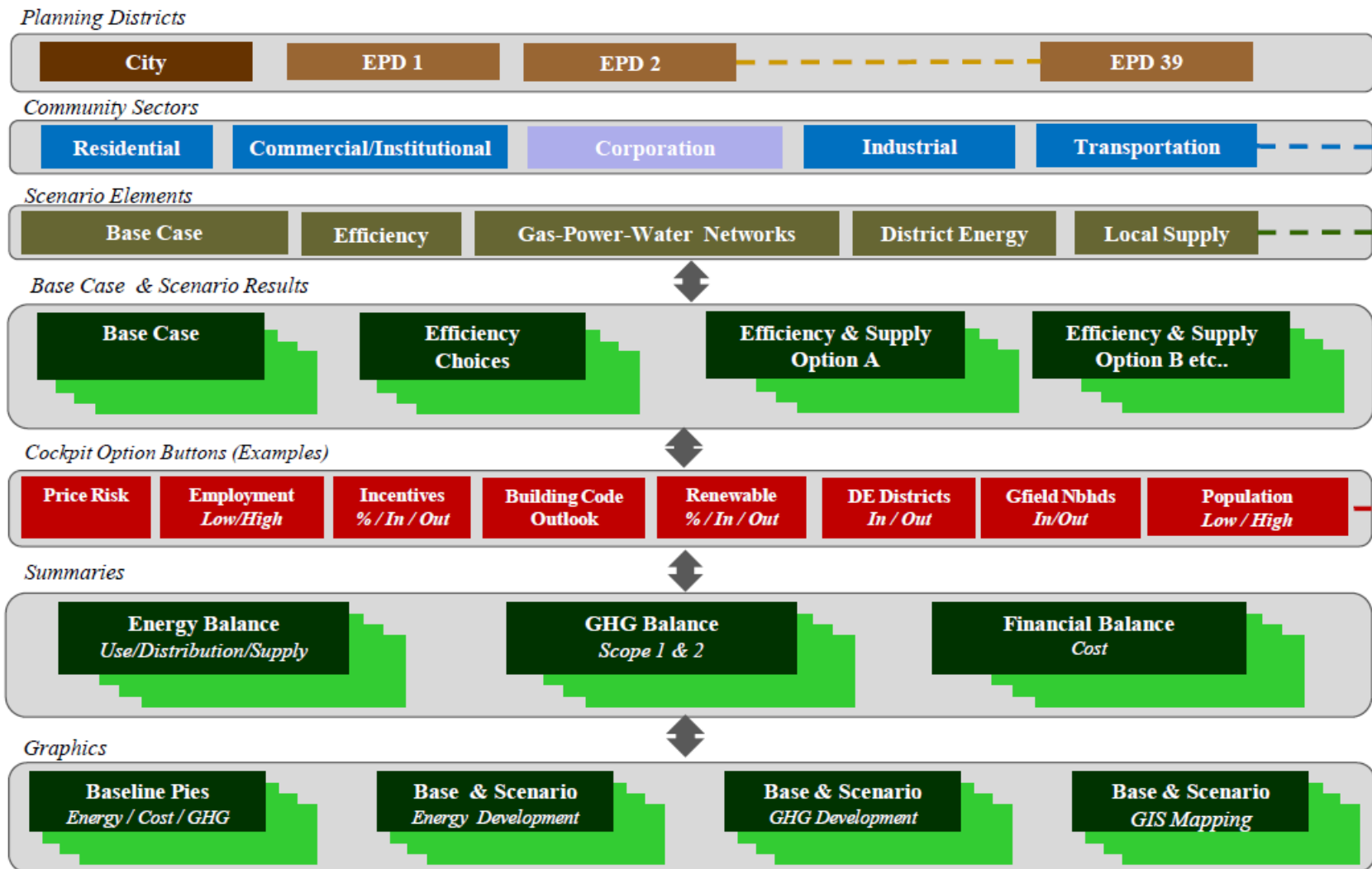


Figure 8: CEERP Integration Workbook



# Appendix 3 – Baseline and Base Case Findings

This appendix provides the analytical outputs for source energy, site energy, emissions, energy cost and water. The data and assumptions underlying these findings are found in Appendix 2.

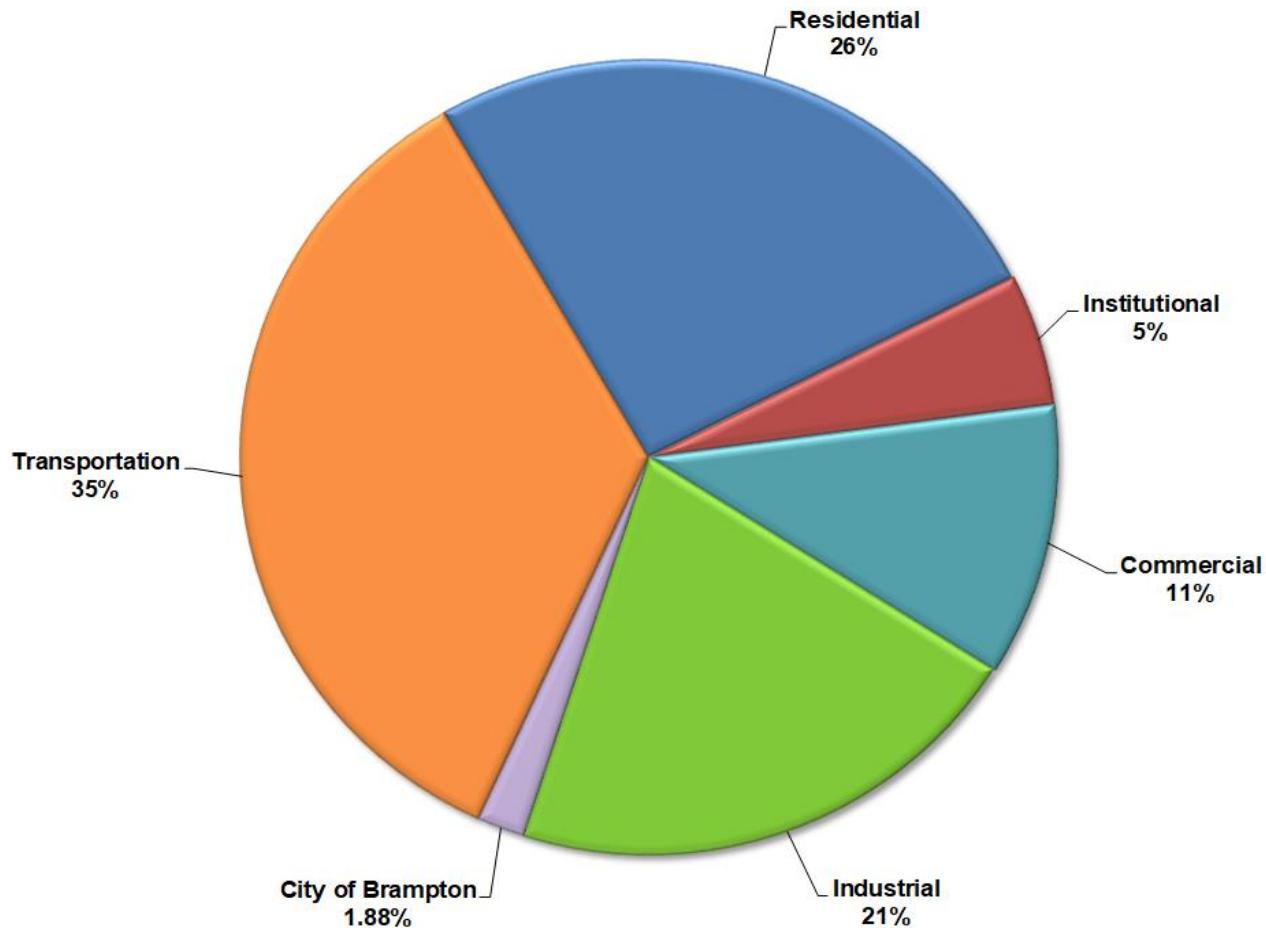
## Contents

|                            |    |
|----------------------------|----|
| Source Energy Use.....     | 2  |
| Site Energy Use.....       | 11 |
| Emissions .....            | 15 |
| Energy and Water Cost..... | 21 |
| Water.....                 | 25 |



## Source Energy Use

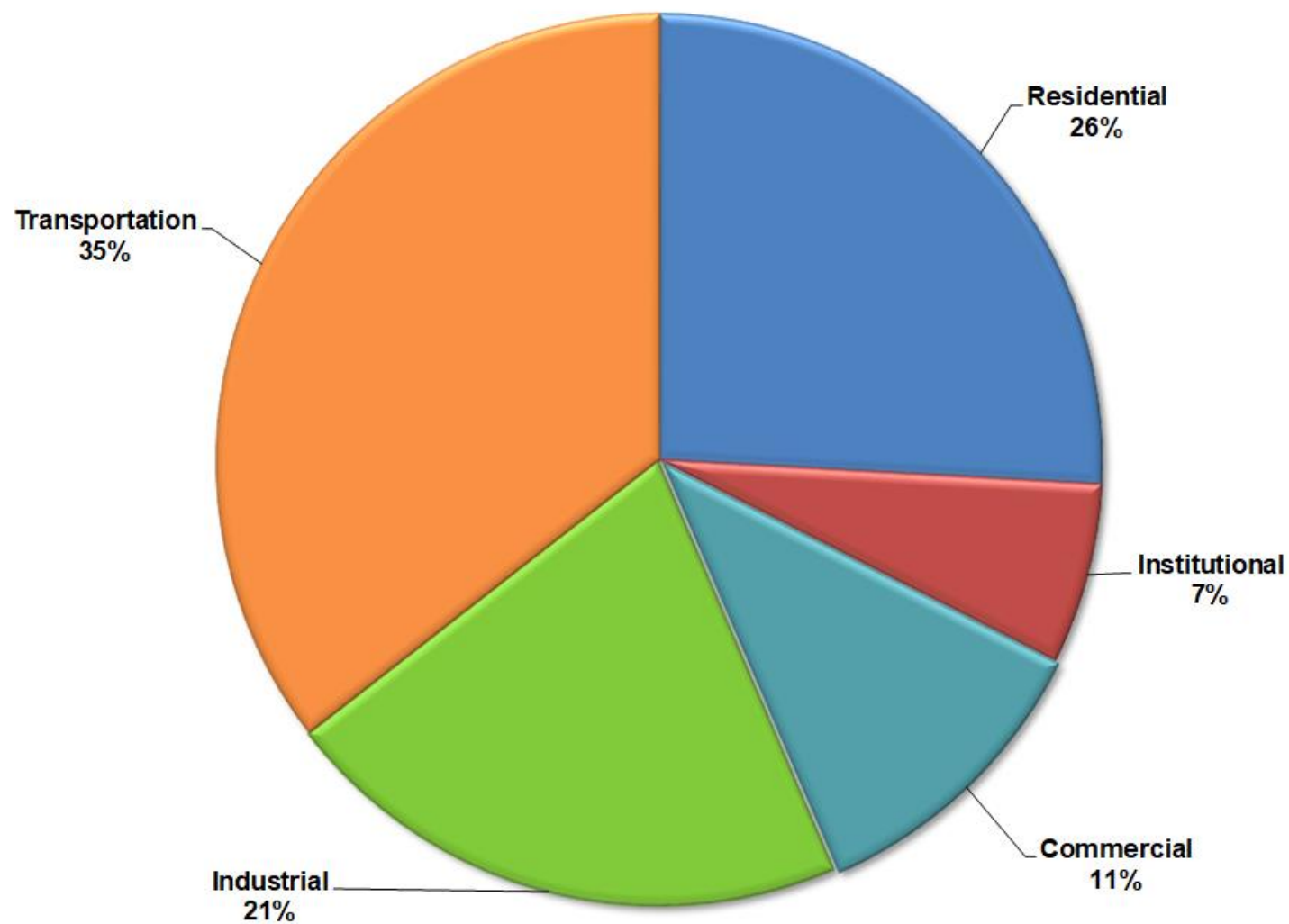
Brampton's total source energy use in 2016 was 92 million Gigajoules (GJ). Figure 1 shows 2016 source energy use by sector with the percentage consumed by municipal operations (facilities and fleet) separated. The City of Brampton's corporate energy use for facilities and fleets represents 2% of total energy use in 2016. Brampton homes represented 28% of Brampton's total source energy use while the transportation sector represented 35% of total source energy use. Industry represented 21%.



*Figure 1: Brampton source energy use (%) by sector in 2016 with municipal facilities and fleet separated.*



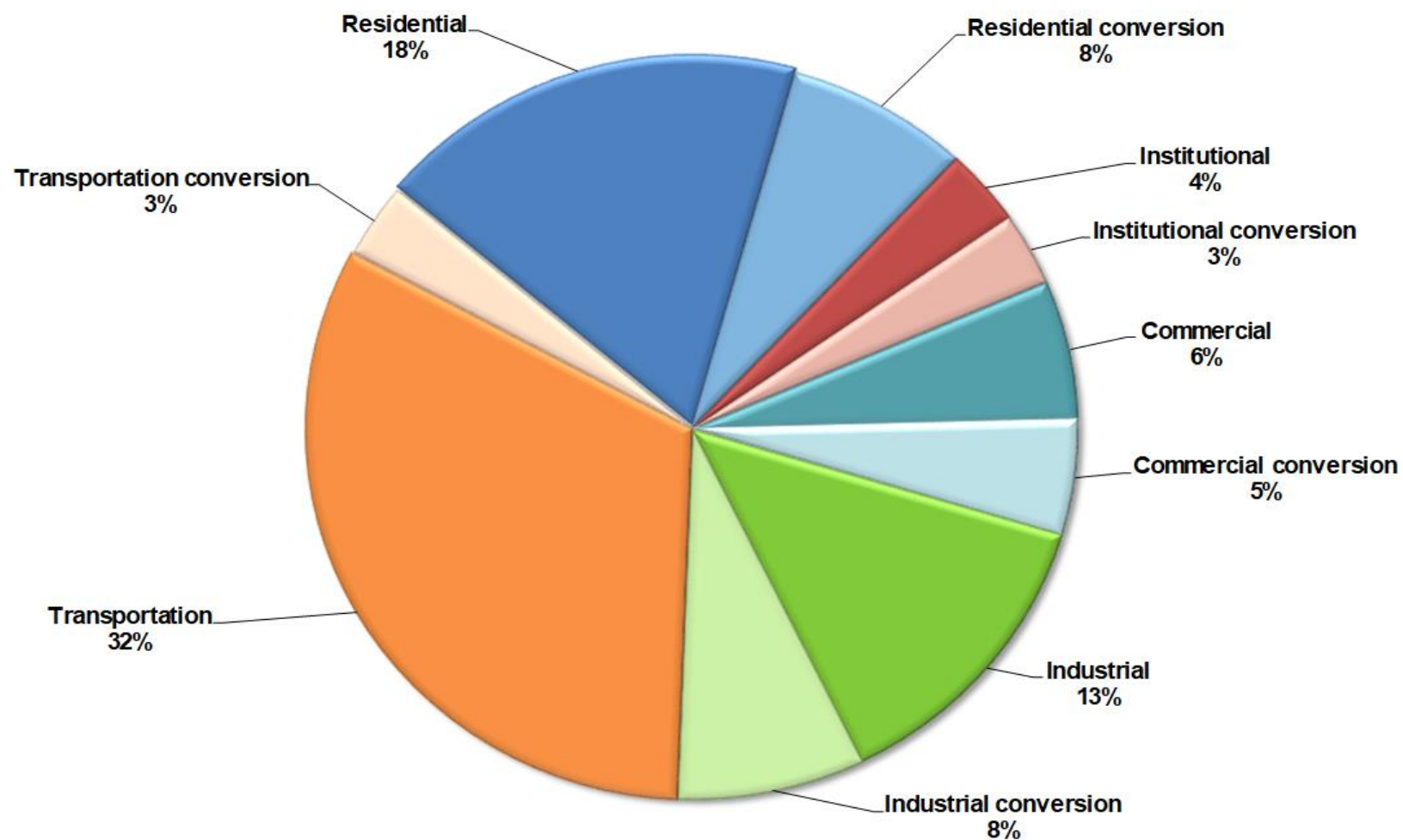
Figure 2 shows 2016 source energy use by sector with municipal facilities and fleet source energy use incorporated into the institutional and transportation sectors, respectively.



*Figure 2: Brampton source energy use (%) by sector in 2016.*



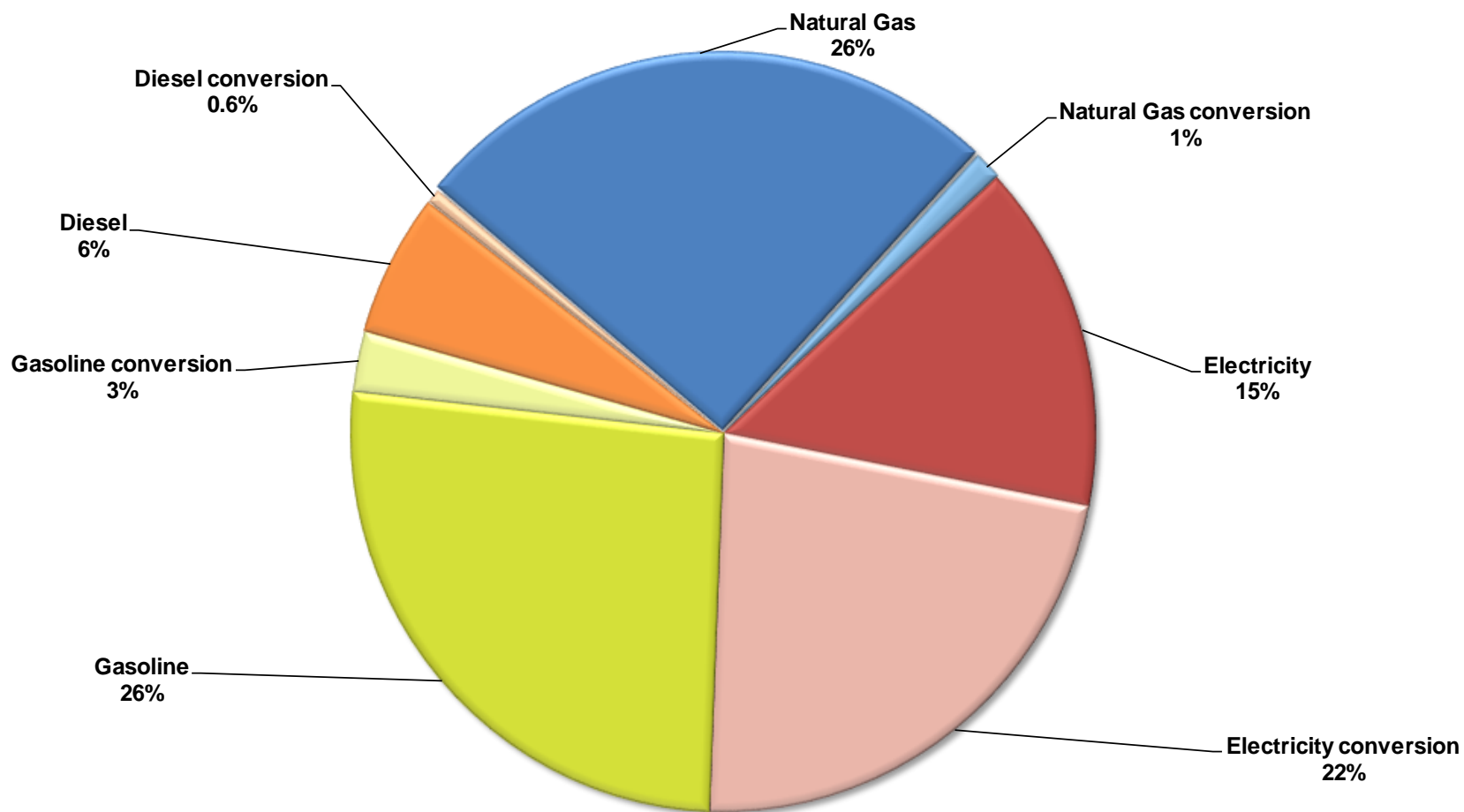
Figure 3 shows conversions losses by sector in 2016. Conversion losses occur when one energy source is converted to another (e.g., when electricity is generated from natural gas). Total conversion losses were approximately 30% of the total source energy purchased in 2016.



*Figure 3: Brampton source energy use (%) by sector in 2016 with conversion losses by sector separated.*



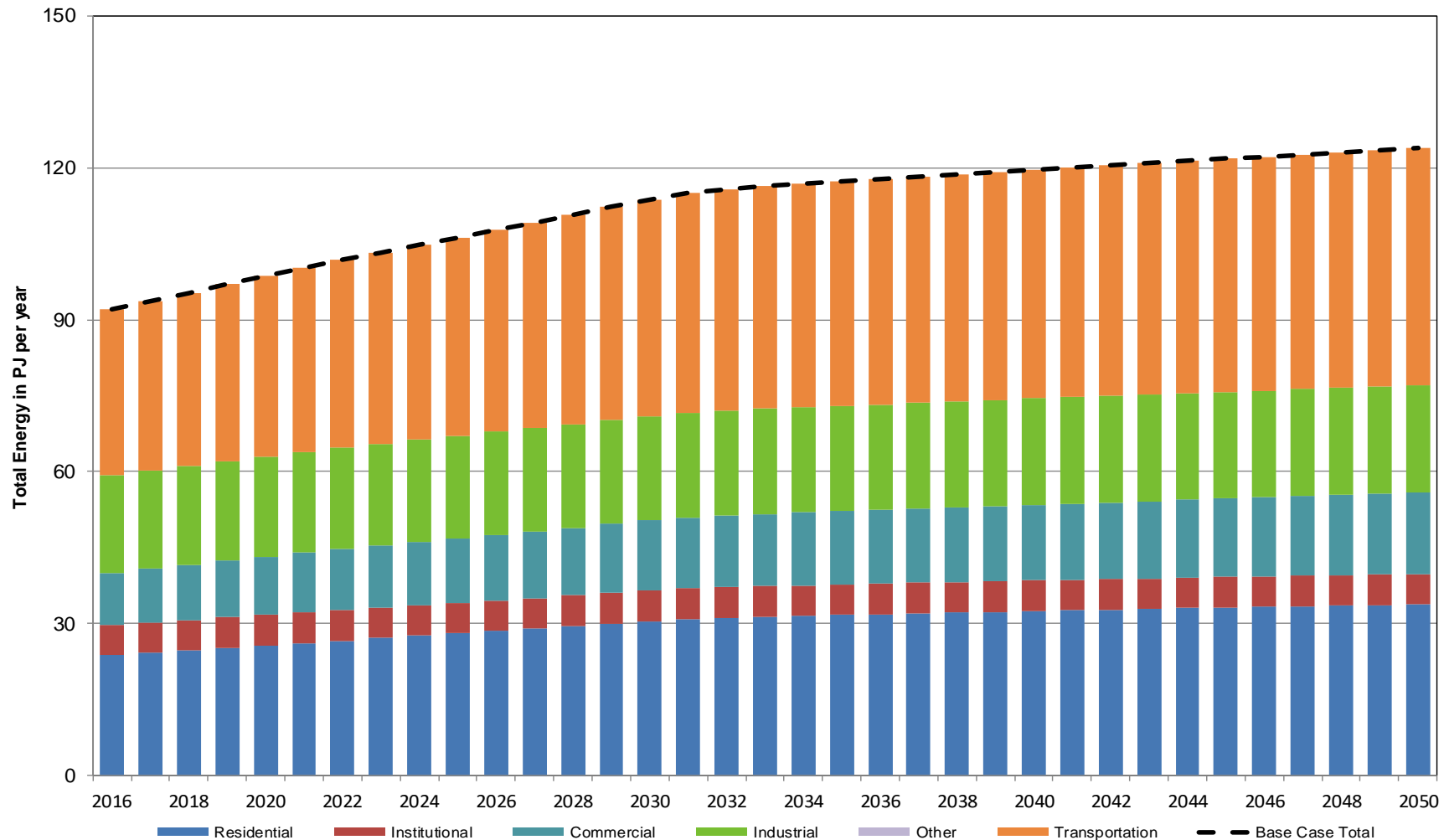
Figure 4 shows Brampton's total source energy use by utility in 2016 with conversion losses separated. The largest conversion losses are attributed to the electricity use at 22%.



*Figure 4: Brampton source energy use (%) by utility in 2016 with conversion losses by utility separated.*



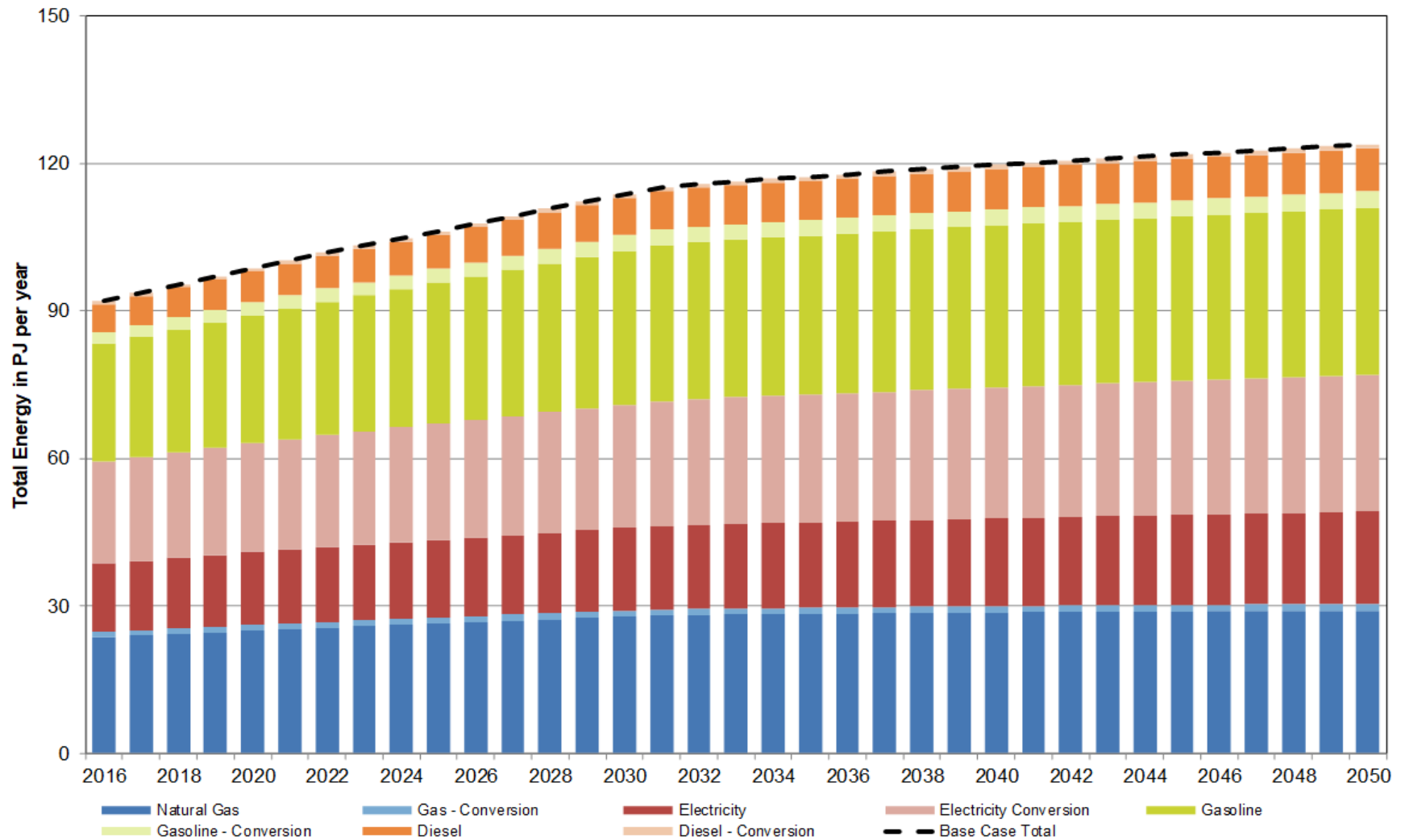
Figure 5 shows the projected annual increase in source energy use by sector from 2016 to 2050 in Brampton. Source energy use is projected to increase to 123 million GJ by 2050, a 30% increase. Population and employment growth are both projected to increase 51% and 73%, respectively, during the same time period.



**Figure 5: Projected increase in Brampton source energy use (PJ) by sector from 2016 to 2050.**



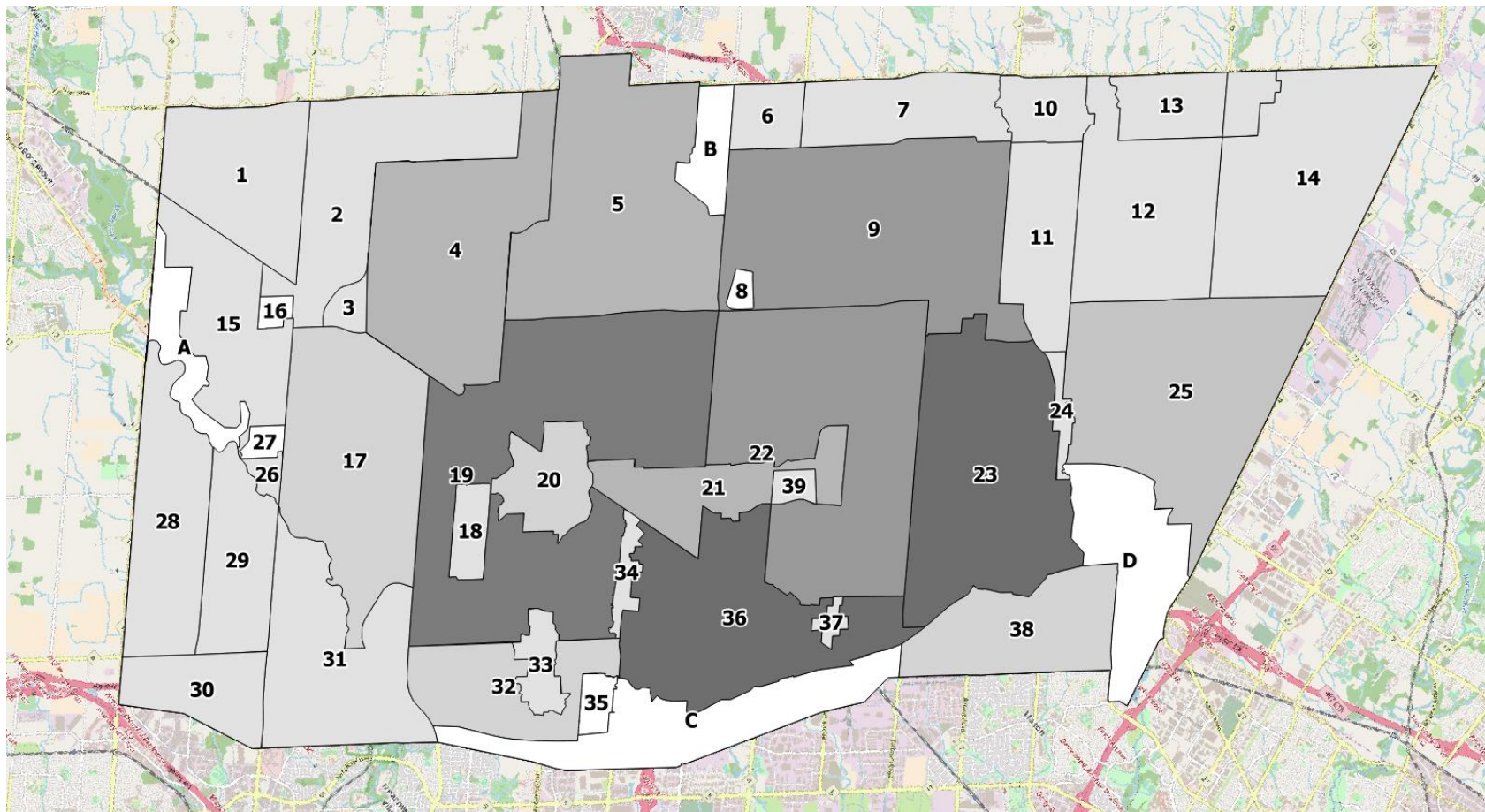
Figure 6 shows the projected annual increase in source energy use by utility in Brampton from 2016 to 2050.



*Figure 6: Projected increase in Brampton source energy use (PJ) by utility from 2016 to 2050.*



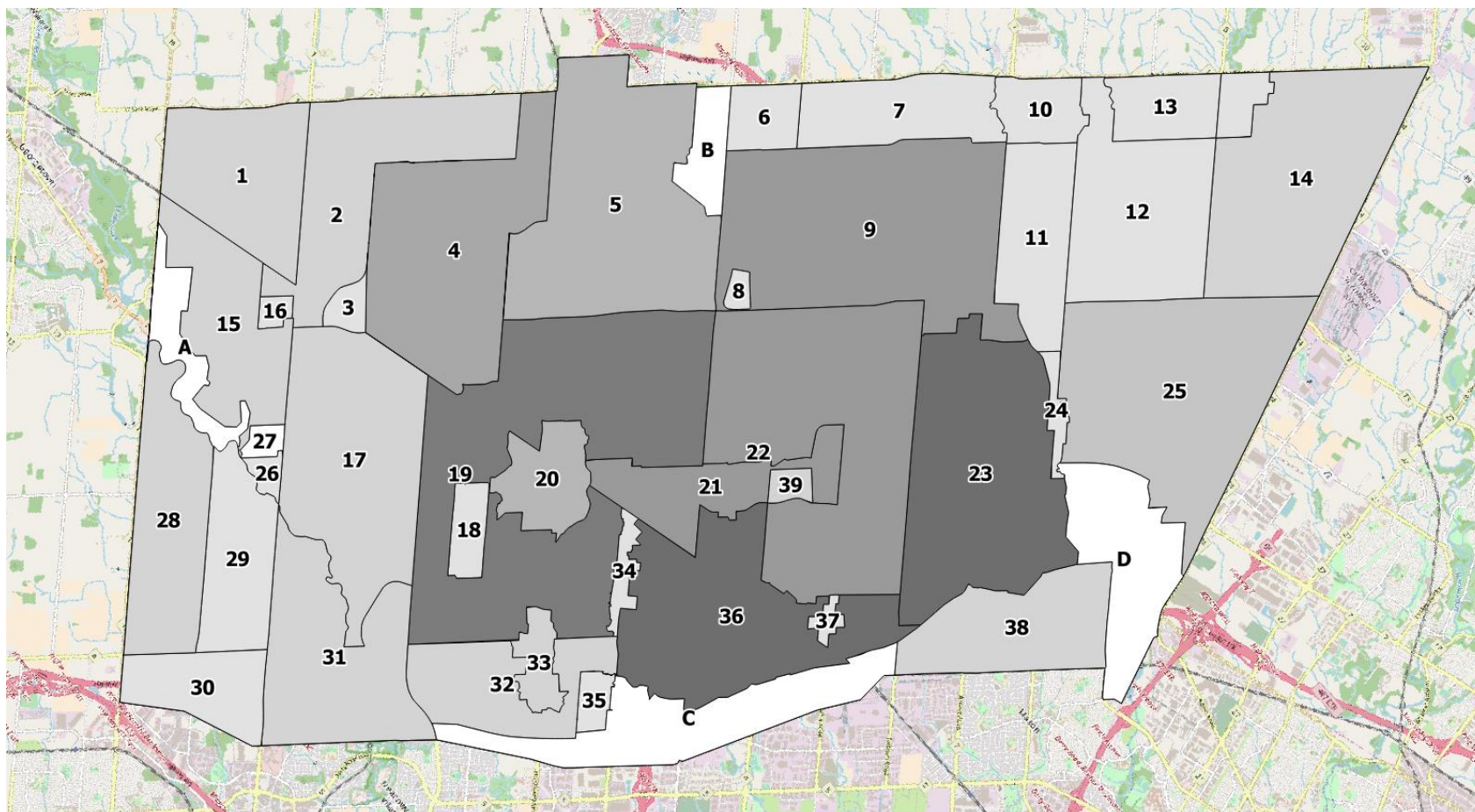
Figure 7 shows the relative total source energy use for homes and buildings in Brampton by energy planning district (EPD) in 2016. Darker coloured EPDs have relatively higher total source energy use.



**Figure 7: Relative 2016 source energy use for homes and buildings by energy planning district (EPD) in Brampton. Darker coloured EPDs have relatively higher total source energy use.**



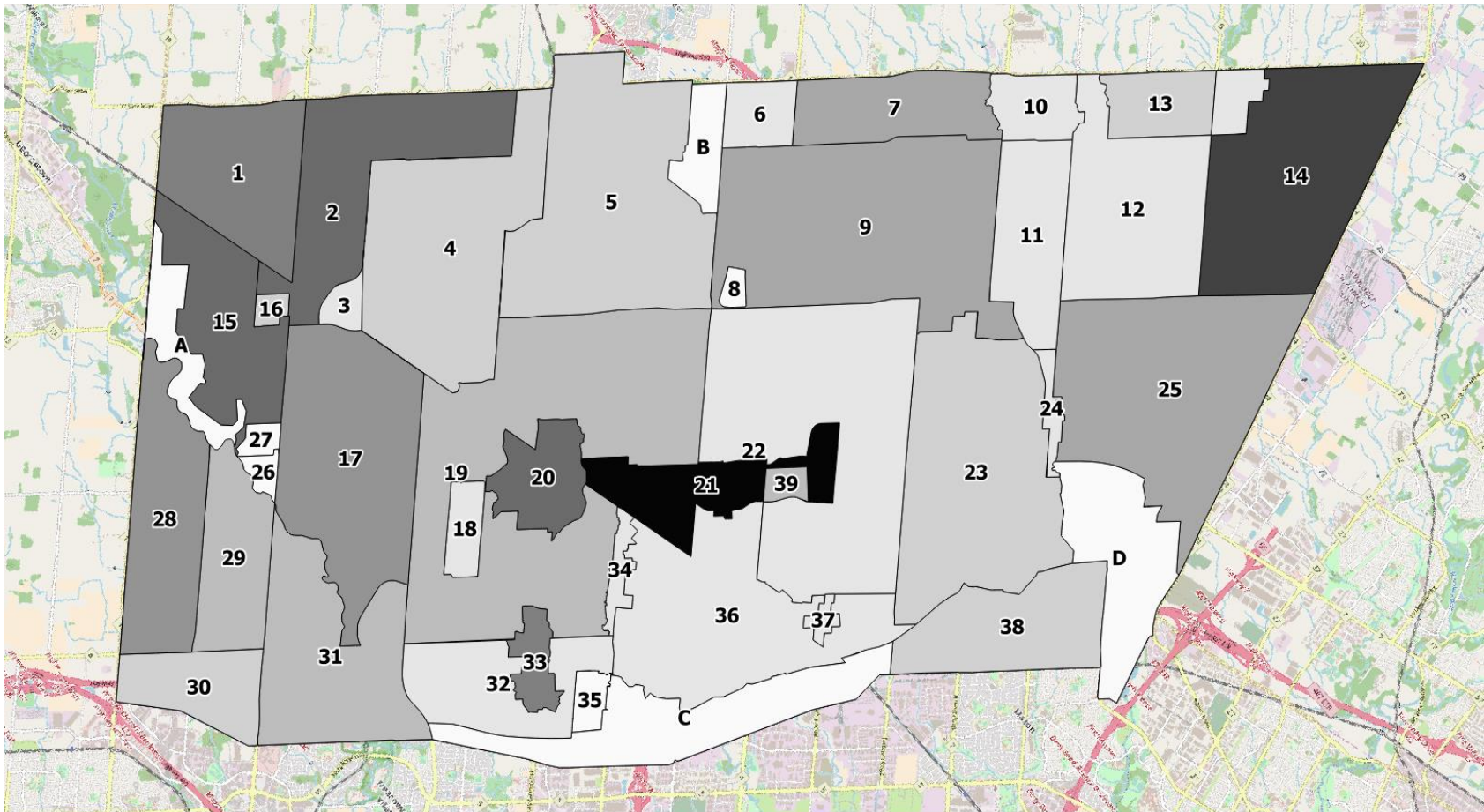
Figure 8 shows the projected relative total source energy use for homes and buildings in 2050 in Brampton by EPD. Darker coloured EPDs have relatively higher total source energy use.



**Figure 8: Projected relative 2050 source energy use for homes and buildings by energy planning district (EPD) in Brampton. Darker coloured EPDs have relatively higher total source energy use.**



Figure 9 shows the projected relative change in total source energy use from 2016 to 2050 in Brampton by EPD. Darker coloured EPDs are expected to see a higher level of change during this period.

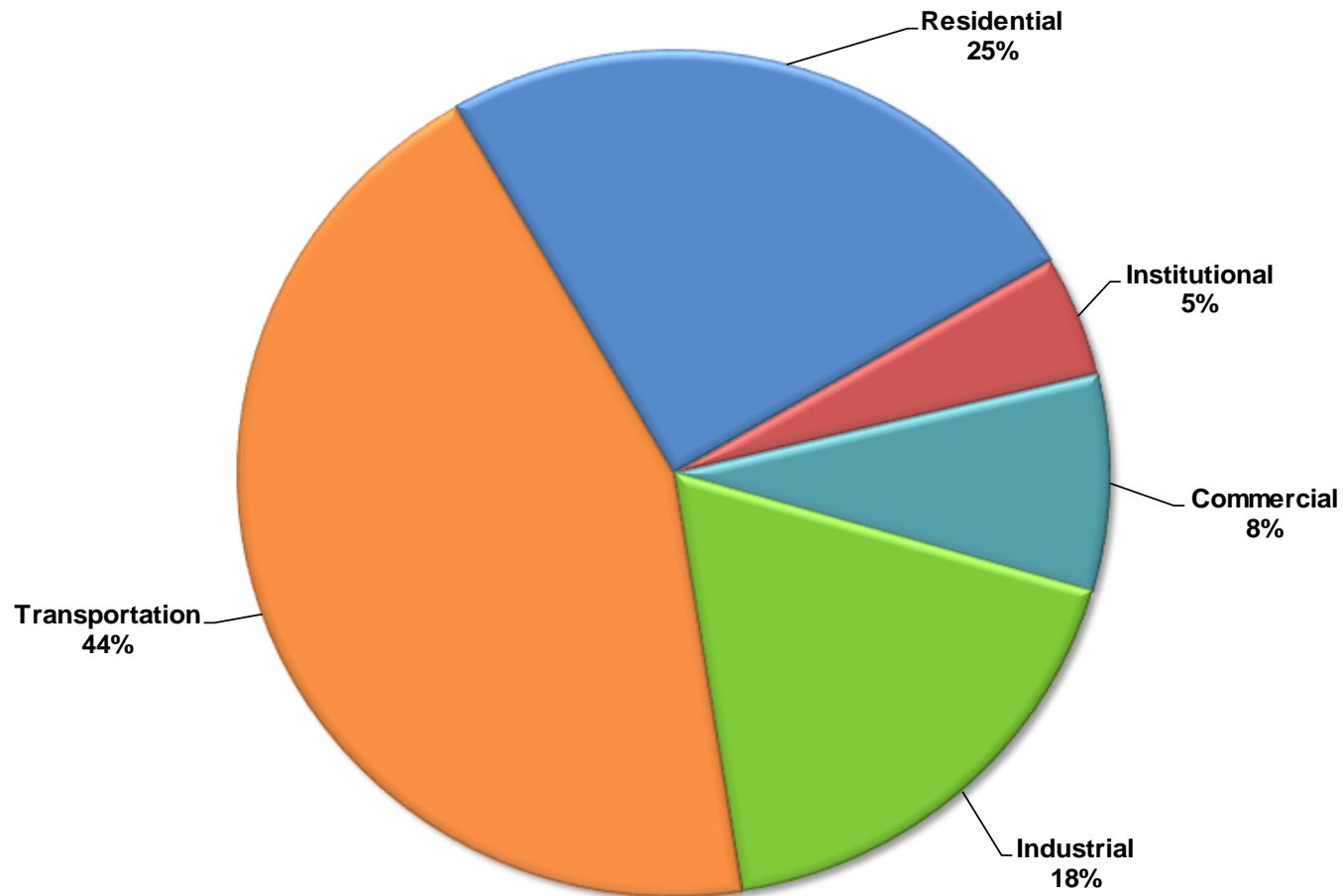


**Figure 9: Relative increase in source energy use for homes and buildings from 2016 to 2050 by energy planning district (EPD) in Brampton. Darker coloured EPDs show greater change.**



### Site Energy Use

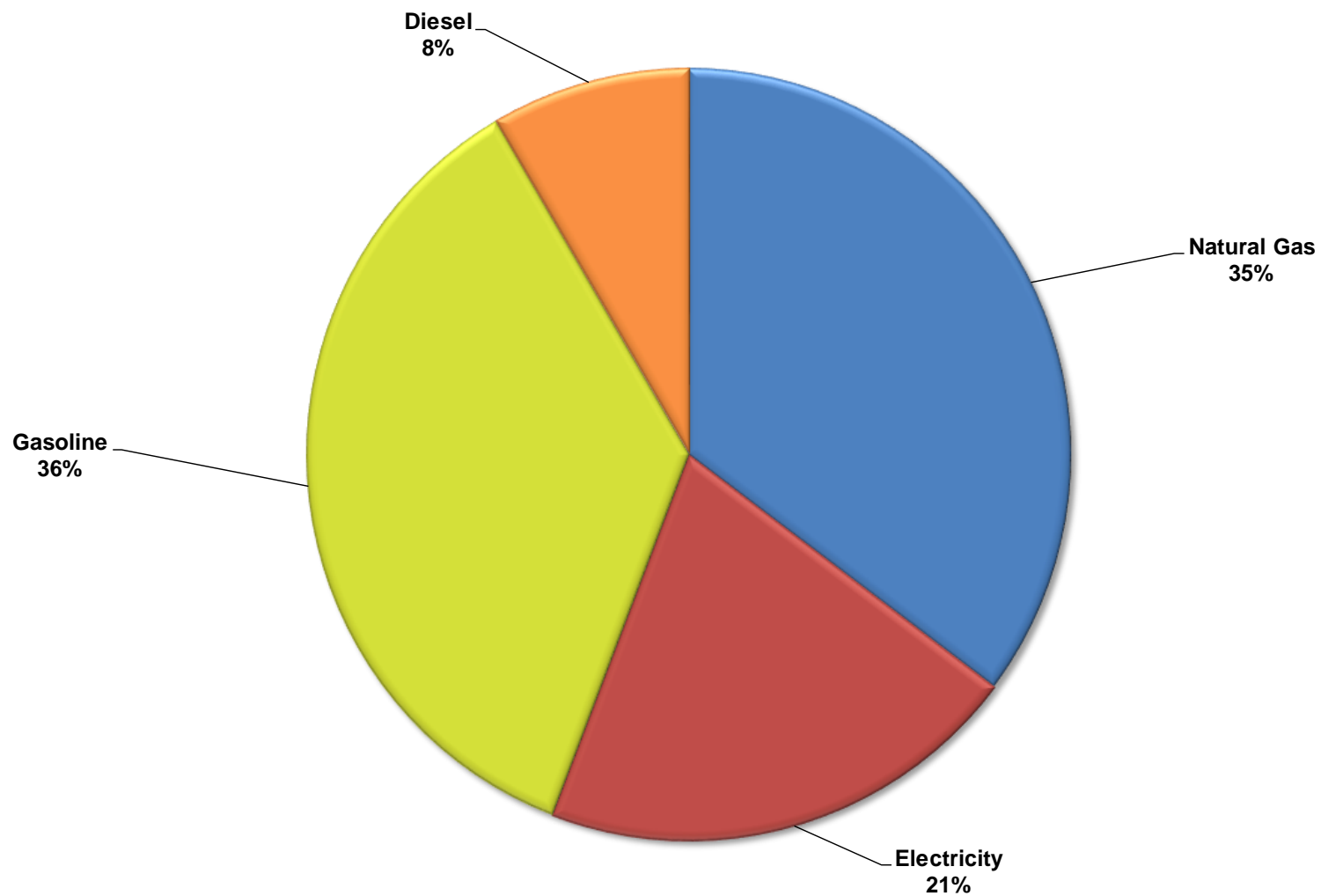
Total site energy use for Brampton in 2016 was 67 million GJ (or 109 GJ per person). Figure 10 shows site energy use for Brampton in 2016 by sector. The transportation sector represents approximately 44% total site energy use while the residential sector represents 25%.



*Figure 10: Brampton site energy use (%) by sector in 2016.*



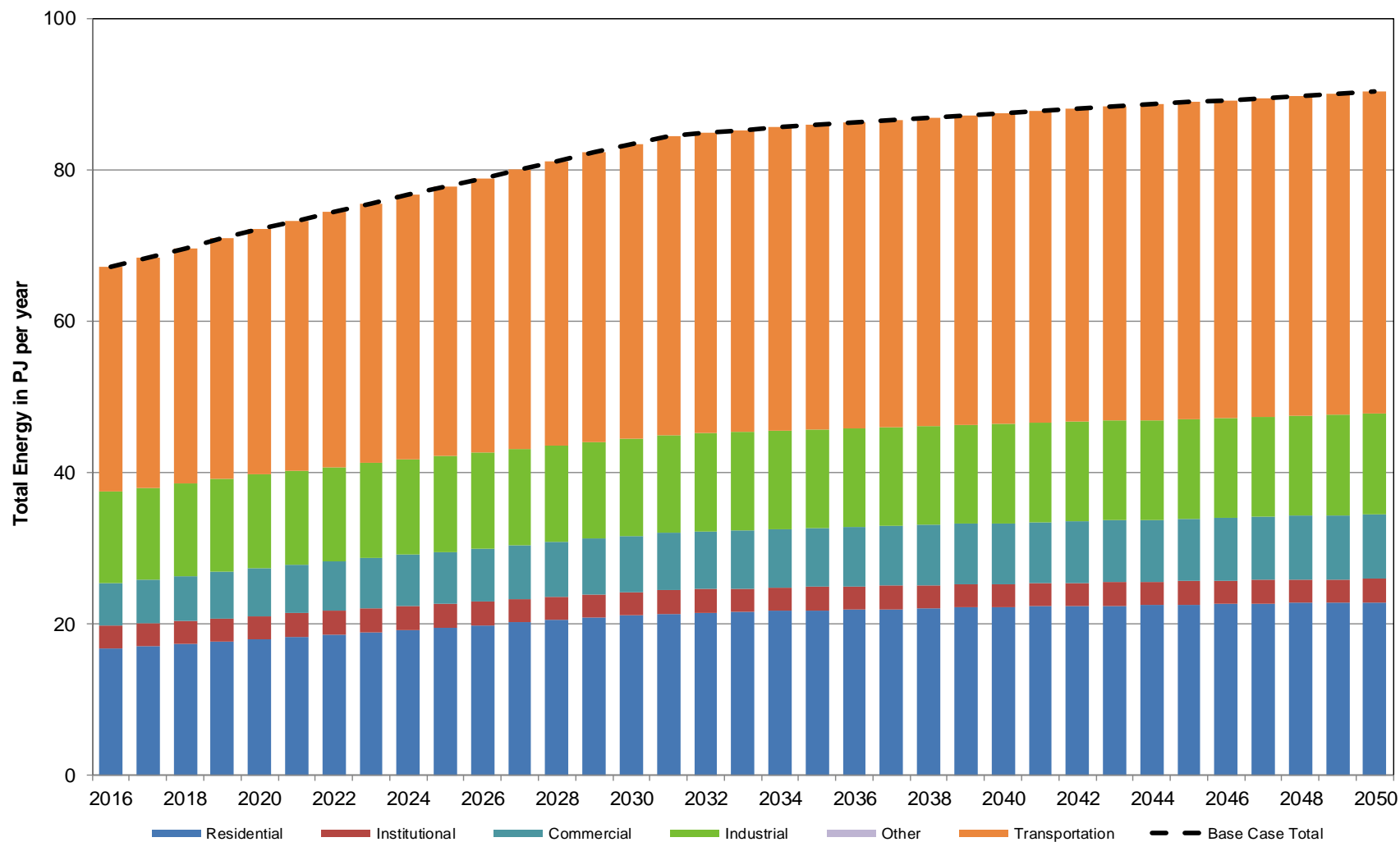
Figure 11 shows site energy use for Brampton in 2016 by utility. Natural gas and gasoline represent the largest share of total site energy use at 35% and 36%, respectively.



*Figure 11: Brampton site energy use (%) by utility in 2016.*



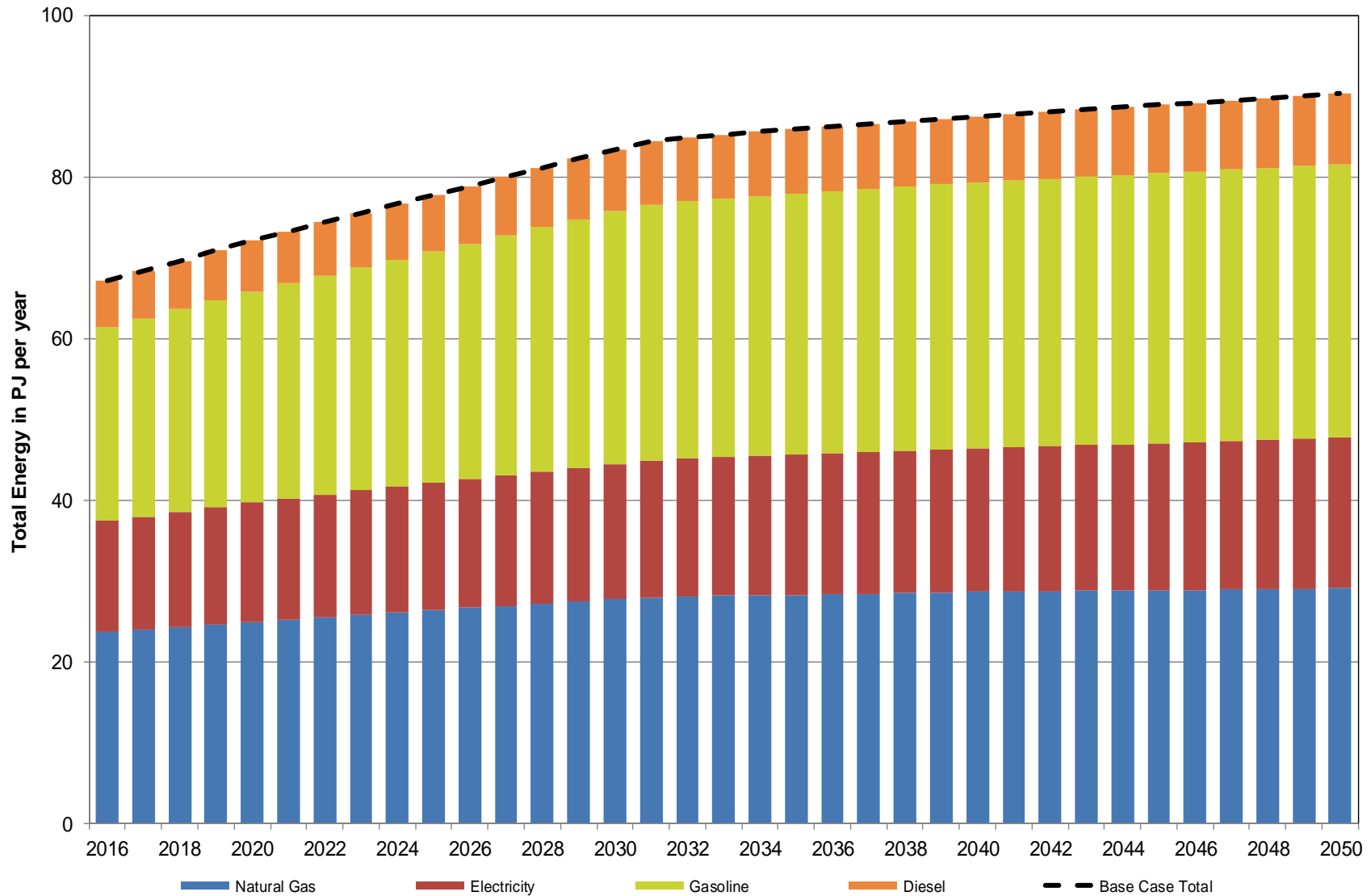
Annual site energy use in Brampton is projected to increase to 90 million GJ by 2050. Figure 12 shows the projected increase in annual site energy use by sector from 2016 to 2050 in Brampton.



**Figure 12: Projected increase in Brampton site energy use (PJ) by sector from 2016 to 2050.**



The graph in Figure 13 shows the projected increase in annual site energy use by utility from 2016 to 2050 in Brampton.

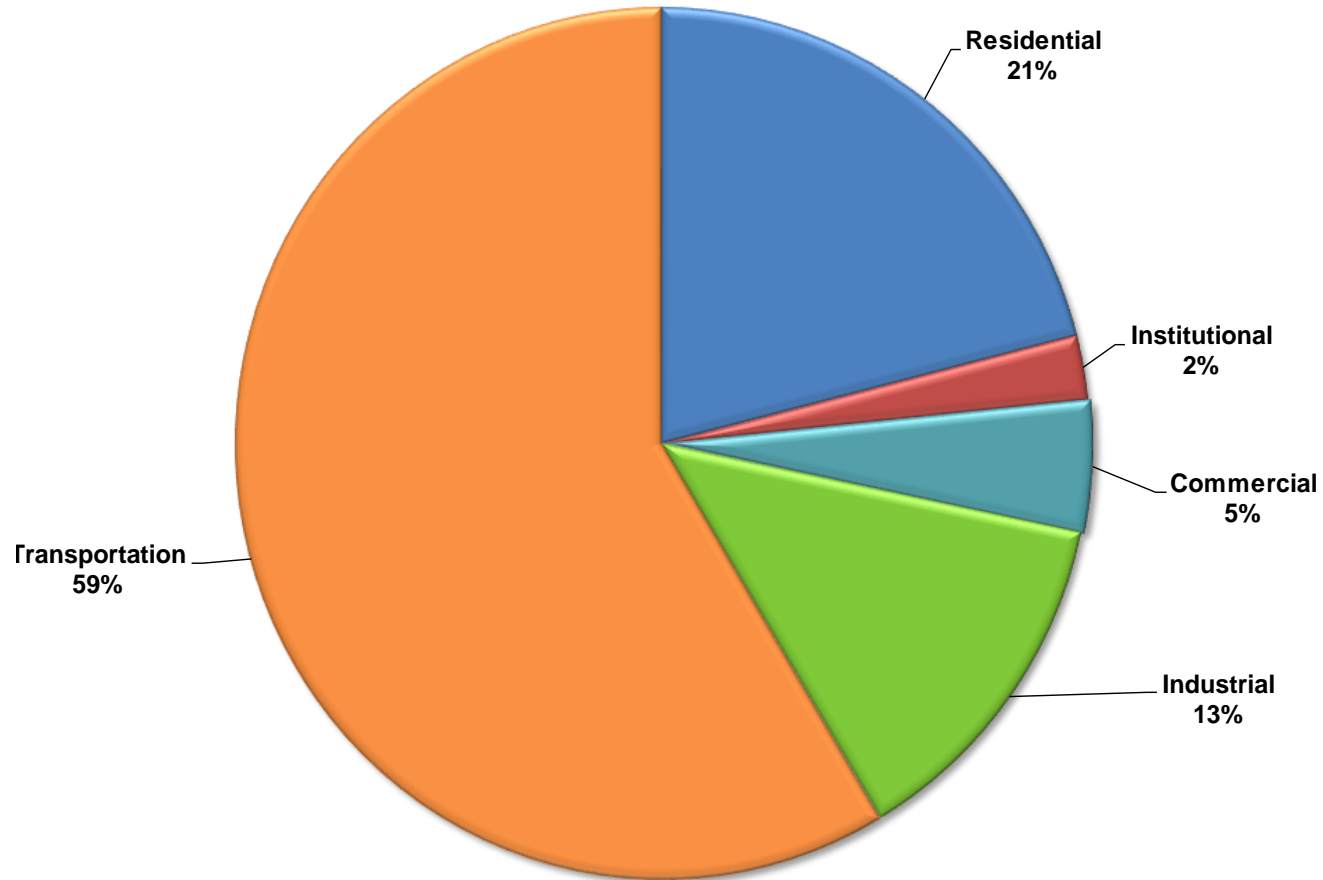


*Figure 13: Projected increase in Brampton site energy use (PJ) by utility from 2016 to 2050.*



## Emissions

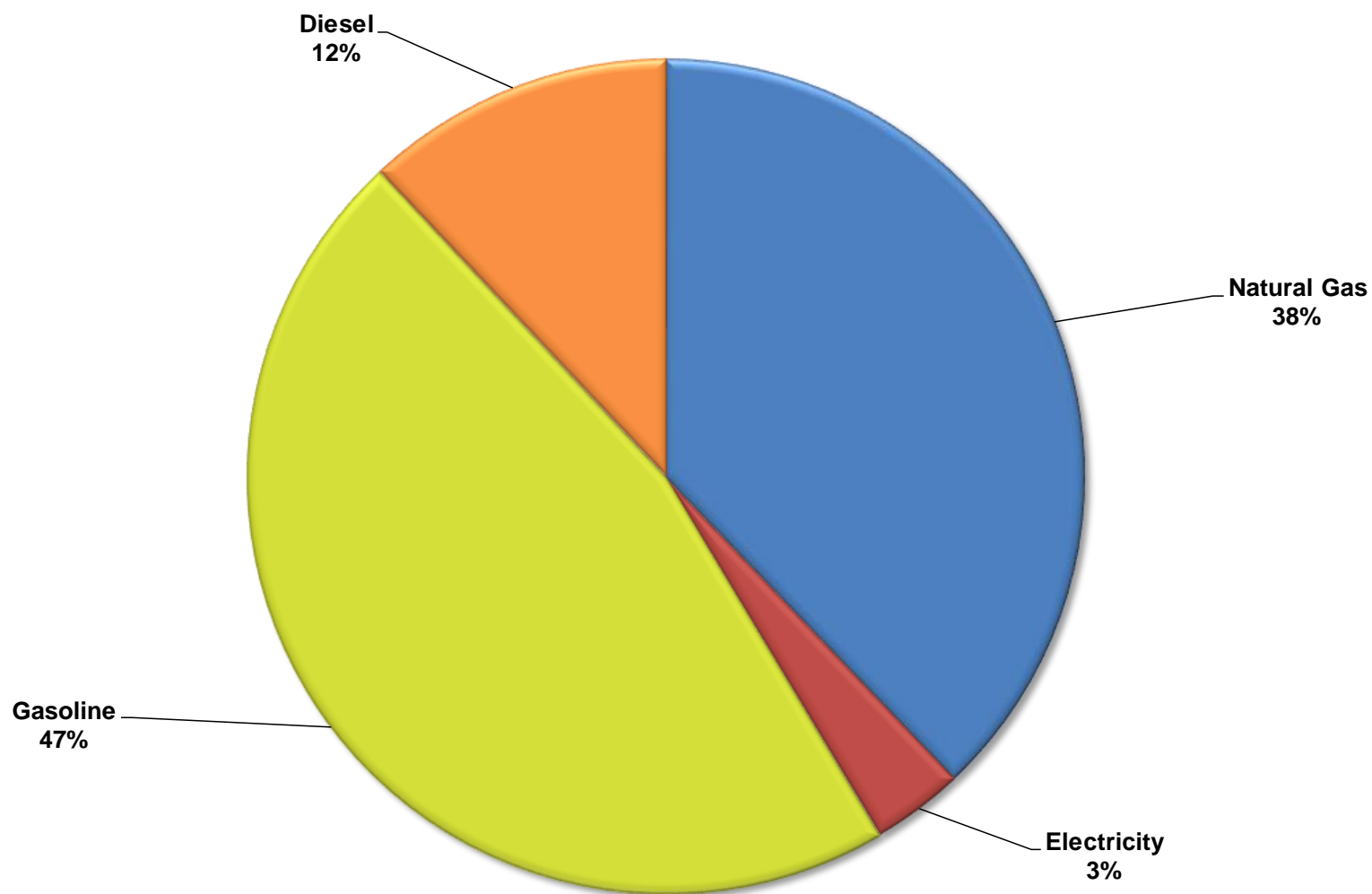
Greenhouse gas emissions for Brampton in 2016 were approximately 3.5 million M tonnes in 2016 or 5.6 tonnes CO<sub>2</sub>e per resident. Figure 14 shows Brampton emissions (%) by sector in 2016. The transportation almost 60% of emissions. Brampton homes represent 21% of emissions.



*Figure 14: Brampton greenhouse gas emissions (%) by sector in 2016.*



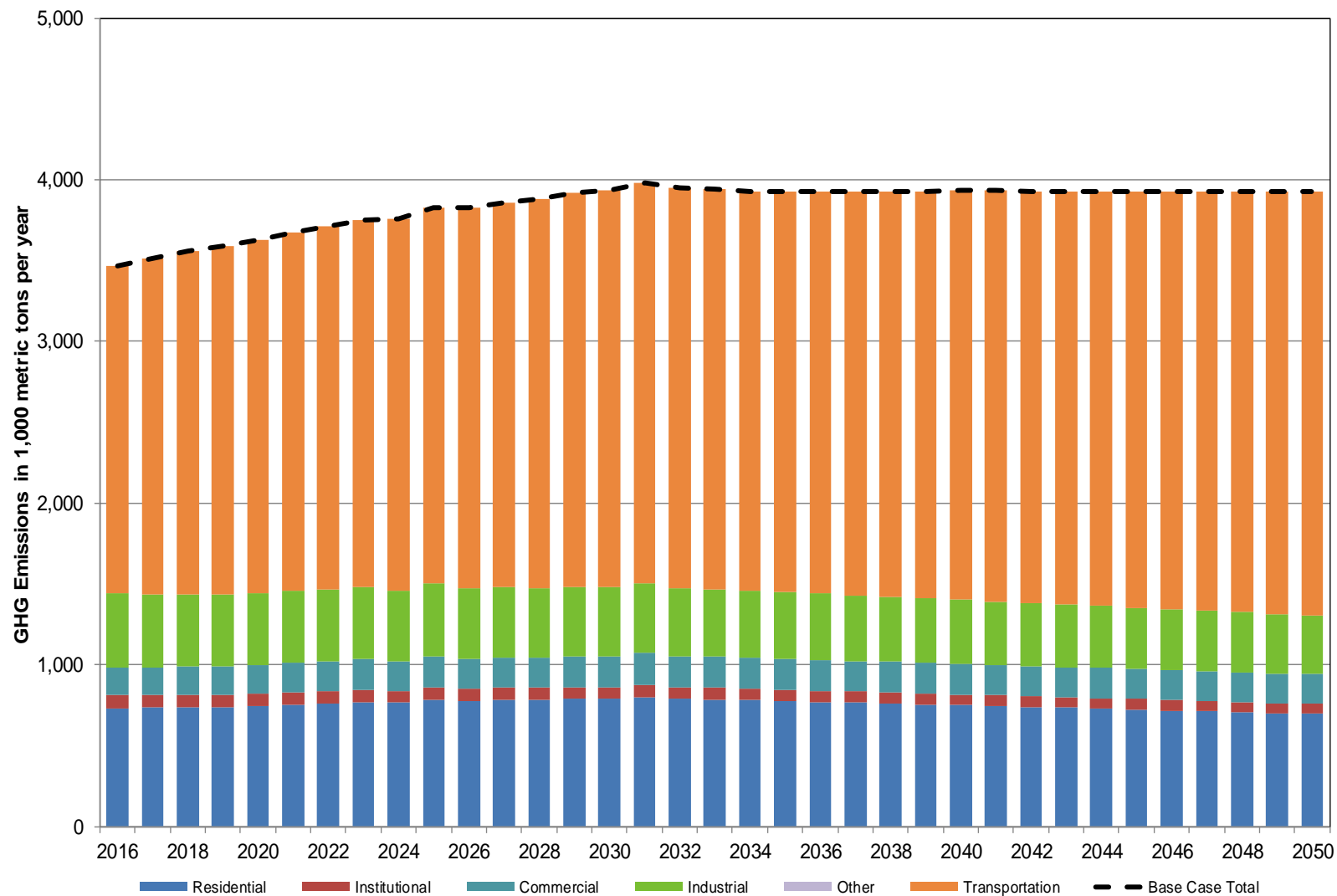
Figure 15 shows Brampton emissions (%) by utility in 2016. Energy for transportation contributed 59% of emissions followed by natural gas at 38%. Electricity only represented 3% of emissions.



*Figure 15: Brampton greenhouse gas emissions (%) by utility in 2016.*



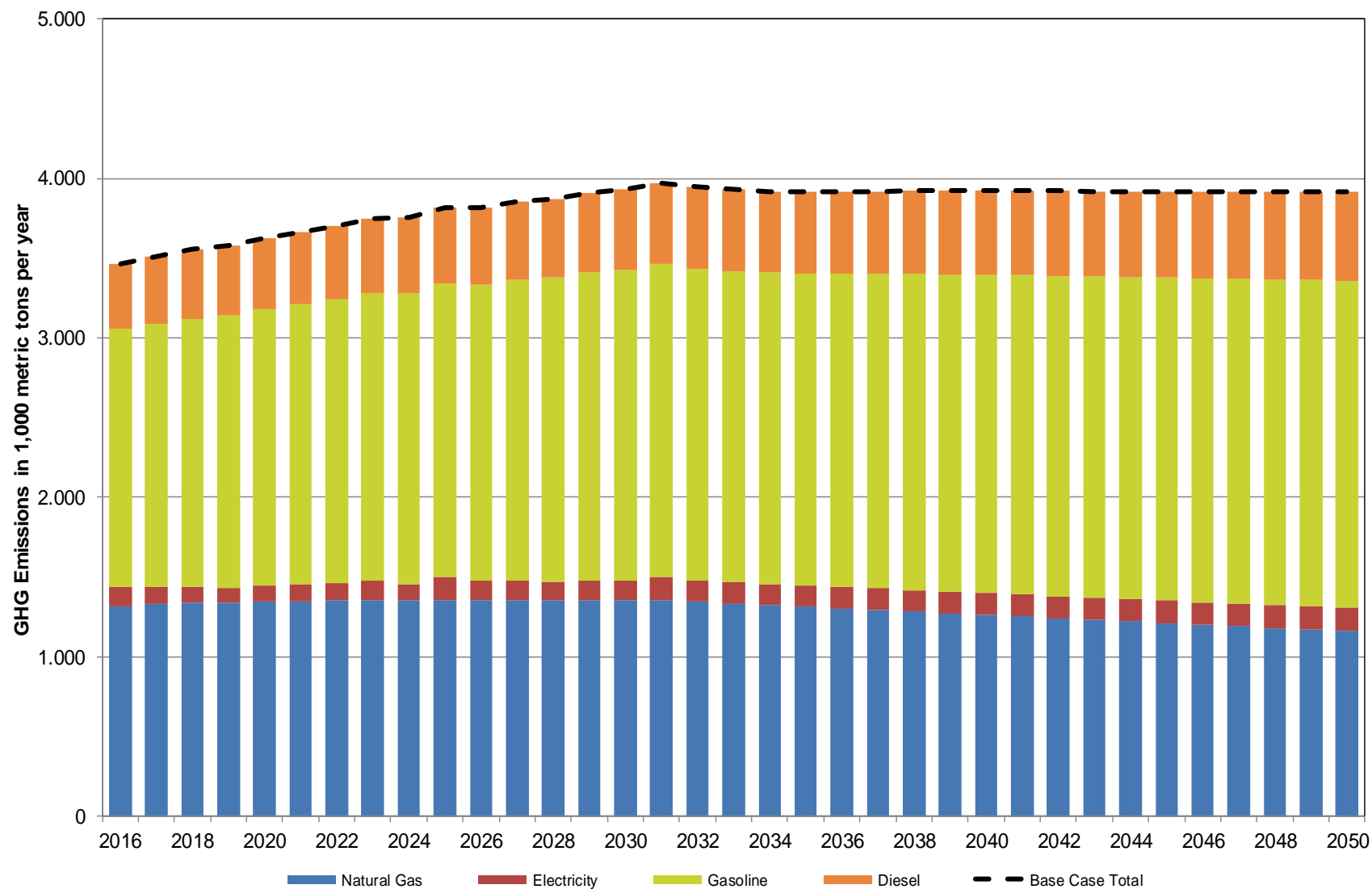
Annual emissions are projected to increase to 3.9 million tonnes in Brampton by 2050. This represents 4.2 tonnes/capita in 2050. Figure 16 shows the projected profile of annual emissions by sector in Brampton from 2016 to 2050.



**Figure 16: Projected Brampton greenhouse gas emissions profile by sector from 2016 to 2050.**



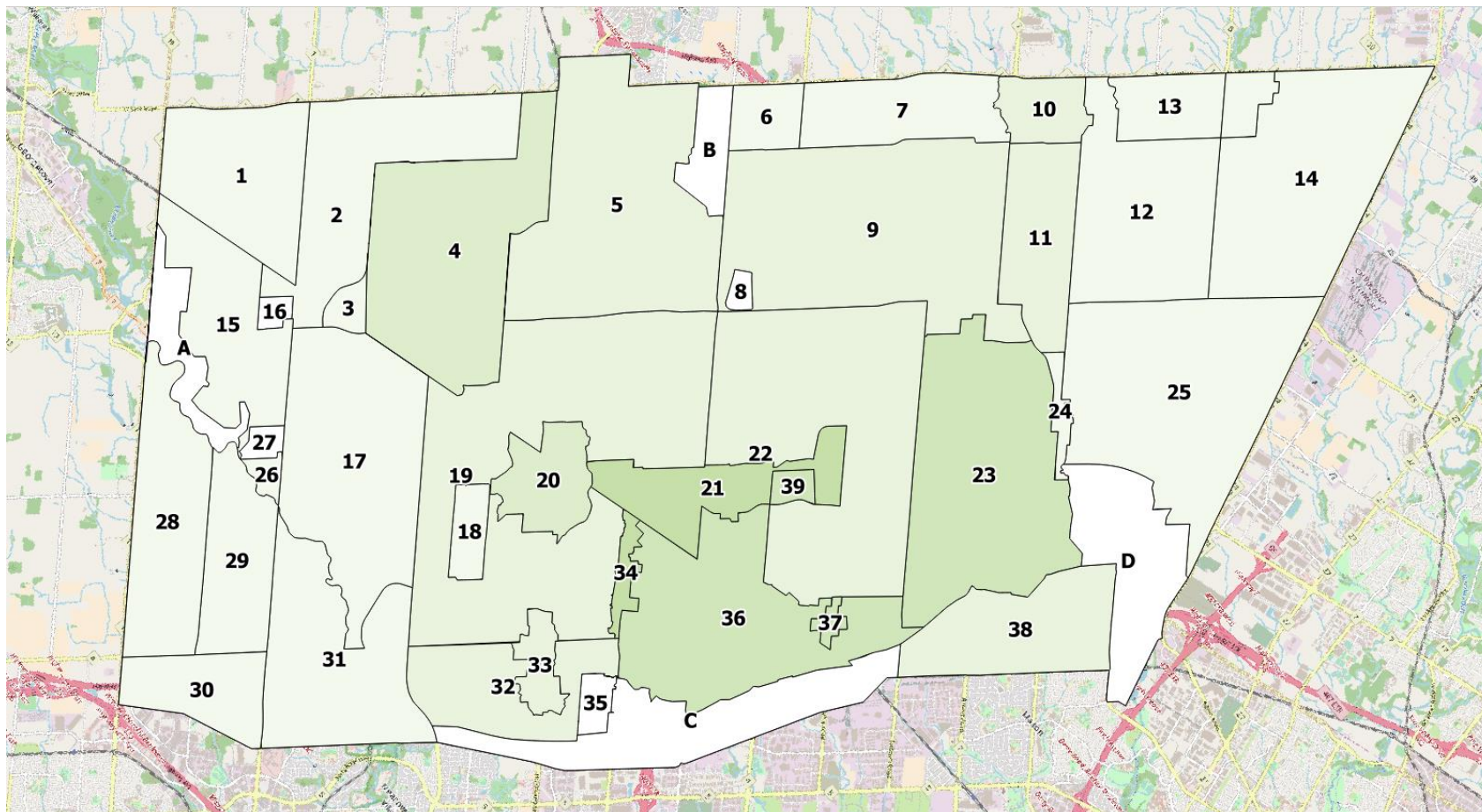
Figure 16 shows the projected profile of annual emissions by utility in Brampton from 2016 to 2050.



*Figure 17: Projected Brampton greenhouse gas emissions profile by utility from 2016 to 2050.*



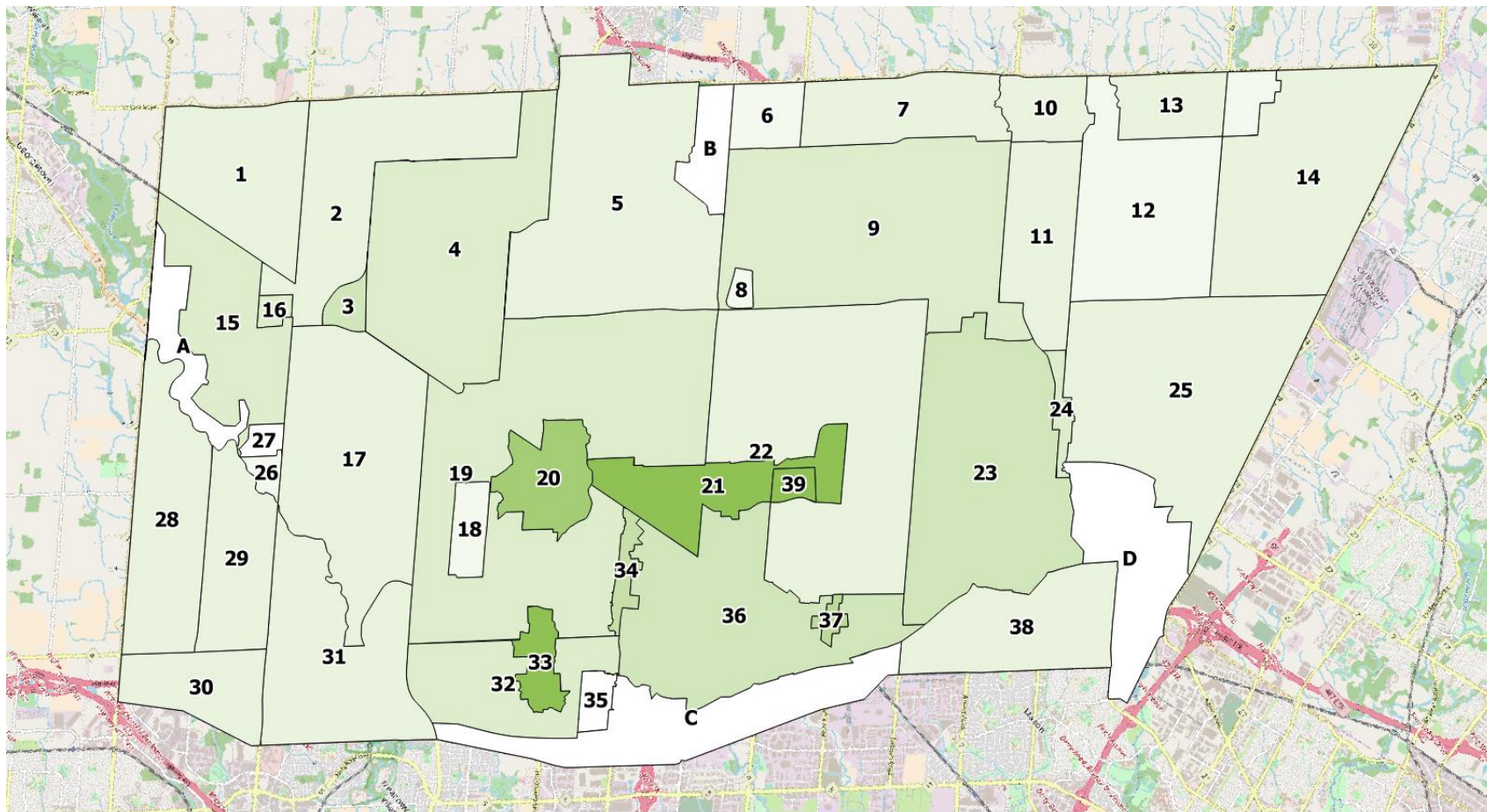
Figure 18 shows the relative emission intensity (tonnes/km<sup>2</sup>) for homes and buildings in Brampton by EPD in 2016. Darker coloured EPDs have a relatively higher emission intensity.



**Figure 18: Relative green house gas emission intensity (tonnes/km<sup>2</sup>) for homes and buildings in Brampton by EPD in 2016. Darker coloured EPDs have a relatively higher emission intensity.**



Figure 19 shows the projective relative emission intensity (tonnes/km<sup>2</sup>) for homes and buildings in Brampton by EPD in 2050. Darker coloured EPDs have a relatively higher emission intensity.

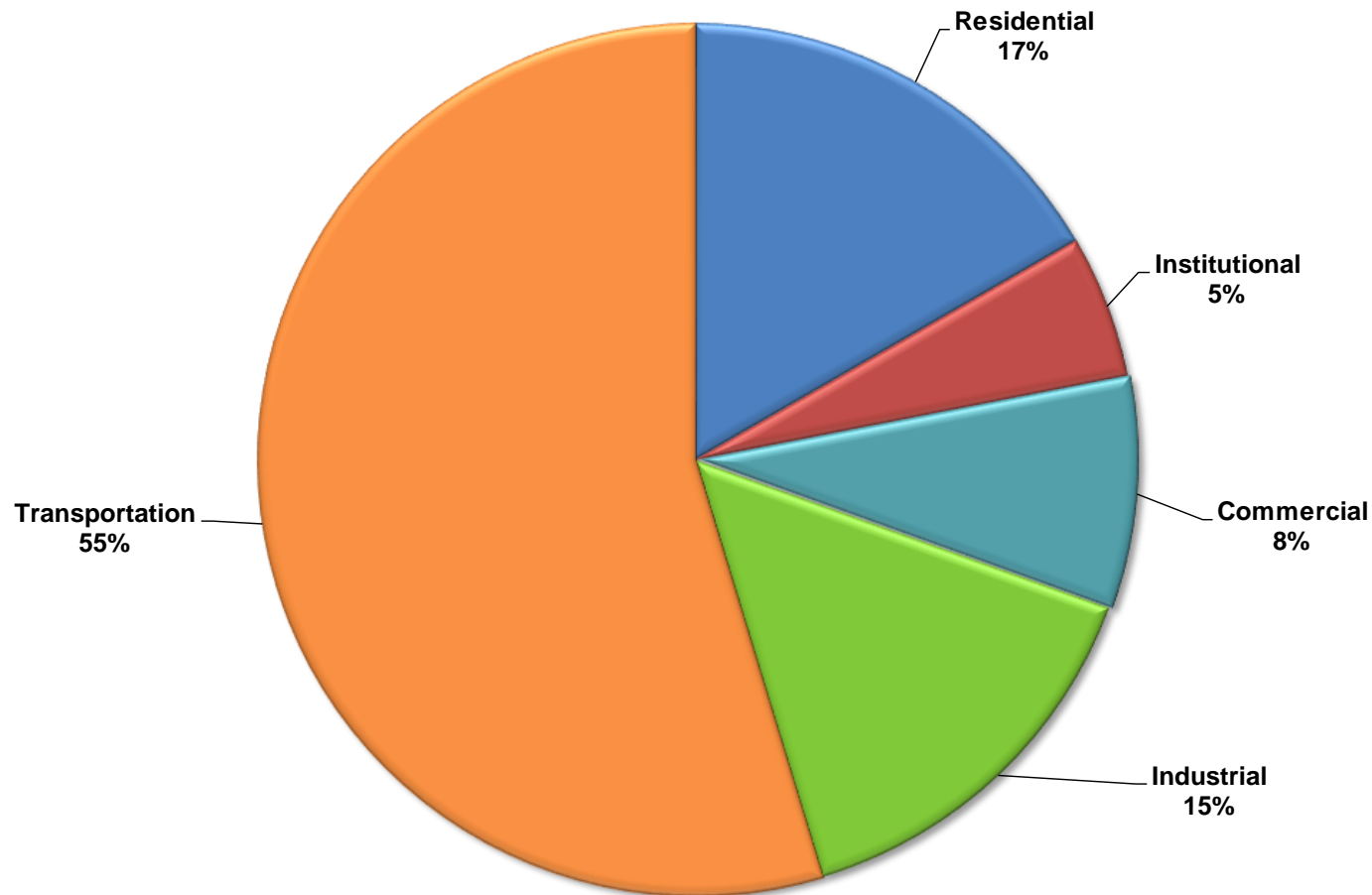


**Figure 19: Projected relative greenhouse gas emission intensity (tonnes/km<sup>2</sup>) for homes and buildings in Brampton by EPD in 2050. Darker coloured EPDs have a relatively higher emission intensity.**



### Energy and Water Cost

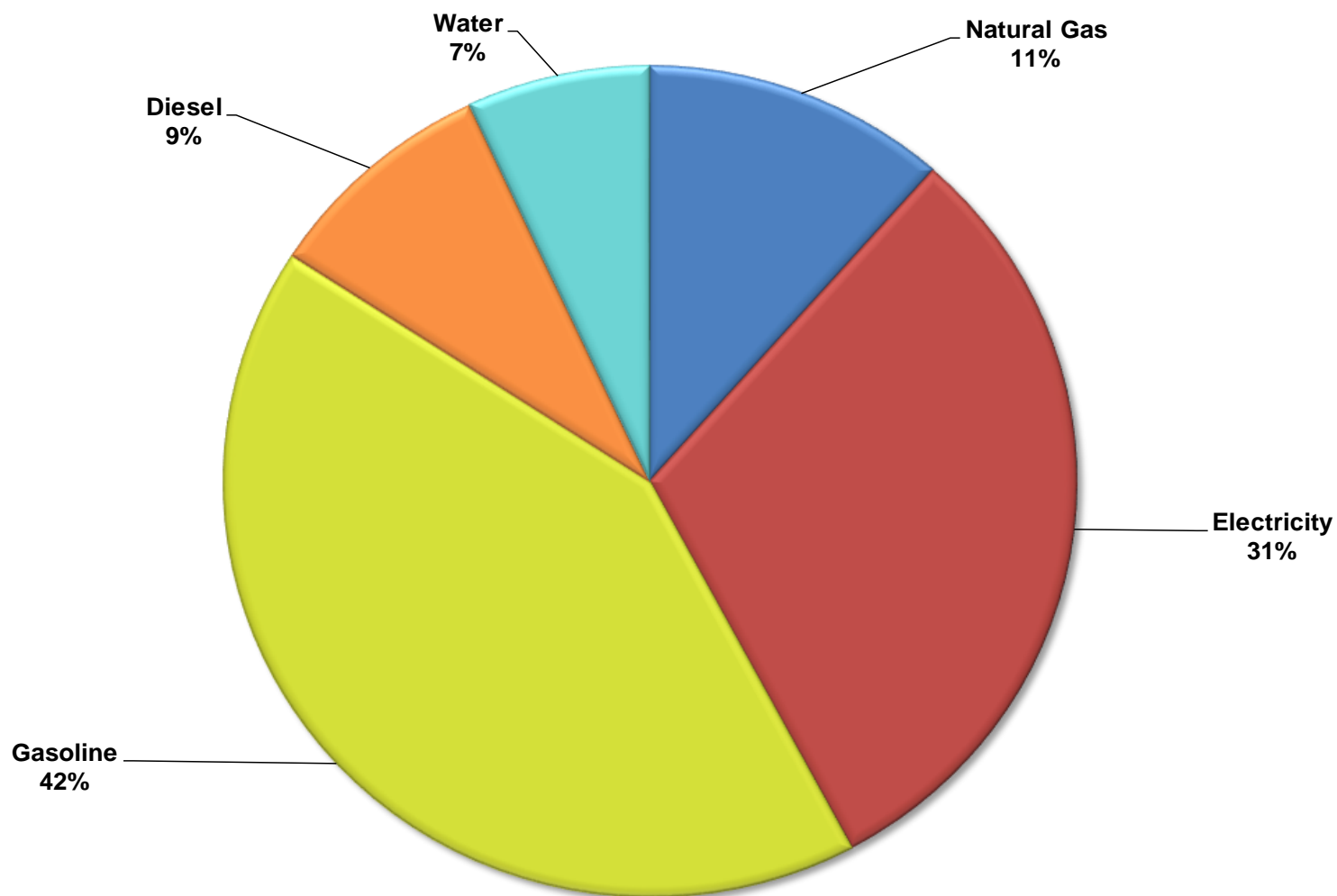
The Brampton community spent \$1.8 billion on energy and water in 2016. At least \$1.4 billion (77%) of those energy dollars left the community. Figure 20 shows energy and water costs (%) by sector for Brampton in 2016. Transportation accounts for more than half of Brampton's costs. Homes account for almost a quarter of energy and water costs.



*Figure 20: Brampton energy and water costs (%) by sector in 2016.*



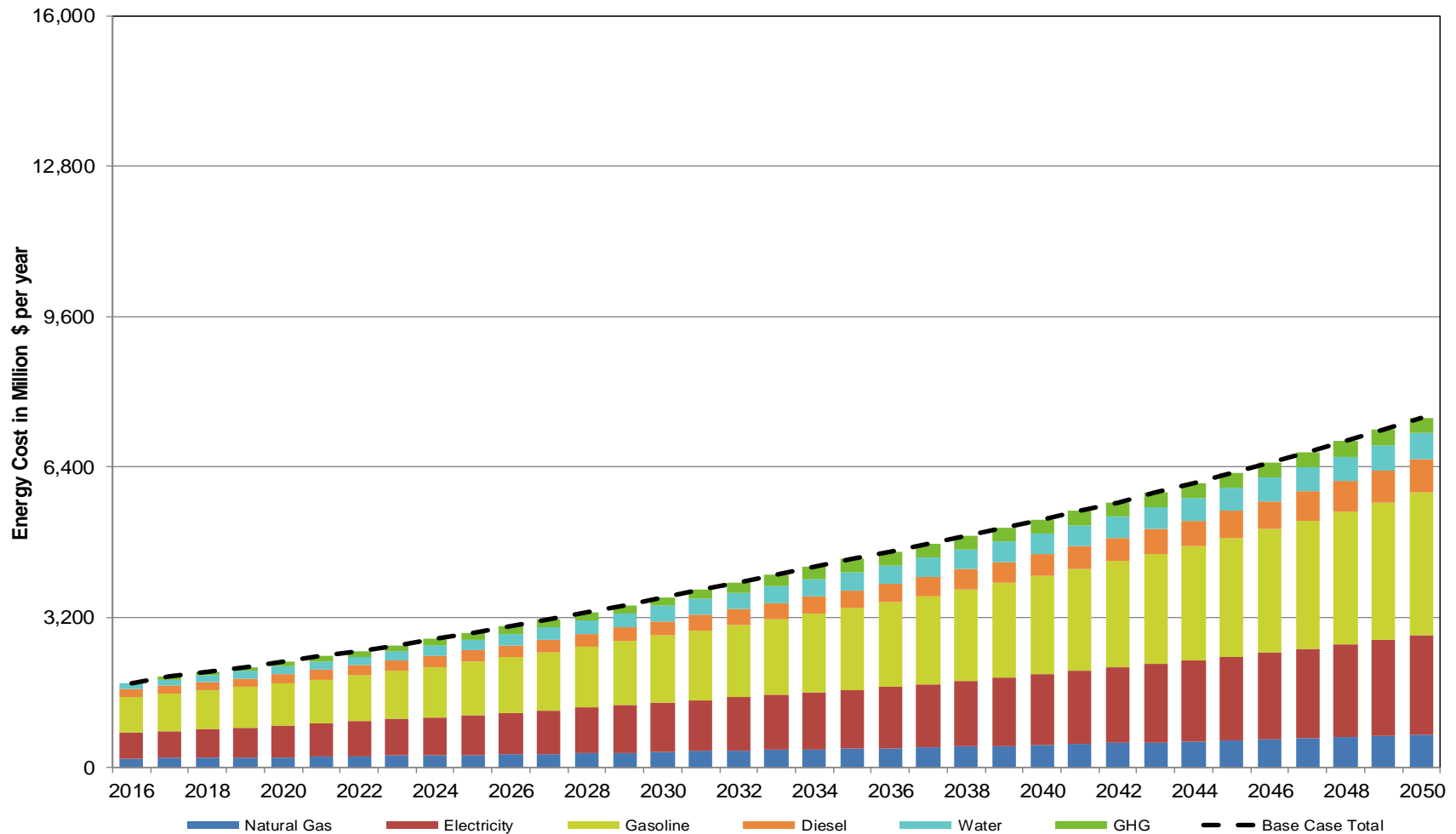
Figure 21 shows energy and water costs (%) by utility for Brampton in 2016. Gasoline represented the highest cost at 42% with electricity at 31%



*Figure 21: Brampton energy and water costs (%) by utility in 2016.*



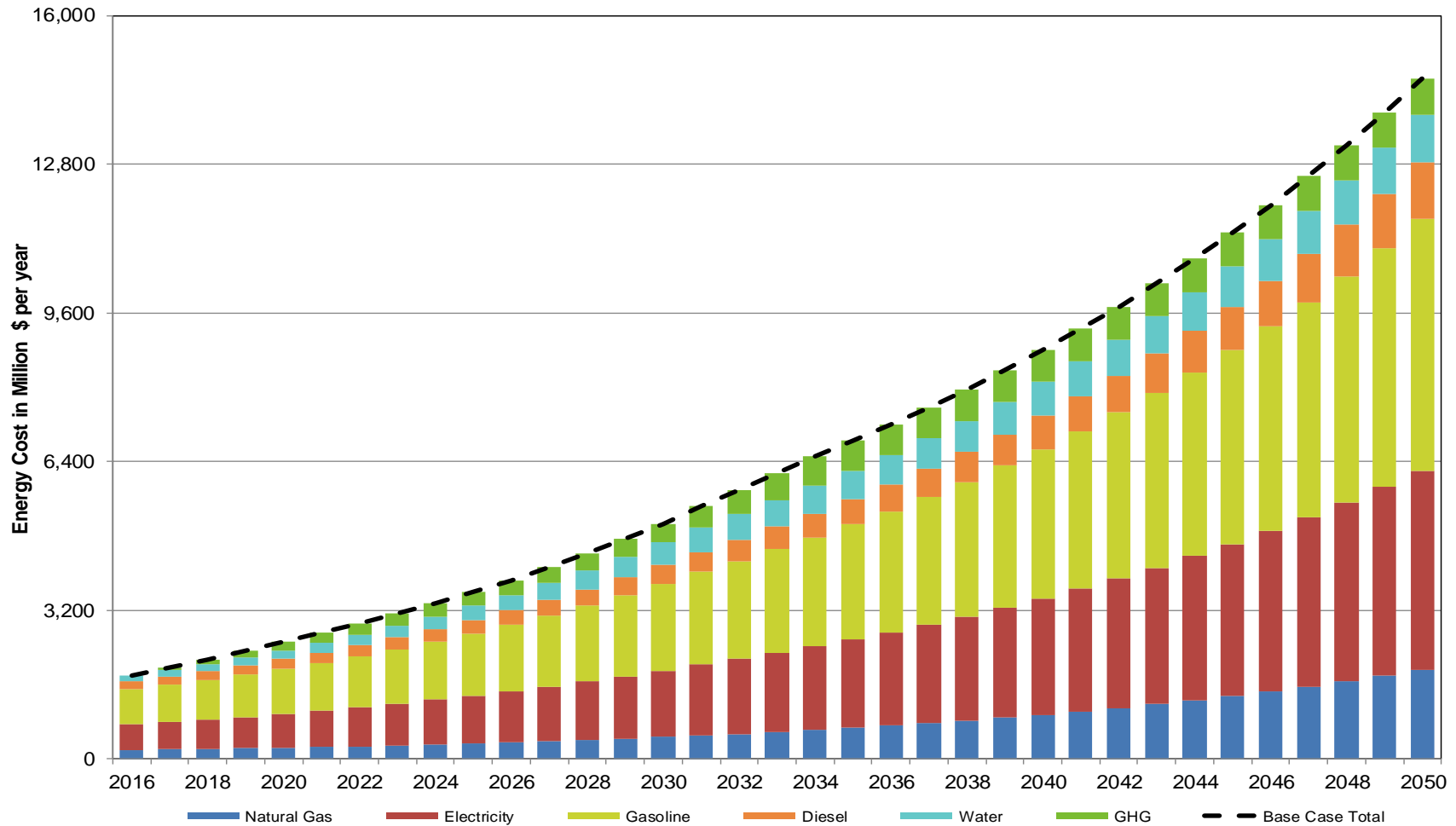
Energy costs in Brampton are projected to increase to \$7.6 billion by 2050 under a lower range of cost projections. Figure 22 shows the annual projected increases to energy costs in Brampton from 2016 to 2050 by fuel type (including carbon) under the lower range of cost projections.



**Figure 22: Annual projected increases to energy and water costs (\$) in Brampton from 2016 to 2050 by fuel type (including carbon) under the lower range of cost projections.**



Annual energy costs in Brampton are projected to increase to \$15 billion by 2050 using a higher range of cost projections. Figure 23 shows the annual projected increases to energy costs in Brampton from 2016 to 2050 by fuel type (including carbon) under the higher range of cost projections.

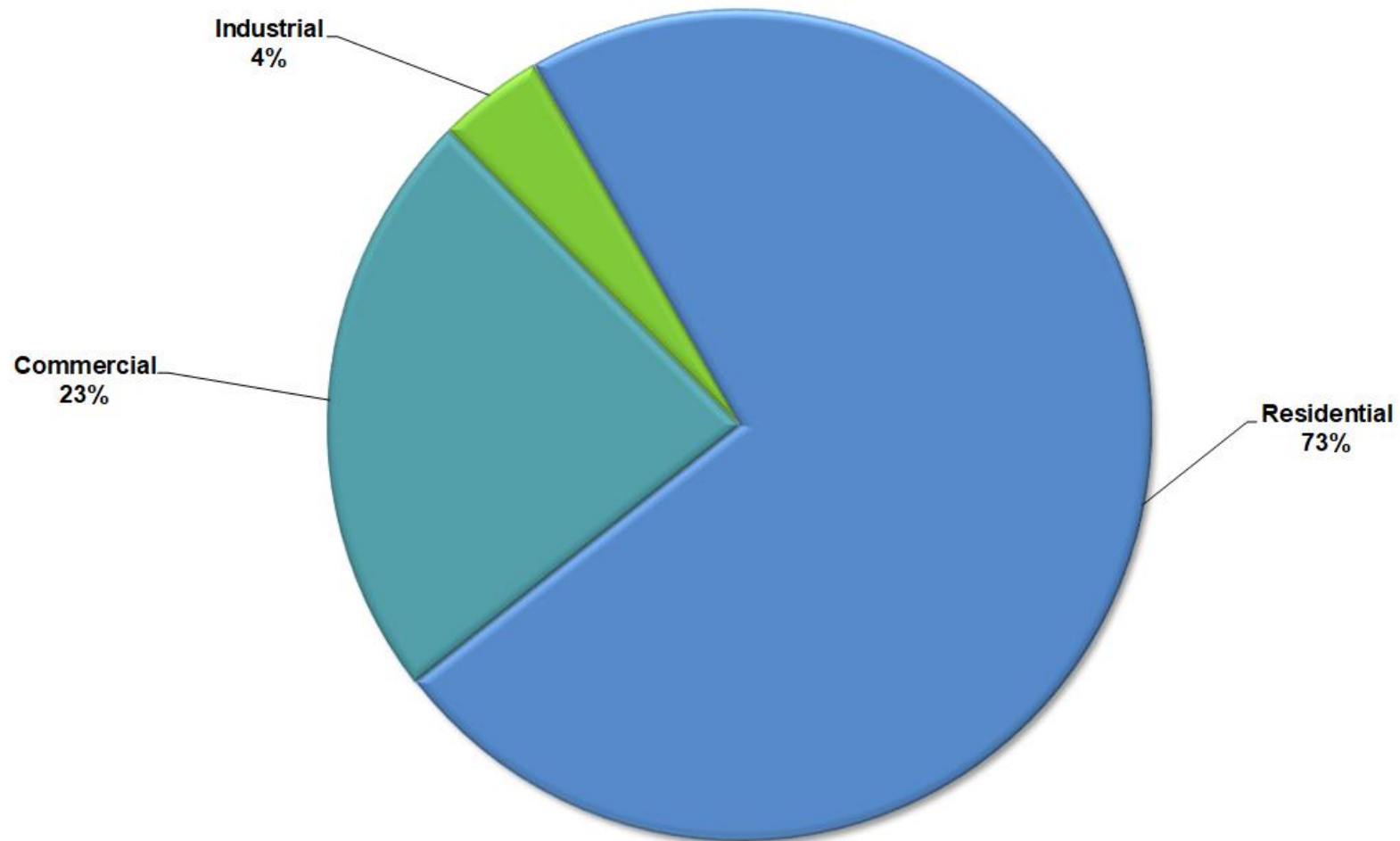


**Figure 23: Annual projected increases to energy and water costs (\$) in Brampton from 2016 to 2050 by fuel type (including carbon) under the higher range of cost projections.**



## Water

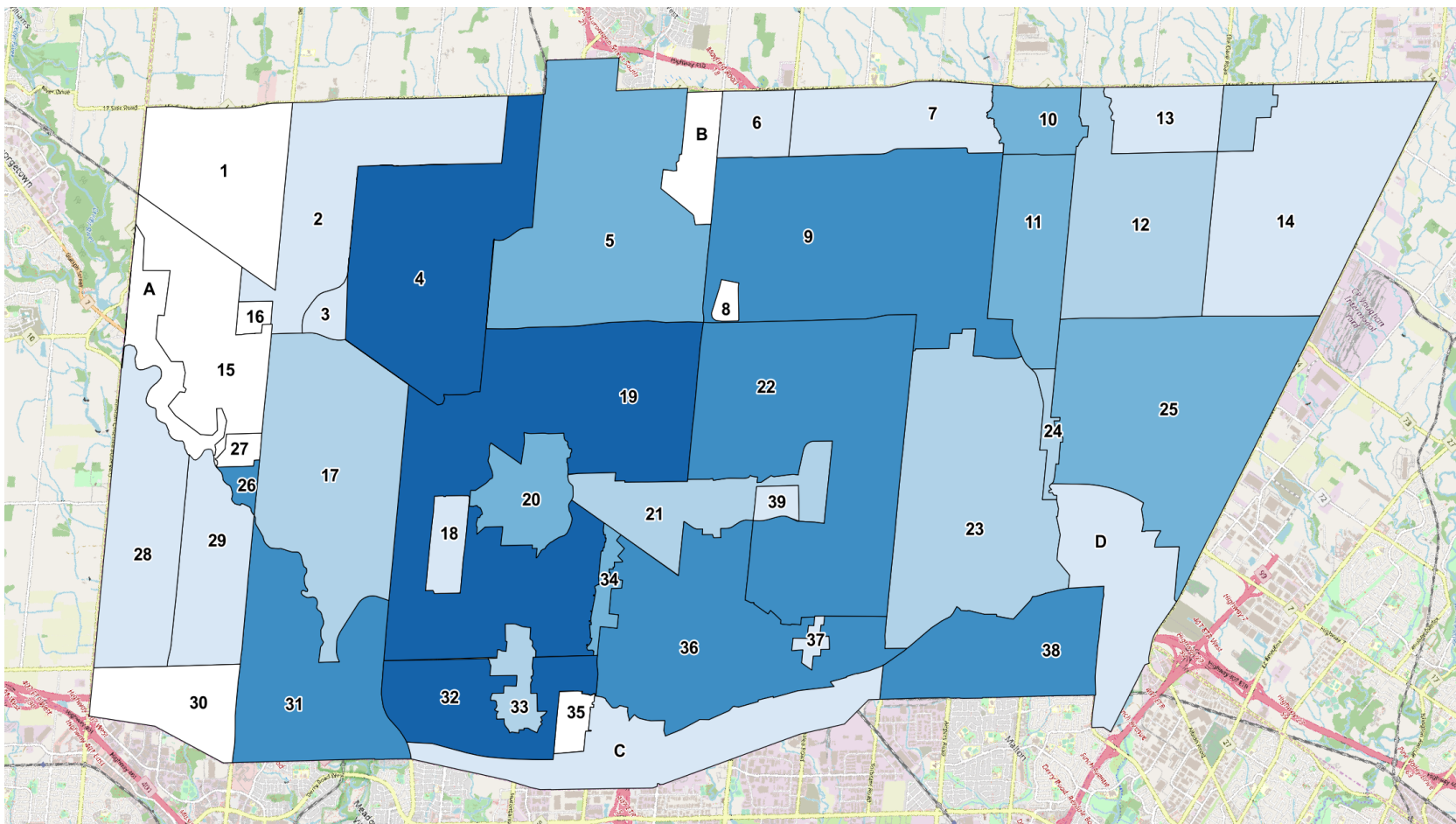
Brampton ratepayers consumed 64 million m<sup>3</sup> of water in 2016. Figure 24 shows water consumption by sector 2016. The residential sector consumed 73% of the water used in 2016.



*Figure 24: Brampton water consumption (%) by sector in 2016.*



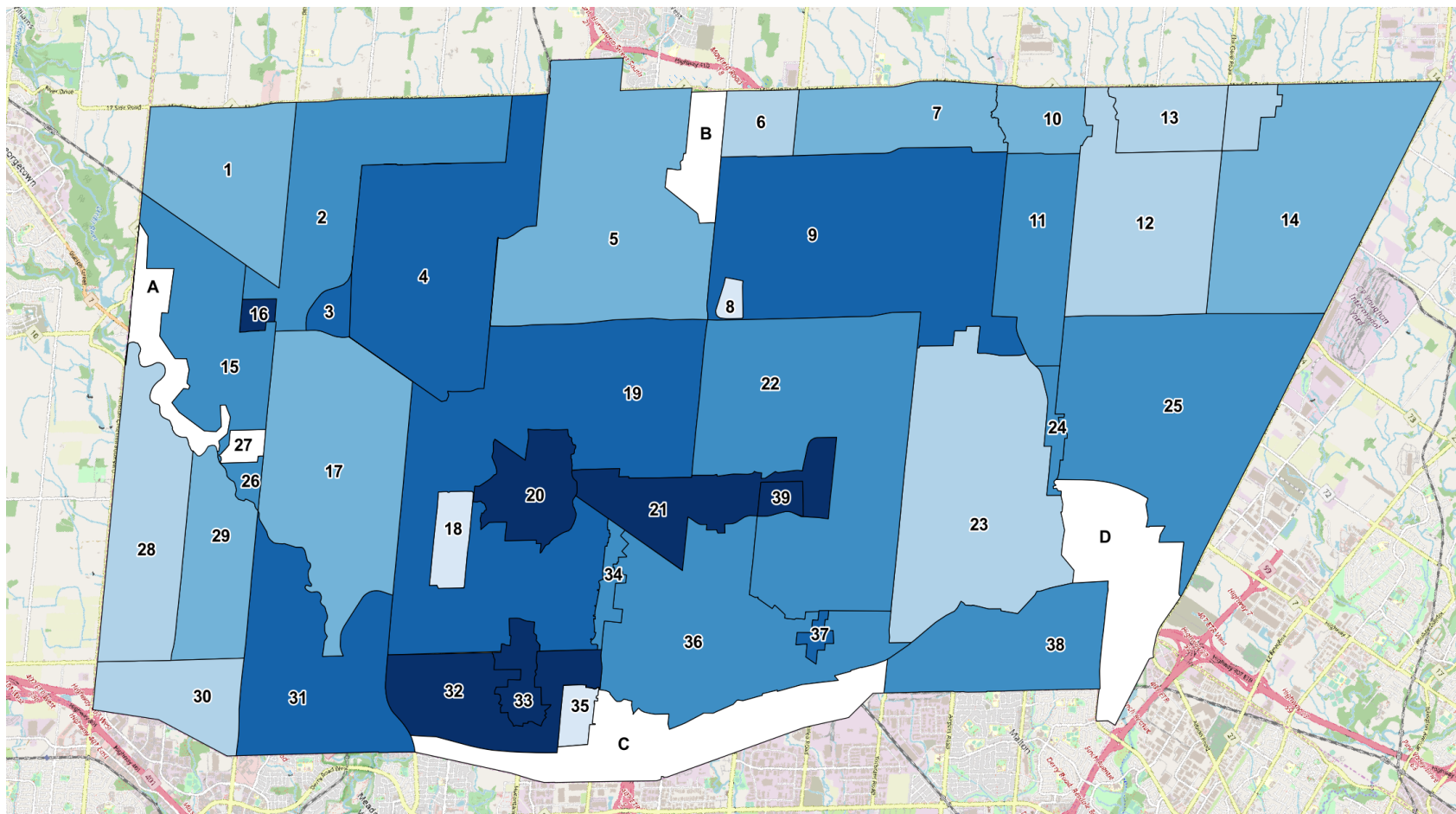
Figure 25 shows relative water use (cubic metre/km<sup>2</sup>) by energy planning district in Brampton in 2016.



**Figure 25: Water use (cubic metre/km<sup>2</sup>) for homes and buildings in 2016 by energy planning district (EPD) in Brampton.**  
**Darker coloured EPDs have relatively higher total water use density.**



Figure 26 shows projected water use (cubic metre/km<sup>2</sup>) in 2050 by energy planning district in Brampton.



**Figure 26: Projected relative water use for homes and buildings in 2050 by energy planning district (EPD) in Brampton. Darker coloured EPDs are projected to have relatively higher water use density.**



## Appendix 4 – Scenario 3 Simulation Assumptions

Appendix 4 provides details on the assumptions used for the Scenario 3 for the Reference and High Action Efficiency Case simulations. Simulation results are found in Appendix 5.

### Contents

|   |   |
|---|---|
| Overview .....  | 1 |
| Scenario 3 – Reference Efficiency Case Simulation Variables .....                               | 1 |
| Efficiency of existing homes and buildings .....  | 1 |
| Efficiency of existing homes and buildings .....  | 2 |
| Efficiency of industry .....  | 2 |
| District energy in existing and new areas & efficient local heat and electricity generation ... | 2 |
| Renewable solar heat and electricity generation .....   | 2 |
| Transportation mix and efficiency.....  | 3 |
| Scenario 3 – High-action Efficiency Case Simulation Variables .....                             | 4 |

### Overview

The next section provides details for:

- the measures simulated;
- the variable(s) chosen for the Reference Case simulation for each measure by the Project Working Team (PWT); and
- the variables that could be modified for each measure which were considered by the PWT.

### Scenario 3 – Reference Efficiency Case Simulation Variables

#### Efficiency of existing homes and buildings

- Measure
  - most property to be retrofitted by 2041
- Reference Case variables
  - 80% of homes
  - 60% of buildings
  - efficiency gain approximately 33% / retrofit
- Simulation variables
  - market share
  - start and completion date
  - up to 25% more efficient retrofits



## Efficiency of existing homes and buildings

- Measure:
  - new property 100% OBC compliant
- Reference Case variables
  - 1% above code to 2021
  - code increases of 10% in 2022 and 2032
- Simulation variables
  - 1% to 10% for each code change
  - years of code changes

## Efficiency of industry

- Measure:
  - world-class continuous improvement
- Reference Case variables
  - 1% per year
- Simulation variables
  - 0% to 2% in 0.5% steps

## District energy in existing and new areas & efficient local heat and electricity generation

- Measure:
  - implement district heating (DH) in target energy planning districts (EPDs)
- Reference Case variables
  - 70% of existing target property by 2041
  - 80% for new target property in year built
  - DH start in 2022
  - combined heat and power (CHP) implemented in 2023
  - EPDs 18, 19, 20, 21, 23, 32, 33, 34, 35, 36, 37 and 39 were identified by the PWT for densification based on City plans.
  - EPDs 1, 2, 6, 7, 14, 15, 16, 25, 26, 27, 28, 29, 30, 38 were identified by the PWT for net zero development based on City plans
- Simulation variables
  - shares from 40% to 90%
  - DH and CHP start year from 2021 to 2027
  - EPD selection
  - technical efficiencies – various

## Renewable solar heat and electricity generation

### Heat

- Measure
  - solar thermal on residential property not served by DE
- Reference Case variables
  - 10% share on target home heating and domestic hot water by 2041
- Simulation variables



- share from 0% to 25%
- implementation year

### *Electricity Generation*

- Measure
  - solar PV on suitable rooftops and other locations
- Reference Case
  - 300 MW installed
  - Allocated by EPD power needs
- Simulation variables
  - Up to 400 MW in 50 MW steps

### Transportation mix and efficiency

#### *Trip length*

- Measure
  - reduce average trip length
- Reference Case variables
  - 7.5% light-duty vehicle (LDV) trip length reduction
  - most impact in later years
- Simulation variables
  - up to 15% trip length reduction
  - vehicle category selectable

#### *Modality*

- Measure
  - increase active and shared transportation modes
- Reference Case variables
  - GO Train travel is 15% of person kilometers travelled (PKT) by 2051
  - Transit increase to 10% of PKT
  - Active transportation increases to 15% PKT
  - Most impact in later years
- Simulation variables
  - up to 20% mode share
  - vehicle category selectable

#### *Fuel and Efficiency*

- Measure
  - migrate to more efficient low-carbon vehicles
- Reference Case
  - LDVs & transit are 30% electric by 2051
  - heavy-duty vehicles (HDV) are 10% electric by 2051
  - liquid fuel vehicles achieve a 2% per annum efficiency gain
  - electric vehicles achieve a 1% per annum efficiency gain
  - linear year-to-year impact
- Simulation variables



- up to 60% electric share
- share selectable by major vehicle category
- efficiency gains by vehicle type and fuel

#### *Ontario electricity grid generating mix and natural gas network source mix*

- Measure
  - anticipate lower carbon utilities
- Reference Case
  - electricity estimates used those of The Atmospheric Fund (TAF)
  - natural gas assumed a 1% per annum reduction
- Simulation variables
  - up to a 2% per annum reduction in natural gas

### Scenario 3 – High-action Efficiency Case Simulation Variables

The following were the changes to the simulation variables:

- Existing home & building efficiency
  - increase share of retrofits to 90% by 2041 with 10% more efficient packages
- New home & building efficiency
  - 5% efficiency above Ontario Building Code
- Industrial efficiency
  - year-on-year improvement of 1.5% per year
- District heating
  - increase market shares to near 90% in target EPDs
  - combined heat and power (CHP) efficiency of 55%
- Solar thermal
  - double targeted share to 20% with start accelerated to 2020
- Solar PV
  - increase total installed capacity to 400 megawatt (MW)
- Transportation energy
  - increase of LDV trip reduction to 10%
  - increase transit to 15% of share
  - increase non-vehicle efficiency to 3% per year
  - increase percentage of electric LDV and transit buses to 60%



## Appendix 5 – Efficiency Case Performance

This appendix provides additional information on the performance of the Reference Efficiency Case, as well as the High Action Efficiency Case. The Reference Efficiency Case was approved by the Task Force as the 2041 CEP Efficiency Case.

### Contents

|   |   |
|---|---|
| Background .....                            | 1 |
| Scenario 3 Reference Efficiency Case.....   | 2 |
| Scenario 3 High Action Efficiency Case..... | 8 |

### Background

Three scenarios were established for the simulations:

- Scenario 1
  - All end-use efficiency measures including transportation measures
- Scenario 2
  - All end-use efficiency measures including transportation measures
  - District heating
  - Solar thermal
- Scenario 3
  - All end-use efficiency measures including transportation measures
  - District heating
  - Solar thermal
  - Solar photovoltaic (PV)

Scenarios were simulated under three implementation regimens:

- low action
- reference
- high action

In addition to energy and emission reductions, the energy savings that would flow to the community were also estimated using a low and high price range.

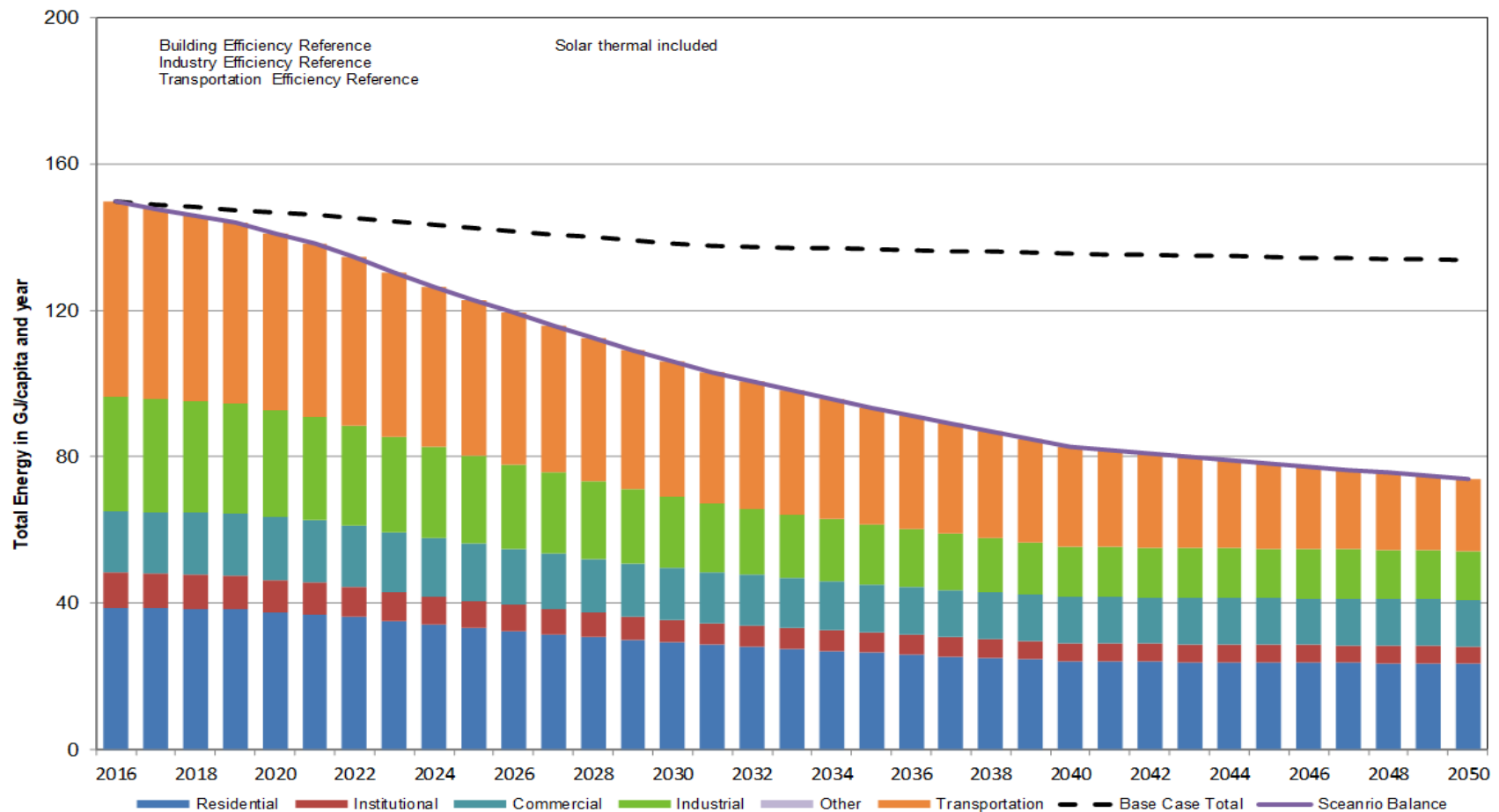
Given the poor performance of Scenarios 1 and 2, the PWT eliminated these two scenarios from detailed consideration.

In addition, given the poor performance of Scenario 3 under the low action implementation regimen, it was also eliminated from detailed consideration.



### Scenario 3 Reference Efficiency Case

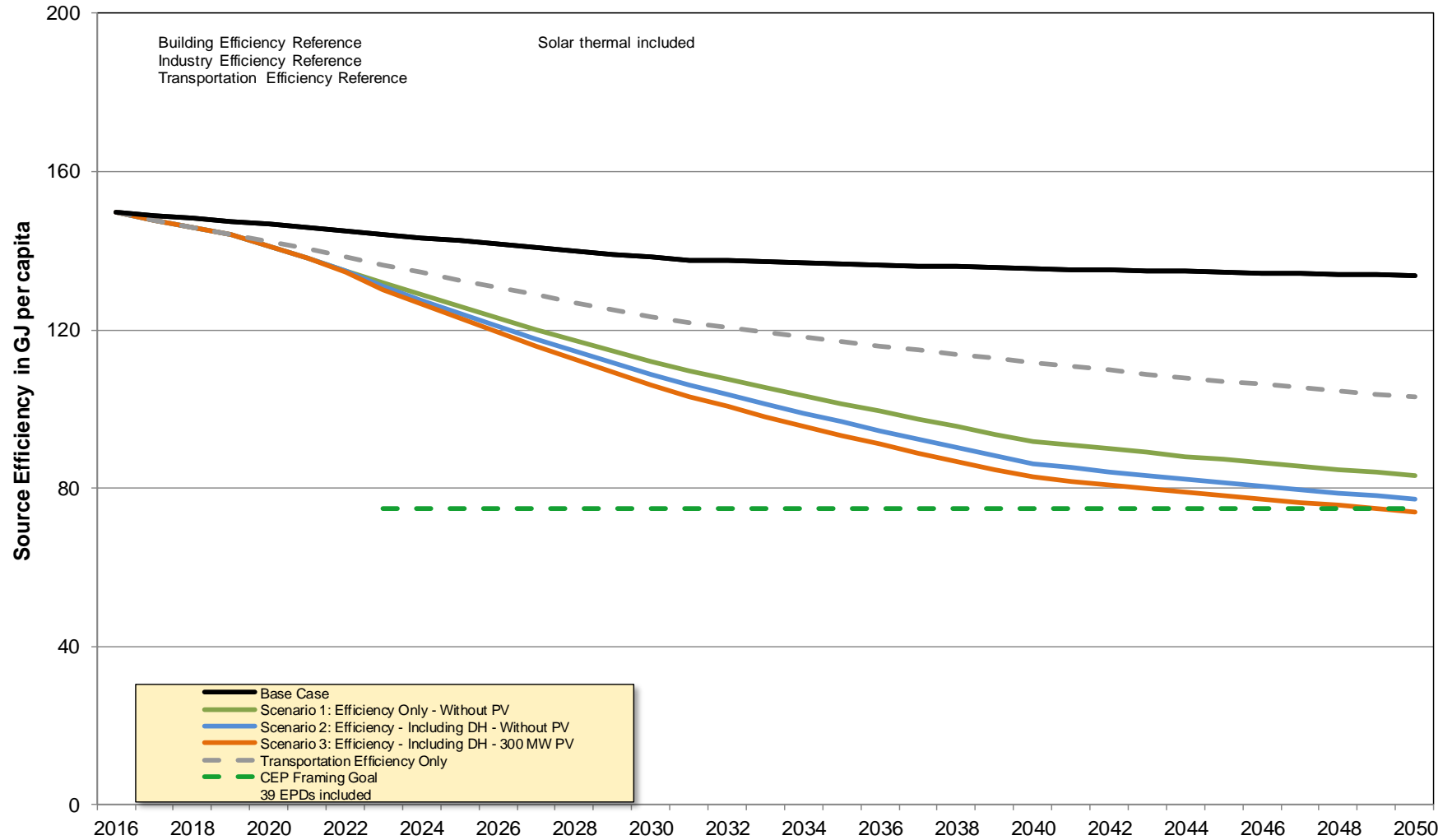
Figure 1 shows the reduction in source energy use (Gigajoules (GJ)/capita) from 2016 to 2050 relative to the Base Case (dotted line) for Scenario 3 using the reference implementation regimen. The reduction in source energy use misses the energy framing goal by 10%.



**Figure 1: Projected reduction in source energy use (GJ/capita) by sector from 2016 to 2050 for Scenario 3 using the reference implementation regimen.**



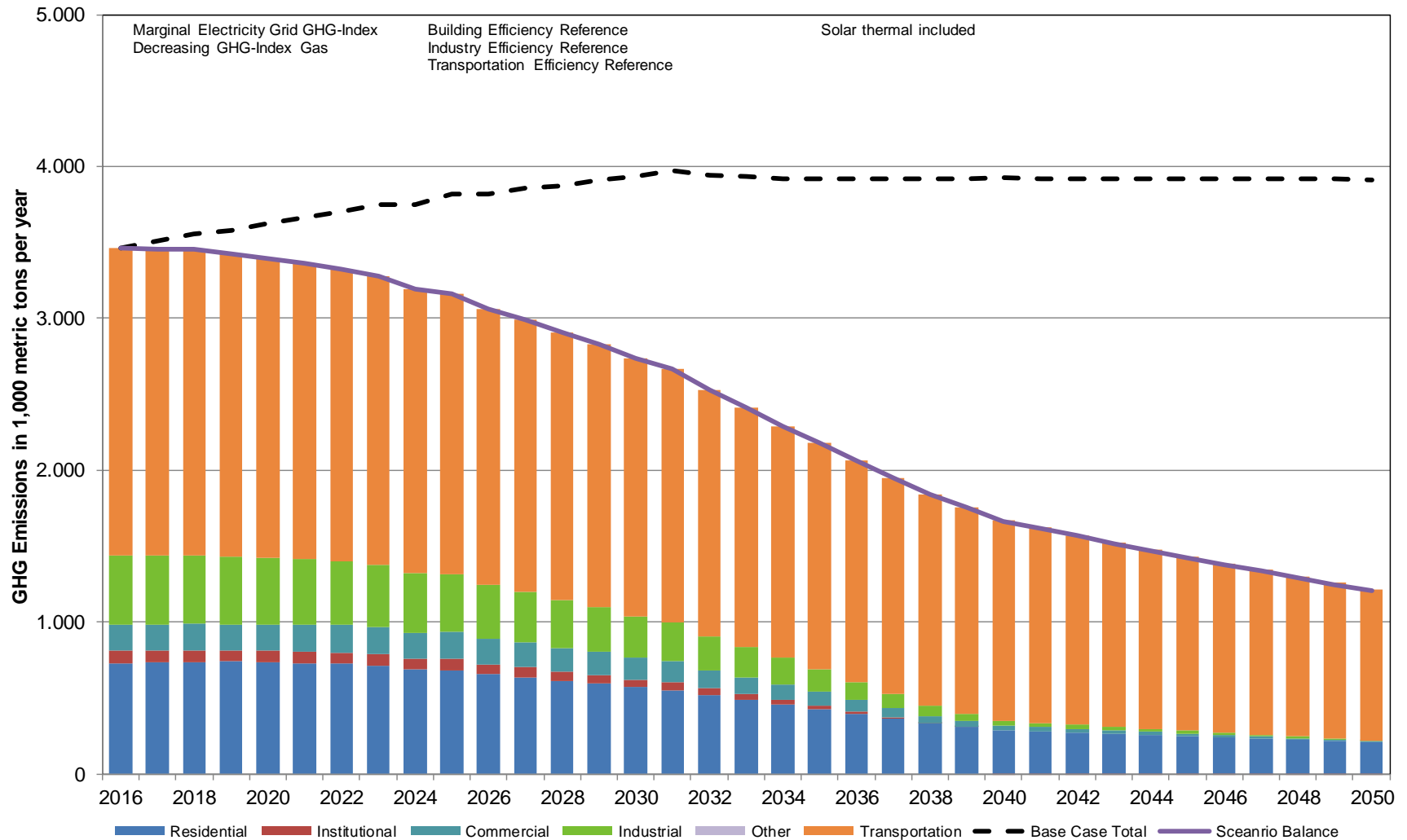
Figure 2 shows the performance of the three scenarios in reducing source energy use (GJ/capita) from 2016 to 2050 relative to the Base Case (black solid line) using the reference implementation regimen. All three scenarios miss the energy framing goal.



**Figure 2: Projected reduction in source energy use (GJ/capita) by scenario from 2016 to 2050 using the reference implementation regimen.**



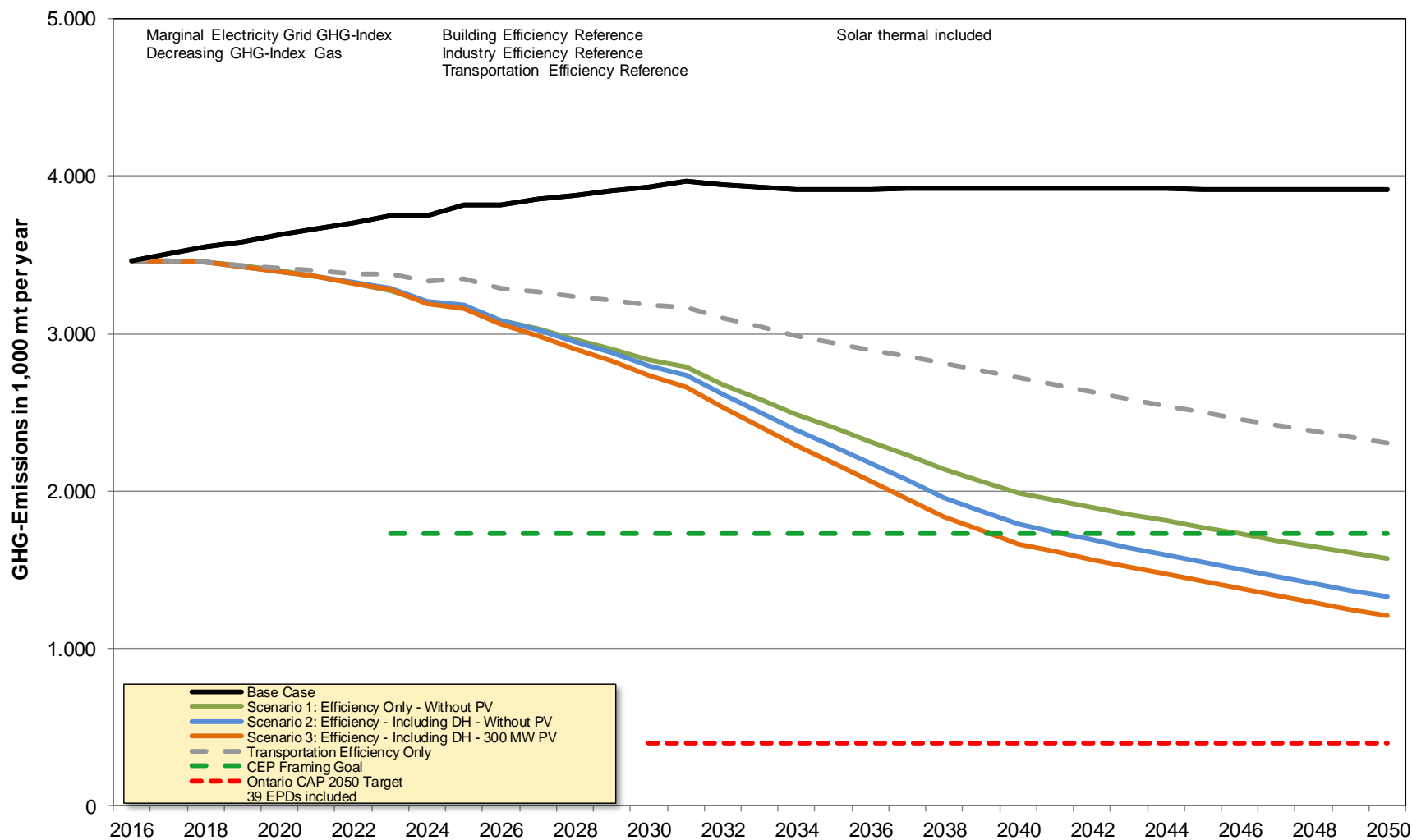
Figure 3 shows the reduction in emissions (metric tons/year) from 2016 to 2050 relative to the Base Case (dotted line) for Scenario 3 using the reference implementation regimen. The reduction in emissions exceeds the emissions framing goal.



**Figure 3: Projected reduction in greenhouse gas emissions (metric tons/year) by sector from 2016 to 2050 for Scenario 3 using the reference implementation regimen.**



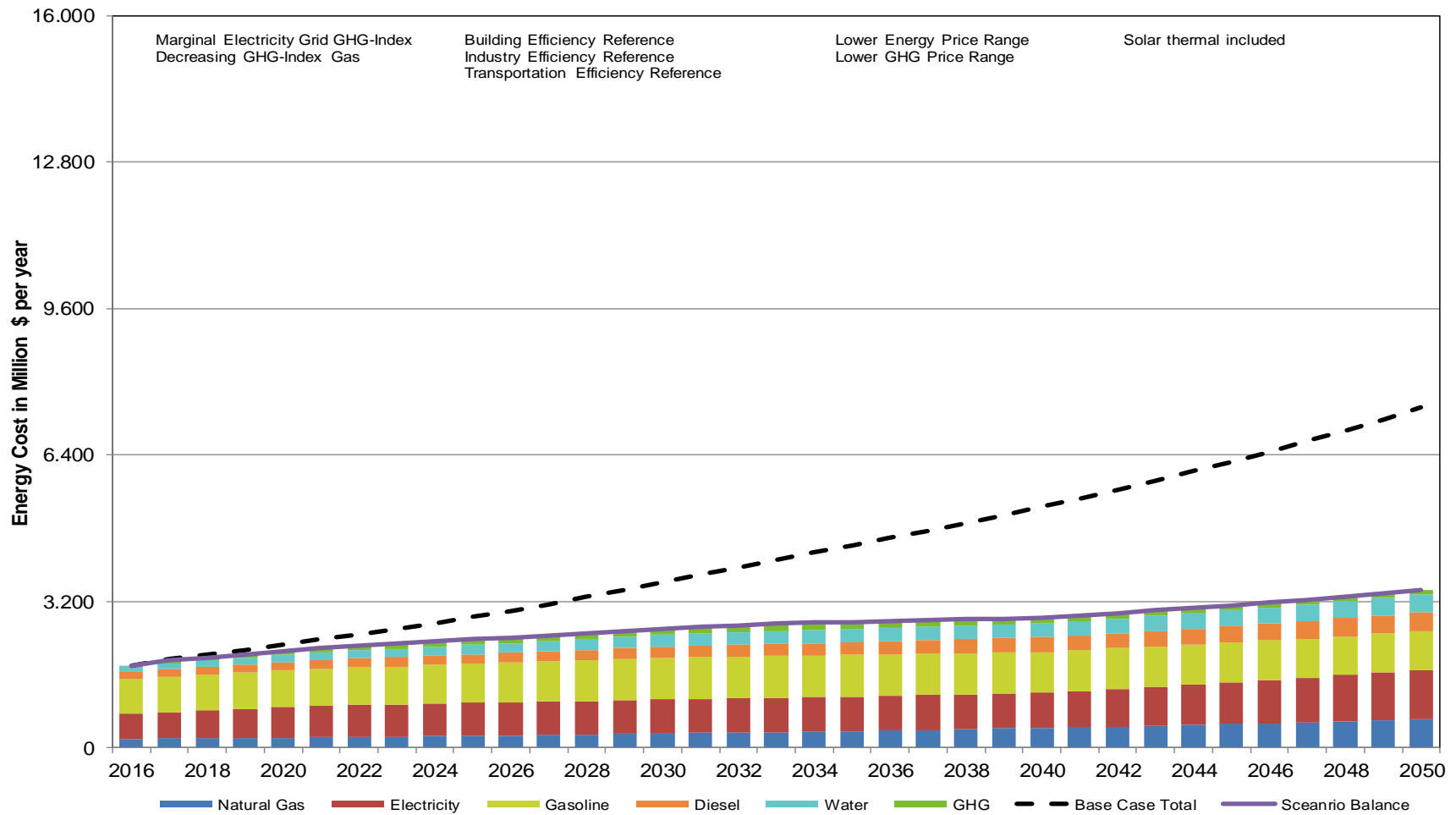
Figure 4 shows the performance of the three scenarios in reducing emissions (metric tons/year) from 2016 to 2050 relative to the Base Case (solid black line) using the reference implementation regimen. Scenarios 2 and 3 meet the emissions framing goal.



**Figure 4: Projected reduction in greenhouse gas emissions (metric tons/year) by scenario from 2016 to 2050 using the reference implementation regimen.**



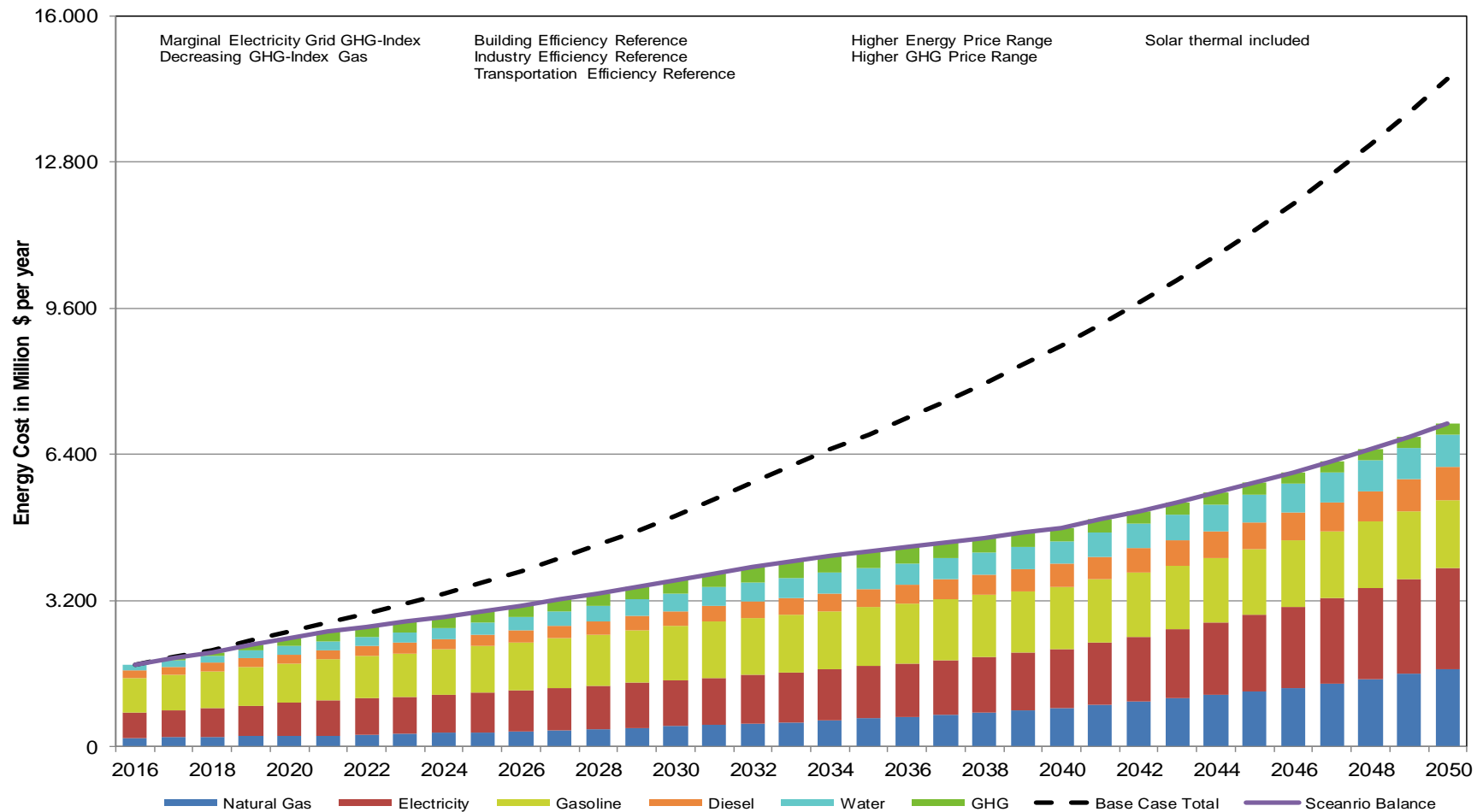
Figure 5 shows the projected reduction in energy costs (\$M) from 2016 to 2050 by fuel type, including carbon, relative to the Base Case (dotted black line) for Scenario 3 using the reference implementation regimen and the low energy price range. Estimated cumulative energy savings are \$56 billion by 2050.



**Figure 5: Projected reduction in energy costs (\$M) by fuel type, including carbon, from 2016 to 2050 using the reference implementation regimen and the low energy price range.**



The graph in figure 6 shows the projected reduction in energy costs (\$) from 2016 to 2050 by fuel type, including carbon, relative to Base Case (dotted black line) for Scenario 3 using the reference implementation regimen and the high energy price range. Estimated cumulative energy savings are \$93 billion by 2050.



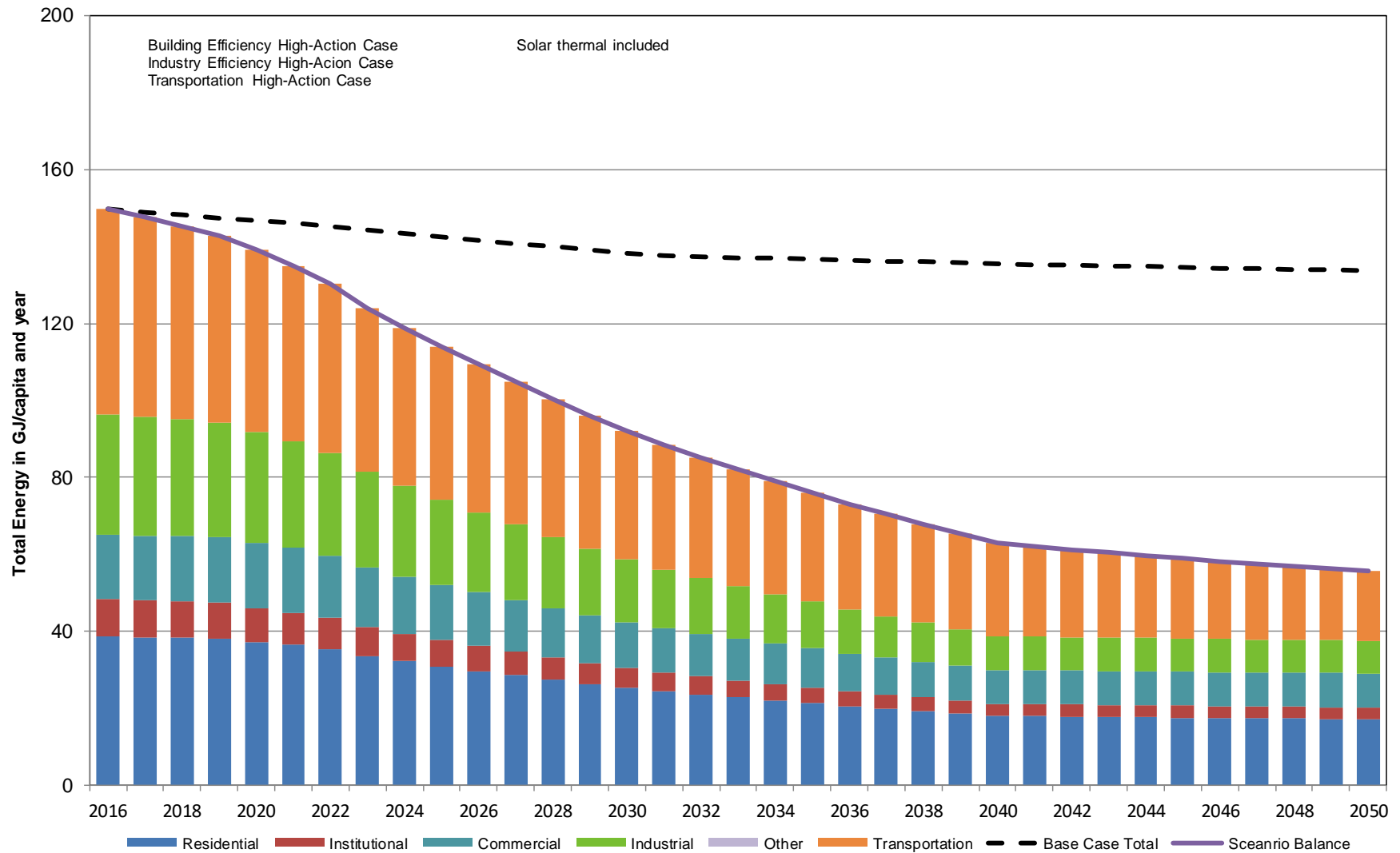
**Figure 6: Projected reduction in energy costs (\$) by fuel type from 2016 to 2050 for Scenario 3 using the reference implementation regimen and the higher energy price range.**



### Scenario 3 High Action Efficiency Case

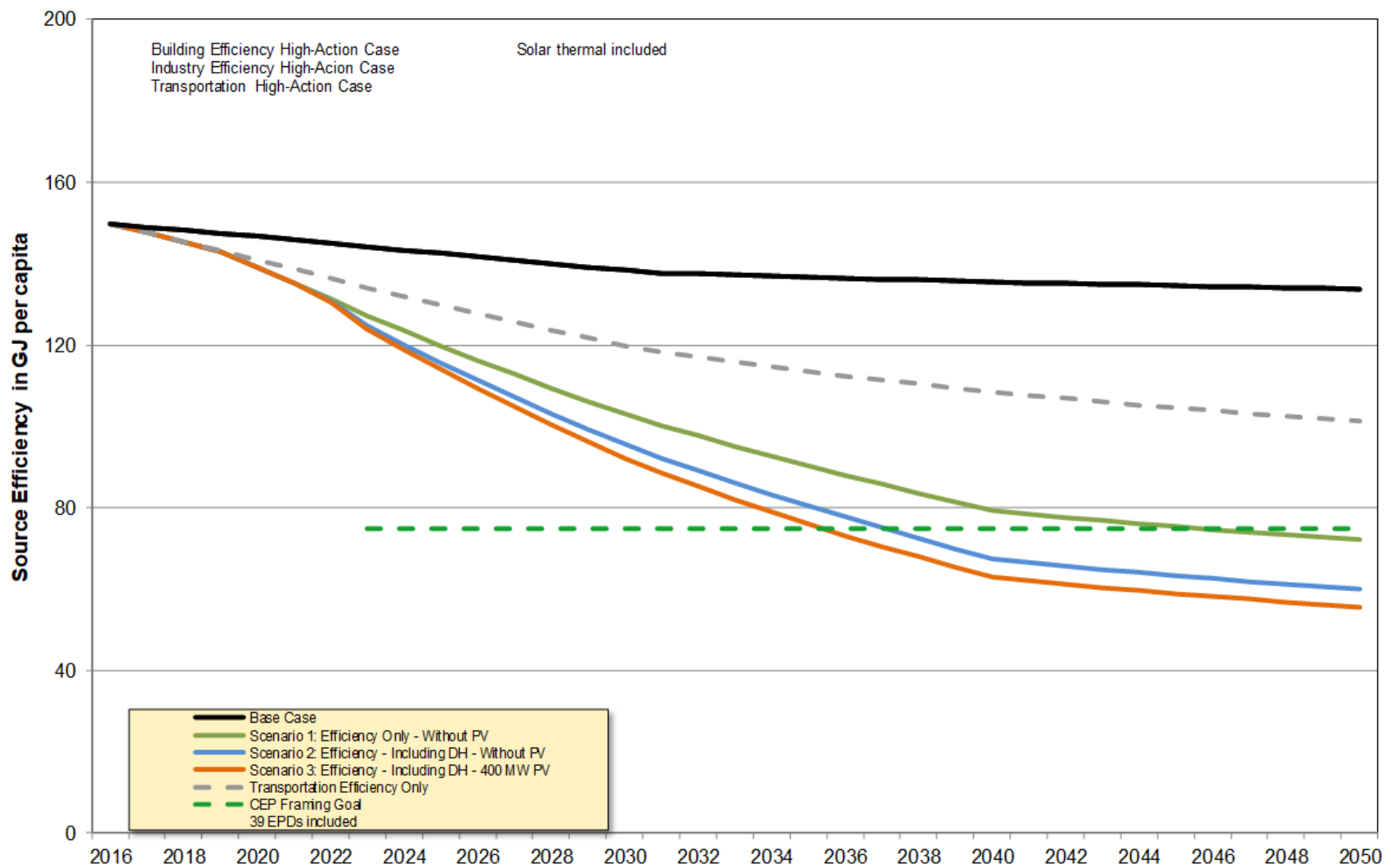
Figures 7 to 12 provide the analytical outputs of the performance of Scenario 3 under a high action implementation regime.





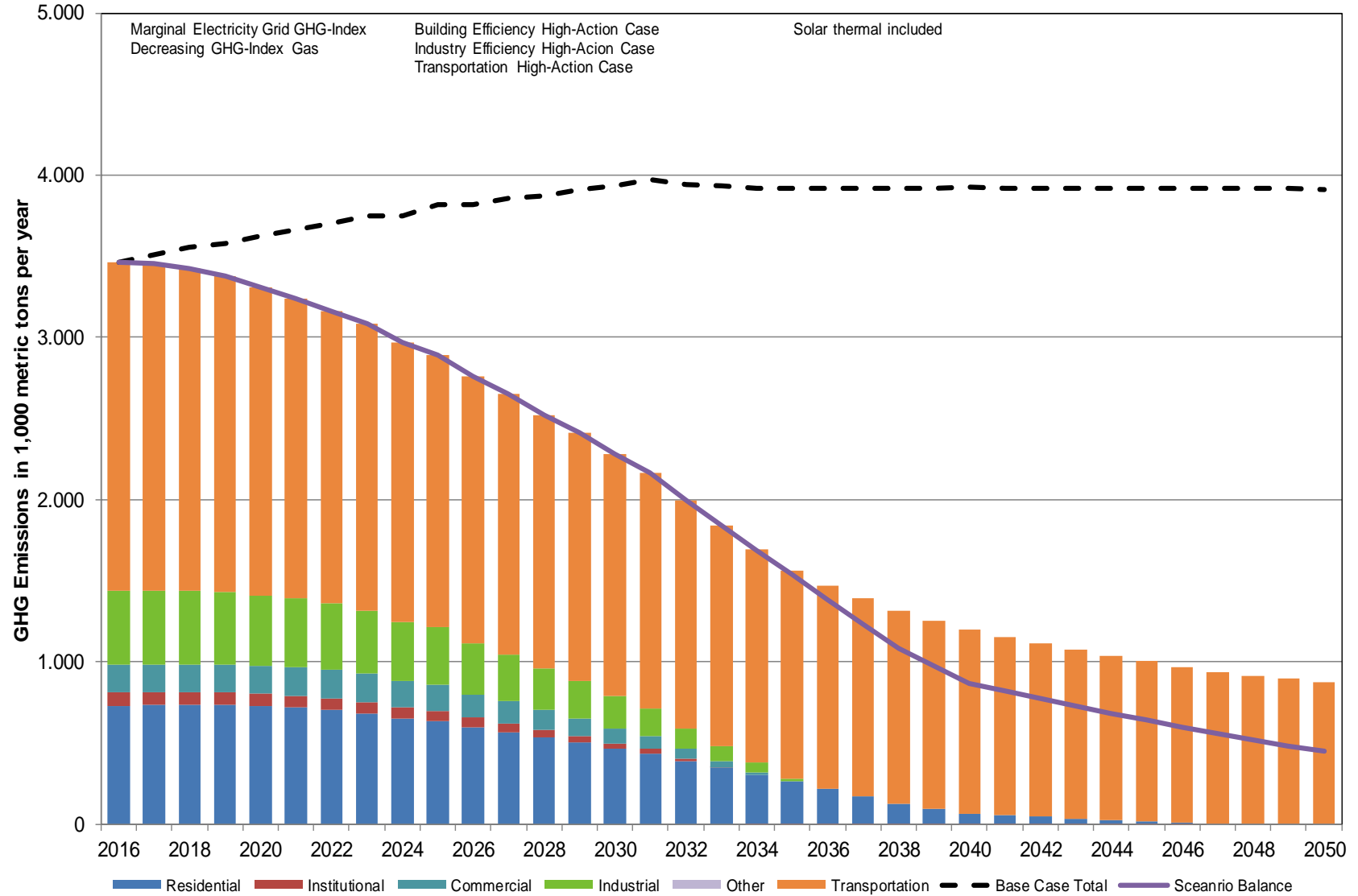
**Figure 7: Projected reduction to source energy efficiency (GJ/capita) by sector from 2016 to 2050 for Scenario 3 using the high action implementation regimen.**





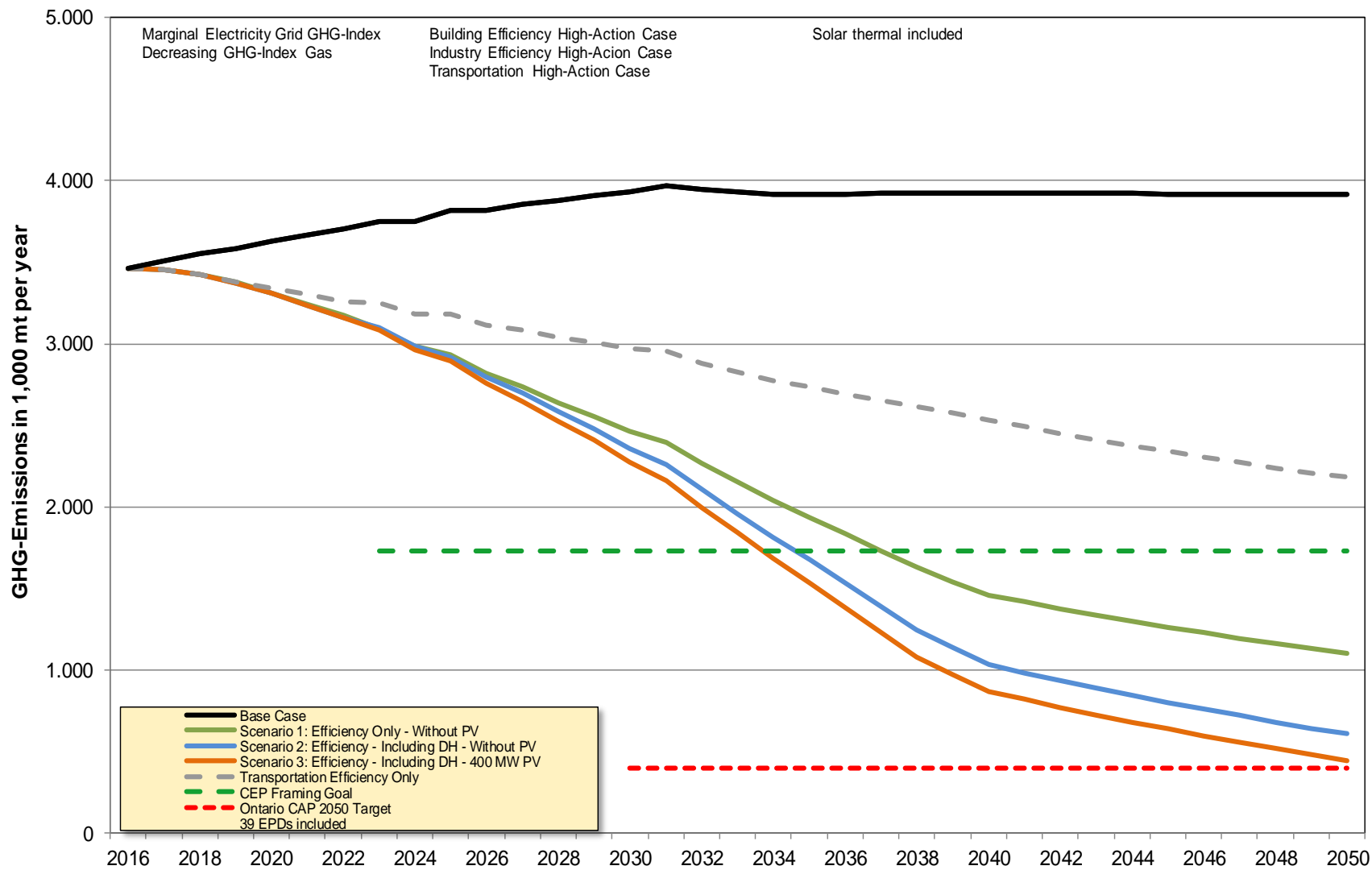
**Figure 8: Projected reduction in source energy use (GJ/capita) by scenario from 2016 to 2050 using the high action implementation regimen.**





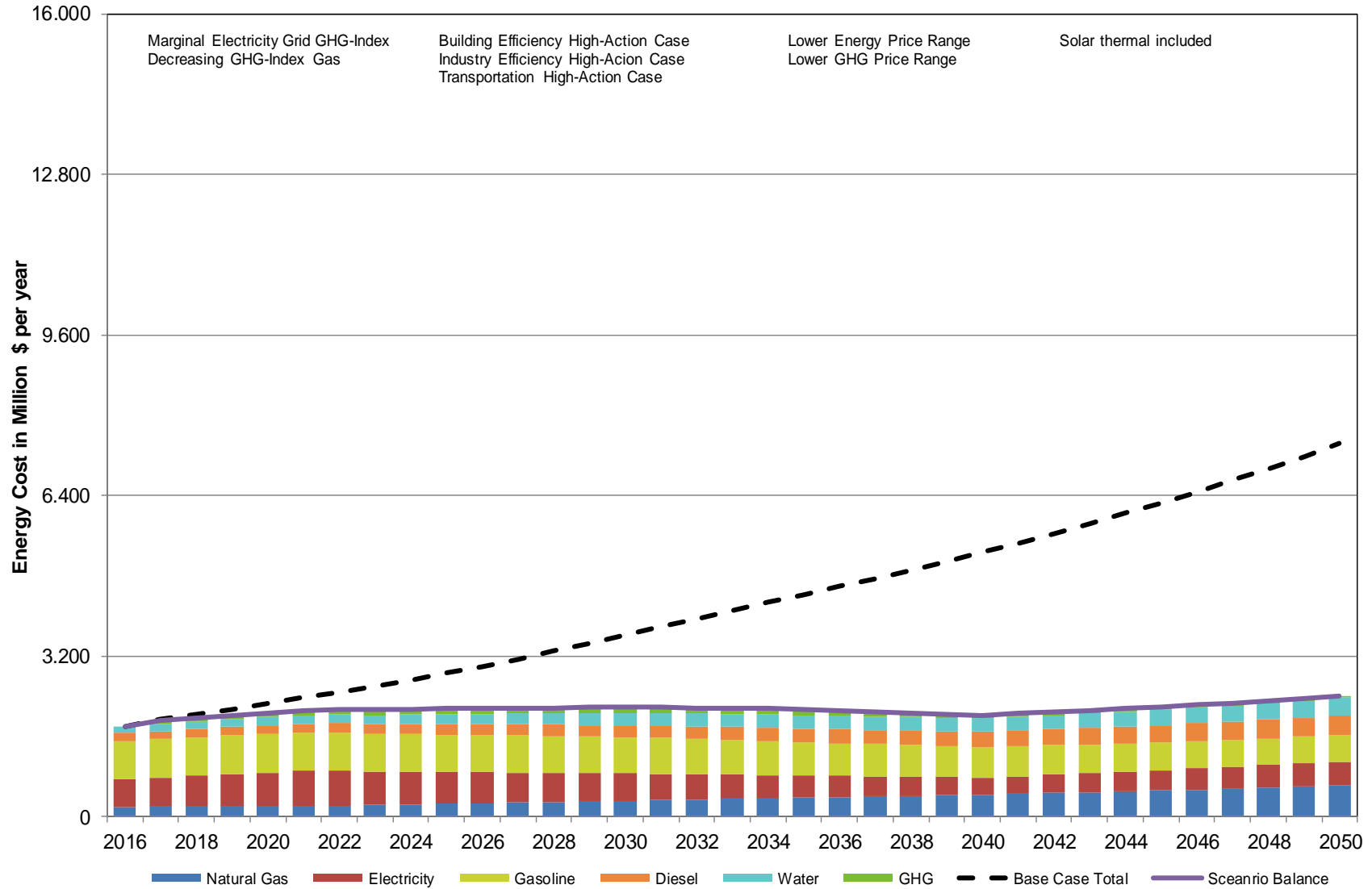
**Figure 8: Projected reduction to greenhouse gas emissions (metric tons/year) by sector from 2016 to 2050 for Scenario 3 using the high action implementation regimen.**





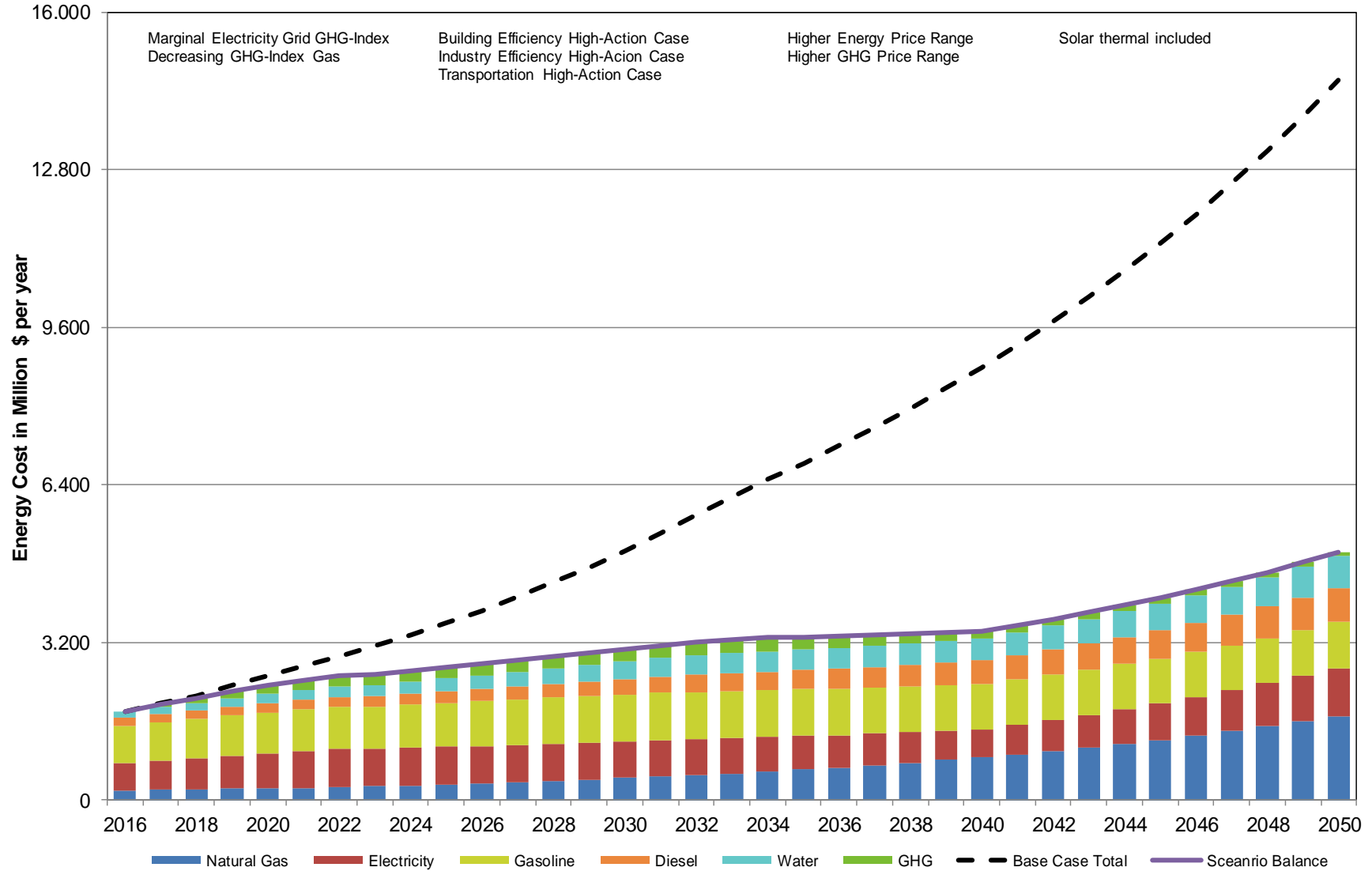
**Figure 9: Projected reduction in greenhouse gas emissions (metric tons/year) by scenario from 2016 to 2050 using the high action implementation regimen.**





**Figure 10: Reduction in energy costs (\$) by fuel type (including carbon) from 2016 to 2050 under the high action implementation regime and low energy price range. Estimated cumulative savings of \$74 billion.**





**Figure 11: Reduction in energy costs (\$) by fuel type (including carbon) from 2016 to 2050 under the high action implementation regime and high energy price range. Estimated cumulative savings of \$123 billion.**



## Appendix 6 – Brampton Sankey Diagrams

This appendix summarizes the Brampton Sankey diagrams produced by the PWT.

### Contents

|  |    |
|--|----|
| 1. What are Sankey diagrams?.....            | 1  |
| 2. Why is the Sankey diagram important?..... | 1  |
| 3. Brampton Sankey diagrams.....             | 1  |
| 3.1 Energy use.....                          | 4  |
| 3.2 Emissions.....                           | 7  |
| 3.3 Energy Costs.....                        | 10 |

#### 1. What are Sankey diagrams?

Sankey diagrams have been named after Irish Captain Matthew Henry Phineas Riall Sankey. He developed the diagram in 1898 to illustrate the energy efficiency of a steam engine. Sankey diagrams continue to be used today to show the energy flow through a system and to identify opportunities to improve efficiency.

#### 2. Why is the Sankey diagram important?

Community energy and emission reduction plans should consider all local energy flows from source to end-use to identify opportunities to increase efficiency from supply through distribution to end use.

A Sankey diagram illustrates the opportunity for efficiency at end-use (refer to green flows on the right of each of the following diagrams) as well as opportunities to improve system efficiency<sup>1</sup> (refer to light grey and dark grey flows on the right of each the following diagrams). Energy use, emissions and cost flow from the left to right through the system. Figure 1 describes how to read a Sankey diagram.

#### 3. Brampton Sankey diagrams

Sankey diagrams were developed to show the energy use (Figures 2a, 2b, 2c), emissions (Figures 3a, 3b, 3c) and cost (Figures 4a, 4b, 4c) flows for the Brampton 2016 baseline (Figures

---

<sup>1</sup> Conversion losses occur when energy is transformed from one form to another (e.g., fossil fuel is converted to electricity). Additional system losses occur when energy is moved from one place to another (e.g., the transmission of electricity from point of generation to homes and businesses), or from one system to another.



2a, 3a, 4c) and in 2050 under two scenarios: Base Case (Figures 2b, 3b, and 4b) and CEERP Efficiency Case (Figures 2c, 3c and 4c).



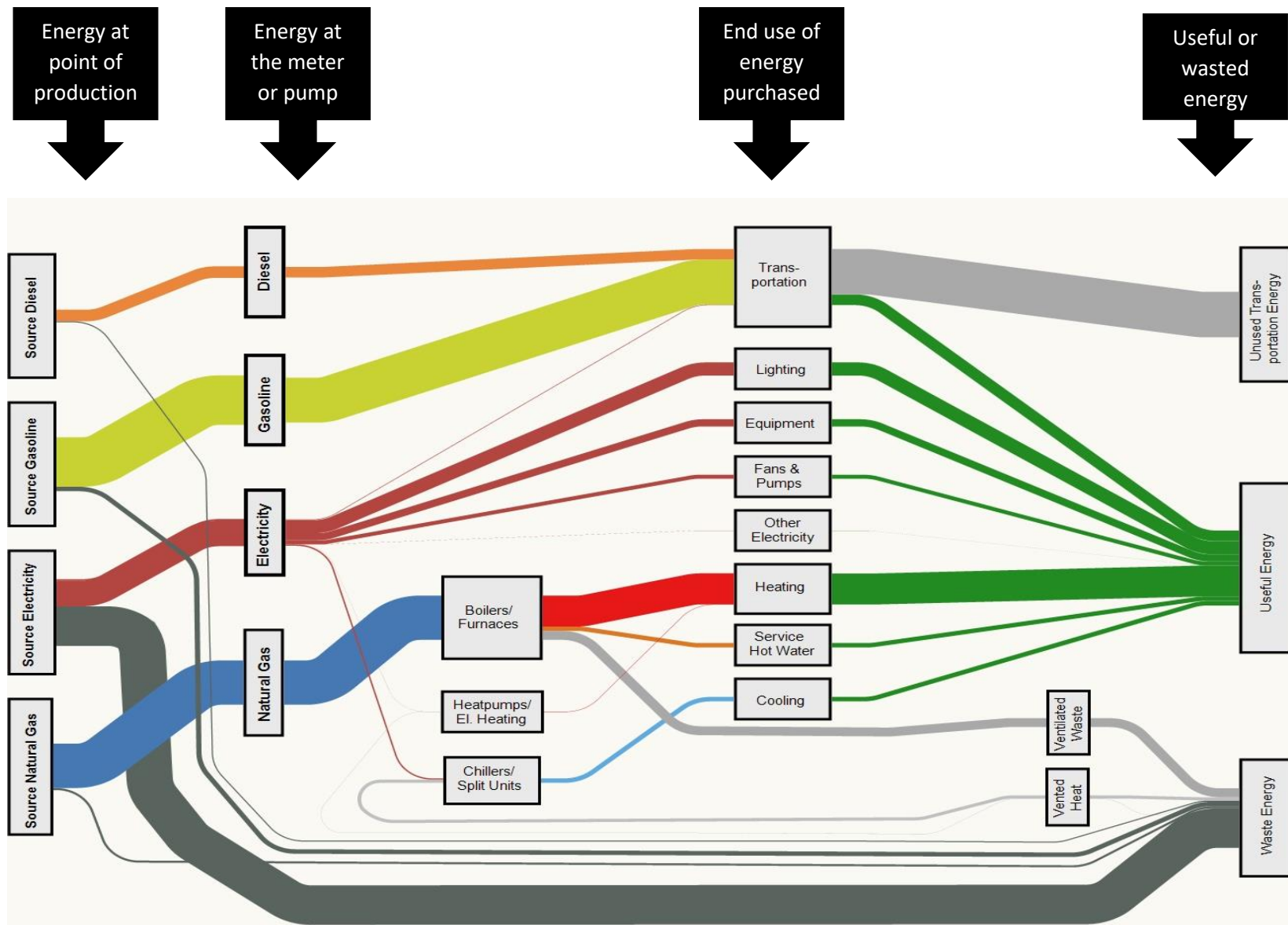


Figure 4: How to read the Sankey diagram.



### 3.1 Energy use

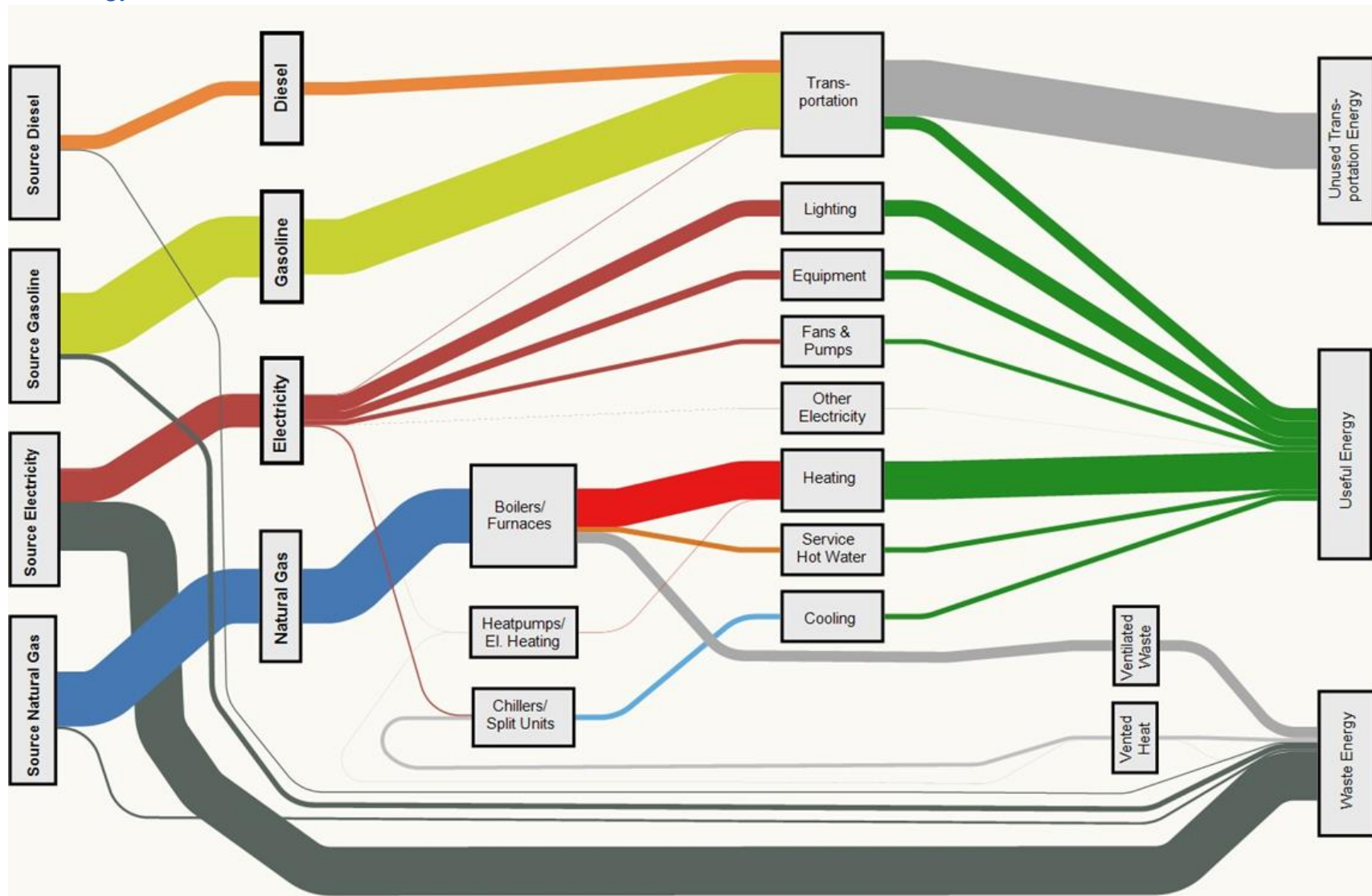


Figure 2a: Brampton Sankey diagram for 2016 baseline energy use.



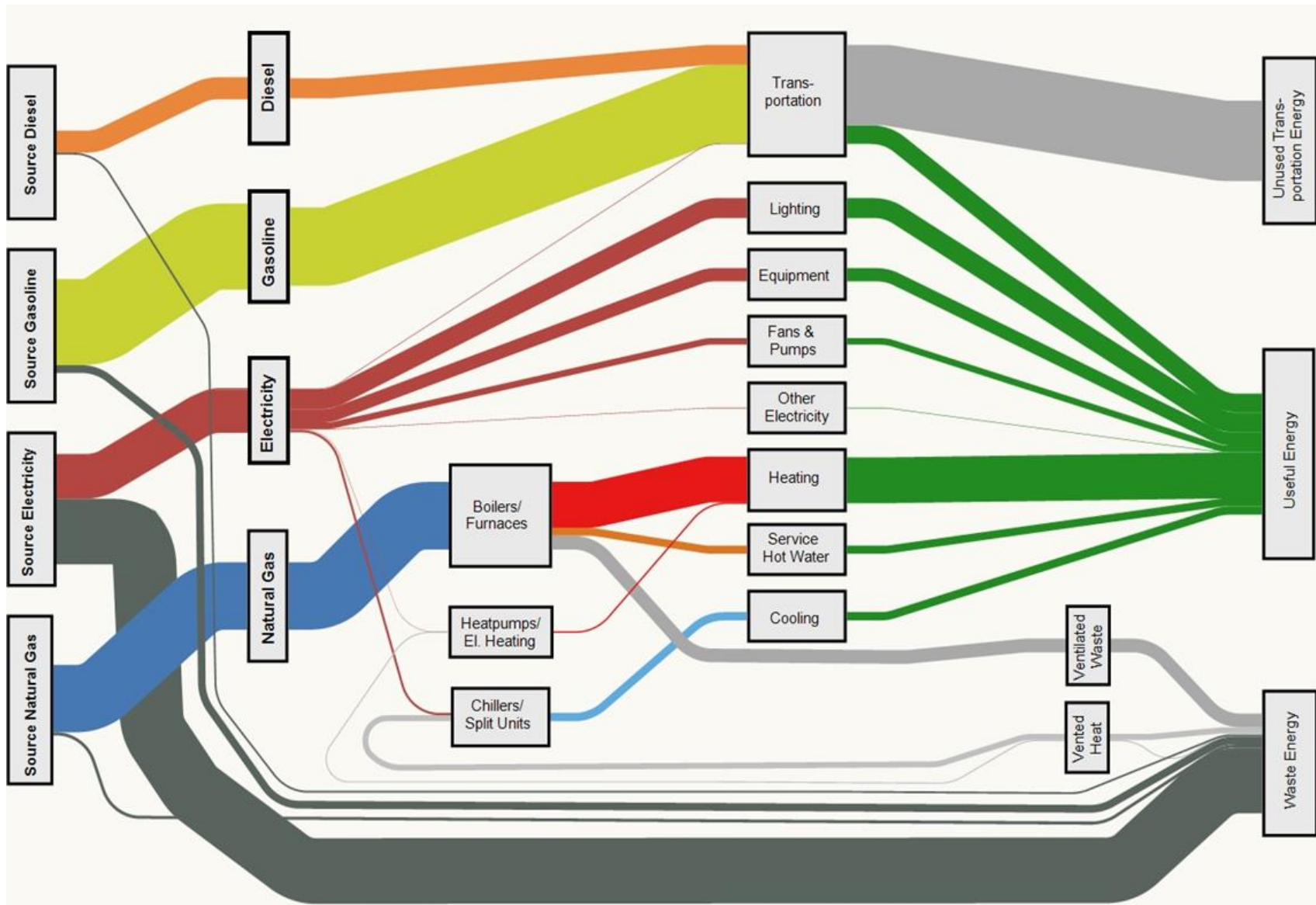


Figure 2b: Brampton Sankey diagram for 2050 Base Case energy use.



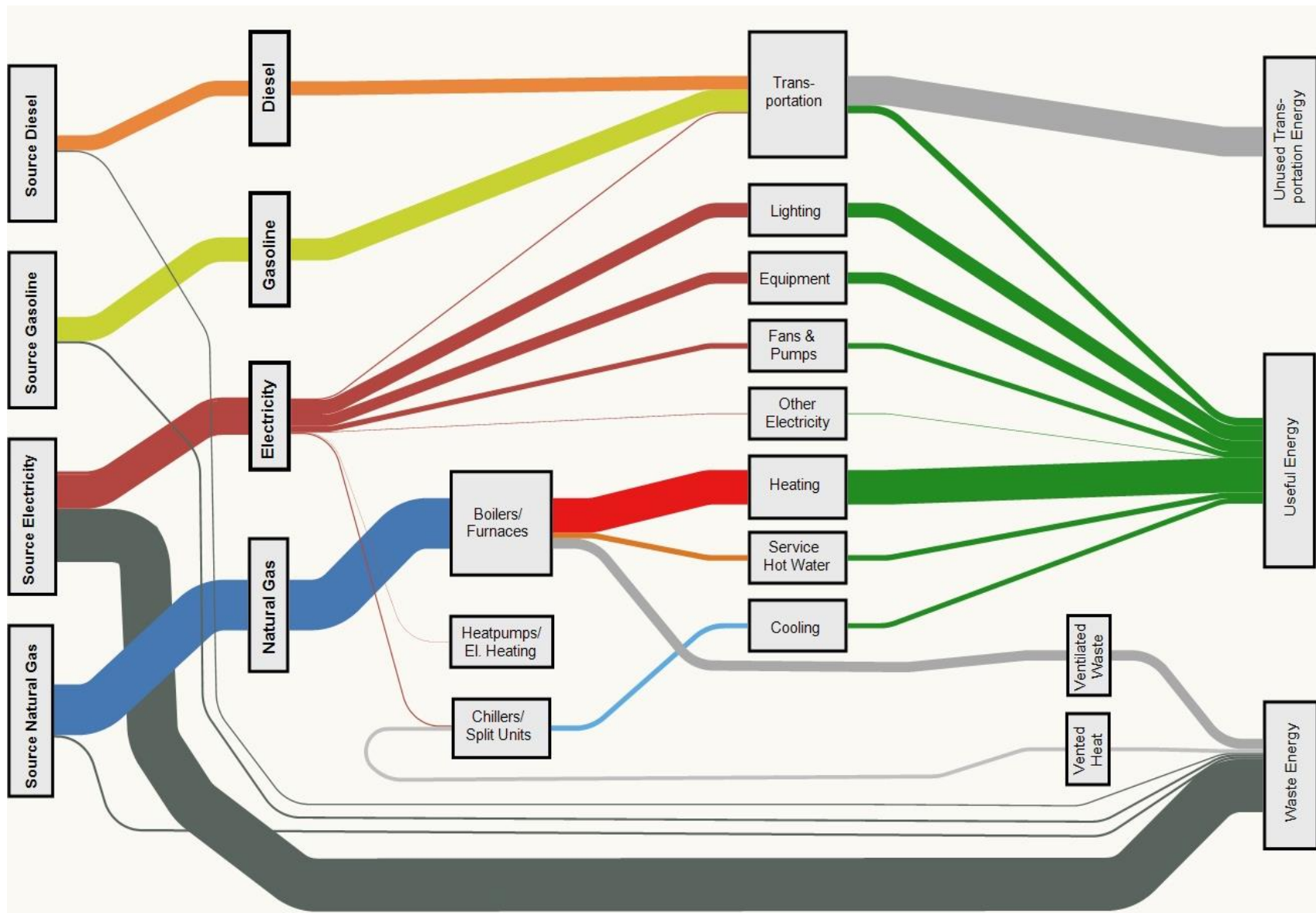


Figure 2c: Brampton Sankey diagram for 2050 CEERP Efficiency Case energy use.



### 3.2 Emissions

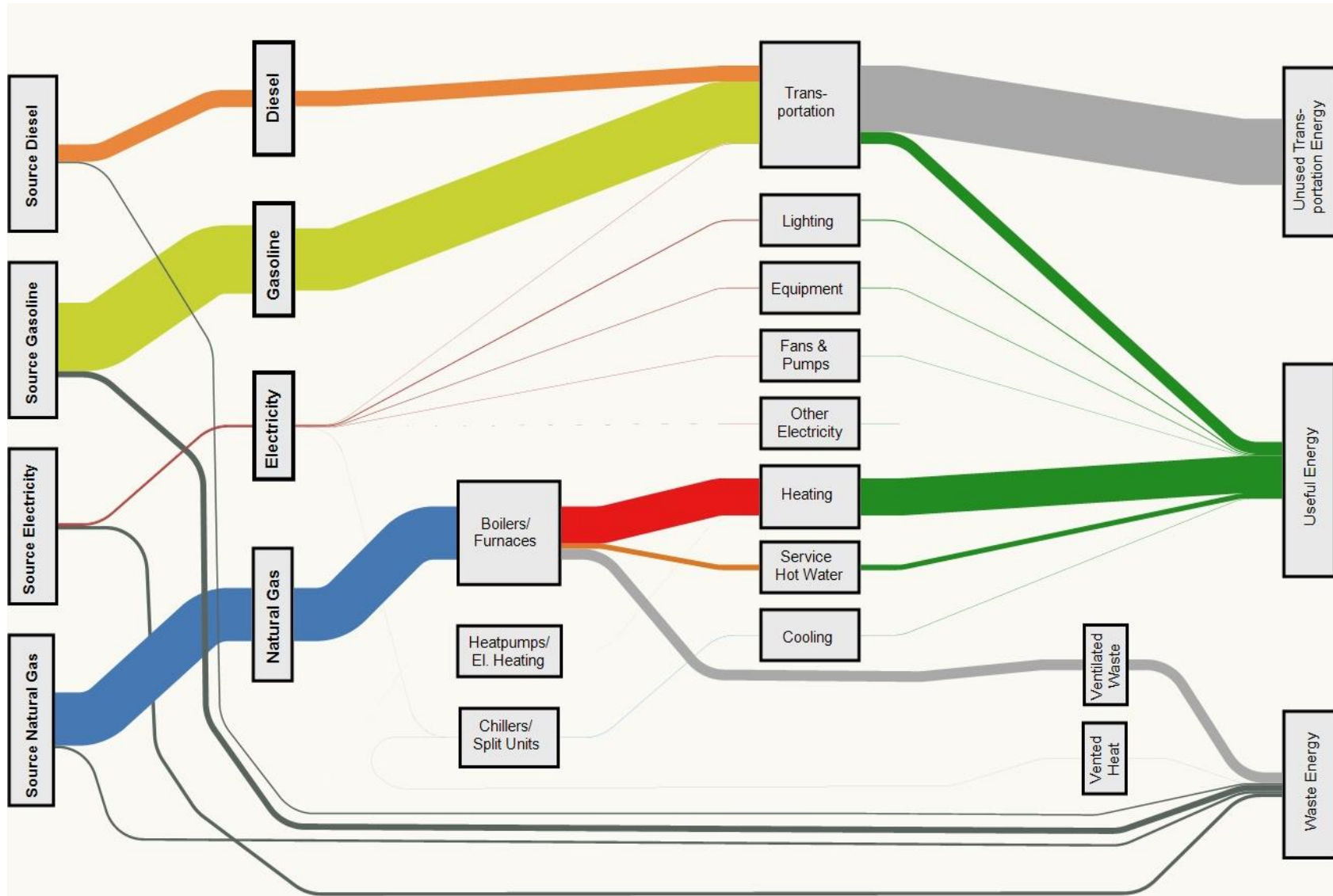


Figure 3a: Brampton Sankey diagram for 2016 baseline emissions.



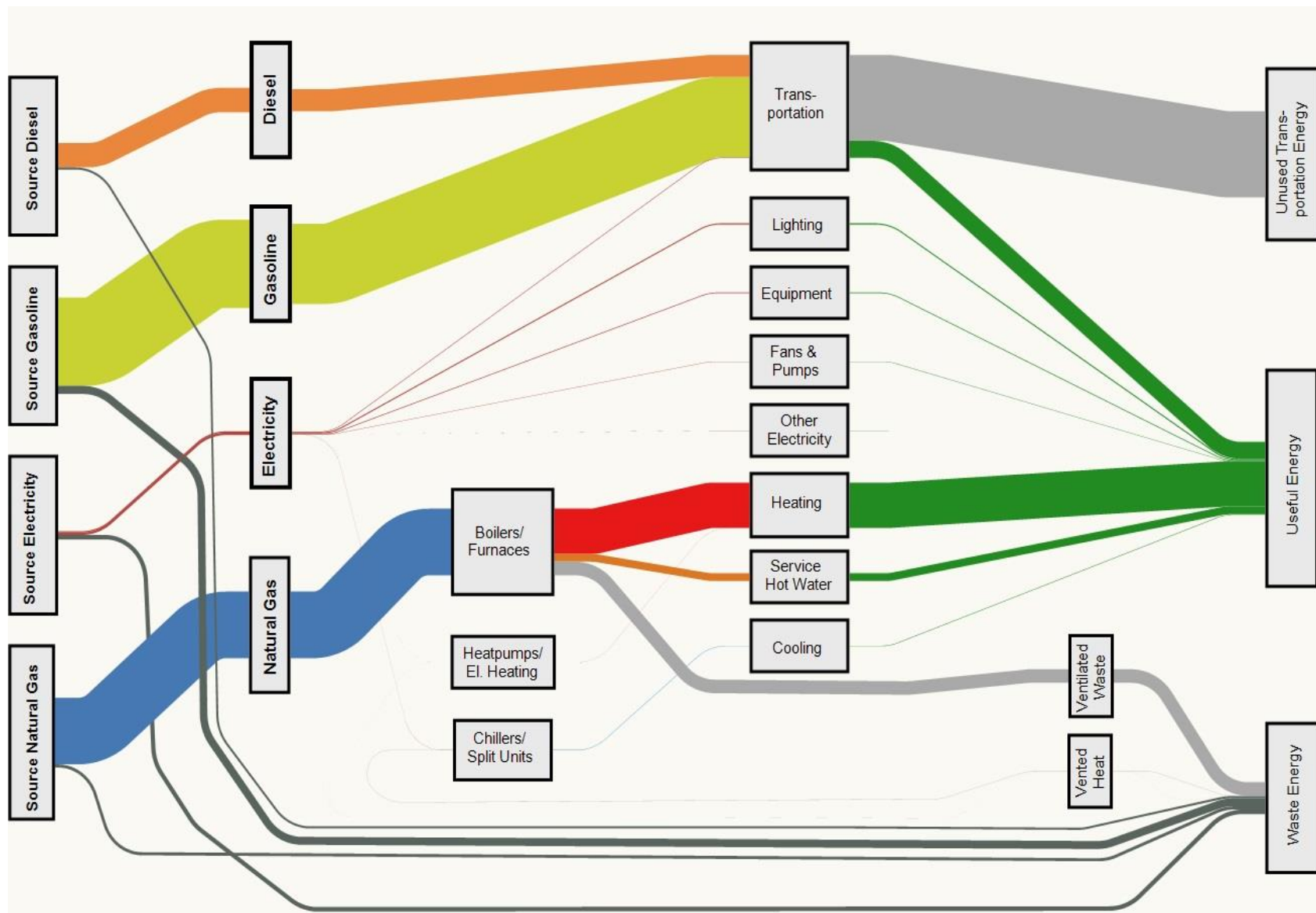


Figure 3b: Brampton Sankey diagram for 2050 Base Case greenhouse gas emissions.



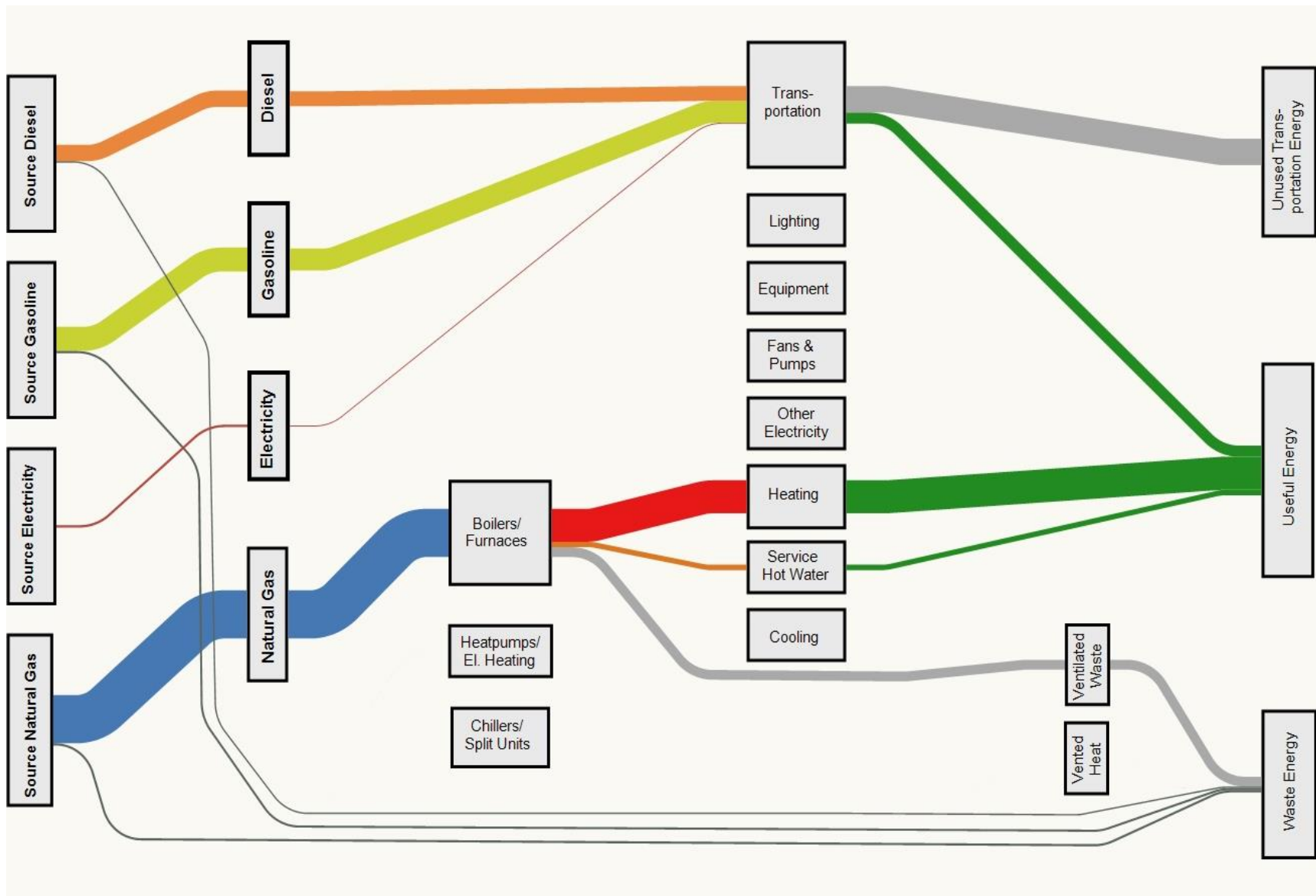


Figure 3c: Brampton Sankey diagram for 2050 CEP Efficiency Case for greenhouse gas emissions.



### 3.3 Energy Costs

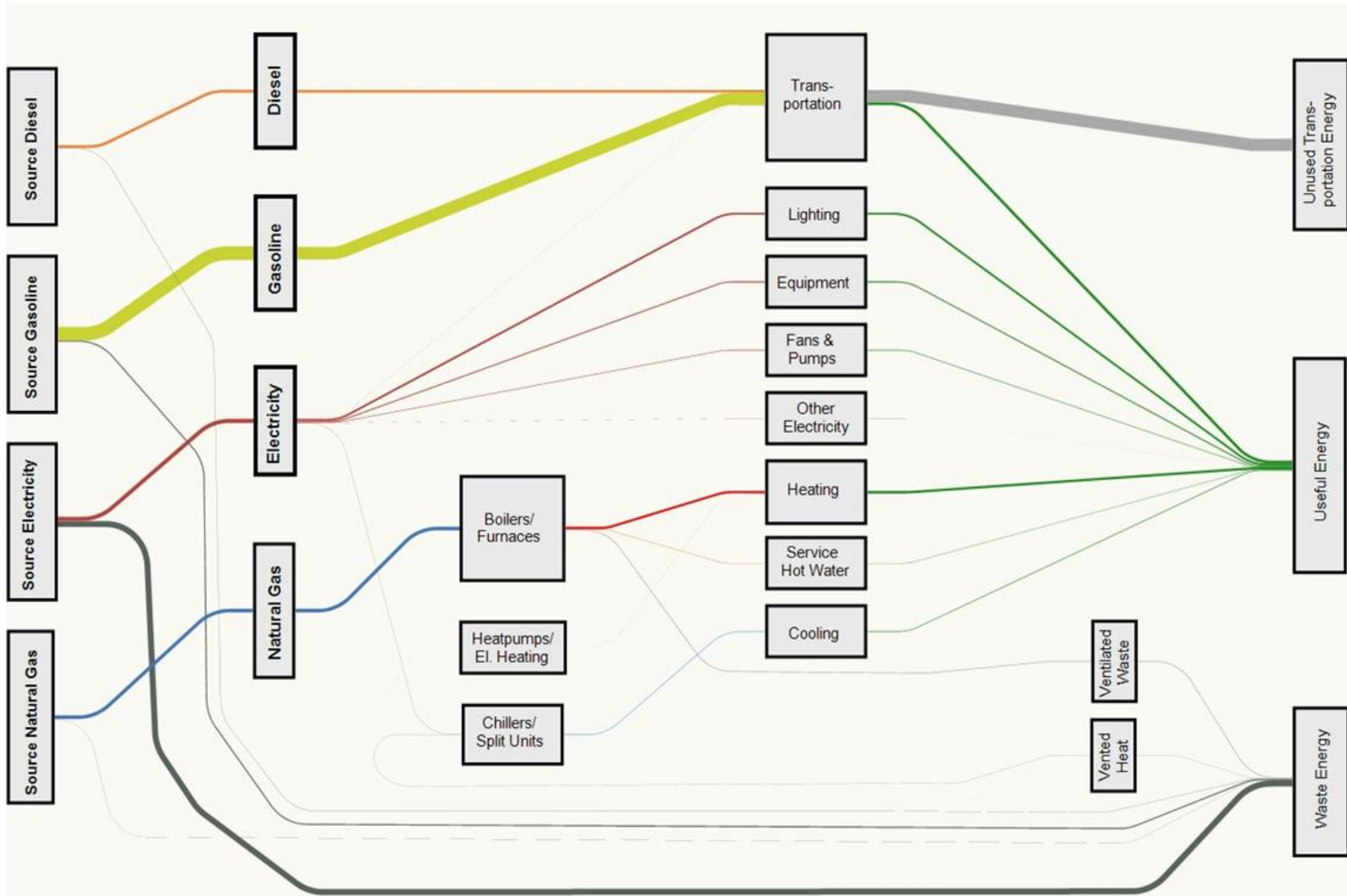


Figure 4a: Brampton Sankey diagram for 2016 baseline for energy cost.



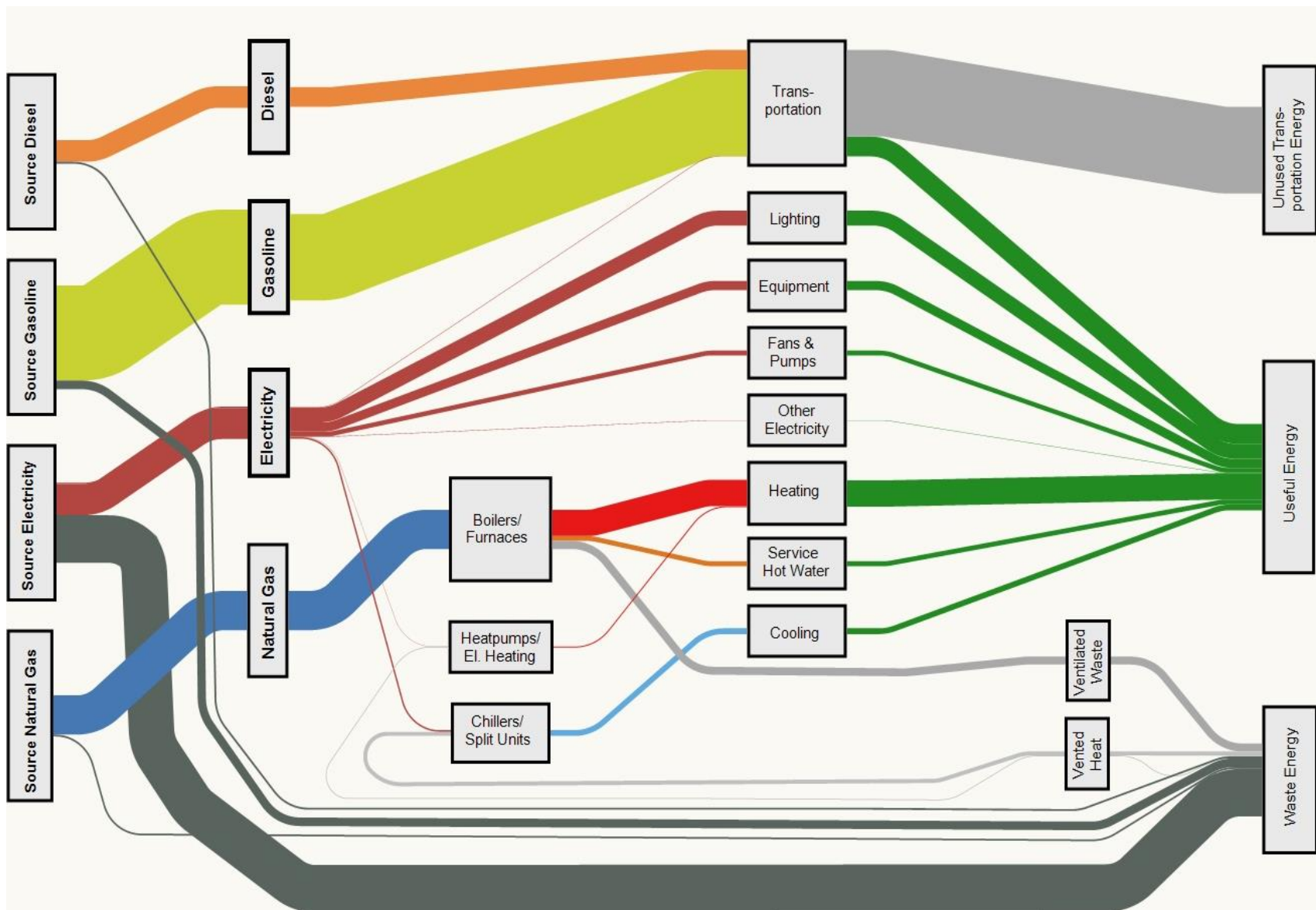


Figure 4b: Brampton Sankey diagram for 2050 Base Case energy costs.



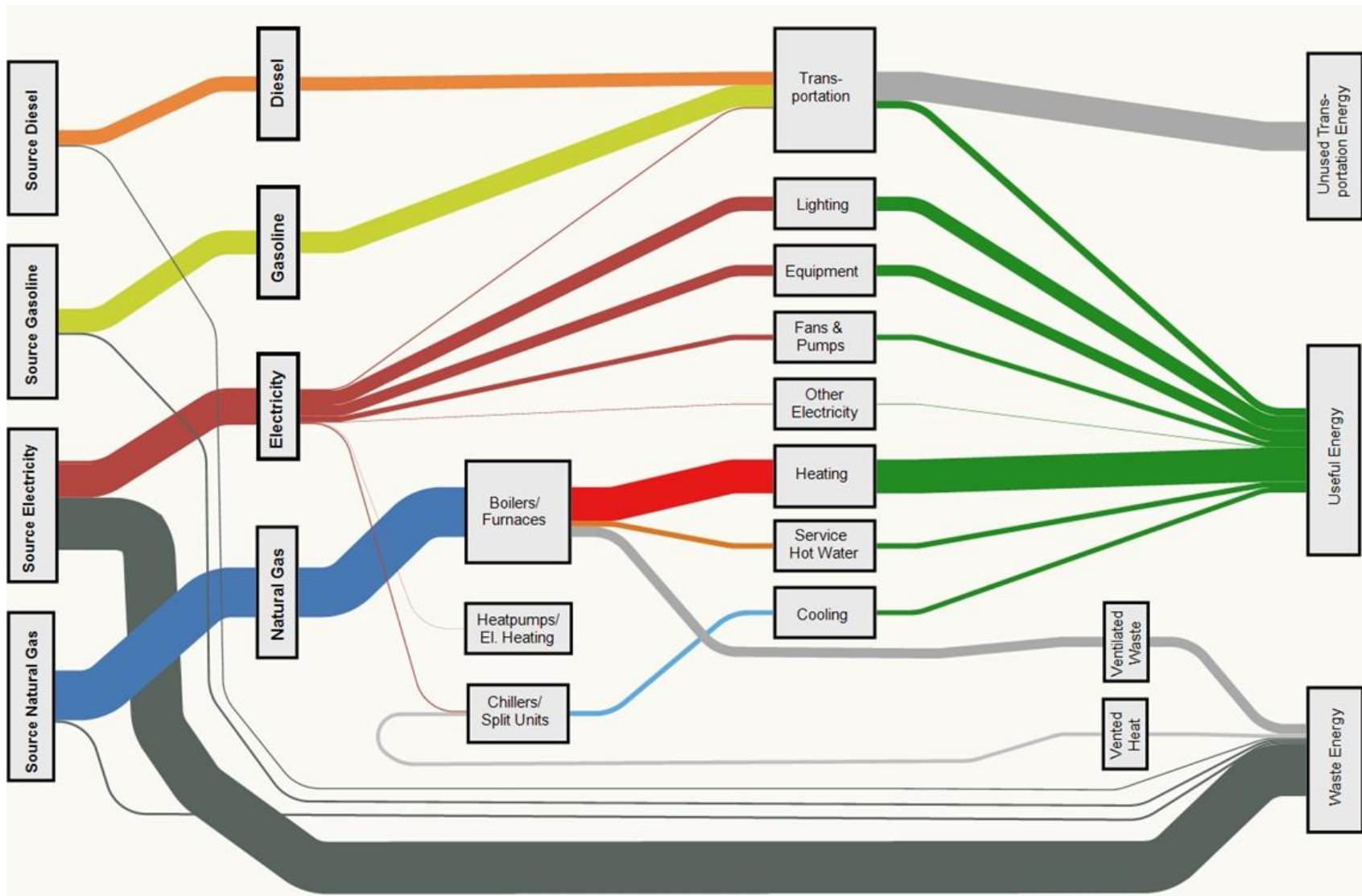


Figure 4c: Brampton Sankey diagram for 2050 CEERP Efficiency Case for energy costs.



# 2019 Engagement Report

BRAMPTON COMMUNITY ENERGY AND EMISSIONS REDUCTION  
PLAN

PROJECT WORKING TEAM



## Contents

|   |    |
|---|----|
| 1. Introduction .....                                 | 2  |
| 1.1. Three Main Components of the CEERP .....         | 2  |
| 2. Project Governance.....                            | 2  |
| 3. Public and Stakeholder Engagement Results.....     | 3  |
| 3.1 Mayor & Council.....                              | 3  |
| 3.2 Brampton Environmental Advisory Committee .....   | 3  |
| 3.3 Brampton CEERP Task Force.....                    | 4  |
| 3.4 Target Networks.....                              | 4  |
| 3.5 Public.....                                       | 5  |
| 3.5.1 Community Survey .....                          | 5  |
| 3.5.2 Mapping Workshop .....                          | 6  |
| 3.5.3 Public Events .....                             | 7  |
| 3.5.4 Information Sessions .....                      | 7  |
| 3.6 Municipal Departments .....                       | 8  |
| 4. Communications .....                               | 9  |
| 4.1 Promote public opportunities to participate ..... | 9  |
| 4.2 Raise awareness of the analytical findings.....   | 11 |
| 4.3 Communicate final CEERP recommendations .....     | 11 |
| 5. List of Appendices .....                           | 11 |



# CEERP Engagement Report

## Community Energy and Emissions Reduction Plan (CEERP)

### 1. Introduction

The CEERP Task Force, City of Brampton and Sheridan College, with additional funding support from the Province of Ontario, came together in 2018 to facilitate the development of a Community Energy and Emissions Reduction Plan (CEERP) for Brampton.

Brampton's CEERP is a result of a two-year cross-sector collaboration that draws strength from the expertise and demonstrated leadership of the City, Sheridan College and members of the Brampton CEERP Task Force

To support the community energy planning process, an Engagement Plan was developed to:

- Earn community buy-in for the CEERP goals and strategies, including endorsement by the City Council;
- Grow the capacity of the community to implement the CEERP; and
- Motivate the public and community stakeholders to act.

The Engagement Plan is found in Appendix 1. The following report summarizes the highlights from the process.

#### 1.1. Three Main Components of the CEERP

The Brampton CEERP has been designed for implementation and consists of a set of three documents:

- Our 2040 Energy Transition (and Action Plan containing the actions for each strategic direction that need to be accomplished in order to help achieve the objectives and targets),
- 2019 Analytical Report (with appendices) that summarizes the evidence-based rationale for the CEERP Task Force strategy and
- 2019 Engagement Report (**this document**) that summarizes the process that culminated in the CEERP Task Force strategy.

See section 5 for a list of appendices that support this Engagement Report.

### 2. Project Governance

The City and Sheridan College convened a team of community champions and principal advisors to oversee the community planning process. The CEERP Task Force Charter was approved at the inaugural meeting (see Appendix 2). The composition of the Brampton CEERP Task Force can be found in Appendix 3.

A Project Working Team (PWT) was established to lead the analytical process and was comprised of representatives from the City of Brampton, Sheridan Consulting, electricity and gas utilities, Peel Region and the consulting team of Garforth International Inc. See the 2019 CEERP Analytical



Report for more details on the PWT. The PWT reported the results of their analytical and strategic work to the CEERP Task Force.

### 3. Public and Stakeholder Engagement Results

To determine the CEERP 2016 baseline, the PWT collaborated with local organizations, utilities and internal departments to acquire community electricity, natural gas, transportation, population, economic and property data. Several large local organizations (and fleet where possible) contributed facility energy use data. Data was acquired from:

- Alectra Utilities
- Enbridge Inc.
- The Corporation of the City of Brampton
- Sheridan College
- The Regional Municipality of Peel
- Transportation for Tomorrow Survey
- Third-party data vendors
- Province of Ontario
- HIS Markit
- Kent Group Ltd

Details on the data and information gathered to support the analytical process can be found in Appendix 2 of the 2019 Analytical Report.

An Engagement Plan was developed for five stakeholder channels:

1. Mayor & Council
2. Brampton CEERP Task Force (CEERP Task Force; formerly Community Task Force)
3. Target Networks
4. Public
5. Municipal Departments

The following sections highlight some key outcomes.

#### 3.1 Mayor & Council

Engagements of Mayor and Council were completed (exclusive of final Council Approval). Council appointed City Councillor Doug Whillans to the CEERP Task Force. A Council Orientation Workshop took place in November 2018. Council also received information during a Council Workshop in December 2019 on the process and early analytical findings.

#### 3.2 Brampton Environmental Advisory Committee

Presentations were made to the Brampton Environmental Advisory Committee (BEAC) at the February 2018 and August 2019 meeting. Meeting minutes can be found at <https://www.brampton.ca/EN/City-Hall/meetings-agendas/Pages/Minutes-Agendas-Archive.aspx>.



### 3.3 Brampton CEERP Task Force

Brampton's CEERP Task Force met seven times between March 2019 and February 2020. The Task Force also met virtually in June 2020. All meetings were open for observation from the public. Meeting minutes can be found at:

<https://www.brampton.ca/EN/residents/GrowGreen/Pages/Community-Energy-and-Emissions-Reduction-Plan.aspx>.

Key approvals included:

- an energy vision for Brampton,
- a mission for the CEERP Task Force,
- a preferred “Efficiency Scenario” to support the development of goals, strategic objectives and projects while ensuring the community is placed on a path to support the advice of the IPPC.
- efficiency, emissions and economic goals
- strategic objectives with targets to achieve the goals,
- a 5-year implementation framework with priority projects and key performance indicators (KPIs), and
- a commitment to champion implementation.



Figure 1 - Task Force Meeting #2

Refer to Our 2040 Energy Transition for more information on these approvals.

### 3.4 Target Networks

As described in the original Engagement Plan, Task Force members act as a channel to their respective communities and networks. The best format and tools for the engagement of these networks will be determined once they have been identified. The following briefly describes the Targeted Networks identified over the course of the project.

#### **Nordic City Solutions 1**

Convened by the Danish Embassy on March 26 and 27, 2019, the two-day event sought to bring together stakeholders from across the community and region along with product and service



providers from Nordic Europe to present and discuss the various resources, technologies and development processes to implement the goals of Vision 2040 specifically applied to the potential redevelopment of the Bramalea neighborhood<sup>1</sup>. The Danish Embassy played a convening role in representing economic development interest for countries across Northern Europe. The importance of the CEERP in supporting the goals of Vision 2040 was presented by members of the Project Working Team.

## **Nordic City Solutions 2**

Similar to Nordic Cities 1, this meeting reconvened many of the same attendees as Nordic Cities 2. The focus on the meeting was on opportunities to implement the goals of Vision 2040 in the Uptown neighborhood<sup>2</sup>.

## **Partners in Project Green (PPG)**

PPG is represented as a member of the CEERP Task Force and act as a conduit mainly to the industrial sector in the City and the region. On November 29, PPG celebrated its 10<sup>th</sup> anniversary at a conference called Powering the Clean Economy. The CEERP was presented to the audience at this conference with emphasis on the importance of the industrial and commercial sector in achieving the goals and targets of the CEERP.

## **Energy Revealed (a project of GreenLearning – Peel District Schoolboard)**

The program is a joint effort between GreenLearning Canada and the Peel District School Board, with funding support from the Ontario Trillium Foundation. Other partners include the Waterloo Global Science Initiative (WGSi) and Karen Farbridge, former Mayor of Guelph, Ontario and Community Energy Planning Specialist.

Energy Revealed is a program that explores ways to make energy visible in schools. Whether its installed energy metering technology, plug in energy metering technology or no technology at all – this program will help students become energy efficient experts.

Karen Farbridge is a member of the CEERP Project Working Team. Peel District Schoolboard has a representative on the CCERP Task Force.

## **3.5 Public**

Three primary engagements of the public were planned.

### **3.5.1 Community Survey**

One Hundred and eleven (111) residents participated in the survey. Ninety-four (94%) of respondents agreed it was important for Brampton to work towards world-class energy performance. Reducing emissions and ensuring affordable and reliable energy services were the two highest ranking benefits. Protecting green space and urban trees, clean air and making public transit more convenient were the three highest ranked co-benefits, respectively. See Appendix 4 for additional survey results.

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<sup>1</sup> <https://www.nordiccitysolutions.com/bramalea-new-town-nordic-lab/>

<sup>2</sup> <https://www.nordiccitysolutions.com/uptown-brampton-nordic-urban-lab/>



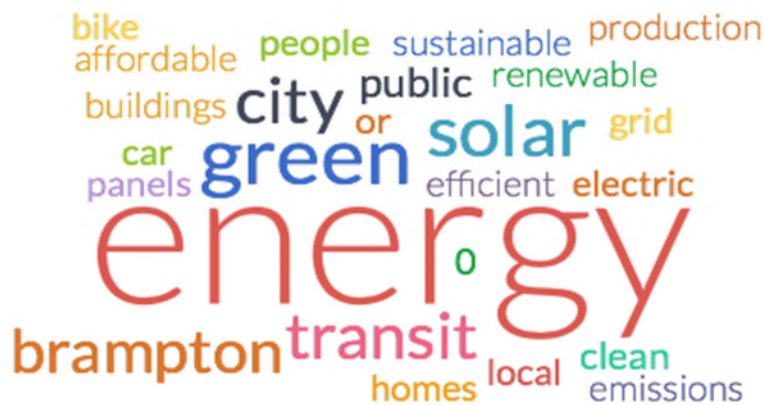


Figure 2 - Survey Word Cloud, "What Does Brampton's Ideal Energy Future Look Like in 2050?"

### 3.5.2 Mapping Workshop

A mapping workshop was held on June 24, 2019 with the CEERP Task Force, students from Sheridan College and municipal staff in attendance. The purpose of the workshop was to familiarize the attendees, using community data and maps of the City, with the spatial context of the CEERP including Energy Planning Districts, Potential Net-Zero Districts, District Energy Opportunities, and Active Transportation Opportunities. The workshop empowered participants to better understand “where” the CEERP could potentially be implemented and supported them in their ongoing role of engaging the community in conversations concerning the implementation of the CEERP.

A similar workshop was held with professionals from across Ontario at a course offered in February 2020 at York University called *The Energy Conscious Community: An Energy Planning Course for Planning Professionals*. A presentation was provided by Brampton staff to demonstrate the role of the planner in energy planning, explain how energy planning can be a driver in addressing climate change, how an “energy” lens on urbanization can lead to multiple economic, social, and environmental benefits, and Brampton’s approach to energy planning.





Figure 3 - Mapping Exercise

### 3.5.3 Public Events

In addition to open CEERP Task Force meetings, staff attended many public events, including:

April 22 = Earth Day CP24  
 April 27 = Earth Day Community Tree Plantings  
 April 30 = Mayor's Faith Based Leaders Forum  
 May 1 = Massey Street Public School Open House  
 May 4 = Annual Scouts Tree Planting  
 May 11 = Brampton Vision Celebration  
 May 19 = National Public Works week  
 June 8 = Heart Lake Run  
 June 15 = Farmers Markets Launch  
 June 22 = Bike the Creek  
 July 13 = Famers Market: tree talk  
 July or August = Farmers Market: pollinator  
 September 14 = Massey Park planting  
 Late September = Jessie Park planting  
 Fall = Dorchester Park planting  
 Fall = County Court planting  
 Fall = Fletchers Creek planting



Figure 4 - Community Event

### 3.5.4 Information Sessions

The City planned a number of information sessions across Brampton in March 2020, where visitors could learn more about the CEERP and provide input. The information sessions were advertised through the city's Twitter/Instagram accounts and Facebook page, as well as at the event locations. Sessions took place at Cassie Campbell Recreation Centre, Brampton Soccer Centre and Springdale Library. The other sessions were cancelled due to COVID-19, however, the information boards were posted on the City's website with an invitation for those interested to send in their comments and questions. The information boards are included in Appendix 5 Communication Collateral.



### 3.6 Municipal Departments

Three rounds of engagements were held with staff from the following municipal departments:

- Facilities Operations and Maintenance
- Transportation Special Projects
- Economic Development
- Policy Planning
- Transportation Planning
- Urban Design
- Community Innovation and Resilience
- Brampton Transit

During these engagements, the following municipal plans were identified for review to promote future alignment with CEERP goals and strategic objectives and to inform the identification of municipal priority projects:

- Vision 2040
- Official Plan (2006)
- Secondary Plans
- Active Transportation Master Plan (2019)
- Transportation Master Plan (2015)
- Economic Development Master Plan

The following general observations were made:

- Planning and Transportation vision statements and other directional goals do not explicitly point to the energy and emission related benefits of the Plans'
- Transportation/Transit/Active Transportation have aggressive goals that match, or even exceed in some cases, the goals of the CEERP but are currently under resourced and tracking below current goals/targets;
- Intensification and "compact communities" objectives are woven throughout the Official Plan, but the link to energy efficiency and emission reductions is not connected to these objectives; and
- the Official Plan and Secondary Plans are under review.

In addition, staff presented the final version of the CEERP to multiple municipal departments/divisions (Policy Planning, Transportation Planning, Government Relations, Energy Management, Economic Development, Capital Works) prior to finalizing the document and proceeding to Council.

These engagements supported the identification of municipal-led priority projects to achieve the CEERP Task Force vision and goals (see Our Energy Transition; 2020 - 2025 Priority Projects for details).




## 4. Communications

The approach to communications addressed three objectives:


### 4.1 Promote public opportunities to participate


As a lead sponsor for CEERP development, City resources supported the promotion of the engagement activities to encourage public and community stakeholder participation. This work included news releases, social media (Facebook and Twitter) and webpages on the City of Brampton's main website. The City Project Manager served as the liaison between the PWT/CEERP Task Force and the City's communications personnel.







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(3-1-1)






# Community Energy & Emissions Reduction Plan




[Reports](#)


[Community Task Force](#)


[Get Involved](#)


[FAQs](#)

The City of Brampton, in partnership with Sheridan College, is developing a Community Energy and Emissions Reduction Plan (CEERP). This Plan aims to integrate efforts of the municipality, local utilities and community stakeholders and create a roadmap that will improve energy efficiency, reduce greenhouse gas emissions, ensure energy security, create economic advantage, and increase resilience to climate change.

Check out our [CEERP infographic](#) and learn more about why developing a CEERP is so important.

The CEERP supports the goals of the [Brampton 2040 Vision: Living the Mosaic](#) and the [Brampton Grow Green Environmental Master Plan](#). Interested in learning more about the development of the Community Energy and Emissions Reduction Plan? Consider attending a [CEERP Task Force](#) meeting, which are open to the public.

## Survey

We want to hear from you! Take the survey below to let us know what your priorities around energy are. This feedback will help us shape the vision, goals, targets and actions of the Community Energy and Emissions Reduction Plan.

The survey has a total of 8 questions and takes 3-5 minutes.

[Click here](#) to take the survey.

## Task Force Meetings

The [CEERP Task Force](#) meetings are open to the public with the date, time and location of each meeting published below.

- [CEERP Task force Meeting #8](#) will be held on June 18, 2020 from 10:30 am to 12:00 pm as a virtual meeting.
- [CEERP Task Force Meeting #7](#) was held on February 28, 2020 from 9:00 to 11:00 am in Brampton City Hall West Tower Lunch Room
- [CEERP Task Force Meeting #6](#) was held on January 23, 2020 from 2:30 to 4:30 pm in Brampton City Hall West Tower Boardroom WT-2C
- [CEERP Task Force Meeting #5](#) was held on December 2, 2019 from 2:00 to 4:30 pm in Brampton City Hall West Tower Boardroom WT-2C
- [CEERP Task Force Meeting #4](#) was held on September 9, 2019 from 2:00 to 4:30 pm in Brampton City Hall West Tower Boardroom WT-2C
- [CEERP Task Force Meeting #3](#) was held on June 24, 2019 from 2:00 to 4:00 pm in Brampton City Hall West Tower Boardroom WT-2C
- [CEERP Task Force Meeting #2](#) was held on May 22, 2019 from 2:00 to 4:30 pm in Brampton City Hall West Tower Lunch Room
- [CEERP Task Force Meeting #1](#) was held on March 28, 2019 from 6:00 to 8:00 pm in Brampton City Hall West Tower Lunch Room

## Learn More and Have Your Say

The City hosted a number of information booth across Brampton in March where visitors could learn more about the CEERP and provide input. If you were unable to visit, you can still view the information boards [here](#).

Have any comments or questions regarding the display boards or the CEERP project overall? Email them to [growgreen@brampton.ca](mailto:growgreen@brampton.ca)

Figure 5 - CEERP Main Webpage, City of Brampton Website



## 4.2 Raise awareness of the analytical findings

The CEERP Task Force confirmed key analytical messages at each stage of the planning process. City and Sheridan resources supported the CEERP Task Force in communicating key analytical messages to the public and community stakeholders. See Appendix 5 for the collateral developed to support the communication of key analytical messages.

## 4.3 Communicate final CEERP recommendations

City resources also supported, and are expected to continue to support, the communication of the CEERP findings and recommendations to City Council, the public and community stakeholders.

# 5. List of Appendices

- Appendix 1 – Engagement Plan
- Appendix 2 – Brampton CEERP Task Force Charter
- Appendix 3 – Brampton CEERP Task Force Composition
- Appendix 4 – Survey Results
- Appendix 5 – Communication Collateral



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# City of Brampton

## Community Energy and Emissions Reduction Plan - Engagement Plan



June, 2018



## Contents

|  |    |
|--|----|
| Background.....  | 3  |
| City of Brampton Community Engagement.....   | 3  |
| Why Engage the Public and Stakeholders? .....  | 3  |
| The Role of “Living the Mosaic” – Brampton 2040 Vision .....                         | 4  |
| Goals & Objectives .....   | 4  |
| Design Objectives .....  | 4  |
| Level of Engagement .....  | 5  |
| Stakeholder identification .....   | 6  |
| Engagement Channels.....   | 7  |
| Analytical and Engagement Process Alignment .....                                    | 8  |
| Engagement Activities and Potential Format/Tools .....                               | 11 |
| Mayor and Council.....   | 11 |
| Community Task Force .....   | 11 |
| Preparing for Implementation Governance Through the CTF .....                        | 13 |
| Target Networks .....  | 14 |
| Public .....   | 14 |
| Municipal Divisions .....  | 15 |
| Communication Plan.....  | 16 |
| Extended Mapping and Visualization .....   | 17 |
| Overall Project Timeline .....   | 17 |
| Risk Assessment .....  | 18 |
| Input Tracking .....   | 20 |
| Evaluation .....   | 21 |
| Appendices .....   | 22 |
| Appendix 1   Draft Framing Goals.....  | 23 |
| Appendix 2   CEERP Analytical and Engagement & Decision Process – Full Project ..... | 24 |
| Appendix 3   CEERP Engagement & Decision Process – Scope and Timeline.....           | 25 |
| Appendix 4   Common Process – Scope and Timeline .....                               | 27 |
| Appendix 5   Stakeholder Identification.....   | 29 |
| Appendix 6   Community Task Force .....  | 35 |
| Appendix 7   Categories of Risk.....   | 40 |



|  |    |
|--|----|
| Appendix 8   Engagement Readiness Test.....            | 41 |
| Appendix 9   Engagement Activity Descriptions.....     | 42 |
| Figure 1 - Five Levels of Community Impact .....       | 5  |
| Figure 2 - City of Brampton Project Working Team ..... | 8  |
| Figure 3 - Conceptual Engagement Framework.....        | 9  |
| Figure 4 - Overall Project Timeline.....               | 18 |
| Figure 6 - Engagement Process Map.....                 | 25 |



## Background

The City of Brampton has endorsed the development of a comprehensive Community Energy and Emissions Reduction Plan (CEERP) to integrate efforts of the municipality, local utilities and community stakeholders (e.g., local business, community groups, government agencies) to improve energy efficiency, reduce greenhouse gas emissions, ensure energy security and increase resilience to climate change.

Draft Framing Goals (see Appendix 1) for the CEERP were established by the Project Working Team (PWT) to guide the Analytical and Engagement & Decision Processes (see Appendix 2). The draft Framing Goals reflect Brampton's commitment to create and implement a world-class community energy plan which transforms the relationship between the community and its energy performance and greenhouse gas emissions profile.

## City of Brampton Community Engagement

The City of Brampton's Office of Community Engagement will collaborate with the Project Working Team to deliver this Plan. The Office's mission and goals are as follows:

*"By working together, the City and community can ensure innovative solutions are reflected in City projects. Our goal is to strengthen connections between the City of Brampton and the people who live, work, play and study in the community."*

## Why Engage the Public and Stakeholders?

The engagement of the public and stakeholders in the development of a community energy plan helps to manage expectations, facilitate learning and establish enabling networks. These are widely recognized as three essential factors in achieving broad, system level goals (see Appendix 1 | Draft Framing Goals).

Public and stakeholder engagement connects economic, environmental and technical energy issues to wider community debates and values; if these are ignored, or if communication breaks down during the process, even the most technically sound and economically rational plan may not be successful implemented.

Engagement also ensures essential non-governmental action in energy performance change. The public and stakeholders are not only engaged for their input into what the municipality should do with respect to energy planning. They are also engaged to share a common community energy plan vision and to jointly participate in the development and implementation of solutions. These community solutions may not involve any direct government action, so they will need the buy-in of the public and stakeholders to act.



## The Role of “Living the Mosaic” – Brampton 2040 Vision

In May of 2018, Brampton City Council approved Brampton’s future-ready vision, Living the Mosaic, which defined Brampton’s vision for the next quarter century.

*“The essence of Brampton is diversity and the essence of what the people want for the future is that their city be arranged, governed, seen, and celebrated as a mosaic of people, places and endeavours of all kinds, coexisting in harmony. Living the mosaic in 2040 is the central and simple aspiration of the people of Brampton.”*

The process of developing the 2040 Vision provides a unique opportunity for community engagement in the development of the CEERP. Starting in September 2017, over 13,000 people were linked to the development of the 2040 Vision. Of these, about 11,000 people contributed specific comments and ideas through work sessions, face-to-face dialogue, community events, workshops, peer review session and extensive social media.

Many channels for engagement and communication have already been established and will provide a strong running start for the CEERP engagement process.

## Goals & Objectives

The goal of this CEERP Engagement Plan is to involve a broad cross-section of community stakeholders and the public in the process of developing the City of Brampton’s Community Energy and Emissions Reduction Plan.

The CEERP Engagement Plan’s primary objectives for the public and stakeholders include:

- meaningful engagement
- buy-in, including the approval of the Plan by the City Council
- empowerment
- capacity building

These objectives have been identified as essential for successful CEERP implementation.

## Design Objectives

The following design objectives have been identified as best practice in developing community energy plans:

- Design for implementation by building municipal and community capacity
- Promote a data-informed process
- Meet the needs of incremental and transformational thinkers throughout the process



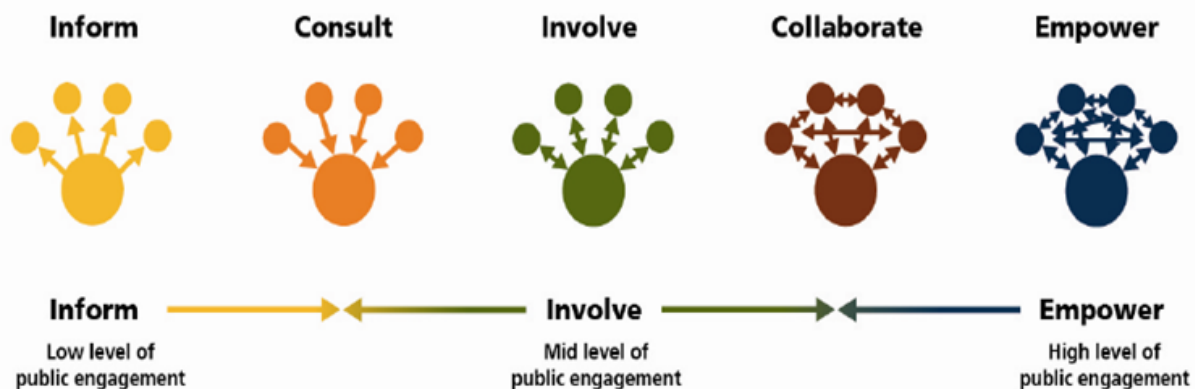
- Keep the Mayor and Councillors informed of the process and all engagement activities
- Involve Communications early in planning
- Engage a diverse cross-section of the community
- Respect stakeholder time
- Use stakeholder-appropriate engagement activities
- Ensure accessibility
- Plan for flexibility
- Measure outcomes and impact

## Level of Engagement

This Engagement Plan is based on the International Association of Public Participation (IAP2) Spectrum of Public Engagement.

The planning process for the CEERP will engage the first three levels of public engagement as promoted by IAP2: **Inform**, **Consult** and **Involve** (see Figure 1). However, implementation of the CEERP will require all five levels of public engagement for success. Consequently, the fourth level of engagement, **Collaborate**, will be encouraged, where possible, during the planning process as a strategy to support successful implementation.

There are four key points in the CEERP planning process where public and stakeholder engagement is most vital for success: visioning (i.e., confirming the framing goals); agenda setting (i.e., identifying opportunities); council approval (i.e., achieving broad-based community support); and implementation.



Planning Process

Implementation Process

Figure 1 - Five Levels of Community Impact



As defined by IAP2, this represents a Level 4 Community Impact (Inform, Consult, Involve, Collaborate) during the planning process. Specifically, the geographic scope of the CEERP is City-wide, and effective public and stakeholder engagement is widely-understood as essential to developing a successful community energy plan.

One of the objectives of the CEERP Engagement Plan is to create the right conditions to achieve a Level 5 Community Impact and **Empower** the public and stakeholders for successful implementation.

## Stakeholder identification

There are several factors that might pique the interest of a stakeholder:

- Geographic boundaries
- Communities of interest
- Scope of consultation
- Impact of decision
- History of area
- History of issue

The Engagement Plan identifies three primary categories of “holders” in the planning process<sup>1</sup>:

1. **Rights-holders** are individuals or institutions that are entitled to participate in the development or implementation of a community energy plan that is making decision about the place in which they live, pay taxes, etc. (e.g., residents and businesses).
2. **Stakeholders** are individuals or institutions within the community that may have, or perceive they have, something to gain, or lose, from the implementation of a community energy plan. Stakeholders can be further defined by the level of their stake in a community energy plan<sup>2</sup>:
  - **Decision-makers and regulators** have the most direct authority over community energy plan strategies.
  - **Transactors** have a direct stake in community energy plan strategies.
  - **Active interests** are affected by community energy plan decisions and can influence wider community action.
  - **Audiences** have a small stake but can channel community energy plan messages and drive community energy and climate culture.
3. **Capacity-holders** are individuals or institutions within the community who possess strengths or resources that add value to both the development or implementation of a

<sup>1</sup> CEKAP - Community Energy Knowledge Action Partnership (2017)

<sup>2</sup> City of Guelph (2009)



community energy plan and to their own activities. Capacity-holders can be further categorized as<sup>3</sup>:

- **Status-holders** (governing change agents) have formal status in the governance structure of a community energy plan.
- **Social-capacity holders** (social change agents) facilitate (or impede) community faith, cooperation, networking and participation in community energy plans
- **Knowledge-holders** play a technical or advisory role in community energy plans
- **Interest-holders** might advocate for a specific interest through the community energy planning process

To ensure a diverse cross-section of the community is engaged, the Plan will work to avoid over-representation of any stakeholders with similar positions or who have already formed an alliance for common purpose. It will also be important to recognize that participation is more feasible for some stakeholders than others; stakeholders need to be engaged accordingly, to respect their time.

See Appendix 5 – Stakeholder Identification

Some stakeholders may have one identity, i.e., an industry may be a stakeholder as well as hold considerable energy management expertise. The identification of stakeholders who are also capacity-holders brings added value to the process, especially in the formation of the Community Task Force. The Community Task Force is described in a following section.

Stakeholders may also be identified/emerge during the process, so the process should be flexible enough to accommodate them.

Appendix 5 summarizes the framework that will be used for the stakeholder identification exercise. This analysis will be used to inform the development and implementation of the Engagement and Communication Plan. In addition, the identification of Community Task Force members and/or Target Networks should be considered as opportunities for “early wins” to support the transition to implementation.

Appendix 5 also provides a typical Stakeholder Map, for visual purposes. This will be completed through the Engagement planning process as stakeholders are identified.

## Engagement Channels

Five engagement channels were confirmed for the planning process:

---

<sup>3</sup> CEKAP - Community Energy Knowledge Action Partnership (2017)



- Council
- Community Task Force
- Target Networks
- Public
- Municipal Divisions

Further details on these engagement channels is found below.

The channel-based approach supports the development of enabling networks which are essential for achieving broad, system level goals. Additional enabling networks may also be identified and/or developed throughout CEERP planning process.

## Analytical and Engagement Process Alignment

The following figure illustrates the integration of the Analytical and Engagement Processes (see Appendix 2 for graphic) within the Project Work Team. All members are available and/or active to a greater or lesser extent in both the analytical and engagement processes.

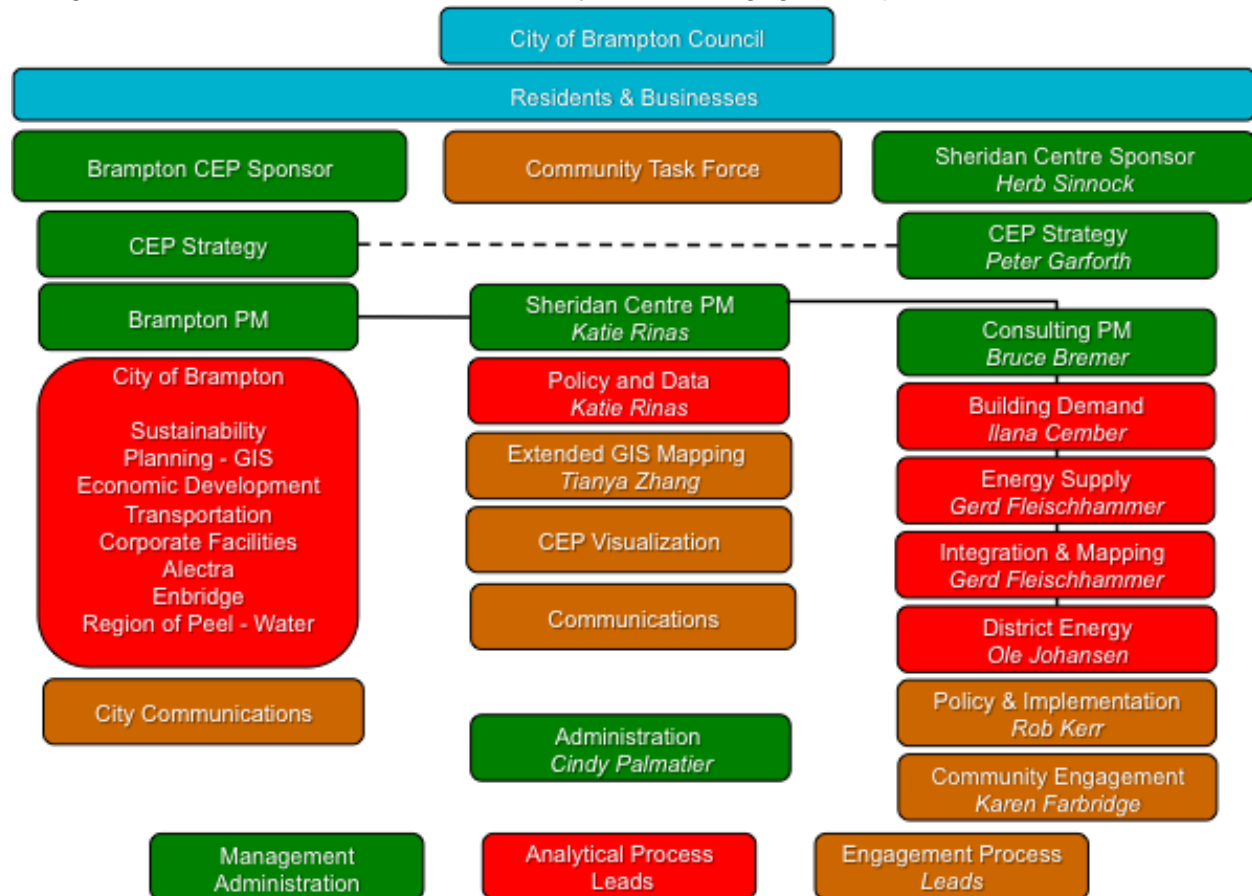


Figure 2 - City of Brampton Project Working Team



There are two reasons to ensure there is good alignment between the IAP2 Spectrum of Public Engagement with the overall CEERP process, including ensuring good coordination between Analytical and Engagement processes:

- to promote a data-informed process
- to respect stakeholder time (i.e., not asking for input that cannot or will not be used)

The following chart is organized to show the:

*Note: Graphics showing the process and its elements are found in Appendix 2,3 and 4*

- Steps in the Overall CEERP Process (Steps 1 to 20)
- Analytical Process (AP) Milestones (Analytical Milestone (AMS) 1 to 6)
- Engagement Process (EP) Milestones (Engagement Milestone (EMS) 1 to 4)
- Common Milestones (CMS 5 to 9) as the AP and EP are brought together to develop Final Recommendations and CEERP.

The level of engagement for each Engagement Channel is provided at each step in the process. Where no engagement is indicated, the outputs of these steps are consolidated and provided through a subsequent step in the process.

Figure 3 - Conceptual Engagement Framework

| CONCEPTUAL<br>ENGAGEMENT<br>FRAMEWORK | 1. Confirm scope |  |  |  | 2. Estimate Baseline |  |  |  | Develop CEP Framing Goals |  |  |  | AMS1        |  |  |  | 4. Confirm & Map Baseline |  |  |  | 5. Review Existing Plans |  |  |  | 6. Develop Risk Profiles |  |  |  | 7. Develop Base Case |  |  |  | AMS2        |  |  |  | 8. Draft Scenario Structures |  |  |  | AMS3   |  |  |  | 9. Create Demand Efficiency Cases |  |  |  | 10. Create Distribution Cases |  |  |  | 11. Create Supply Cases |  |  |  | 12. Create Community Specific Cases |  |  |  | 13. Simulate and Map Scenarios |  |  |  | 14. Test and Adjust vs. Framing Goals |  |  |  | AMS4    |  |  |  | 15. Develop Preliminary Recommendations |  |  |  | AMS5    |  |  |  | 16. Incorporate Stakeholder Feedback |  |  |  | 17. Develop Final Recommendations |  |  |  | CMS6    |  |  |  | 18. Prepare Final Plan |  |  |  | CMS7    |  |  |  | 19. Prepare Council Motion |  |  |  | CMS8 |  |  |  | 20. Implementation |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  | 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|                                       | Inform           |  |  |  | Consult              |  |  |  | Involve                   |  |  |  | Collaborate |  |  |  | Empower                   |  |  |  | Inform                   |  |  |  | Consult                  |  |  |  | Involve              |  |  |  | Collaborate |  |  |  | Empower                      |  |  |  | Inform |  |  |  | Consult                           |  |  |  | Involve                       |  |  |  | Collaborate             |  |  |  | Empower                             |  |  |  | Inform                         |  |  |  | Consult                               |  |  |  | Involve |  |  |  | Collaborate                             |  |  |  | Empower |  |  |  | Inform                               |  |  |  | Consult                           |  |  |  | Involve |  |  |  | Collaborate            |  |  |  | Empower |  |  |  |                            |  |  |  |      |  |  |  |                    |  |  |  |   |  |  |  |   |  | 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**Note:**

Demonstrates highest potential level of engagement at each step in the development of a community energy plan.

The role of the Project Working Team has been included for completeness.



## Engagement Activities and Potential Format/Tools

Each channel will have its own engagement strategy. These strategies will be developed once the Project Working Team has developed and agreed to the content and scheduling. Strategies will be aligned with the overall CEERP process and the major milestones of the Engagement Process.

An Engagement Readiness Test that defines the key elements of success for identifying and engaging stakeholders can be found in 87.

The engagement activities described below (tools/techniques) are further described in Appendix 9.

### Mayor and Council

Two or three engagements of Mayor and Council are planned (exclusive of final Council Approval).

| Council Engagement Snapshot |  |                               |
|-----------------------------|--|-------------------------------|
| Engagement                  | General Topics   | Tools/Techniques              |
| Council #1                  | Overview of CEERP process (scope), Relationship of CEERP to Urban Planning, Draft Framing Goals, Baseline, Risk Profiles, Base Case, Draft Scenario Structure, Risks | Presentation<br>Q&A           |
| Council #2                  | Scenarios and Options  | Interviews (Member Briefings) |
| Council #3                  | Preliminary Recommendations  | Information Report            |

In addition, Mayor and Council will be made aware of all engagement activities throughout the CEERP process. They will be encouraged to participate in all Engagement activities such as the online survey and the Mapping Charette. They may also attend Community Task Force meetings as observers.

### Community Task Force

The Community Task Force (CTF) will be comprised of a balanced and diverse cross-section of key community, regional and provincial stakeholders. CTF members provide guidance, challenge and support during the development of the CEERP. They are an important bridge to implementation, so credible and influential membership is sought, whenever possible, i.e.,



senior and personal membership, not institutional representation. CTF active support for final council approval is a key success factor, as it continuity of participation.

Six engagements of the CTF are envisioned. The venue for CTF meetings will be accessible.

| Community Task Force Engagement Snapshot |  |  |
|--|--|--|
| Engagement                               | General Topics   | Format/Tools                           |
| Community Task Force #1                  | Overview of CEERP process (scope), CEERP Relationship to Urban Planning, CTF Charter and Governance Role, Draft Framing Goals, Baseline, Risk Profiles, Base Case, Draft Scenario Structure, Identification of Target Networks | Presentation<br>Q&A<br>Working Meeting |
| Community Task Force #2                  | Scenarios and Options  | Mapping Charrette <sup>4</sup>         |
| Community Task Force #3                  | Scenarios and Options  | Working Meeting                        |
| Community Task Force #4                  | Preliminary Recommendations  | Presentation<br>Q&A<br>Working Meeting |
| Community Task Force #5                  | Final Draft Recommendations<br>Ongoing Governance Role   | Presentation<br>Q&A<br>Working Meeting |
| Community Task Force #6                  | Final Draft CEERP  | Presentation<br>Q&A                    |

CTF members will be encouraged to participate in the Online Survey and serve as table facilitators at the Mapping Charette. In addition, they will be encouraged to attend public events with the Pop-Up Display.

The CTF will be asked to delegate at Council when the final CEERP is presented for approval.

<sup>4</sup> This will be a “trial run” of the Mapping Charrette planned under the Public Channel (P2). It will also serve to train CTF members as facilitators.



The role of the CTF will be governed by a Charter which will be developed in the early stages of the engagement process. The process of selecting the CTF is described in Appendix 5.

CTF meetings are open to the public to attend as observers.

## Preparing for Implementation Governance Through the CTF

Collective Impact<sup>5</sup> is the commitment of a group of actors from different sectors to work together towards a common agenda for solving a complex problem and it aligns well with community energy planning. It offers a structured approach to making collaboration work across government, business, philanthropy, non-profit organizations and citizens to achieve significant and lasting social change.

There are five key factors for collective impact success:

1. **Common agenda** - a shared vision for change including a common understanding of the problem and joint approach to solving it through agreed actions
  - A community energy plan establishes a common agenda to transform the energy performance and emissions profile of a community
  - Municipal government endorsement of a community energy plan is considered a best practice.
2. **Shared measurement** - the collection of data to measure results consistently across all participants to ensure efforts remain aligned and participants hold each other accountable
  - A data-informed community energy plan establishes a rigorous framework for measuring results.
3. **Mutually-reinforcing activities** - participant activities must be differentiated while still coordinated through mutually-reinforcing detailed plans of action.
  - Activities are differentiated in the community energy plan strategies, but an effective mechanism to support ongoing coordination by the Community Task Force must be ensured for long-term implementation success.
4. **Continuous communication** - consistent and open communication across many players builds trust, assures mutual objectives and reinforces common motivation
  - An education and communication campaign are usually included as a recommendation in the community energy plan. However, this must be

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<sup>5</sup> Kania, J. and Kramer, M., (2011): [https://ssir.org/articles/entry/collective\\_impact](https://ssir.org/articles/entry/collective_impact)



sustained over many years to fundamentally change a community's relationships to their energy system and performance.

5. **Backbone support** - creating and managing "Collective Impact" requires a separate entity with access to staff resources and appropriate skills to serve as a backbone for the community energy plan and to advise and coordinate key stakeholders
  - Addressing this ongoing governance/process need should be a key recommendation of a community energy plan.

The CTF can play a key role in the transition to implementation by serving as the backbone organization. They will be socialized to this opportunity during the process and asked to make a commitment, prior to proceeding to Council, to continue their engagement to ensure the successful implementation of the plan.

## Target Networks

CTF members act as a channel to their respective communities and networks. An estimated total of six networks will be identified for engagement with the input of the CTF. The best format and tools for the engagement of these networks will be determined once they have been identified. Each engagement will take the opportunity to bring the participants along in the CEERP process.

| Target Network Engagement Snapshot |  |                     |
|------------------------------------|--|---------------------|
| Engagement                         | General Topics   | Tools/Techniques    |
| Target Networks                    | Overview of CEERP process (scope), Draft Framing Goals, Baseline, Risk Profiles, Base Case, Draft Scenario Structure, Risks, | Presentation<br>Q&A |
|                                    | Scenarios and Options  | TBD                 |

Members of Target Networks will be encouraged to participate in the Online Survey and Mapping Charette as well as attend CTF meetings as observers. They will be encouraged to delegate to Council when the final CEERP is presented for approval. They may also borrow the Pop-up Display for events.

## Public

Three potential engagements of the public are planned.



| Public Engagement Snapshot |  |   |
|----------------------------|--|---|
| Engagement                 | General Topics   | Tools/Techniques                                      |
| Public #1                  | Framing goals  | Online Survey   |
| Public #2                  | Overview of CEERP process (scope), Draft Framing Goals, Baseline, Risk Profiles, Base Case, Draft Scenario Structure, Risks<br>Scenarios and Options | Presentation<br>Q&A<br><br>Mapping Charrette          |
| Public #3                  | Preliminary Recommendations  | Press release <sup>6</sup><br>Website<br>Social media |

In addition to these channel-specific engagements, members of the public can:

- attend the Council Briefing as observers
- attend the CTF meetings as observers
- access regular communications on the process and CEERP findings
- delegate to Council when the final CEERP is presented for approval

A Pop-up Display will be produced for the Sponsor and CTF members to use at community-sponsored events throughout the CEERP process.

## Municipal Divisions

The municipality has a key role in developing the CEERP and positioning the City to support implementation. CEERP planning and implementation have implications for the policies and practices of several municipal functions including Planning, Economic Development, Inter-Governmental, Community Engagement, Communications, Engineering and Public Works (or equivalent) and Corporate Energy Management.

Three engagements of Municipal Divisions are envisioned.

| Municipal Divisions Snapshot |   |                     |
|------------------------------|---|---------------------|
| Engagement                   | General Topics  | Tools/Techniques    |
| Municipal Divisions #1       | Overview of CEERP process (scope), Relation of CEERP to Urban Planning, Draft Framing Goals, Baseline, Risk | Presentation<br>Q&A |

<sup>6</sup> City of Brampton Communications.



|                        |   |                               |
|------------------------|---|-------------------------------|
|                        | <p>Profiles, Base Case, Draft Scenario Structure</p> <p>Role of Municipal Government as a Community Stakeholder</p> <p>Review of Current Policies &amp; Practices</p> |                               |
| Municipal Divisions #2 | Policies and Practices Gap Analysis   | Workshop<br>Gap Analysis Tool |
| Municipal Divisions #3 | Policies and Practices Recommendations  | Workshop                      |

Municipal staff will be encouraged to participate in the Online Survey and the Mapping Charrette

## Communication Plan

Exceptional communication of the outputs of the planning process are best left to communication professionals to lead with the input of both the Analytical and Engagement Leads (Figure 2).

The development and implementation of the Communication Plan will be completed by the City of Brampton with support from Sheridan College. It will be designed to support the CEERP's Engagement Plan and provide additional opportunities to inform stakeholders and the public about the CEERP process and its outputs.

The outputs of the Analytical Process will inform the development and implementation of the Communication Plan and development of public messages. In addition, Mapping and Visualization (infographic) tools provided by Sheridan will support the implementation of the CEERP Engagement and Communication Plans.

It is recommended that a Communications Team be established.

It is anticipated that the Communications Plan will include, at a minimum:

- E-newsletters
- Facebook
- Fact sheets
- FAQs
- Twitter
- Website
- Digital Screens



- News releases
- Posters

All information the CEERP Engagement and Communication Plans will provided in plain language and available in alternative formats (such as large font or an accessible PDF online) and communication supports is envisioned to be provided by the City of Brampton as requested (such as ASL interpreters).

## Extended Mapping and Visualization

The Analytical Process includes creating maps, and other visual representations of data (infographics), to illustrate the baseline/base case and future trajectory of energy consumption, energy intensity, greenhouse gas emissions, energy cost, and community growth patterns. The baseline performance data and future projections will be shown on the level of Energy Planning District which will be developed in the early stages of the Analytical Process.

The annual projection maps will animate the transformation of the community over the CEERP planning horizon (2016-2041). The “Business as Usual” case will show the projected course of the City without a long-term CEERP and associated interventions, while the “Energy Efficient” case will highlight the progress with the established CEERP goals, targets, and energy efficiency programs.

There is some flexibility in the resources assigned to the Visualization and Animation tasks to create new visualizations that may be suggested by the Project Work Team, Community Task Force, Target Networks or the Public, if there is agreement these will facilitate improved engagement or understanding.

Mapping and Visualization will also support the Mapping Charrette.

## Overall Project Timeline

The overall CEERP Timeline is provided in the chart below. A more detailed Timeline for the Engagement Process is found in Appendix 2.



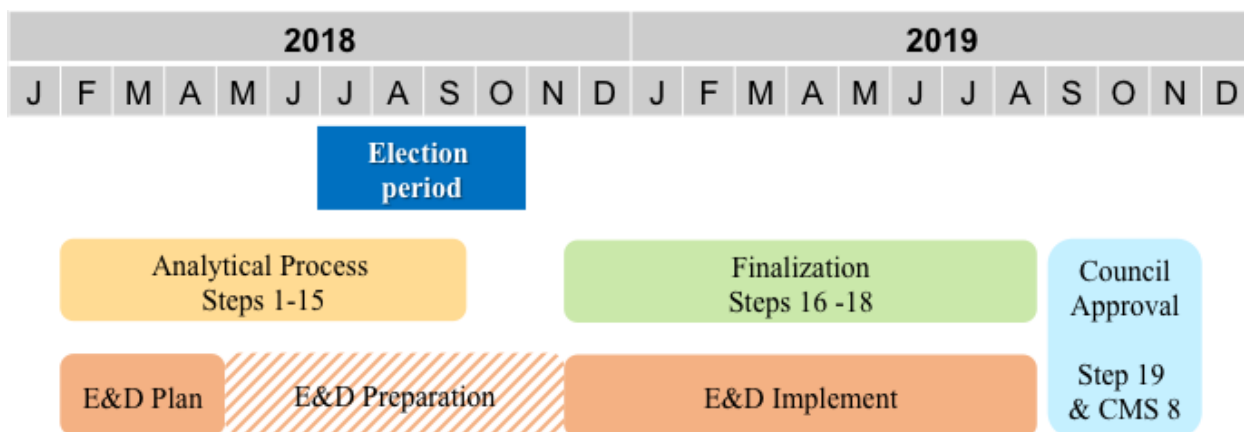


Figure 4 - Overall Project Timeline

**Note:** Details on the milestones and timelines for the planning process tracks can be found in Appendices 2,3 and 4

## Risk Assessment

The Overall CEERP Process (see Appendix 2) is been designed to optimize the alignment of stakeholders and the public with the final CEERP recommendations. This plan has also been designed for implementation.

Categories of risk are further defined in Appendix 7.

Specific risks associated with the Plan's level of engagement and engagement activities include:

| Risk   | Likelihood <sup>7</sup> | Impact <sup>8</sup> | Mitigation Strategy   |
|--|-------------------------|---------------------|---|
| Negative perceptions about the lag between the Analytical and Engagement Process | Somewhat likely         | Major               | <p>Framing Goals and Scenarios will remain draft until the results of the results of public and stakeholder engagement are received.</p> <p>The Online Survey will inform priority setting.</p> <p>The Integrated Workbook utilized in the Analytical Process provides flexibility to test different scenarios in the Mapping Charrette to understand their impact on community energy and emission profiles.</p> |

<sup>7</sup> Rare, Unlikely, Somewhat likely, Likely, Almost certain

<sup>8</sup> Catastrophic, Major, Moderate, Minor



# COMMUNITY ENERGY AND EMISSIONS REDUCTION PLAN - ENGAGEMENT PLAN

|  |                 |          |   |
|--|-----------------|----------|---|
| Technical issues delivering the Online Survey                                    | Unlikely        | Moderate | The survey will be tested prior to its launch and will use a proven digital platform (e.g., SurveyMonkey).  |
| Too many people attend the Mapping Charette                                      | Somewhat likely | Moderate | Participants will be asked to register. Additional workshops will be considered by the City of Brampton, if required.   |
| A key stakeholder is missed  | Unlikely        | Minor    | A robust Stakeholder Identification exercise has been conducted. The process anticipates identifying new stakeholders.  |
| Municipal employees impacted by CEERP implementation                             | Almost certain  | Major    | Three engagements of Municipal Divisions are planned.   |
| CEERP is perceived as a municipal process  | Almost certain  | Major    | <p>A Community Task Force will be established, with a governing charter to serve as the face of the planning process.</p> <p>The Communication Plan will support the role of the Community Task Force as the face of the planning process in the community.</p> <p>A Municipal Divisions Workshop will address the role of municipal government as a community stakeholder.</p> |
| Senior leadership does not agree to participate in Community Task Force meetings | Somewhat likely | Major    | Active engagement by the Mayor at each CTF will be considered.  |
| Low attendance at Community Task Force meetings                                  | Rare            | Moderate | A Charter will be developed to confirm the expectations of Community Task Force members.  |
| Public concerns regarding the role and composition of the Community Task Force   | Unlikely        | Moderate | Meetings will be open to the public. Consider opening some positions for the public (application process).  |
| Privacy breach   | Unlikely        | Moderate | Alignment with City of Brampton Privacy   |



|   |                |          | Statement <sup>9</sup> .   |
|---|----------------|----------|--|
| A perception that the targets are unreasonable and unattainable | Almost certain | Major    | <p>The Engagement Plan is based on leading practice for achieving broad, system level goals.</p> <p>Local success stories of transformational change will be promoted (e.g., Sheridan story).</p> <p>The identification of “early wins” will be integrated into the engagement and planning process.</p> <p>The channel-based approach supports the engagement and formation of enabling networks which are essential for achieving broad, system level goals.</p> |
| Failure to engage the “resident on the street”                  | Likely         | Moderate | <p>City of Brampton and Sheridan communication professionals will lead the development of the Communication Plan.</p> <p>Visual representation of data (Infographics).</p> <p>Online survey focused on surfacing benefits.</p> <p>The channel-based approach supports the customized engagement and formation of enabling networks within the broader “public”.</p>  |

## Input Tracking

Potential sources of input include:

- Surveys
- Phone calls
- Emails
- Blogs
- Tweets
- Letters
- Comments at events

<sup>9</sup> <http://www.brampton.ca/EN/Online-Services/Pages/Privacy-Statement.aspx>



- Notes/minutes from engagement activities
- Facebook comments
- Editorials and articles in local media
- Informal input from council
- Formal input from council

The City Project Manager and Communications Lead will track input in a consist manner.

| Method of receiving input                   | How will this information be recorded?          |
|---|---|
| Online survey                               | Online tool (e.g., Survey Monkey, Google Forms) |
| Mapping Charette                            | Worksheets                                      |
| Working meetings & workshops                | Meeting notes                                   |
| Q&A sessions                                | Meeting notes<br>FAQs                           |
| Policy & Practice Gap Analysis              | Worksheets                                      |
| Event Registration (e.g., Mapping Charette) | Event Brite                                     |

## Evaluation

An Evaluation framework will be developed to evaluate the success of the Engagement Plan. It will be completed by the Sponsor Project Manager and Communication Leads, with input from the Project Work Team.

Participants in the Online Survey and Mapping Charette will be asked to evaluate the engagement activity.



## Appendices

The following appendices support the Plan.



## Appendix 1 | Draft Framing Goals

The Draft Framing Goals established to guide the Analytical and Engagement & Decision Processes include:

- Support Brampton in being “Future Ready”
- Environmental Performance
  - *Meet 2016 Ontario Climate Action Plan*
  - *Reduce absolute GHG emissions by 50% by 2041 from 2016 levels*
  - *Be on track to cut GHG by 80% from 2005 levels*
- Economic Performance
  - *All energy related investments will meet acceptable risk-adjusted returns*
  - *Energy costs will be competitive compared to comparable Canadian and US communities*
  - *CEERP will generate incremental high-quality employment*
- Energy Efficiency
  - *Be clearly global best-practice by 2041*
  - *50% below 2016 level by 2041*
- Reliability / Resilience / Flexibility
  - *Energy systems will be designed to meet the challenges of changing user expectations, climate uncertainty and new technology options*
  - *Service quality will at least meet 2016 levels*
- Visibly contribute to Strategic Priorities – Good Government / Smart Growth / Strong Communities / Move & Connect



## Appendix 2 | CEERP Analytical and Engagement & Decision Process – Full Project

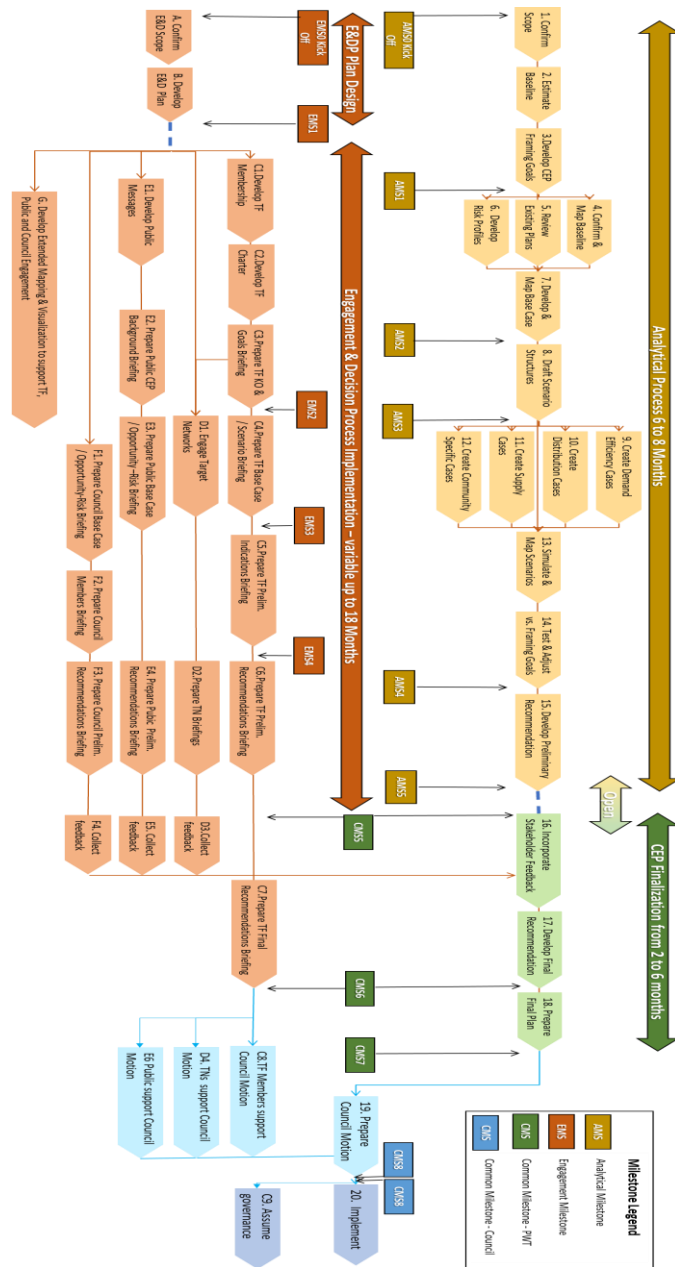


Figure 5 - Full Process Map



## Appendix 3 | CEERP Engagement & Decision Process – Scope and Timeline

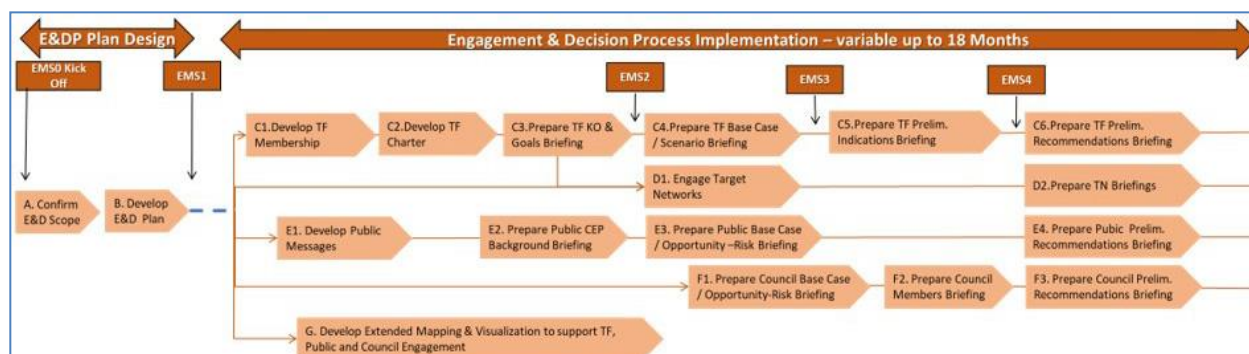


Figure 6 - Engagement Process Map

### EMS0 - Kick-Off (May – 2018)

- |                      |   |
|----------------------|---|
| A. Confirm E&D Scope | <ul style="list-style-type: none"> <li>Engagement Channels: Community Task Force, Target Networks, Public, Council, Municipal Departments</li> <li><i>Note: Target Networks are groups of citizens or businesses with common interests</i></li> </ul> |
| B. Develop E&D Plan  | <ul style="list-style-type: none"> <li>Develop Engagement Plan aligned with Corporate Communications</li> </ul>   |

### EMS1 (June – 2018)

#### Confirm Engagement Scope and Plan

- |  |  |
|--|--|
| C1. Develop Task Force Membership                                    | <ul style="list-style-type: none"> <li>Engage and confirm participation of Task Force members</li> </ul>   |
| C2. Develop Task Force Charter                                       | <ul style="list-style-type: none"> <li>Establish role in CEERP planning and implementation phase</li> </ul>  |
| C3. Prepare Task Force Kick-Off and Goals Briefing                   | <ul style="list-style-type: none"> <li>Prepare CEERP background &amp; process, benefits, Baseline and Framing Goals, along with feedback requests</li> </ul>     |
| E1. Develop Public Messages  | <ul style="list-style-type: none"> <li>Develop recommended core messages around CEERP for wider community</li> </ul>   |
| E2. Develop Public CEERP Background Briefing                         | <ul style="list-style-type: none"> <li>Prepare CEERP background &amp; process, benefits, Baseline and Framing Goals</li> </ul>                                   |
| G. Develop Mapping and Visualization Tools to Support all Engagement | <ul style="list-style-type: none"> <li>Develop extended communication tools for CEERP background &amp; process, benefits, Baseline, and Framing Goals</li> </ul> |

### EMS2 (December – 2018)

#### Confirm Task Force, Messaging, Background and Engagement Tools



|  |  |
|--|--|
| C4. Prepare Base Case and Scenario Briefing for Task Force       | <ul style="list-style-type: none"> <li>• CEERP Base Case, Opportunities and Risks</li> <li>• Consult and Involve in Scenarios</li> </ul>                           |
| D1. Engage Target Networks                                       | <ul style="list-style-type: none"> <li>• Coordinate outreach by Task Force Members to identify and engage Target Networks</li> </ul>                               |
| E3. Prepare Base Case and Opportunity-Risk Briefing for Public   | <ul style="list-style-type: none"> <li>• Structure information on CEERP Base Case, Opportunities and Risks</li> </ul>  |
| F1. Prepare Base Case and Opportunity-Risk Briefing for Council  | <ul style="list-style-type: none"> <li>• Structure information to present/discuss CEERP Baseline, Framing Goals, Base Case, Opportunities, and Risks</li> </ul>    |
| <b>EMS3 (March – 2019)</b>                                       | <b>Confirm Briefings for Task Force, Target Networks, Public and Council</b>   |
| C5. Prepare Task Force Preliminary Indications Briefing          | <ul style="list-style-type: none"> <li>• Prepare material to brief and discuss Preliminary Indications with Task Force</li> </ul>                                  |
| F2. Prepare Council Members Briefing                             | <ul style="list-style-type: none"> <li>• Prepare and schedule small group sessions with members of Council</li> </ul>  |
| <b>EMS4 (March through July – 2019)</b>                          | <b>Confirm Task Force Input to Preliminary Briefing – Informs Council Briefing</b>   |
| C6. Prepare Task Force Preliminary Recommendations Briefing      | <ul style="list-style-type: none"> <li>• Prepare material to brief and discuss preliminary recommendations with Task Force</li> </ul>                              |
| D2. Prepare Target Networks Preliminary Recommendations Briefing | <ul style="list-style-type: none"> <li>• Prepare material to discuss and gather feedback on Preliminary Recommendations with selected Targeted Networks</li> </ul> |
| E4. Prepare Public Preliminary Recommendations Briefing          | <ul style="list-style-type: none"> <li>• Prepare material to discuss and gather feedback on Preliminary Recommendations from Public</li> </ul>                     |
| F3. Prepare Council Preliminary Recommendations Briefing         | <ul style="list-style-type: none"> <li>• Prepare material to discuss and gather feedback on Preliminary Recommendations from Council</li> </ul>                    |



## Appendix 4 | Common Process – Scope and Timeline

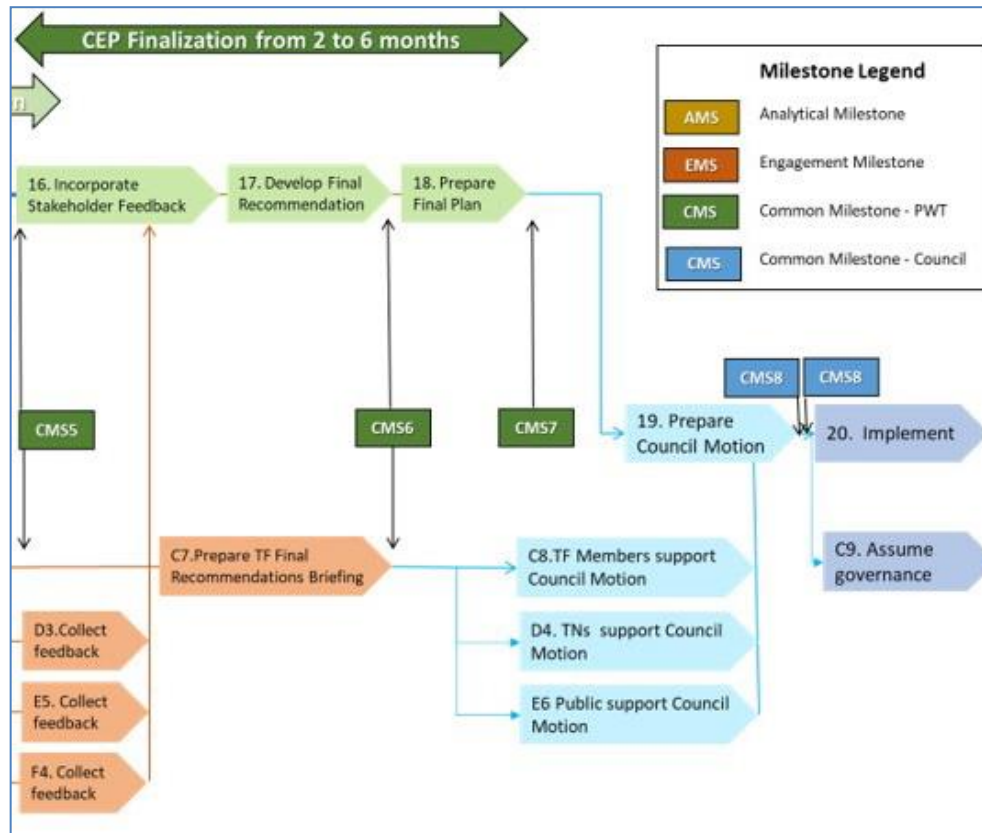


Figure 7 - Common Process Map

### CMS5 (July – 2019)

### Review Preliminary Recommendation and feedback from Task Force, Council and Public

|   |  |
|---|--|
| 16. Incorporate Stakeholder Feedback                  | <ul style="list-style-type: none"> <li>Incorporate Task Force and Council guidance</li> </ul>  |
| D3. Collect Target Network Feedback                   | <ul style="list-style-type: none"> <li>Incorporate</li> </ul>  |
| E5. Collect Public Feedback                           | <ul style="list-style-type: none"> <li>Incorporate</li> </ul>  |
| F4. Collect Council Feedback                          | <ul style="list-style-type: none"> <li>Incorporate</li> </ul>  |
| 17. Develop Final Recommendations                     | <ul style="list-style-type: none"> <li>Finalize data tools with Final Recommendation</li> <li>Document EERP Final Recommendation (PPT &amp; Data Tools)</li> </ul> |
| C7. Prepare Final Task Force Recommendations Briefing | <ul style="list-style-type: none"> <li>Prepare Task Force review of Final Recommendation based on CEERP Step 17</li> </ul>   |

### CMS6 (August – 2019)

### Compile All Feedback and Incorporate into Final Recommendations



|  |   |
|--|---|
| 18. Prepare Final Plan                         | <ul style="list-style-type: none"> <li>• Document CEERP ready for formal Council Approval</li> <li>• Freeze Integrated Workbook &amp; Data Tools</li> </ul> |
| <b>CMS7 (August/September – 2019)</b>          | <b>Final Plan Complete</b>  |
| 19. Prepare Council Motion                     | <ul style="list-style-type: none"> <li>• Sponsors lead Staff to develop motion for Council to approve CEERP and first implementation steps</li> </ul>       |
| C8. Task Force Members Support Council Motions | <ul style="list-style-type: none"> <li>• CTF members prepare and submit EERP support to Council</li> </ul>  |
| D4. Target Networks Support Council Motion     | <ul style="list-style-type: none"> <li>• Representatives of Target Networks prepare to support CEERP to Council</li> </ul>                                  |
| E6. Public Supports Council Motion             | <ul style="list-style-type: none"> <li>• Members of the public prepare to support CEERP to Council</li> </ul>   |
| <b>CMS8 (September - 2019)</b>                 | <b>Council Approval</b>   |
| <b>CMS9</b>                                    | <b>Transition from Planning to Implementation</b>   |
| 20. Implementation                             | <ul style="list-style-type: none"> <li>• Start of decades of implementation</li> </ul>  |
| C9. Assume Governance                          | <ul style="list-style-type: none"> <li>• Task Force chartered and resourced for new role</li> </ul>   |



## Appendix 5 | Stakeholder Identification

The following outlines a framework to be utilized in the identification of potential stakeholders .

This process supported by this framework will help inform the development and implementation of the Communication Plan and the formation of the Community Task Force.

Stakeholder engagement is a process by which stakeholders are consulted and involved in the development of actionable agendas and implementation plans.

### **Objectives**

Stakeholder empowerment and buy-in through participation in the planning process Mutual capacity building through knowledge exchange and resource sharing

### **Best Practice**

Avoid over-representation from stakeholders with similar positions or who have already formed an alliance for a common purpose

Recognize participation is more feasible for some stakeholders than others Identify stakeholders who are also capacity-holders to bring additional value

Note: anyone stakeholder can be classified into more than one category on the following worksheets



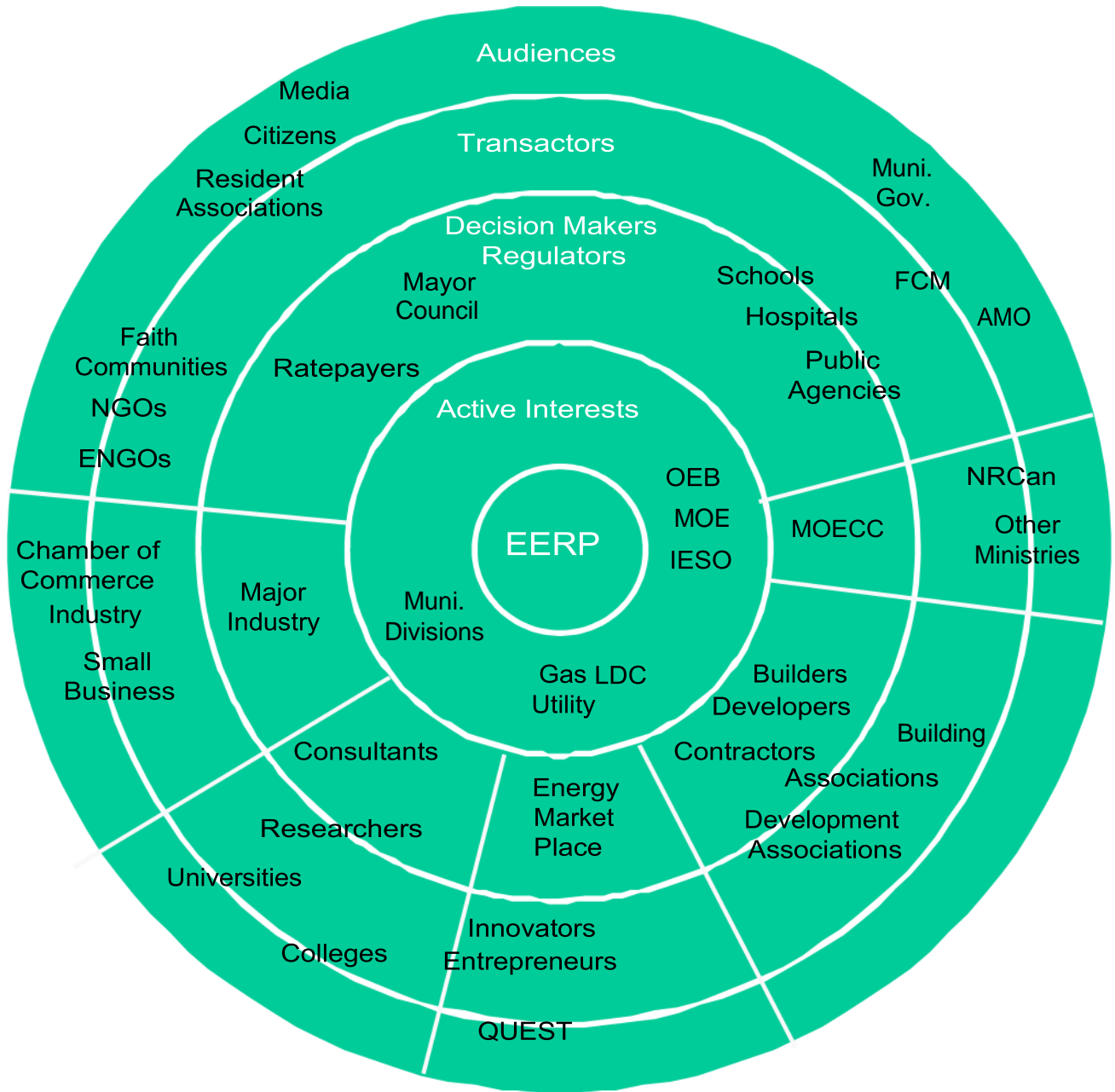


Figure 8- Stakeholder Map







**Worksheet (adopted from the City of Guelph 2009)**

|   |  |
|---|--|
| <p><b>Decision Makers and Regulators</b> – have the most direct authority over CEERP strategies (e.g., council, municipal staff, utilities)</p> | <p><b>Transactors</b> – have a direct stake in CEERP strategies (e.g., developers, energy market place, builders)</p>                              |
| <p><b>Active Interest</b> – Affected by CEERP decisions and can influence wider community action (e.g., ENGOs, Chamber of Commerce)</p>         | <p><b>Audience</b>– Small direct stake but can channel CEERP messages and drive community energy climate culture (e.g., media, general public)</p> |



**Worksheet (adopted from CEKAP 2017)**

|   |  |
|---|--|
| <p><b>Rights-holders</b> – individuals or institutions that are entitled to participate in the development or implementation of a CEERP</p>   | <p><b>Stake-holders</b> – individuals or institutions within the community who stand to lose or gain from the implementation of a CEERP</p>                                      |
| <p><b>Capacity-holders</b> – individuals or institutions within the community who possess strengths or resources that add value to the development or implementation of a community energy plan</p> |  |
| <p><b>Status-holders</b> (governing change agents) have formal status in the governance structure of a CEERP (e.g., council, staff, utility)</p>  | <p><b>Social capacity-holders</b> (social change agents) facilitate (or impede) community faith, cooperation, networking and participation in CEERPs (e.g., local champions)</p> |
| <p><b>Knowledge-holders</b> play a technical role or advisory role in CEERPs (e.g., researchers, consultants)</p>   | <p><b>Interest-holders</b> might advocate for a specific interest through the CEERP process (e.g., ENGOs, developers)</p>  |







## Appendix 6 | Community Task Force

NOTE: The following is a draft of the Community Task Force Charter – to be ratified by the Task Force once formed.

### Background

The City of Brampton is embarking on the development of a comprehensive Community Energy and Emissions Reduction Plan (CEERP). The CEERP will integrate efforts of the municipality, local utilities and community stakeholders (e.g., local business, community groups, government agencies) to improve energy and economic efficiency, reduce greenhouse gas emissions, ensure energy security and increase resilience to climate change.

The City is teaming up with Sheridan College and its partners, Garforth International (GIL), to develop the CEERP. The Plan will act as a guide to help the town, its residents, businesses and industry adopt new technology and practices to reduce emissions, keep more energy dollars local and improve overall energy security and efficiency.

Sheridan is building on the success of its own Integrated Energy and Climate Management Program, which has Sheridan on track to reduce its greenhouse gas emissions by 50 per cent by 2020.

The resources and expertise of Sheridan College and GIL with other community stakeholders, including Alectra, Union Gas and Peel Region, will support the development of a world-class CEERP, ensuring Brampton continues to be one of the best places to live and raise a family.

### Purpose

The City of Brampton expects to meet or exceed the provincial target for greenhouse gas emission reduction, with its CEERP. Achieving this target will require system-level changes aimed at profoundly improving the energy performance of the community. Implementation of a transformational CEERP is complex and involves many people.

A CEERP Engagement Plan has been prepared to involve a broad cross-section of community stakeholders and the public in the development of the CEERP. The Engagement Plan has been designed to 1) earn community buy-in for the goals and strategies of the CEERP, including approval by the City Council, 2) grow the capacity of the community to implement the CEERP and 3) motivate the public and community stakeholders to act.

The formation of a Task Force (i.e., a small group of stakeholders or experts tasked with developing a set of recommendations, policy or proposal within a limited time) is an effective engagement tool to encourage collaboration.



The Community Task Force (CTF) serves as the backbone of the CEERP Engagement Plan and is the public face of the CEERP planning process.

CTF members help to connect economic, environmental and technical energy matters to wider community issues and values. If these community issues or values are ignored, or if communication breaks down during the planning process, even the most technically-sound and economically-rational plan may not be recognized or successfully implemented.

The CTF provides valuable input and contributes to the success of the development of a CEERP.

The CTF establishes a common CEERP vision and its members are expected to make a commitment to jointly participate in the development and implementation of solutions to increase the energy performance of the community. Some community solutions may not involve any direct government action, so will require the commitment of the public, stakeholders and community leaders to act.

As CEERP champions, CTF members help to ensure non-governmental action is taken to implement the CEERP. They can also hold the municipality accountable for doing their part to achieve CEERP targets.

By cultivating a sense of urgency to act, the CTF members serve as an important bridge from planning to implementation and, as such, will be encouraged to understand and articulate their role beyond the CEERP planning process.

### I. Community Task Force Mandate

The CTF mandate is to provide a forum for community-based oversight of the CEERP planning process and to report regularly to the community and Council during the development of the CEERP.

The CTF serves as a sounding board for the Project Working Team (PWT), providing strategic guidance, challenge and support, while sharing technical advice and community knowledge.

With the support of the PWT, the CTF provides an ongoing forum for consultation and feedback to the Community and Council at key points through the development of the CEERP.

The CTF will assist the Engagement Team of the PWT ensure that planned engagement efforts provide the public and stakeholders with a clear understanding of the project and encourage participation.

### II. Community Task Force Terms of Reference



In carrying out its Mandate, the CTF has the following specific responsibilities, processes and requirements:

## A. Specific Responsibilities

- a. Consider matters, issues or information provided by the PWT relating to the CEERP and provide advice and recommendations.
- b. Identify potential community issues and opportunities for the PWT.
- c. Participate in two-way communication between members' constituencies and the Project Working Team, liaising with the organization they represent (if applicable) to bring forward advice, issues or comments from their organization and to return information and results to the organization from the CTF.
- d. Ensure that the results of CTF discussions are accurately recorded in the meeting records, or in any additional documents that the CTF or the Project Working Team may determine are needed.
- e. Embrace the City of Brampton's guidelines and practices when providing advice or recommendations to ensure effective communication with the public and stakeholders.
- f. Provide active support for final Council approval.
- g. Serve as an ongoing champion for CEERP implementation.

## B. CTF Processes

### 1. Membership

- a. The City of Brampton will invite members of the public and community stakeholders to participate on the CTF.
  - a. Members will be selected from a variety of stakeholder groups and represent a balance of interests and range of perspectives in the community.<sup>10</sup>
  - b. Public at Large/Residential Ratepayers representation will be identified through a call for submissions of interest.
- b. The CTF will consist of up to 22 members.
- c. CTF membership includes:

| Sector                                  | Up to |
|---|-------|
| Business/Industry/Business Associations | 6     |
| Home Builder/Developer                  | 2     |
| Environmental Interest Group            | 2     |
| Educational Institutions                | 2     |
| Public At Large/Residential Ratepayer   | 3     |
| Utilities                               | 2     |
| Municipal Council Representative        | 1     |

<sup>10</sup> CTF formation is supported by a Stakeholder Identification Tool and Matrix.



|                            |   |
|----------------------------|---|
| Regional Representatives   | 2 |
| Provincial Representatives | 2 |

d. CTF member core competencies include:

| Core Competency      | Description   |
|----------------------|---|
| Collaborative Leader | Has demonstrated personal and/or professional leadership in multi-stakeholder efforts by building consensus and drawing people into a process of change.      |
| Communicator         | Able to share ideas and describe what you know and what you are learning to diverse audiences.  |
| Community Translator | Understands the different language used by stakeholders and serves as a bridge between the various communities and groups with an interest in the initiative. |
| Lifelong Learner     | Desire to deepen understanding of complex social and economic issues that take complex solutions.   |
| Politically Astute   | Broad non-partisan understanding of political and social issues influencing the public policy environment.  |
| Strategic            | Understands the lay of the land and can work within it.   |
| Practical            | Can manage the details and get things done on time.   |

e. CTF membership is voluntary.

f. It is required that CTF members must understand and agree to the terms and conditions outlined in these Terms of Reference.

## 2. Town Sponsor

- The Town of Oakville sponsor for the CTF is the Environmental Policy Department.
- The municipal liaison to the CTF is XXXX.

## 3. Meetings

- A minimum of six (6) CTF meetings are anticipated during the CEERP planning process
- Members are expected to attend all six (6) CTF meetings.
- Members are expected to come fully prepared to meetings.
- Members are encouraged to participate in other engagement activities planned during CEERP planning process.
- Meetings are held in accessible locations.
- Meeting are open to the public, as observers, with date, time and place of each meeting published on the City's website.
- A quorum of members is required to hold a CTF meeting.
- PWT members attend CTF meetings as a resource.



#### 4. Chair

- a. CTF members select a Chair at their first meeting.
- b. Supported by the PWT Engagement Team, the Chair approves final meeting agendas, presides over meetings and coordinates the activities of the CTF.
- c. The Chair assists the CTF develop and approve meeting process rules and other procedures related to committee effectiveness, as required.
- d. The Chair is the spokesperson for the CTF.

#### 5. Decision-making

- a. The CTF strives to operate in a consensus mode where participants openly discuss views and opinions and seek common ground.
- b. If there is an unresolvable lack of consensus, decisions are made by a simple majority vote.

#### 6. Minutes, Documentation and Administration

- a. Minutes are taken by a member of the PWT.
- b. Minutes are circulated to the CTF members following each meeting for review and comment.
- c. Minutes are approved at the following CTF meeting.
- d. Minutes are made available to the public.
- e. Administrative services for the CTF are the responsibility of the PWT.

#### 7. Term

- a. The municipally-led mandate of the CTF is completed upon Council's approval of the CEP.
- b. Development of an ongoing CTF-led mandate to support CEERP implementation will be considered.



## Appendix 7 | Categories of Risk

**Service delivery** – Risk of not meeting customer expectations

**Employees** – Risk that employees, contractors or other people at the Corporation will be negatively impacted by a policy, program, process or project including physical harm

**Public** – Risk that the policy, program or action will have a negative impact on residents

**Physical Environment** – Risk that natural capital will be damaged

**Reputation** – Risk associated with anything that can damage the reputation of the Corporation

**Financial** – Risk related to decisions about assets, liabilities, income and expenses including asset management, capital and operational funding, economic development, theft or fraud

**Regulatory** – Risk related to the consequences of non-compliance with laws, regulations, policies or other rules



## Appendix 8 | Engagement Readiness Test

| Readiness Statement  | No | Somewhat | Yes |
|--|----|----------|-----|
| We can confirm that a decision has not been made.  |    |          |     |
| We know what information the decision makers require and how it will be used.  |    |          |     |
| We have a clear understanding of what we need to know from the public and how we will obtain that input.                 |    |          |     |
| We have identified potential stakeholders and their level of engagement along each stage of the decision-making process. |    |          |     |
| We have selected appropriate engagement strategies to obtain input from the public.                                      |    |          |     |
| We are sure there is adequate time for a meaningful engagement process.  |    |          |     |
| We have secured the required resources to facilitate an effective community engagement process.                          |    |          |     |
| We have an inclusion strategy to address potential barriers to participation.  |    |          |     |
| We have developed a project plan including key milestones, decision making points and timing.                            |    |          |     |
| We have identified and considered historical and political factors which may influence this decision-making process.     |    |          |     |
| We identified and analyzed risks.  |    |          |     |
| We have an effective communication plan.   |    |          |     |
| We have a project spokesperson.  |    |          |     |
| We have confirmed that there are no other conflicting public processes.  |    |          |     |
| We know how public input will be collected and communicated to the stakeholders and decision makers.                     |    |          |     |
| We have a plan to evaluate the engagement process.   |    |          |     |
| Our process clearly aligns with Public Engagement Guidelines   |    |          |     |



## Appendix 9 | Engagement Activity Descriptions

| Engagement Activity              | Description   | Engagement Levels     |
|----------------------------------|---|-----------------------|
| Presentations                    | Presentations to organizations throughout the community is an excellent way of building relationships and doing outreach.   | Inform                |
| Task Force <sup>11</sup>         | A small group of stakeholders or experts formed to develop a set of recommendations, policy or proposal within a limited time.  | Involve               |
| Interviews <sup>12</sup>         | One-on-one or small group discussion focused on a specific project or issue.  | Inform   Consult      |
| Workshops <sup>13</sup>          | Workshops are a meeting where a group of people (can be large or small) engage intensive discussion/activity on an issue and/or develop solutions.  | Involve   Collaborate |
| Surveys <sup>14</sup>            | Surveys are a good way of getting a snapshot of opinions across a wide range of demographic groups. It is critical to understand if the project/issue requires statistically valid data or qualitative input (or both), this will determine what survey to use.   | Consult               |
| Charrettes <sup>15</sup>         | Charrettes are an intense problem-solving session where a facilitator leads a group to alternative solutions. Charrettes are often used to design such things as parks and buildings, or to plan communities or transportation systems. The charrette team develops solutions resulting in a clear, detailed, realistic plan for future development | Involve   Collaborate |
| Information Kiosks <sup>16</sup> | Information Kiosks are a station where information is available. Can be used to solicit input.  | Inform   Consult      |
| Fairs/Events <sup>17</sup>       | Fairs/Events are used to build awareness or provide and share information about issues through exhibits and interactive activities  | Inform   Consult      |

<sup>11</sup> This refers to the meetings of the Community Task Force.

<sup>12</sup> This refers to the Council Briefings

<sup>13</sup> This refers to activities planned for Municipal Divisions and Target Networks.

<sup>14</sup> This is the Online Survey

<sup>15</sup> This refers to the Mapping Charrette

<sup>16</sup> This refers to the Pop-up Display

<sup>17</sup> This refers to community-sponsored events attended by City of Brampton staff and/or Community Task Force Members.



# Community Energy & Emissions Reduction Plan

## Task Force Charter

### Background

The City of Brampton and Sheridan College have come together to facilitate the development of a comprehensive Community Energy and Emissions Reduction Plan (CEERP) for Brampton. The CEERP will act as a roadmap to integrate the efforts of the municipality, local utilities, business, industry, institutions and community stakeholders working towards world-class energy performance while realizing positive economic, environmental, social, and cultural outcomes including:

- Reducing energy costs;
- Creating green jobs;
- Attracting new business;
- Increasing energy efficiency;
- Reducing greenhouse gas (GHG) emissions;
- Increasing energy security; and
- Enhancing resiliency to climate change.

Please visit <http://www.brampton.ca/ceerp> for more information on the City's CEERP.

### Purpose

The CEERP Task Force will be a team of community champions and principal advisors for the development of the CEERP. With guidance from the City of Brampton and Sheridan College, the Task Force will act as the lead implementers of the CEERP Engagement Plan, involving community stakeholders and the public to:

- a) Earn community buy-in for the goals and strategies of the CEERP, including approval by City Council;
- b) Grow the capacity of the community to implement the CEERP; and
- c) Motivate the public and community stakeholders to act.

### Mandate

The Task Force mandate is to provide a forum for community-based oversight of the CEERP planning process and to report regularly to the community and Council during its development. Based on community engagement activities, and with the member's collective expertise and influence, the Task Force will help establish the CEERP's vision for Brampton's energy future. The Task Force will then help develop implementable actions to achieve that vision.



Terms of Reference

In carrying out its mandate, the CEERP Task Force will have the following specific responsibilities, processes and requirements:

*Specific Responsibilities*

- a) Consider matters, issues, or information provided by the project work team relating to the CEERP, and provide advice and recommendations;
- b) Identify potential community issues and opportunities for the project work team;
- c) Participate in two-way communication between members’ constituencies and the project working team, as well as the overall Task Force;
- d) Identify priority Target Networks to implement the CEERP Engagement Plan;
- e) Ensure that the results of Task Force discussions are accurately recorded in meeting records, or in any additional documents that the Task Force or the project working team may determine are needed;
- f) Embrace the City of Brampton’s communication principles when providing advice or recommendations to ensure effective communication with the public and stakeholders;
- g) Provide active support for final Council approval; and
- h) Serve as an ongoing champion for CEERP implementation.

*Membership*

- a) The City of Brampton will invite members of the community to participate on the Task Force.
- b) Members will be selected from a variety of stakeholder groups and represent a balance of interests and range of perspectives in the community.
- c) Public at Large/Residential Ratepayers representation will be identified through a call for submissions of interest.
- d) The Task Force will consist of up to 19 members.
- e) Task Force membership includes:

| Sector                                  | Up to |
|---|-------|
| Business/Industry/Business Associations | 4     |
| Home Builder/Developer                  | 2     |
| Environmental Interest Group            | 2     |
| Educational Institutions                | 3     |
| Public At Large/Residential Ratepayer   | 2     |



|                                  |   |
|----------------------------------|---|
| Utilities                        | 2 |
| Municipal Council Representative | 1 |
| Regional Representatives         | 1 |
| Provincial Representatives       | 2 |

f) Task Force member core competencies include:

| Core Competency      | Description  |
|----------------------|--|
| Collaborative Leader | Has demonstrated personal and/or professional leadership in multi-stakeholder efforts by building consensus and drawing people into a process of change. Has an ability to maintain and strengthen connections to effect action. |
| Communicator         | Able to share ideas and describe what is already known and what is being discovered to diverse audiences.  |
| Community Translator | Understands the different language used by stakeholders and serves as a bridge between the various communities and groups with an interest in the initiative.  |
| Lifelong Learner     | Desire to deepen understanding of complex social and economic issues that take complex solutions.  |
| Politically Astute   | Broad non-partisan understanding of political and social issues influencing the public policy environment.   |
| Strategic            | Seeks continuous improvement and is a future thinker. Understands the lay of the land and can work within it.  |
| Practical            | Can manage the details and get things done on time.  |

g) Task Force membership is voluntary.

h) It is required that Task Force members must understand and agree to the terms and conditions outlined in these Terms of Reference.

#### **City of Brampton and Sheridan College Liaisons**

- a) The City of Brampton sponsor for the CEERP Task Force is Councillor Doug Whillans
- b) The municipal liaison to the CEERP Task Force is the Michael Hoy, Senior Environmental Policy Planner.
- c) The Sheridan College sponsor for the Task Force is the Manager, Sustainable Energy Systems, Office of Sustainability.



- d) The Sheridan College liaison to the Task Force the Project Officer, Energy Management, Office of Sustainability.

### Meetings

- a) A minimum of six (6) meetings are anticipated during the CEERP planning process.

| Tentative Schedule |                |
|--------------------|----------------|
| March 2019         | June 2019      |
| April 2019         | September 2019 |
| May 2019           | October 2019   |

- b) Members are expected to attend all six (6) meetings.
- c) Members are expected to come fully prepared to meetings.
- d) Members are encouraged to participate in other engagement activities planned during CEERP engagement process.
- e) Meetings are held in accessible locations.
- f) Meeting are open to the public, as observers, with date, time and place of each meeting published on the City's website.
- g) A quorum of members is required to hold a Task Force meeting.
- h) PWT members attend Task Force meetings as a resource.

### Co-chairs

- a) Task Force members select co-chairs at their second meeting.
- b) Supported by the project working team, the co-chairs approve final meeting agendas, preside over meetings and coordinate the activities of the Task Force.
- c) The co-chairs assist the Task Force develop and approve meeting process rules and other procedures related to committee effectiveness, as required.
- d) The co-chairs are the spokespersons for the Task Force.
- e) The co-chairs will be selected from different sectors.
- f) Only representatives from the following sectors may be eligible to co-chair:
  - i. Business/Industry/Business Associations
  - ii. Home Builder/Developer
  - iii. Educational Institutions
  - iv. Utilities



*Decision-making*

- a) The Task Force strives to operate in a consensus mode where participants openly discuss views and opinions and seek common ground.
- b) If there is an unresolvable lack of consensus, decisions are made by a simple majority vote.

*Minutes, Documentation and Administration*

- a) Minutes are taken by a member of the project working team.
- b) Minutes are circulated to the Task Force members following each meeting for review and comment.
- c) Minutes are approved at the following Task Force meeting.
- d) Minutes are made available to the public.
- e) Administrative services for the Task Force are the responsibility of the project working team.

*Term*

- a) The mandate of the Task Force is completed upon Council's approval of the CEERP.
- b) The Task Force is charged with determining its ongoing role in supporting the implementation of the CEERP.

For more information, please contact:

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



## **Brampton Community Energy and Emission Reduction Plan Task Force**

### **Co-Chairs:**

- Dave Kapil, Board Member, New Brampton
- Hassaan Khan, Area GM, Performance Infrastructure Canada, Johnson Controls Canada L.P

### **Members:**

- Andrew Farr, Acting Commissioner, Public Works, Region of Peel
- Benjamin Ratcliffe, Energy Specialist, Peel District School Board
- Bob Bjerke, Director of Policy Planning
- Brad Cobbledick, Brampton Brick
- Brandon Dilollo, Paradise Homes
- Carmina Tupe, BILD
- Christine Tu, Director, Office of Climate Change and Energy Management Region of Peel
- David Laing, Co-Chair, Brampton Environmental Advisory Committee
- Doug Whillans, Councillor, City of Brampton
- Eddie Camilleri, Energy Manager, William Osler Health Centre
- Eric Meliton, Project Manager, Partners in Project Green
- Erika Lontoc, Lead, Business Intelligence, Enbridge Gas Distribution
- Herb Sinnock, Director Sustainability, Sheridan College
- Jennifer Jaruczek, Planner, BILD
- Lauren Mulkerns, Environment Manager, Brampton Brick
- Margaret Knowles, Morguard
- Megan McCombe, Supervisor, Environmental Education, Region of Peel
- Michael Won, Acting Commissioner of Public Works, City of Brampton
- Nathaniel Magder, TRCA
- Patrick Turner, Counterpoint Engineering
- Ralph Williams, Manager, Connections and Key Accounts. Alectra Utilities
- Rebecca Winters, Water Efficiency, Region of Peel
- Rod Rice, Rice Development Company
- Stuart Craig, Riocan
- Todd Letts, CEO, Brampton Board of Trade
- Trevor Boston, Co-Chair, Brampton Environmental Advisory Committee

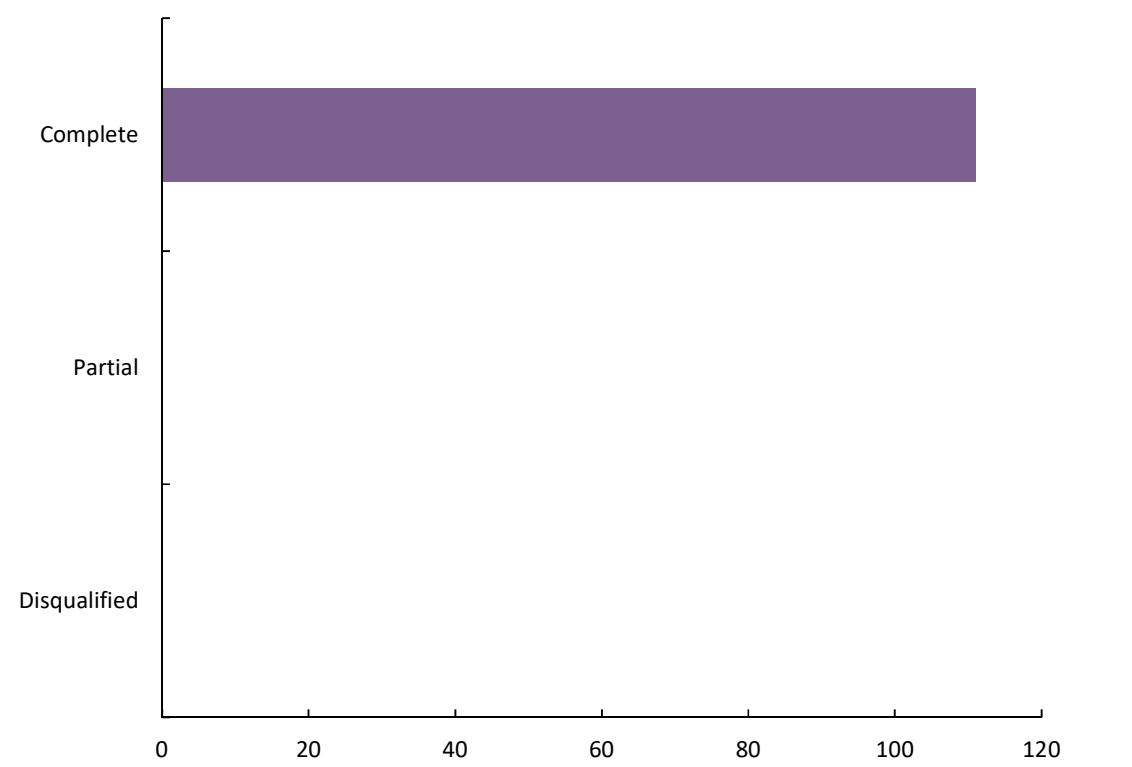


# Report for Community Energy and Emissions Reduction Plan - Survey

Community Energy and Emissions Reduction Plan - Survey



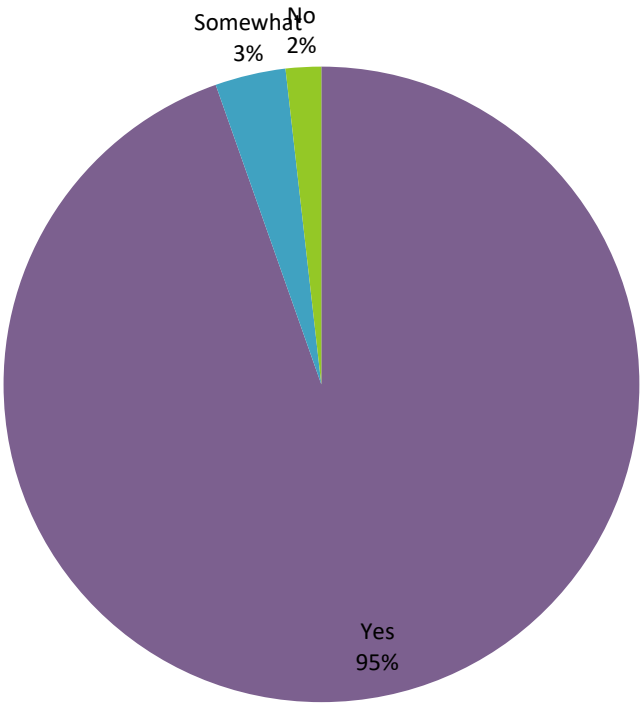
Response Statistics



|              | Count | Percent |
|--------------|-------|---------|
| Complete     | 111   | 100     |
| Partial      | 0     | 0       |
| Disqualified | 0     | 0       |
| Totals       | 111   |         |



1.Do you think that it is important for us to work towards world-class energy performance for our community, as described in the introduction above?



| Value    | Percent | Count |
|----------|---------|-------|
| Yes      | 94.6%   | 105   |
| Somewhat | 3.6%    | 4     |
| No       | 1.8%    | 2     |
|          | Totals  | 111   |



2.What matters to you? Below are some economic, social and environmental benefits of moving towards a world-class energy performance. Please rank the importance of these benefits to you by re-sorting them on the right side of the page with your highest (most important to you) to lowest (less important to you) choices.

| Item  | Overall Rank | Score | Total Respondents |
|---|--------------|-------|-------------------|
| Reducing greenhouse gas pollution to fight climate change | 1            | 630   | 108               |
| Reducing my energy costs.                                 | 2            | 444   | 107               |
| Affordable energy services that I can always rely on      | 3            | 439   | 107               |
| Creating jobs in the green economy                        | 4            | 424   | 108               |
| Keeping more of our energy dollars in the local economy   | 5            | 403   | 106               |
| Brampton taking charge of its own energy future           | 6            | 377   | 106               |
| Generating my own energy                                  | 7            | 301   | 107               |



3. There are other ways moving towards world-class energy performance can enhance Brampton's livability. Please rank them by scoring each benefit from 1 (most important to you) through 7 (less important to you)

| Item   | Overall Rank | Score | Total Respondents |
|--|--------------|-------|-------------------|
| Protecting green space and urban trees   | 1            | 553   | 110               |
| Cleaner air  | 2            | 553   | 107               |
| Making public transit more convenient  | 3            | 458   | 108               |
| Reducing energy poverty so no one must choose between buying food or keeping the lights on | 4            | 455   | 109               |
| Making it easier to walk and cycle in my community   | 5            | 430   | 110               |
| Less time stuck in traffic and more time with family and friends                           | 6            | 376   | 108               |
| Improving the comfort of my home or workplace  | 7            | 232   | 108               |



4.Did we miss any benefits in Questions 2 and 3 that matter to you?

| ResponseID | Response  |
|------------|---|
| 11         | district energy in brown fields and creating a circular economy   |
| 12         | Stimulating the green economy and bringing well paid jobs to Brampton   |
| 13         | Create a circular economy to minimize waste and create opportunities for more local high tech employment. Turn the tide against Brampton as a commuter community to a place where people live, work and play close to home. |
| 14         | More livable neighborhoods.   |
| 15         | Using energy efficiency to reduce traffic. Less vehicles on the road resulting from better public transportation.   |
| 16         | No.   |
| 20         | Pride in knowing I live or work in a City that cares about the most important issue facing humanity today.  |
| 21         | Enhancing the national and global reputation of Brampton to attract high quality investors and jobs   |
| 22         | No  |
| 25         | Majority of Brampton residents use energy resources that have the least impact on our natural environment   |
| 28         | N/a   |
| 32         | Let's reduce the use of plastics. How can we convince people that tap water is best and reusable containers are a viable option to throw-away bottles.  |



|    |   |
|----|---|
| 33 | 1. Get more people to use public transit. 2. Switching over to E-cars. Outlaw gasoline engines over a ten year period, maybe exempting "Classic Cars."  |
| 34 | Thank you for working on this initiative!   |
| 35 | Concentrate on a cycling infrastructure so that folks will feel safe by cycling on dedicated bicycle lanes and leaving the car at home.   |
| 36 | Community gardens. Improve or better access to local products and food. Supporting local before foreign. Canadian apples vs American apples. Ontario garlic vs garlic from China. Community Greenhouses to grow produce year round. |
| 37 | Eliminating an economy based on fossil fuel consumption.  |
| 40 | No  |
| 43 | Can't think of anything   |
| 45 | No  |
| 46 | No  |
| 48 | More complete communities.  |
| 49 | Discounts for residents who help out.   |
| 51 | No  |
| 52 | Widespread environmental education that can model behaviour so that infrastructure changes made will have lasting effects from generation to generation.  |
| 56 | Shift to more energy efficient vehicles / autonomous vehicles   |
| 57 | We also need to start think about reducing the number of cars on the roads. I know transit will   |



|    |  |
|----|--|
|    | help but we also need to create safer environment for cyclists.  |
| 58 | No, but some of the ranking may actually be equal priorities i.e. cleaner air, preserving greenspace, less time in traffic and better transit access while reducing the need to use cars to get to it--such as the bramble go station--more parking being created--but you can't get out of there after getting off a train in rush hour for at least 20 minutes now--too much reliance on cars to get to the main transit line. |
| 60 | Shift public mindset by seeing the short-term and long-term benefits of the CEERP plan   |
| 61 | Maintaining a good recycling program and promote the use of recycled products to companies and reduce the amount of packaging. Maintain tree planting in new sections being built  |
| 62 | More green spaces are required and continue to ensure wildlife corridors running north and south are considered between Mississauga Brampton and Caledon   |
| 64 | Support and fund events and organizations that promote sustainable environment and climate action. Currently nothing is forthcoming.   |
| 65 | no   |
| 66 | no   |
| 69 | Creating a sustainable future for our community.   |
| 71 | We need SMART traffic lights, and walk signs always working (not buttons to push) in school areas.   |
| 73 | Benefits or tax credits/grants to tax payers of homes and owner operators of small businesses to add solar panels, clothes lines, transit passes,  |



|    |  |
|----|--|
|    | etc. Make it a life style, log the benefits, savings and accomplishments and non   |
| 74 | <p>These positive actions in order to mitigate climate change are important but there are many other things that need to be part of the conversation. Yes, transportation, energy and green spaces are at the top of the list but other factors like, food, housing, biodiversity, plastic pollution, etc. that need to be considered. There needs to be a comprehensive vision/mandate that is reflected across all city services. Bylaws and education that focus on practical aspects of your Environmental plan should be the focus - instead of the outdated and harmful practices we always see reinforced. For example, there are recent city ad's (i.e., on the Garden square big tv, at city hall, on bus shelters) that have been running this summer that focus on how good neighbours cut their grass short enough! While we know that this practice is not good for the environment. In this instance, this same space could advocate for 'now mow' practices along with growing food and planting natives gardens. Please let me know if you need any clarification.</p> |
| 76 | No   |
| 77 | No. Stopping climate change is most important right now, we don't have long left otherwise   |
| 78 | FOR ME ALL THE BENEFITS ARE IMPORTANT, WORK, HEALTH, EDUCATION, WE HAVE TO BE ABLE TO DEAL WITH EACH OF THEM NOW AND FUTURELY.   |
| 83 | na   |
| 84 | Please add more electric vehicle charging stations throughout the City of Brampton. I use them at the recreation centres and while at work.  |



|     |   |
|-----|---|
| 85  | no  |
| 86  | No  |
| 87  | .   |
| 88  | No  |
| 89  | The expansion project of HWY 410 is an urban/road planning failure. It is unsafe as it forces northbound multiple lanes to merge. It fails to take into account the vertical grade rising as it approaches the merge at Queen St. HOV northbound should end at Steels. The onramp lane from Steels should not be forced to merge Left, it should continue as the off-ramp to Clark like it was before the expansion project. The same as the southbound from Clark becomes the Steels off-ramp. The stop and go traffic only adds to unnecessary emissions. |
| 90  | Some real public safety benefits from : 1. No guns in the hands of public, 2.Increase the use of Technology to replace police presence for non-life threatening traffic situations/conditions.  |
| 91  | No.   |
| 92  | A green local economy (jobs) Skilled workers An economic niche for the city   |
| 93  | No  |
| 99  | Encouraging sustainable reuse of cultural heritage resources  |
| 100 | I think taking a lead on energy efficiency could be a good opportunity to partner with other groups, organizations, universities to better understand which energy efficient options are the best.  |



|     |   |
|-----|---|
| 101 | development of solar & wind & water generated energy  |
| 103 | Social spaces   |
| 105 | Youth employment  |
| 107 | Meeting needs of racialized communities   |
| 108 | No  |
| 110 | No  |
| 111 | Creating a more cohesive community working together for a sustainable future.                 |
| 115 | Subsidies for residents who opt for green energy generation or electric vehicles              |
| 118 | Getting the whole community involved in creating a fruitful and beneficial environmental plan |



5. In your own words, what does Brampton's ideal energy future look like in 2050?

| ResponseID | Response  |
|------------|---|
| 11         | Green filed developments buying into our district energy and our community energy and emissions reduction plan  |
| 12         | 100% fossil fuel free Local generation and consumption Smart grid distributed   |
| 13         | Locally generated; clean and renewable; efficiently delivered and used; affordable for all but priced to avoid waste and encourage conservation.  |
| 14         | Brampton has achieved a low-carbon, reliable energy supply with integrated systems connecting vibrant, walkable neighborhoods.  |
| 15         | Brampton to be known as the most energy efficient city in Canada  |
| 16         | renewable energy as the future.   |
| 17         | Better planning decisions. Right now Brampton has huge shopping and business conglomerate. For example at Bovaird and Sandalwood. You wouldn't walk from Home Depot to Metro. Brampton is full of these poor decisions that force people to rely on cars. Huge expansive business centres that have no food or entertainment around them (Mississauga Road, entire strip) or expansive urban areas that continue to expand (Wanless and Chingcousy to Creditview). Brampton needs to take a hard look at how they have made decisions previously and how they want to make decisions going forward. |
| 18         | 100% renewable energy production to match 100% of the energy demands of our City with a lower cost to the user than what is incurred today  |



|    |   |
|----|---|
| 19 | Fewer cars on the road, better public transit and more solar energy use or better efficiency in energy use.   |
| 20 | A clean, reliable energy grid that powers homes, offices, businesses, vehicles and the local economy; accessed, understood and invested in by all residents and users.  |
| 21 | Reliable, affordable, technically flexible and zero carbon  |
| 22 | 100% fossil fuels free, Part of a smart grid with local energy production and distribution Part of a north American wide green economy  |
| 25 | Brampton should be relying on a variety of sustainable energy resources. Such as solar and electric.  |
| 27 | <ul style="list-style-type: none"> <li>- More buildings that are self-sufficient (w/ solar panels/green roofs, etc.)</li> <li>- Zum upgraded to full BRT with dedicated lanes.</li> <li>- Free transit</li> <li>- Minimum grid of bicycle lanes</li> <li>- no streets without sidewalks</li> <li>- general purpose traffic lanes removed to make room for transit, carpool, bike lanes, more sidewalks, trees, landscaping, etc.</li> <li>- No more subsidies to fossil fuel vehicles via parking requirements, etc.</li> <li>- Free or greatly reduced transit fares for everyone</li> <li>- Solar/wind farms instead of sprawling development at edges of Brampton</li> </ul> |
| 29 | Sustainable clean energy for all.   |
| 30 | More solar energy used in public service, working with citizens to create public gardens to farm and grow food - farm to table. More rebates for homeowners of ALL INCOME levels to improve home energy efficiency  |



|    |  |
|----|--|
| 32 | Sustainable clean energy use in a healthy environment.   |
| 33 | I do not know about the subject to make a judgement. I always energy was a provincial thing, and I hope Doug Ford knows the difference between energy and education, or we are in big trouble.   |
| 34 | Well used and plenty of green space, clean air, use of alternative energy sources, eg:wind, an accessible and energy efficient transit system, more bike paths   |
| 35 | Unfortunately I will not be alive then. But for future generations I would like to see a more dense City without the huge box Malls with shops that people can walk too.   |
| 36 | Solar powered Green roofs Incentives for business and general public to be green Better access for people in condos and apartments to recycling and compost Businesses that help people fix broken items instead of buy new Better accessibility for seniors to participate in Brampton. |
| 37 | Self sustaining, green, renewable, small-scale production, not reliant on fossil fuels.  |
| 38 | I hope citizens will take more ownership for their individual energy and water consumption. This will need to be encouraged at all government levels.  |
| 39 | Affordable more efficient & greener energy   |
| 40 | Public transit will be cheap and more direct efficient.routes. Energy costs will be much lower and affordable. There will be better incentives for people to not waste energy.   |



|    |   |
|----|---|
| 41 | Hopeful...I trust City Council to focus on our energy future...   |
| 43 | Using renewable resources for energy. All buildings are green certified, either originally built that way or retrofitted. Requirements for homes to be energy efficient. Better public transit within Brampton and to other cities. (E.g., GO both ways to downtown Toronto throughout the day. More frequent service.) |
| 46 | Good public transit. Electric car charging. Less traffic. Solar panels and green roofs on city buildings.   |
| 47 | All residents, businesses, organizations and industries in Brampton are moving to clean sustainable energy systems and retrofits, with a goal of zero harmful emissions by 2050.  |
| 48 | Mandatory solar panels and thermal energy required for all building permits being issued. Incentive programs offered by the City for homeowners who convert to thermal energy. More public transit.   |
| 49 | Lots of trees, discounts for renewable energy, and jobs related to energy.  |
| 50 | Low environmental impact. Greater affordability and sustainability.   |
| 51 | Electric vehicles, more recycling. Plastic free grocery stores, better commuting from Brampton to the Go station. No more traffic on the 410 and a revitalized downtown Brampton core.  |
| 52 | All energy requirements are obtained locally and from sustainable sources with minimum impact on the environment.   |
| 53 | I would provide incentives or offer solar panels in schools and public buildings and homes for them   |



|    |  |
|----|--|
|    | <p>to be self sustaining and have access energy given back to city to pay off panels. Condition of building in Brampton it to have them off the grid. By 2050. You are self sufficient and selling access to other cities. You need to set standards world class not follow others!</p>  |
| 54 | Green and clean  |
| 55 | <p>every household generates their own energy for basic domestic use and if excess generated, city can buy it back for credits that can be leveraged towards other city utilities like tax or water. Less emission and cleaner and greener surroundings. car pool incentives and efficient transit facilities to provide ample fresh air for next generation.</p>  |
| 56 | <p>Much higher share of trips made using sustainable modes of transportation (with associated decreases in energy use and emissions ensuing from transportation). Intensified/mixed-use development that fosters short trips.</p>  |
| 57 | <p>I see Brampton as a clean and green city with better and efficient transit system and lesser use of cars. Relying 100% on renewable energy.</p>   |
| 58 | <p>I do not have a concept. But, I often wonder why when looking to green energy i.e. solar--there are farm fields being converted to place solar panels--why not in already disturbed urban areas i.e. industrial sites. Brampton is full of warehouses--with lots of roofs reflecting heat--why not compel development and re-development to include green energy through solar, green roofs to reduce runoff and reduce heat sink effect on these sites? These industrial sites are also surrounded with grass/invasive weeds. Why not compel industry to plant with native plants, reduce mowing, create storm</p> |



|    |  |
|----|--|
|    | runoff ponds/gardens? Companies that participate could be incentivized in some way via tax breaks.   |
| 59 | Best practices for providing low cost green energy to heat and provide electricity to all of our homes and buildings.  |
| 60 | I would like to see reduced car usage because the public transit system is very convenient, affordable, and integrated with other transit networks, that it would be silly to have more than 1 car per household. The city's residents will have an energy-conservation mindset that allows them to be energy-wise and save money.                                 |
| 62 | No reliance on fossil fuels, manage your own waste collection by setting up a recycling facility and providing jobs in that area - more oversight on developers to ensure sewage is correctly draining where it should and not into the local creeks. Need better transportation to other regions and all day train service to get people to rely less on the car. |
| 63 | a whole lot better and better educated people  |
| 64 | We should be running on 100% clean energy  |
| 65 | Energy from renewable sources near 100%  |
| 66 | Brampton is self sufficient in terms of energy.  |
| 67 | City of self contained energy production and use. Net zero buildings with comfortable energy efficient features. More physically fit population moving about with combined AT and transit on comfortable safe infrastructure within a healthy tree canopy.   |
| 68 | We should have our own power generation, solar, wind or nuclear  |



|    |  |
|----|--|
| 69 | 100% from renewable sources. Energy efficient buildings. Convenient and efficient public transit combined with safe active transportation options. Compact complete Neighbourhoods with live work options. Local power and heat generation. Autonomous shared electric vehicles to augment the transit/AT network.   |
| 70 | Innovative, new, ideas that help us take care of the earth   |
| 71 | We must use every method available to slow down global warming!  |
| 73 | Neighbourhoods filled with trees and plants that attract bees, butterflies and birds. Affordable transit that is every 5 minutes during high peaks and 15 minutes during mid peaks. More bike lanes, light rails in high traffic areas. Reduced automobile and truck access on busy roads that takes us home. They can purchase a pass to use the roads during specific hours, a lottery of sorts. Clothes lines in yards, with solar panels for storing energy. More community gardens and hobby farms in the city. Big box stores moved to the outskirts and mom and pops businesses in the city. Parks and schools embrace the above. Farmer markets year round |
| 74 | Responsible, local, sustainable, subsidized when needed, closed-loop. Energy needs to be linked to Waste Management,etc.   |
| 76 | As per the above paragraph "By working together...climate change. Also playing together in our community as we reap the benefits of our commitment work.   |
| 77 | I have no idea. Won't be here to see it, and things change so quickly now, new developments could happen to revolutionise energy production  |



|    |   |
|----|---|
| 78 | I hope I can be alive until then, yes I can give the right answer.  |
| 79 | More solar panels on private homes, apartments, businesses. "Green" roof - where the City encourages something like a meadow on roof tops.  |
| 82 | -a practical year-by-year plan to implement green energy production, leading up to 2050, starting with solar/wind/geothermal energy installations at all public buildings, public housing buildings, followed by minimum requirements for parking lot based solar farms, large roof solar installations for warehouses etc. - electrification of transit vehicles -bike share programs -electric/hybrid replacement of all public fleet vehicles -minimum green energy production requirements for suburban developments. Nearly every new rooftop in the suburbs should have a solar panel on them. - District energy as a mandatory requirement for greenfield developments. -gray-water recycling should be mandatory for new-builds ahead of 2050 |
| 84 | Wow...2050 is really far away. We should be mitigating flooding from storm water, encouraging green energy by making it affordable alternative, encouraging green business to do business here in Brampton and strong education campaign with schools.  |
| 85 | affordable energy   |
| 86 | More options to cycle to work. Renewable energy. Cheaper public transit   |
| 87 | Sustainable   |
| 89 | Solar rooftops. Electric mass transit.  |



|     |   |
|-----|---|
| 90  | <p>Increase the use of solar energy by: 1. Developing plans (project feasibility report) by 2019 for having all city building roofs equipped with solar panels, all street light poles equipped with solar panels and all park light poles equipped with solar panels; 2. Requesting by early 2020, the required funds (70 % at least) from Provincial and Federal governments for the planned green energy projects ; 3. Implementing the green energy plans by phases as the requested funds are made available by other governments.</p> |
| 91  | <p>We are using solar, wind and geothermal. We have energy efficient buildings with rooftop vegetation to support pollinators and lots of trees. We can walk, bike or bus everywhere without inhaling car fumes.</p>  |
| 92  | <p>One where communities all rely on renewables. Sheridan college expands programs to support the energy industry. Brampton supports multiple energy clusters giving people more working opportunities. Brampton is the sustainable Green Mecca of Canada. Public transit is efficient reliable and encourages sustainable densities</p>  |
| 93  | <p>No</p>   |
| 94  | <p>Using renewable energy sources that would Not harm our environment and fight climate change and create jobs and a vibrant green economy.</p>   |
| 98  | <p>Resilient and equitable</p>  |
| 99  | <p>Reliant on green energy forms with most power being generated by individual homeowners in some way/shape/form.</p>   |
| 100 | <p>More homes will be generating their own energy and selling it back to different spaces in the city. Energy has become more affordable for citizens in this way. The reduction in GHG emissions</p>   |



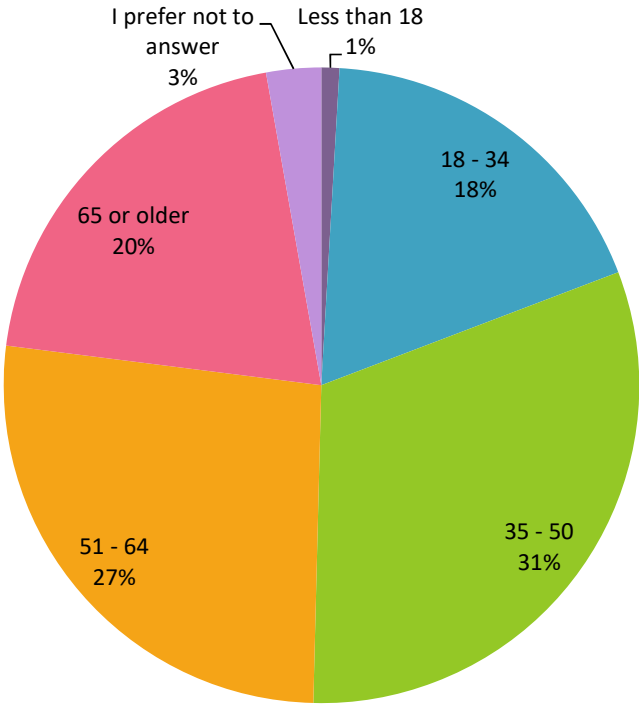
|     |  |
|-----|--|
|     | allows for better air quality so more people are able to enjoy being outdoors.   |
| 101 | state-of the art, cutting-edge, informed, progressive, & innovative  |
| 103 | Solar  |
| 105 | Finding more advanced and unorthodox ways of using less carbon emissions within Brampton   |
| 108 | Walkable, bikable, clean and green city. Local food local energy.  |
| 109 | EV transportation and efficiency   |
| 111 | 100% from renewable sources. More local production and distribution of heat and power. Sustainable transportation network with the personal automobile totally replaced by efficient and affordable transit, car share, AT and AV options. Building retrofits with 50% of commercial and 25% of residential buildings being net zero. Retrofitting costs would be mostly paid for by carbon pricing. |
| 112 | Decentralized, home generation contributing to a smart grid distribution system.   |
| 115 | Bleak at best. We need to get aggressive and reset the target for 2035!  |
| 117 | Solar panels on every roof and parking lot, wherever it is feasible to install. Take advantage of economies of scale. Geothermal installations in parking lots and new builds.   |
| 118 | World class city that net producer of green energy and carbon gas emissions neutral  |
| 119 | Solar power on every new home with battery backup. Completely off grid, with excess sold to  |



|     |  |
|-----|--|
|     | grid. City vehicles all electric, including buses, and emergency services.   |
| 120 | Net Zero and aggressive climate adaptation plan to deal with emissions already produced.   |
| 121 | Steering away from relying on non-renewable energy sources to renewable energy sources. Providing funding opportunities to promote the use of residents generating their own energy (i.e. solar panel roofs). Educating residents their options on how to reduce their energy consumption. |



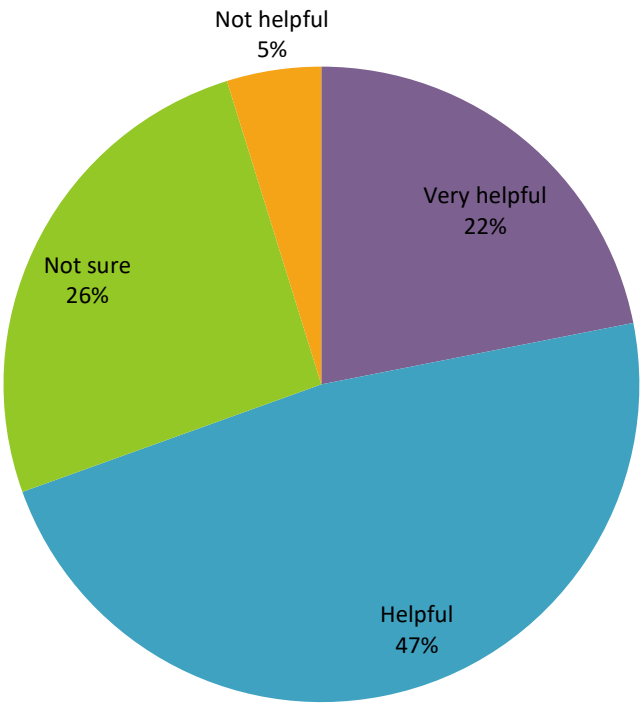
6.In which of the following age categories do you belong?



| Value                  | Percent | Count |
|------------------------|---------|-------|
| Less than 18           | 0.9%    | 1     |
| 18 - 34                | 18.3%   | 20    |
| 35 - 50                | 31.2%   | 34    |
| 51 - 64                | 26.6%   | 29    |
| 65 or older            | 20.2%   | 22    |
| I prefer not to answer | 2.8%    | 3     |
|                        | Totals  | 109   |



7.How did you find this survey in understanding the benefits of community energy planning?



| Value        | Percent | Count |
|--------------|---------|-------|
| Very helpful | 21.9%   | 23    |
| Helpful      | 47.6%   | 50    |
| Not sure     | 25.7%   | 27    |
| Not helpful  | 4.8%    | 5     |
|              | Totals  | 105   |







## Appendix 5 - CEERP Communication Collateral

### Twitter/Instagram Tile



**CLIMATE  
CHANGE  
IS REAL!**

Find out what the City of Brampton is doing to tackle it.



Learn more about the Community Energy and Emissions Reduction Plan (ceerp) and provide your input [brampton.ca/ceerp](http://brampton.ca/ceerp)

### Info Card





**COMMUNITY  
ENERGY AND  
EMISSIONS  
REDUCTION  
PLAN**

**The City of Brampton, in partnership with Sheridan College, and the Community Task Force is developing a Community Energy & Emissions Reduction Plan (CEERP).**

The CEERP will create a roadmap to:

- improve energy efficiency;
- reduce greenhouse gas emissions;
- ensure energy security;
- create economic advantage; and
- increase resilience to climate change.

@BramGrowGreen   [www.brampton.ca/CEERP](http://www.brampton.ca/CEERP)    **BRAMPTON**



# Brampton Community Energy & Emissions Reduction Plan (CEERP)



**\$1.8 billion**

is what our community spends on energy each year on all transportation, residential, commercial, and institutional activities.

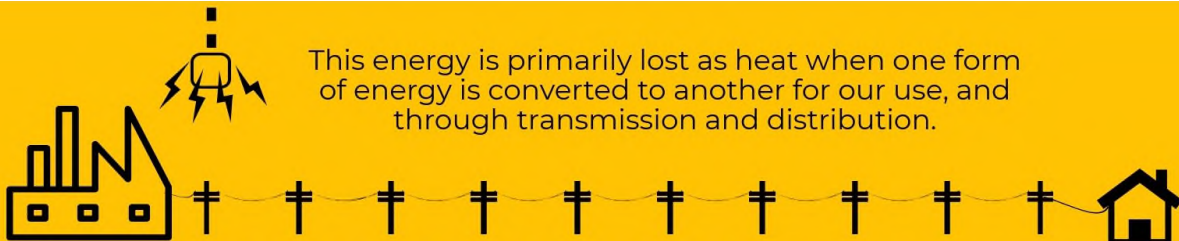
In Partnership with  
Sheridan College



**\$1.4 billion  
(78%)**

**27%**  
of the energy that the community pays for does not reach our homes, buildings, or vehicles.

of those energy dollars leave the community.



## The Community Energy & Emissions Reduction Plan (CEERP)

will act as a guide to help the City, its residents, and businesses develop and adopt new best practices to improve our overall energy efficiency, reduce energy costs, and make positive economic and environmental impacts in our community.

The CEERP identifies local scale solutions to our **BIG** energy problems.



## Emissions

Current greenhouse gas (GHG) emissions for every Brampton resident are approximately **2x** greater than global best practice, and **10x** higher than Government of Canada's goals for 2050.

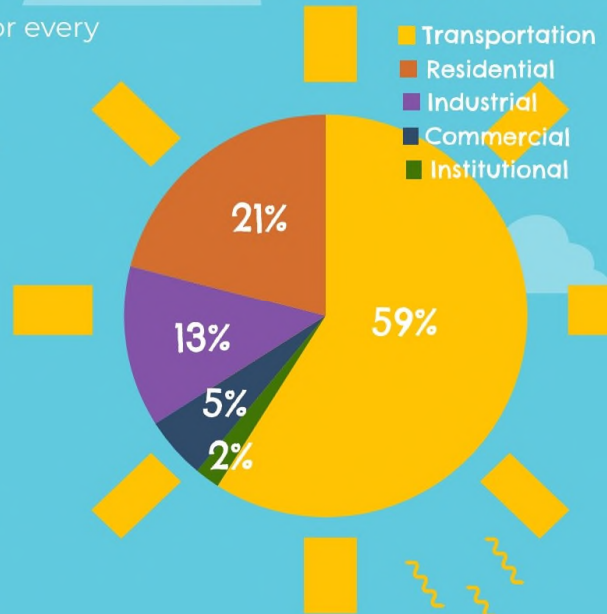
## Efficiency

On average, homes and buildings in Brampton are approximately **1/2** as efficient as global benchmarks.

## Transportation

Transportation accounts for at least **50%** of all energy costs and emissions in Brampton.

## Brampton's 2016 GHG Emissions



## The Community Energy & Emissions Reduction Plan is a road map that will:



improve energy **efficiency**



**reduce** greenhouse gas emissions



ensure energy **security**



create **economic** advantage



increase **resilience** to climate change





Industry and community leaders have come together to form a CEERP Community Taskforce to advise and collaborate on the development of the plan.

CEERP relies on the integrated efforts of the municipality, local utilities, industry, and the wider community.

Find out more:  
[www.brampton.ca/CEERP](http://www.brampton.ca/CEERP)

Follow us:  
[@bramgrowgreen](https://www.instagram.com/bramgrowgreen)

Help Brampton grow green and achieve the 2040 Vision of a sustainable, livable, diverse, and healthy city.

**BRAMPTON** Sheridan | Get Creative

## Open House Boards

### ENERGY & EMISSIONS IN BRAMPTON

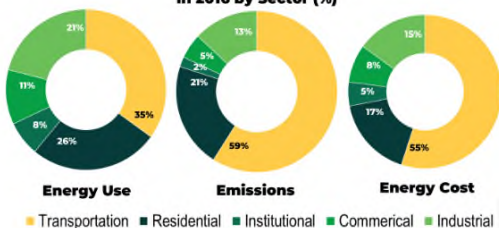
OUR COMMUNITY SPENDS **\$1.8 BILLION** ON ENERGY EACH YEAR...



**\$1.4 BILLION** OF THOSE ENERGY DOLLARS LEAVE THE COMMUNITY.

**TRANSPORTATION ACCOUNTS FOR OVER 50% OF ALL ENERGY COST AND EMISSIONS IN BRAMPTON. RESIDENTIAL BUILDINGS ARE OUR 2ND BIGGEST EMITTER AND COST.**

Brampton's Energy Use, Energy Cost and Emissions in 2016 by Sector (%)



### CLIMATE MITIGATION IN BRAMPTON

**JUNE 5, 2019**  
Brampton City Council unanimously votes to declare a climate emergency.

**FEBRUARY 5, 2020**  
The Brampton Eco Park Strategy is presented to City Council. The Eco Park Strategy will guide the enhancement of the city's natural heritage system and city parks to create better places to socialize and interact with the environment.

**FEBRUARY 19, 2020**  
City Council endorses the One Million Trees program, which aims to plant one million trees in Brampton by 2040 to meet the goals in the Brampton 2040 Vision.

**AUGUST 29, 2019**  
The City of Brampton releases its corporate energy and emissions plan, called A Zero Carbon Transition, which sets energy use and emissions targets for City facilities.

**NOVEMBER 13, 2019**  
The City of Brampton joins the Global Covenant of Mayors for Climate & Energy, an international coalition of city and local governments that share a goal of pursuing action to combat climate change.

**ONGOING**  
In partnership with Sheridan College and the Region of Peel, the City of Brampton created the Institute for Sustainable Brampton, an organization that will focus on convening partners within the city to ensure that public and private stakeholders are working together to achieve CEERP goals.



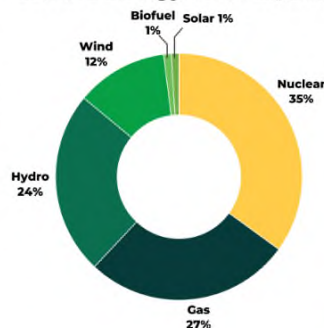
## WHERE DOES OUR ENERGY COME FROM?

### ENERGY SOURCES IN ONTARIO

Canada relies on fossil fuels to meet 80% of its energy needs. This has significantly increased the greenhouse gas emissions associated with our energy system. In 2019, Ontario's electricity mix was 35% nuclear, 27% natural gas, 24% hydro, 12% wind, 1% solar, and 1% biofuel. Up until the 1950s, Ontario's electricity system was almost 100 percent renewable hydroelectric power.

Most of our natural gas comes from outside the province and has been delivered by interprovincial pipelines since 1958. Gasoline and diesel are mostly sourced from crude oil, almost all of which comes from outside Ontario and is exported from western Canada, the Atlantic offshore, and the United States.

Ontario Energy Sources, 2019



### WHAT ARE SYSTEM LOSSES?

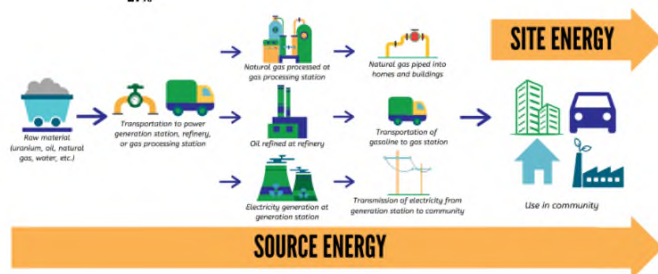
The introduction of non-renewable energy sources (i.e., fossil fuel and nuclear) to meet increasing energy demands has had two consequences: the creation of waste by products (i.e., the release of carbon dioxide into the atmosphere) and increased system losses.

System losses include conversion losses which occur when energy is transformed from one form to another and when energy is moved from location to another. System losses account for approximately 30% of all source energy use. These system losses reduce the efficiency of the system.

### HOW DOES ENERGY GET TO US?

Site energy refers to the energy purchased by consumers at the utility meter or gas pump. Source energy is both the energy purchased at the utility meter or gas pump and all the energy required in production and distribution to consumers.

Emissions and costs associated with energy aren't limited to the gas pump or hydro bill. There are many upstream emissions and costs associated with our sources of energy and community energy planning can identify local opportunities to reduce them.



## WHAT IS THE CEERP?

### BRAMPTON'S COMMUNITY ENERGY AND EMISSIONS REDUCTION PLAN

Brampton's Community Energy Plan takes a local lens to focus on community wide priorities and actions to reduce GHG emissions, increase energy efficiency, ensure energy security, create economic advantage, and increase Brampton's resilience to climate change.

### WHY HAVE A CEERP?

Human influences are changing the Earth, which is causing increases in average global temperatures. While the related effects are different by region, in Brampton the impacts of climate change have been felt through extreme heat events, flooding, heavy rainfall and ice storms. These events have significant impacts for our health, infrastructure, environment, and economy and are expected to continue and to increase in the future.

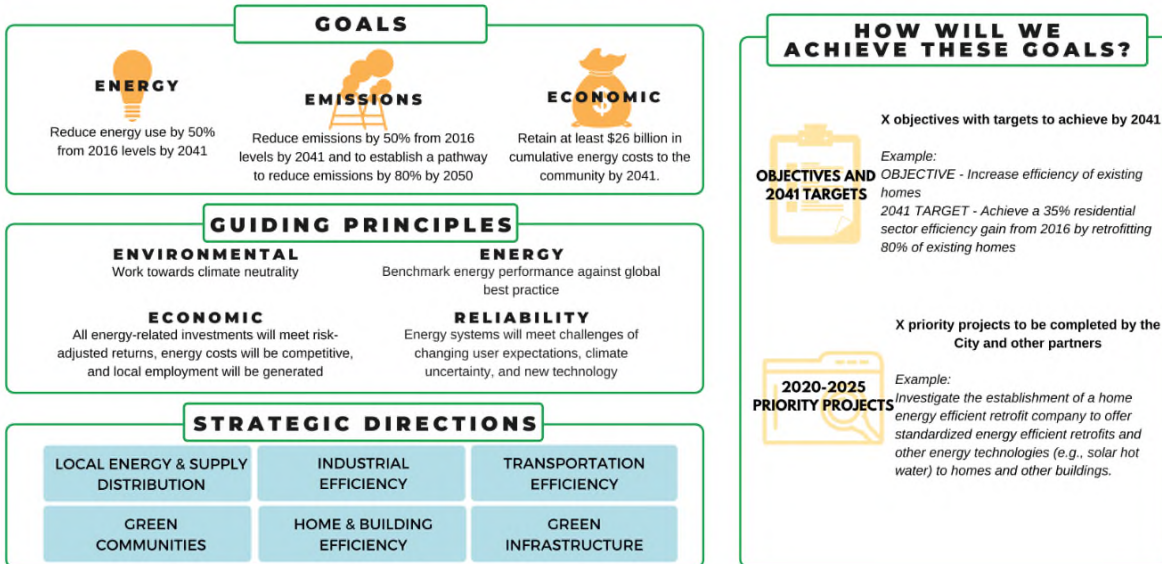
In addition to addressing climate change, another consideration is ensuring Brampton is positioned to manage the risks and capitalize on the opportunities associated with the modern energy transition - the global transition to a decarbonized global energy system. The CEERP is a opportunity for Brampton to be a leader and tap into the economic and social potential of this energy evolution.



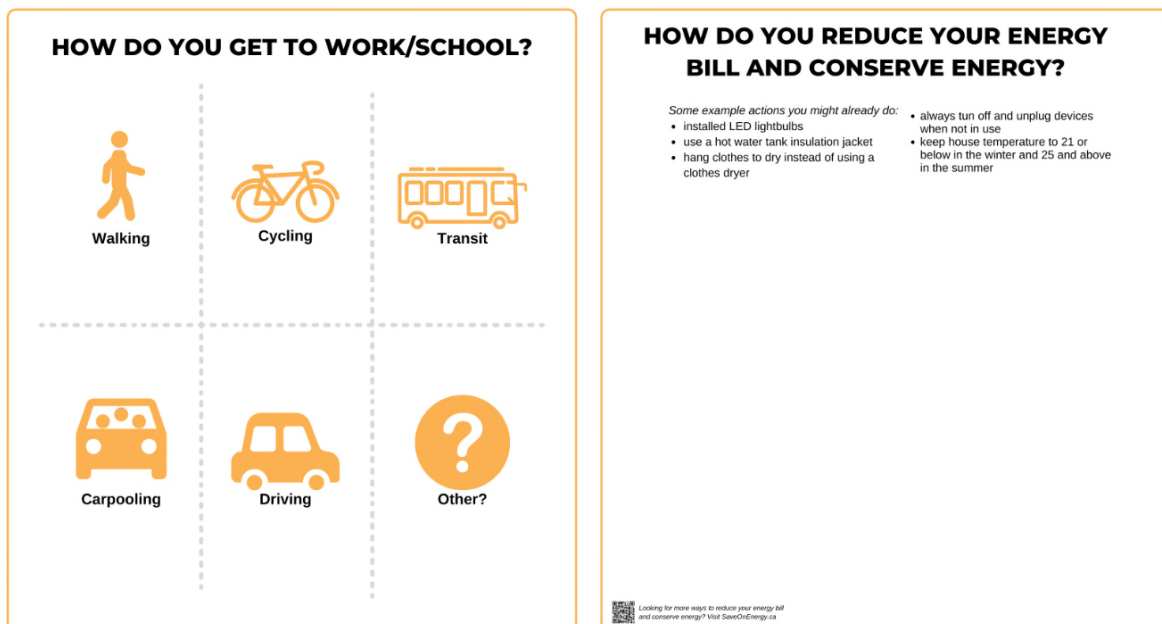


## CEERP FRAMEWORK

### BRAMPTON'S ENERGY FUTURE IS CLEAN, SUSTAINABLE, RESILIENT AND SUPPORTS THE BRAMPTON 2040 VISION



## ENERGY, EMISSIONS, AND YOU





## HOW CAN EVERYBODY CONTRIBUTE?



**Climate change is not an individual problem and does not have individual solutions. This means that the CEERP needs to be a community plan- everybody needs to contribute to reducing their impact on the planet.**

### INDUSTRY

- Design communities to facilitate future distributed energy systems, achieve sustainable transportation targets, expand tree canopy cover, and improve building energy efficiency
- Promote local employment opportunities in new communities and support retention of local employment in existing communities

### RESIDENTS - AT HOME

- Change your habits and actions to reduce your energy use and emissions (e.g. walk or take transit for some trips instead of a car)
- Retrofit your home to be more energy efficient
- Advocate to your municipal, provincial, and federal representatives to take action to reduce energy use and emissions

### RESIDENTS - AT WORK/SCHOOL

- Carpool, take transit, bike, or walk to work or school
- Set up a carpool group or walking bus to make eco-friendly transit more social
- Advocate for your workplace or school to adopt more energy-efficient and emissions-reducing practices
- Investigate energy efficiency retrofit opportunities

### MUNICIPALITIES

- Complete the Official Plan update to implement the CEERP
- Implement network improvements and undertake planning to increase transit service in Brampton and prioritize it as the preferred mode for travel in the City's Transportation Master Plan
- Develop a mechanism to value green infrastructure assets and their benefits

### BUSINESSES

- Share knowledge and best practices for energy and emissions planning
- Move towards a circular economy
- Offer more environmentally-friendly goods and services to customers
- Promote environmentally-friendly practices in the workplace, such as telecommuting

### COMMUNITY ORGANIZATIONS

- Develop partnerships, advocate for changes, and find new resources to advance sustainability goals
- Plan, coordinate, and deliver energy use and emissions reduction projects that link with CEERP priority projects
- Identify, track, and report on energy use and emissions reduction indicators

## COMMENTS

### WHAT MATTERS MOST TO YOU?

*For example...*

- building retrofit programs
- better transit
- business initiatives
- improved trail network
- mixed use communities
- green infrastructure (i.e. constructed wetlands for stormwater management)
- community gardens
- etc...

### WHAT DO YOU NEED TO REACH YOUR OWN ENERGY AND EMISSIONS GOALS?



Johnson Controls Canada L.P.  
Building Technologies & Solutions, Performance Infrastructure  
7 Paget Road, Brampton, ON, L6T 5S2



June 17<sup>th</sup>, 2020

To: Mike Hoy, Supervisor, Environmental Planning

**Re: Letter of Support regarding the Community Energy and Emissions Reduction Plan and Institute for Sustainable Brampton**

The City of Brampton has demonstrated its commitment to becoming a Green City by declaring a climate emergency, developing a Community Energy and Emissions Reduction Plan (CEERP), working in partnership with the Region of Peel and Sheridan College to establish an Institute for Sustainable Brampton (ISB) and joining the Global Covenant of Mayors for Climate and Energy.

The Johnson Controls organization has enjoyed a partnership with the City of Brampton over the past year as a member of its Community Energy and Emissions Reduction Plan Task Force. We believe that this important initiative contributes to our shared goals for reducing community energy use, reducing Greenhouse Gas emissions and retaining energy costs within the city. We congratulate the City for embarking on this city-wide program to advance Brampton's energy transition to a future of clean, sustainable, resilient energy that supports the Brampton 2040 Vision.

This letter expresses the support of Johnson Controls Canada to continue working with the City and its partners to achieve the goals of the Community Energy and Emissions Reduction Plan, including towards the establishment of the proposed Institute for Sustainable Brampton. Pending Council approval of the CEERP and ISB, we will determine resources that we can allocate towards the implementation of this plan and we will continue to explore opportunities for greater commitment, which could possibly include in-kind and/or financial support. As a leading Energy services company (ESCO), and a leader in global energy efficiency and sustainability, we hope to share some of the advanced partnering models we have made commercially viable that may contribute to the desired outcomes.

We recognize that the CEERP has value and we are excited to continue to work with the City and its partners to meet our Climate Emergency and Brampton's commitment to be a Green City.

Regards,

A handwritten signature in black ink, appearing to read 'Hassaan Khan'.

Hassaan Khan

Co-chair City of Brampton CEERP Task Force &

Area General Manager – Canada Performance Infrastructure  
Johnson Controls Canada L.P.





March 26, 2020

To: Mike Hoy, Supervisor, Environmental Planning

**Re: Letter of Support Regarding the Community Energy and Emissions Reduction Plan and Institute for Sustainable Brampton**

The City of Brampton has demonstrated its commitment to becoming a Green City by declaring a climate emergency, developing a Community Energy and Emissions Reduction Plan (CEERP), working in partnership with the Region of Peel and Sheridan College to establish an Institute for Sustainable Brampton (ISB) and joining the Global Covenant of Mayors for Climate and Energy.

Brampton Brick Limited has enjoyed a partnership with the City of Brampton over the past year as a member of its Community Energy and Emissions Reduction Plan Task Force. We believe that this important initiative contributes to our shared goals for reducing community energy use, reducing Greenhouse Gas emissions and retaining energy costs within the city. We congratulate the City for embarking on this city-wide program to advance Brampton's energy transition to a future of clean, sustainable, resilient energy that supports the Brampton 2040 Vision.

This letter expresses the support of Brampton Brick Limited to continue working with the City and its partners to achieve the goals of the Community Energy and Emissions Reduction Plan, including the establishment of the proposed Institute for Sustainable Brampton.

Pending Council approval of the CEERP and ISB, we will determine resources that we can allocate towards the implementation of this plan and we will continue to explore opportunities for greater commitment, which could possibly include in-kind and/or financial support.

We recognize that the CEERP has value and we are excited to continue to work with the City and its partners to meet our Climate Emergency and Brampton's commitment to be a Green City.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "B. Cobbledick", is written over a faint, light-colored signature line.

**BRAMPTON BRICK LIMITED**

Brad Cobbledick

Vice President of Technical Services



**April 3, 2020**

Mike Hoy  
Supervisor of Environmental Planning  
City of Brampton

Dear Mike,

**Re: Letter of partnership for the Community Energy and Emissions Reduction Plan**

On behalf of Enbridge Gas Inc. ("Enbridge Gas"), I am pleased to provide a letter of partnership for the City of Brampton's Community Energy and Emissions Reduction Plan (CEERP).

The creation of the Community Energy and Emissions Reduction Plan is a terrific milestone enabling the City of Brampton to:

- assess broader Municipal energy use and greenhouse gas emissions
- identify opportunities to conserve
- improve energy efficiency and reduce future greenhouse gas emissions
- consider the impact of future growth and options for local clean energy generation, fuel switching and storage; and
- support local economic development

Enbridge Gas has enjoyed its partnership with the City of Brampton – especially over the past year as a member of your Community Energy and Emissions Reduction Plan Task Force. With more than 20 years' experience in energy conservation we share the city's goal of reducing energy use and greenhouse gases.

This letter expresses Enbridge's support and commitment to continue to work with the City and its partners to achieve the goals of the CEERP including the establishment of the proposed Institute for Sustainable Brampton. Pending Council approval of the CEERP and ISB, we will determine what resources and/or financial support we can allocate towards the implementation of this plan.



We recognize that the CEERP has value and we are excited to collaborate with the city and its partners to reach our shared climate and energy conservation goals.

Yours truly,

*Chris Hamilton*

**Chris Hamilton**

Supervisor, Municipal Energy Solutions

**ENBRIDGE**

TEL: 416-495-6990

500 Consumers Rd., North York, Ontario, M2J 1P8

[enbridge.com](http://enbridge.com)

**Integrity. Safety. Respect.**



May 6, 2020, 2020

To: Mike Hoy, Supervisor, Environmental Planning

**Re: Letter of support regarding the Community Energy and Emissions Reduction Plan and Institute for Sustainable Brampton**

The City of Brampton has demonstrated its commitment to becoming a Green City by declaring a climate emergency, developing a Community Energy and Emissions Reduction Plan (CEERP), working in partnership with the Region of Peel and Sheridan College to establish an Institute for Sustainable Brampton (ISB) and joining the Global Covenant of Mayors for Climate and Energy.

As past Chair of the Brampton Environment Advisory Committee, past Chair of the Institute for Sustainable Brampton Task Force, Chair of BikeBrampton, member of the TRCA Regional Watershed Alliance, member of Sierra Club Peel Chapter, and a long-time Brampton resident, I have enjoyed a partnership with the City of Brampton over the past year as a member of its Community Energy and Emissions Reduction Plan Task Force. I believe that this important initiative contributes to our shared goals for reducing community energy use, reducing Greenhouse Gas emissions, and retaining energy costs within the city. I congratulate the City for embarking on this city-wide program to advance Brampton's energy transition to a future of clean, sustainable, resilient energy that supports the Brampton 2040 Vision.

This letter expresses my support and commitment to continue working with the City and its partners to achieve the goals of the Community Energy and Emissions Reduction Plan, including the establishment of the proposed Institute for Sustainable Brampton.

Pending Council approval of the CEERP and ISB, I will determine in-kind resources that I can allocate towards the implementation of this plan.

The implementation of the CEERP is a vital component of the City's plan for economic and environmental sustainability. I am excited to continue to work with the City and its partners as we tackle the declared climate emergency and fulfil Brampton's commitment to be a Green City.

Regards,

A handwritten signature in dark ink, appearing to read "David Laing". The signature is fluid and cursive, with the first name "David" being more prominent than the last name "Laing".

David Laing



**Corporate  
Services**

10 Peel Centre Dr.  
Brampton, ON  
L6T 4B9  
tel: 905-791-7800

[peelregion.ca](http://peelregion.ca)

May 6, 2020

To: Mike Hoy, Supervisor, Environmental Planning, City of Brampton

**Re: Letter of Support regarding the Community Energy and Emissions Reduction Plan  
and Institute for Sustainable Brampton**

The City of Brampton has demonstrated its commitment to becoming a Green City by declaring a climate emergency, developing a Community Energy and Emissions Reduction Plan (CEERP), working in collaboration with the Region of Peel and Sheridan College to establish a framework for an Institute for Sustainable Brampton (ISB) and joining the Global Covenant of Mayors for Climate and Energy.

The Region of Peel has been working with the City of Brampton over the past year as an invited member of its Community Energy and Emissions Reduction Plan Task Force. This important initiative contributes to our shared goals for achieving Complete Communities within the Region of Peel, including increased energy efficiency, reducing Greenhouse Gas emissions and expanding green infrastructure. The CEERP also aligns with several Regional plans, strategies and priorities, including the Region's Climate Change Master Plan, Sustainable Transportation Strategy, Regional growth management planning and policies, and 2018 – 2022 Term of Council Priority *Build Environmental Resilience*.

This letter expresses the support of the Region of Peel to continue working with the City and its community stakeholders to achieve the goals of the CEERP, including further review of how the ISB could be established. Another important role the Region will play is bringing the goals, planning efforts and phased implementation of the CEERP and future ISB to the attention of the Peel Climate Change Partnership (PCCP), which was endorsed by Regional Council in February 2020. The PCCP has a broader mandate than the proposed ISB but has synergistic emissions reduction priorities. The City of Brampton is a member of the PCCP as are Peel Region, City of Mississauga, Town of Caledon and the Conservation Authorities.

Pending City Council approval of the CEERP and ISB, Regional staff from the Office of Climate Change and Energy Management, acting as Secretariat for the PCCP, can help ensure the transfer of knowledge and innovation stemming from the ISB flows seamlessly to the PCCP, fostering opportunities and efficiencies to scale energy technologies or programs that accelerate the region-wide transformation to low carbon, resilient communities.

The Region recognizes that the CEERP has value and is pleased to continue to work with the City of Brampton and its community stakeholders to meet shared outcomes that collectively support a low carbon and resilient Community for Life.

Regards,



Christine Tu, M.Sc.  
Director, Office of Climate Change and Energy Management  
Corporate Services  
Region of Peel



**Public Works**

230 Advance Blvd.  
Brampton, ON  
L6T 4T6  
tel: 905-791-7800

[peelregion.ca](http://peelregion.ca)

March 23, 2020

To: Mike Hoy, Supervisor, Environmental Planning  
Re: **Letter of support regarding the Community Energy and Emissions Reduction Plan and Institute for Sustainable Brampton**

The City of Brampton has demonstrated its commitment to becoming a Green City by declaring a climate emergency, developing a Community Energy and Emissions Reduction Plan (CEERP), working in partnership with the Region of Peel and Sheridan College to establish an Institute for Sustainable Brampton (ISB) and joining the Global Covenant of Mayors for Climate and Energy.

The Region of Peel has enjoyed a partnership with the City of Brampton over the past year as a member of its Community Energy and Emissions Reduction Plan Task Force. We believe that this important initiative contributes to our shared goals for reducing community energy use, reducing Greenhouse Gas emissions and retaining energy costs within the city. We congratulate the City for embarking on this city-wide program to advance Brampton's energy transition to a future of clean, sustainable, resilient energy that supports the Brampton 2040 Vision.

This letter expresses the support of The Region of Peel to continue working with the City and its partners to achieve the goals of the Community Energy and Emissions Reduction Plan, including the establishment of the proposed Institute for Sustainable Brampton.

Pending Council approval of the CEERP and ISB, we will determine resources can support the implementation of this plan and we will continue to explore opportunities for greater commitment, which could possibly include in-kind and/or financial support.

We recognize that the CEERP has value and we are excited to continue to work with the City and its partners to meet our Climate Emergency and Brampton's commitment to be a Green City.

Regards,



Megan McCombe,  
Supervisor, Environmental Education  
Operations Support, Public Works  
905-791-7800, ext 3367  
[megan.mccombe@peelregion.ca](mailto:megan.mccombe@peelregion.ca)



June 25, 2020

To: Mike Hoy, Supervisor, Environmental Planning

**Re: Letter of support regarding the Community Energy and Emissions Reduction Plan and Institute for Sustainable Brampton**

The City of Brampton has demonstrated its commitment to becoming a Green City by declaring a climate emergency, developing a Community Energy and Emissions Reduction Plan (CEERP), working in partnership with the Region of Peel and Sheridan College to establish a Centre for Community Energy Transformation (CCET) and joining the Global Covenant of Mayors for Climate and Energy.

Toronto and Region Conservation Authority (through the Partners in Project Green program) has enjoyed a partnership with the City of Brampton over the past year as a member of its CEERP Task Force. We believe that this important initiative contributes to our shared goals for reducing community energy use, reducing Greenhouse Gas Emissions and retaining energy costs within the city. We congratulate Brampton for embarking on this city-wide program to advance an energy transition to a future of clean, sustainable, resilient energy that supports the Brampton 2040 Vision.

This letter expresses the support of Partners in Project Green (PPG) to continue working with the City and its partners to achieve the goals of the Community Energy and Emissions Reduction Plan, including the establishment of the proposed Centre for Community Energy Transformation.

Pending Council approval of the CEERP and CCET, we will allocate resources towards the implementation of this plan, with staff support valued at \$1,000. Additionally, we will continue to explore opportunities for greater commitment.

We recognize that the CEERP has value and we are excited to continue to work with the City and its partners to meet our Climate Emergency goals and Brampton's commitment to be a Green City.

Regards,



Michael Tolensky  
Chief Financial and Operating Officer



# Sheridan

Michael Hoy  
Supervisor, Environmental Planning  
City of Brampton

August 20, 2020

Re: Support for the Community Energy and Emissions Reduction Plan and Institute for Sustainable Brampton

Dear Michael,

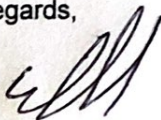
We applaud the steps City of Brampton has taken to establish itself as a global leader on climate action. Over the past few years, Brampton has declared a climate emergency, developed a Community Energy and Emissions Reduction Plan (CEERP), and joined the Global Covenant of Mayors for Climate and Energy.

We are proud of the partnership between our organizations that engendered the Community Energy Emissions Reduction Plan Task Force. Together we have articulated a vision and action plan to transform Brampton's energy-intensive structures into clean, sustainable, resilient systems that underpin the Brampton 2040 Vision. We believe this community-derived approach to shared goals for a smart energy future is crucial to ensuring the ongoing participation of the entire community as we work through the challenges of implementation.

We are proud to continue partnering with the City of Brampton and Region of Peel to establish and guide the Institute for Sustainable Brampton, which will be an important catalyst for leveraging our community's social and financial capital to undertake the major projects required for transformation at this scale.

Thank you for being such a supportive and engaged partner, and we are excited to embark on this next phase with you.

Regards,



Herbert Sinnock  
Director, Sustainability  
The Sheridan College Institute of Technology and Advanced Learning

Brampton | Mississauga | Oakville

The Sheridan College Institute of  
Technology and Advanced Learning  
1430 Trafalgar Road  
Oakville, Ontario L6H 2L1

T 905 845 9430  
[sheridancollege.ca](http://sheridancollege.ca)



**Date:** 2020-08-26

**Subject:** Centre for Community Energy Transformation (CCET)

**Secondary Title:** (formerly known as the Institute for Sustainable Brampton, ISB);

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

**Report Number:** Public Works & Engineering-2020-076

**Recommendations:**

1. That the report titled: Centre for Community Energy Transformation, (formerly known as Institute for Sustainable Brampton, ISB) - All Wards (HD.X (CCET) to the Committee of Council meeting of September 23, 2020 be received;
2. That Council endorse, in principle, the recommended organizational model and approach for developing the Centre for Community Energy Transformation
3. That staff be directed to facilitate the transition of the Community Energy and Emissions Reduction Plan Task Force into an interim, transitional Centre for Community Energy Transformation (CCET) Board, initiate the process to incorporate the CCET as a non-profit organization, develop a CCET funding plan, and finalize roles and responsibilities of potential leaders, contributors and organizations;
4. That staff report back within the next 18 months on progress of establishing the Centre for Community Energy Transformation and,
5. That staff be directed to present the Centre for Community Energy Transformation to Regional Council; and
6. That the report be circulated to the Region of Peel, City of Mississauga, Town of Caledon, and Sheridan College for information.

**Overview:**

- **Brampton 2040 Vision is a strategic plan that conceptualizes how the city will evolve until 2040. One of the catalytic actions of Vision 1: Sustainability and the Environment is the establishment of an Institute for Sustainable Brampton,**



**"a public-private facilitator for local environmental progress to position Brampton in the vanguard of suburban sustainability."**

- **In February 2019, the Institute for Sustainable Brampton Task Force presented a White Paper regarding the purpose, operation and benefits of an Institute for a Sustainable Brampton (ISB), and sought support for its establishment. Council passed resolution C054-2019 directing staff to report back at a later date about an "Institute for Sustainable Brampton".**
- **The City of Brampton, Sheridan College and Region of Peel partnered to establish the Project Team and collaborated on a full day, facilitated workshop in November 2019 which contributed to the recommendations of the report.**
- **The research/review/engagement period is complete and staff recommends the development of a Centre for Community Energy Transformation (CCET) (formerly known as Institute for Sustainable Brampton), as a not-for-profit, community based organization to help Brampton accelerate towards a low-carbon future and act as a catalyst to implement the Community Energy and Emissions Reduction Plan (CEERP).**
- **To ensure success, it is proposed that the City of Brampton take a leadership role in setting up the process to establish the CCET, followed by a process to solidify the proposed roles and responsibilities of potential leaders, contributors and organizations, including a phased withdrawal of primary support from the City.**
- **The existing CEERP Task Force is positioned to act as an Interim Board to assist with getting the CCET up and running. The Interim Board will transition to a more permanent, sustainable, multi-sectoral Board.**
- **The CCET will help Brampton accelerate its response to the climate emergency by advancing the Community Energy and Emissions Reduction Plan (CEERP), spur creation of local jobs, and provide a centre for leadership, learning and collective experience.**
- **While the CCET is starting out, there is a need for transitional funding for up to five years, after which time it is expected that the CCET will be self-sufficient.**
- **Pending Council approval of the recommendations in this report, the Project Team will undertake the next steps for implementation.**

### **Background:**

In 2014, Council approved "Brampton Grow Green" as the City's Environmental Master Plan to guide corporate and civic decision-making that will ensure Brampton develops as a sustainable, healthy and livable community. The report recommended the "establishment of a Sustainability Hub/Environmental Learning Centre to champion the



environment to Brampton residents, business and stakeholders and to promote, coordinate, and monitor Community Actions to achieve improvements to the City's environmental performance".

In 2018, Brampton Council endorsed "Brampton 2040 Vision: Living the Mosaic". A key theme in the document was the creation of public non-profit institutions to take on the role of change agents. The first action from Vision 1: Sustainability and the Environment, states:

"Action 1-1, Institute for Sustainable Brampton: Found a public-private facilitator for local environmental progress to position Brampton in the vanguard of suburban sustainability".

In 2018, members of the Grow Green Network created a task force to look at options for creating the Institute for Sustainable Brampton (ISB). In February 2019, the Institute for Sustainable Brampton Task Force presented a White Paper outlining the recommended purpose, operation and benefits of an ISB, and sought support for its establishment. The White Paper echoed the Brampton 2040 Vision by stating support for the Institute for Sustainable Brampton to operate at arms' length from the City of Brampton.

As a result of this delegation, Council passed resolution C054-2019 directing staff to report back at a later date about establishing an "Institute for Sustainable Brampton".

### **Process to Establish an ISB**

The multi-phased process to establish the Institute for Sustainable Brampton involved:

- Establishing a multidisciplinary Project Team to guide the process, including members from the City of Brampton, Region of Peel and Sheridan College.
- Conducting research and analysis of other communities, organizations, structures, and models to advance community energy planning and emissions reductions.
- Hosting a full day, facilitated multi-sectoral workshop in November 2019 attended by 50 community stakeholders.
- Sharing ideas through a workshop report:  
(<https://www.brampton.ca/EN/residents/GrowGreen/Pages/Institute-for-Sustainable-Brampton.aspx>) and project webpage.
- Meetings with the Community Energy and Emissions Reduction Plan (CEERP) Task Force.
- Hosting pop-up open houses (with the CEERP) in March 2020 to expand public awareness of the City's work on community energy planning.
- Promoting an online, public survey to help clarify the name for the entity.

### **November 2019 Workshop**

Some key themes that emerged from the workshop are:

- support for the concept of an organization to advance transformative energy and emissions reductions in Brampton;



- support for an independent, arm's length (from the City of Brampton) organization;
- consensus around a focus on energy, and general acceptance for the entity to implement select actions from Brampton's forthcoming Community Energy and Emissions Reductions Plan (CEERP);
- consensus that the Institute will need long-term sustained funding; and,
- a desire to rethink the name as the word "Institute" was considered to be too academic based.

Through the process of developing a framework for the ISB, it became apparent that there was a natural symmetry with the City's ongoing work developing its CEERP, which recommends an energy transition to meet the City's climate change targets. This transition will require a citywide effort that includes residents, businesses, institutions, community organizations and the City. For the full workshop report, see Appendix 1.

### **Current Situation:**

#### **Community Energy and Emissions Reduction Plan (CEERP)**

The Community Energy and Emission Reduction Plan (CEERP), developed in partnership with Sheridan College, supports Council's climate emergency declaration by integrating efforts of the municipality, local utilities and community stakeholders and by creating a roadmap that will improve energy efficiency, reduce greenhouse gas emissions, ensure energy security, create economic advantage, and increase resilience to climate change.

The CEERP establishes goals based on the assessment of local energy and emissions data (where Brampton is today) relative to global best practice (where Brampton could be) and includes:

| Energy  | Emissions   | Economy  |
|---|---|--|
| <ul style="list-style-type: none"> <li>• Reduce community-wide energy end use by at least 50% from 2016 levels by 2050</li> </ul> | <ul style="list-style-type: none"> <li>• Reduce community-wide emissions by 50% in 2041 and establish a pathway to reduce emissions by at least 80% in 2050 to meet or exceed federal and provincial targets</li> </ul> | <ul style="list-style-type: none"> <li>• Retain at least \$26 billion in cumulative energy costs to the community by 2041</li> </ul> |

The CEERP Task Force approved six priority projects for the next five years, including the establishment of a community organization to lead select priority projects:

1. Ensure the City of Brampton policies and programs align with supporting the CEERP Objectives and Targets.
2. Establish a system to deliver standardized retrofits to Brampton homeowners.
3. Update the Transportation and Transit Master Plan (TTMP) to reflect complete streets and the integrated nature of mobility and built form.



4. Integrate District Energy Systems in appropriate locations within the City of Brampton
5. Develop Integrated Energy Master Plans for public facilities and private development.
6. Establish a Community Organization to lead the development and implementation of select priority projects.

By establishing the Centre for Community Energy Transformation, this Community Organization can help advance the CEERP and assist Brampton to:

- Respond to the community's recently declared climate emergency
- Spur local investment and create local jobs
- Accelerate the Community Energy and Emissions Reduction Plan
- Align with community needs and ongoing work
- Provide a centre for leadership, learning and collective experience

### **Focus on Energy: Centre for Community Energy Transformation**

At the November 2019 workshop, there was consensus among participants that the ISB (now CCET) needed to be an arms-length organization (from the City of Brampton) that is focused on energy planning, and for it to implement select actions emerging from the CEERP.

Therefore, based on the change in focus from general sustainability to energy, and to reflect the action-oriented nature of the organization, the Project Team recommended re-naming the ISB to the Centre for Community Energy Transformation (CCET).

The following CCET framework was developed:

|                |   |
|----------------|---|
| <b>Vision</b>  | A sustainable energy future   |
| <b>Mission</b> | To lead an inclusive suburban energy transformation   |
| <b>Mandate</b> | The Centre for Community Energy Transformation (CCET) will be an action-oriented organization focused on convening partners to implement catalytic priorities from Brampton's Community Energy and Emissions Reductions Plan (CEERP)  |
| <b>Values</b>  | <p>The work will:</p> <ul style="list-style-type: none"> <li>• generate direct, local economic benefits</li> <li>• be informed by science</li> <li>• be replicable by other communities</li> <li>• have quantifiable, documented results</li> <li>• be collaborative with community partners to amplify our collective impact</li> <li>• ensure social justice and inclusivity</li> </ul> |



|  |   |
|--|---|
|  | <ul style="list-style-type: none"> <li>• demonstrate the concepts of circular economy and one planet living</li> <li>• provide educational benefits to our community</li> </ul> |
|--|---|

The full consultant report, Establishing a Centre for Community Energy Transformation, is attached as Appendix 2.

## **Community Benefits of the CCET**

Based on recommendations in the CEERP action plan and gaps in the City's resources, the CCET is proposed to focus on implementing the community-based actions in a phased manner, specifically projects related to:

- Improving home energy efficiency in existing homes
- Improving building energy efficiency in existing businesses
- Establishing district energy in urban and town centres
- Identifying potential low carbon energy sources
- Improving industrial energy efficiency
- Community outreach related to community energy planning

## **CCET Core Tasks**

There are four core tasks associated with the CCET that relate to the recommendations of the City's CEERP:

1. Program Planning and Delivery - Plan, coordinate and deliver select 2020-2025 priority projects with partners.
2. Community Engagement and Communications - Build a network of cross-sector stakeholders and partners (business, non-profits, government, institutions, utilities, etc.).
3. Transparency and Accountability - Identify key performance metrics related to management and administration of priority projects.
4. Management - Anticipate and plan for future resourcing on an as-needed basis

## **Recommended Organizational Model: Non-Profit Organization**

One of the key themes emerging from the November 2019 workshop was the desire for the CCET be an independent, arm's length (from the City of Brampton) organization.

The City's Project Team reviewed a variety of possible structure and organizational models for the CCET, including: City department, City department with advisory panel, municipal services corporation, independent non-profit corporation, and independent charitable corporation. These options were evaluated against the following set of criteria:

- Mission and mandate delivery
- Governance



- Relevance to the community
- Ability to generate revenue
- Cost
- Operations

After careful analysis, the project team is recommending a non-profit organizational model for the CCET. This model provides the greatest capacity to leverage funding for the organization from other government sources and the private sector, reduces risk to the municipality, resonates as a community rather than government organization, and offers the flexibility to accommodate potential future download of additional programs and services from the City. However, by adopting this model, it is incumbent upon the Brampton community, including City partners, to step-up and take a leadership role in establishing and operating the CCET.

A relevant example of this type of non-profit organization is Our Energy Guelph (OEG), a not-for-profit community organization that Guelph City Council established as the implementer of Guelph's Community Energy Initiative.

### **Funding**

To sustain the CCET and its role in supporting Brampton's CEERP, there is a need to provide seed funding for the Centre's annual operating budget during its start-up and transition to an independent non-profit organization. As it matures, the CCET will be in a position to generate its own funding from other levels of governments, businesses, partners and residents. To date, no partner, organization, business or institution has offered any financial support towards establishing the CCET.

In addition to seed funding, the City and its partners will need to provide in-kind services during the start-up phase to support basic administration, including office space, supplies, computers and internet access, etc. Project partners, Region of Peel and Sheridan have committed to continue working with the City on establishing the CCET as have many others (local business leaders, institutions, community organizations, utilities, Conservation Authorities and individuals), who were part of the CEERP Task Force. (See Appendix 3 for their Letters of Support).

In essence, the CCET will be a partnership platform that will harness the knowledge, expertise, and other resources of a broad range of organizations in Brampton to ensure the funds awarded, the investments made, and the research completed will contribute significantly to local resilience and economic strength while reducing energy usage and emissions. There is a lot of community support for establishing the CCET, but there has yet to be any financial resources offered for its establishment.

### **Moving Forward: Establishing CCET**

Establishing the CCET will evolve over the short, medium, and long-term. If endorsed by Council, it is estimated that it will take 18 months to set up a functioning CCET. A



key aspect of successfully establishing the CCET will be obtaining funding resources for the organization's operation.

Over the next 18 months, the Project Team will work with members of the CEERP Task Force and the Region and Sheridan to form an interim CCET Board. This interim Board will work on completing a number of administrative tasks to establish a functioning CCET, including:

- Incorporating the CCET as a non-profit organization
- Finalize roles and responsibilities of potential leaders, contributors and organizations
- Compiling a list of desired financial and in-kind contributions from community organizations, businesses and individuals
- Develop a CCET Funding Plan
- Finalizing a CCET Terms of Reference and By-laws
- Hiring a CCET Executive Director
- Finalizing a strategic plan and developing an operational plan
- Initiating CEERP Community Priority Projects
- Transitioning to a permanent, multi-sectoral CCET Board

Members of the existing CEERP Task Force are uniquely positioned to act as an Interim Board to assist with getting the CCET established, as the CEERP Task Force members have background on the CEERP priority projects, development of the Plan's targets and are representative of the wider Brampton community with representatives from business, institutions, utilities and stakeholder groups.

Once established, the CCET will be in a position to initiate work on CEERP Community Priority Projects, including:

- Develop and implement community-based engagement program with targeted outreach, by priority project
- Development and implement Home Retrofit Program
- Develop a District Energy Strategy
- Develop a Business and Industry Efficiency Strategy

### **Next Steps**

Pending Council approval of the recommendations in this report, the Project Team will undertake these immediate steps:

- Initiate the process to incorporate the CCET as a non-profit organization
- Facilitate the transition of the CEERP Task Force into an interim CCET Board
- Initiate the development of Board materials (bylaws, governance manual, etc.)
- Develop funding and resource requirements for CCET
- Seek community funding commitments for the CCET's operation
- Report back to Council on the progress of establishing the CCET



## **Corporate Implications:**

### Financial Implications:

While the CCET is starting out, there is a need for transitional funding for up to five years; after which time it is expected that the CCET will be self-sufficient. The seed funding will help:

- Provide stability to a growing organization during a turbulent and uncertain time
- Allow the Board to recruit a top-quality Executive Director
- Signal support to community partners
- Provide a minimum base level of support for annual operations

To cover these costs, the consultant recommends a funding commitment for five years, with \$300,000 in the first year and a commitment of \$200,000 for the next four years, for a total of \$1.1 million. This is in alignment with similar budgets which have been approved for comparable work in other municipalities. At the end of the five-year period, the CCET is expected to be self-sustaining. See the full report (Establishing a Centre for Community Energy Transformation) in Appendix 2 for a cost breakdown.

The Project Team will flush out funding requirements from partners and other funding sources and work on developing a funding model while the board is developed.

## **Legal Implications**

Legal Services will provide legal advice on, and approve as to form, any agreements signed on behalf of the City.

## **Brampton 2040 Vision:**

The CCET establishes an aligned strategy that supports Brampton 2040 Vision - Living the Mosaic and delivers on establishing an Institute for Sustainable Brampton.

### Other Implications:

#### **Term of Council Priorities:**

The Community Energy and Emissions Reduction Plan contributes to the “Brampton is a Green City” Term of Council priority, particularly 3.4 “Lead Environmental Innovation” by developing a Community Energy and Emissions Reduction Plan to improve energy efficiency and increase resilience to climate change.

The CCET establishes an aligned strategy that supports this Term of Council Priority.

#### **Economic Development Implications:**

The CEERP will help identify local energy investments that provide the greatest opportunity for Brampton’s local economy and advance the Community Energy and Emissions Reduction Plan.



**Conclusion:**

Establishing the CCET presents an opportunity for the City of Brampton to show its progressive leadership on energy challenges - to its own community, and as an example to others, especially suburban communities. As more time passes without action, we potentially move farther away from the intended path outlined in our CEERP, which makes it more work and more expensive to catch up.

However, the process to envision the Centre for Community Energy Transformation in Brampton was completed as COVID-19 changed Brampton's, and the world's, operating landscape. The CCET represents the sort of entity and process that is needed to assist with Brampton's economic recovery, while aligning with low carbon development.

The CCET represents a clear pathway to a low carbon, resilient future in Brampton that has been co-developed with the community, aligns with signals from the federal government about post-COVID funding and represents a leadership opportunity for Brampton.

Authored by:

Reviewed by:

---

Pam Cooper, Environmental Planner  
and Michael Hoy, Supervisor,  
Environmental Planning

---

Michael Won, Director, Environment and  
Development Engineering

Approved by:

Submitted by:

---

Jasbir Raina, Commissioner, Public  
Works & Engineering

---

David Barrick, Chief Administrative Officer

**Attachments:**

Appendix 1: What We Heard (November 2019 workshop report)

Appendix 2: Establishing a Centre for Community Energy Transformation (May 2020)

Appendix 3: Letters of Support



# WHAT WE HEARD



## Stakeholder Workshop for the proposed Institute for Sustainable Brampton

November 15, 2019



# TABLE OF CONTENTS

|                                |    |
|--------------------------------|----|
| BACKGROUND.....                | 2  |
| ABOUT THE WORKSHOP .....       | 3  |
| THEMES .....                   | 4  |
| VISUAL SUMMARY OF THEMES ..... | 7  |
| FOUNDATIONAL ELEMENTS.....     | 11 |
| FEEDBACK .....                 | 12 |
| NEXT STEPS.....                | 13 |
| ATTENDEES .....                | 14 |
| RESOURCES.....                 | 16 |

Hosted by:



Sheridan

Facilitated by:



Page 583 of 669



# BACKGROUND

In 2018, the City of Brampton adopted its ambitious, long-term Vision 2040 called Living the Mosaic. One of the catalytic actions included in the Vision is the establishment of an **Institute for Sustainable Brampton**.

*Take this idea and run with it – test it, transform it, make it happen...*

## Action #1-1

### Institute for Sustainable Brampton

Found a public-private facilitator for local environmental progress to position Brampton in the vanguard of suburban sustainability.

With the recent Brampton Grow Green environmental master plan in place, along with its assessment tools, City Hall leadership has set the direction. But shifting the trajectory of the whole city must be a massive, community-wide effort. Civic activity will need other drivers to support it – drivers that will operate in situations not particularly accessible to the City, like corporate boardrooms and people's private homes. The Institute for Sustainable Brampton will be an arm-length over-arching facilitator for everyone – partnering, advocating and finding new resources. It will marshal the financial and social capital to secure the practical capacity for sustainability. It will teach, program, market and model sustainable practices. It will exemplify the truth that the future of the environment is in the hands of every single citizen – and will only be secure when every citizen acts at home and in business.

The prime mandate of the Institute for Sustainable Brampton over the next 25 years is to achieve 'one-planet' living. This is a comprehensive standard in which people enjoy happy, healthy, vibrant living within their fair share of the earth's resources, leaving space for wildlife and wilderness. It covers the technical, business, and lifestyle aspects of carbon neutrality, zero waste, circular economy solutions, clean air, water and transportation, localized food production, and sustainable energy solutions. To make this real

green infrastructure and operations. This will show common cause and partnership between City Hall and the Institute for Sustainable Brampton, and motivate others to put their own time, energy and resources into the Brampton green movement.

To be catalytic, the following will be essential in realizing this new institution.

- Task Force of Brampton leaders to found the Institute: Influential environmental, corporate and civic leaders in Brampton must come together, assisted by the existing civic administration and the Brampton Environmental Advisory Committee, to found the Institute for Sustainable Brampton.

*(An excerpt from Vision 2040)*

Since that time, the community has supported the recommendation, and a number of community members gathered to write a **White Paper** supporting an Institute: <https://bikebrampton.ca/wp-content/uploads/2019/01/Institute-for-a-Sustainable-Brampton-White-paper-Public-Engagement-Edition-V1a.pdf>

Earlier this year, Brampton City Council passed a **resolution** for staff to report back to Council at a later date about the Institute in Brampton.

In addition, the City of Brampton and the Region of Peel have both **declared climate emergencies**.



In Brampton, it is meant to help with “aiming, framing and deepening the City of Brampton’s commitment to the protection of our ecosystems, and our community from climate change.” Council and the community recognize the urgent need for an energy transformation to achieve “a climate change target of 80 percent greenhouse gas reduction by 2050.”

To ensure the Institute becomes a reality, a Project Team was formed with representatives from the City of Brampton, the Region of Peel, and Sheridan College. On November 15, 2019, the Project Team hosted a **Stakeholder Workshop**, by invitation, for community partners to review some of the emerging, foundational ideas for the Institute.

This report contains a summary of what was heard at the workshop. *Questions and comments about the report, workshop and Institute are welcome:* [michael.hoy@brampton.ca](mailto:michael.hoy@brampton.ca)

Hosted by:



Sheridan

Facilitated by:





# ABOUT THE WORKSHOP

The workshop was held on Friday, November 15, 2019 from 9 a.m. to 2 p.m. at Alderlea in Brampton.

The **objectives** of the workshop were to:

- To share the need for an Institute in Brampton and the desired vision, mission, values, and mandate for the organization.
- To share ideas to ensure the Institute is a success, and to align its work with ongoing work and projects in our community.

40 **participants** attended, including a wide range of stakeholders from government, academia, not-for-profit, utility, and business sectors. A list of attendees is included on pages 13 & 14.

The **agenda** for the workshop included in on page 15.



*Presenter Divya Arora,  
ClimateChangeHERs*



*Ian Klesmer,  
The Atmospheric Fund*

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Sheridan

Facilitated by:



Page 585 of 669



# THEMES

The following key themes emerged from the Stakeholder Workshop

## Support

There was a general sentiment of support for the concept of an entity to advance transformative energy and emissions reductions in Brampton.

There is strong political will with a committed Mayor and Council.

## Receptivity

Participants were receptive to the foundational elements (on page 11) – vision, mission and values – as presented by the Project Team.

## Independence

Participants were supportive of an independent, arm's length (from the City of Brampton) entity.

## Urgency

There was a sense of urgency and a desire to “get moving” and continue the momentum.

## Action and Impact

Participants expressed a desire for the Institute to have a clear action- and implementation-orientation



*We know the solutions. We know it's possible. Let's get on with it.*

In addition, the concept of measurement was raised: *How will impact be measured? Will there be new KPIs such as “future harms reduction”?*

## Foundation of Ongoing Work

Participants expressed that Brampton is not starting from scratch. The process builds on two years of momentum and a very strong Vision 2040 project, as well as recently declared climate emergencies and ongoing, foundational work in the community by businesses and other organizations.

## Focused on Energy

There was consensus around a focus on energy, and general acceptance of the possibility for the entity to implement the actions from Brampton's forthcoming Community Energy and Emissions Reductions Plan (CEERP).

There was a recognition that the incredibly rapid pace and scale of building retrofits (5000 per year) will be one of the most challenging parts of the CEERP to implement.

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Page 586 of 669





*Could the ISB consider this as their singular focus? It would provide access to contractors, energy auditors, rebates and incentives. It would need to support building capacity in the skilled trades to achieve this scale of implementation.*

## Name Change

Participants expressed a desire to rethink the name:



*I think the “Institute” concept needs re-evaluation. It denotes academic-specific expertise. I think a broader definition like “Council” is better and less elitist.*

## Partnership

There are committed community-based partners to support the Institute and see it succeed (Sheridan and others).

## Openness to Governance Models

Future membership, leadership, staffing, funding, partners, and governance structures for the Institute are all still open questions. Participants were receptive to responsive governance models that aligned with the overall intent of the entity: “Form meets function.”

There were also suggestions to build on existing, local structures:



*Take a look at the thoughts and structures as part of the Energy Task Force meetings for the CEERP and include the idea of the Task Force migrating to ISB oversight.*

Other suggestions included replicating and/or scaling-up the successful elements of other community energy projects and entities across Canada (REEP, Our Energy Guelph, Burlington Green, TAF, Sustainable Waterloo, etc.).

In terms of governance and oversight, suggestions included having a Board with large and small business, NGOs, City, and Region at the table.

## Opportunities for Creative Funding Models

Participants were clear that the Institute will need long-term sustained funding.

Models that were raised included: shared industry and government funding, membership-based funding (with members having exclusive access to resources and expertise and/or tiered membership fees), municipal endowment/investment, fee for service models for energy retrofits and other services, Community Bonds as an investments stream (as in Scandinavia) and/or a model akin to a community interest company in the UK, which is owned by the community (a dividend cap is in place so if profits exceed a certain value, then they would be reinvested).

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“City funds ought to be used for staff and expenses, etc. but the Executive Director should be paid by other contributions so that they are not seeking City funds in future years to sustain their employment.

## Leadership

The Institute is seen as opportunity for Brampton to show progressive leadership on energy challenges – to its own community, and as an example to others, especially suburban communities.

“How can we make people care about their City, so they adopt the proposals from an energy transition program?

## Academia

There were varied feelings about the desired relationship with academic institutions (some felt stronger about a close connection to research), but participants felt that the ISB’s work would need to be evidence-based.

## Engagement

A pre-requisite for long-term success will be to engage the public and to contribute to creating a place-based identity for Brampton.

“Work must be done on scoping the ISB’s work to engage the public community, placemaking. People need to see ISB is about their city and culture and it can create a sense of belonging.



Anand Balram,  
City of Brampton

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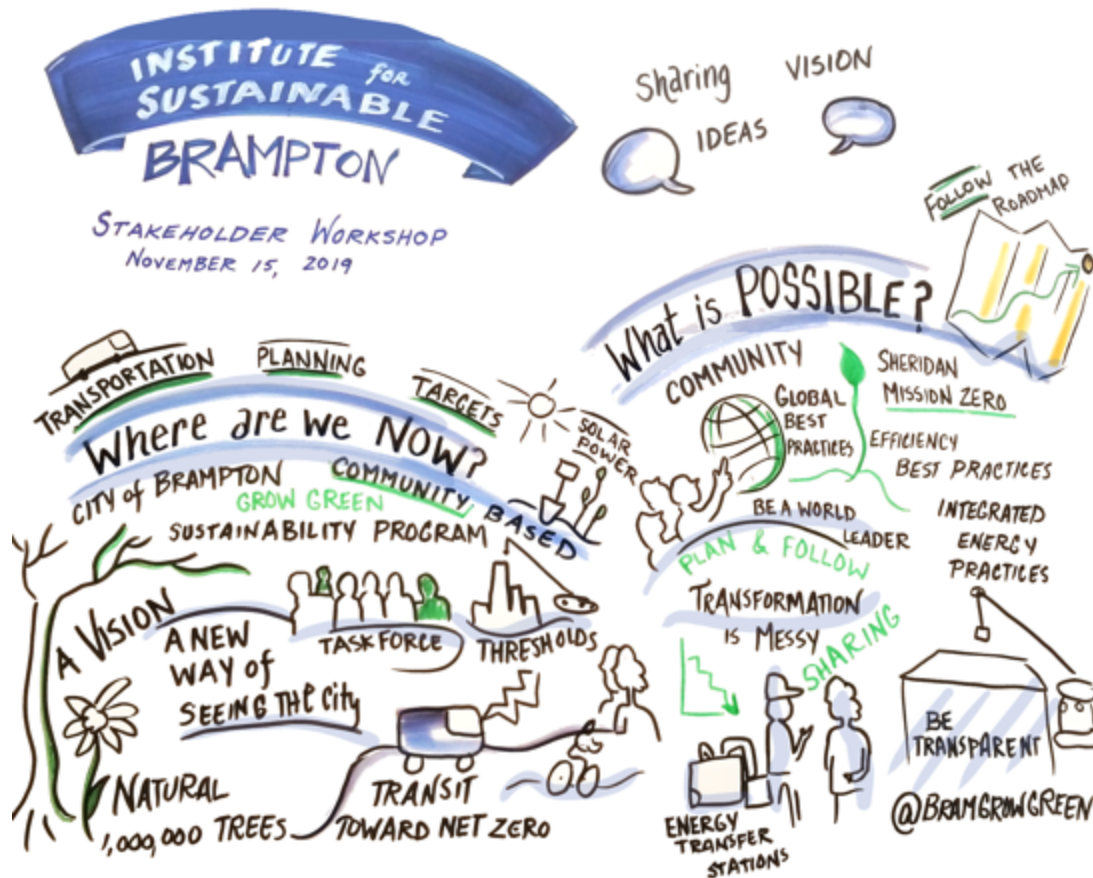
Page 588 of 669



# VISUAL SUMMARY OF THEMES

Patricia Kambitsch, a graphic facilitator, captured many of the outcomes and themes of the day in the following sketches.

*A summary of the opening, contextual presentations*



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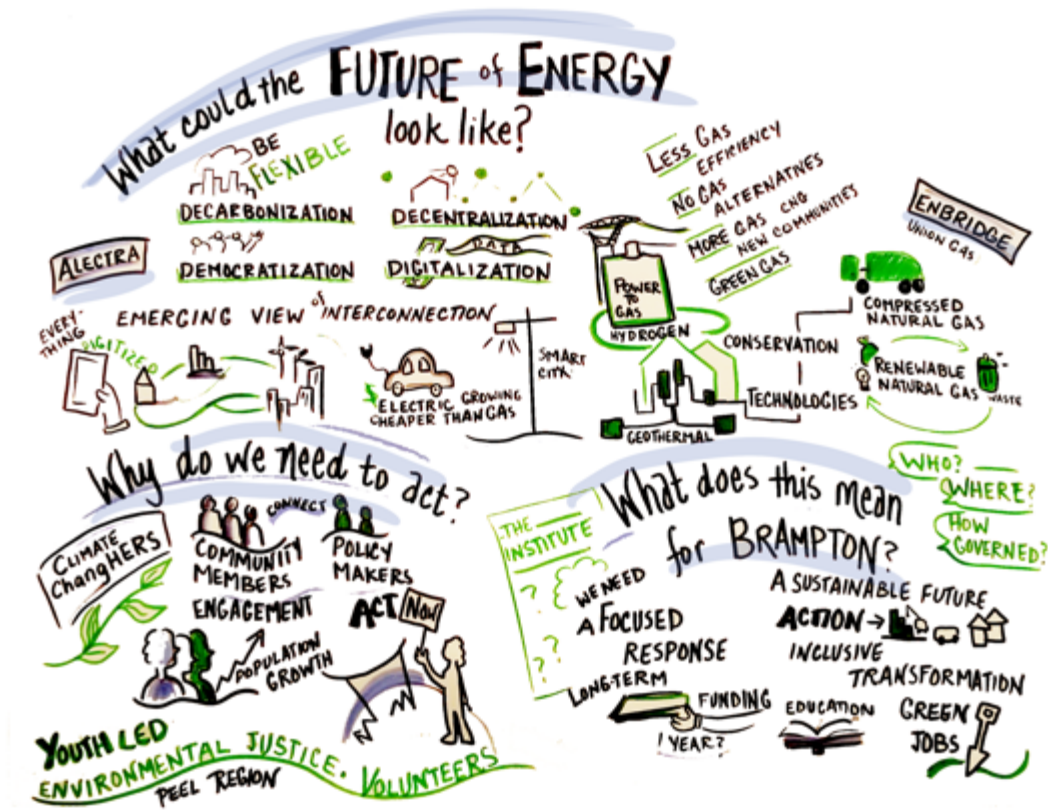
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Page 589 of 669



A summary of the opening, contextual presentations



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Region of Peel  
Working for you

Sheridan

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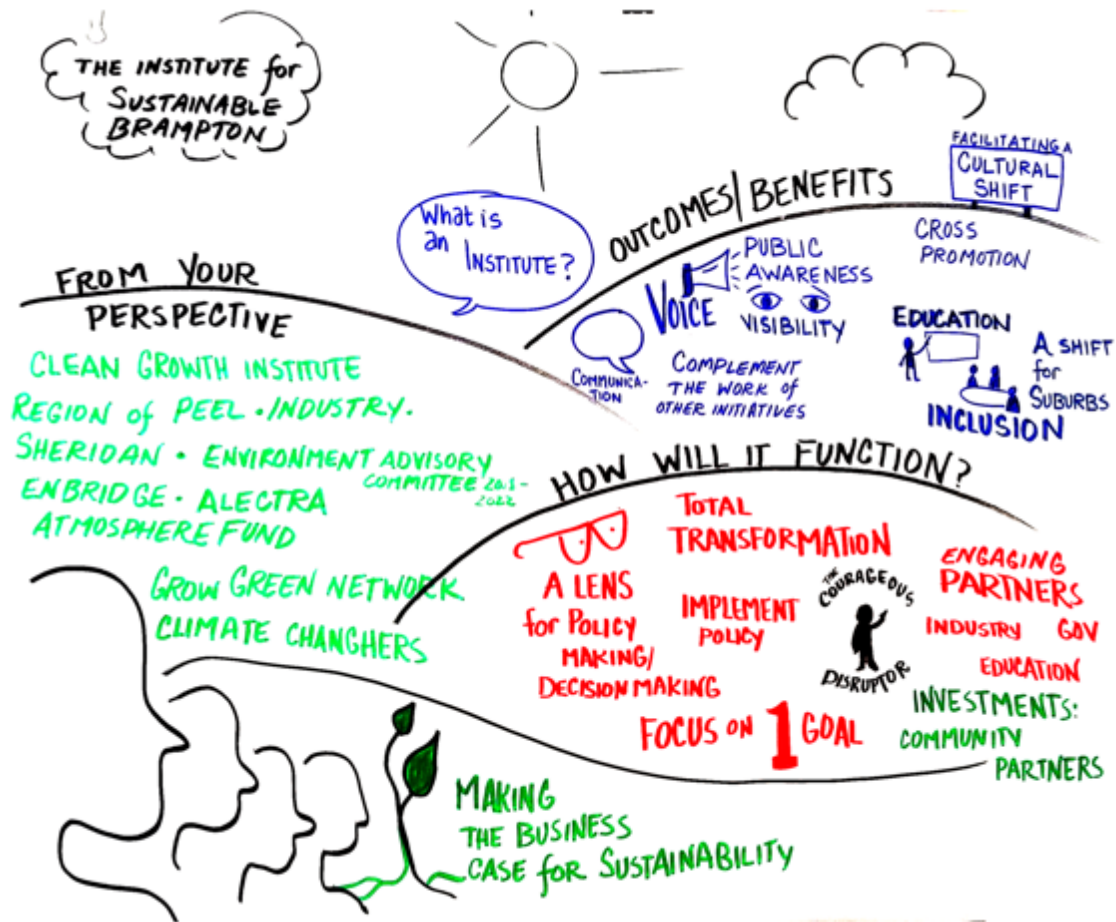
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Page 590 of 669



A recap of an individual visioning exercise



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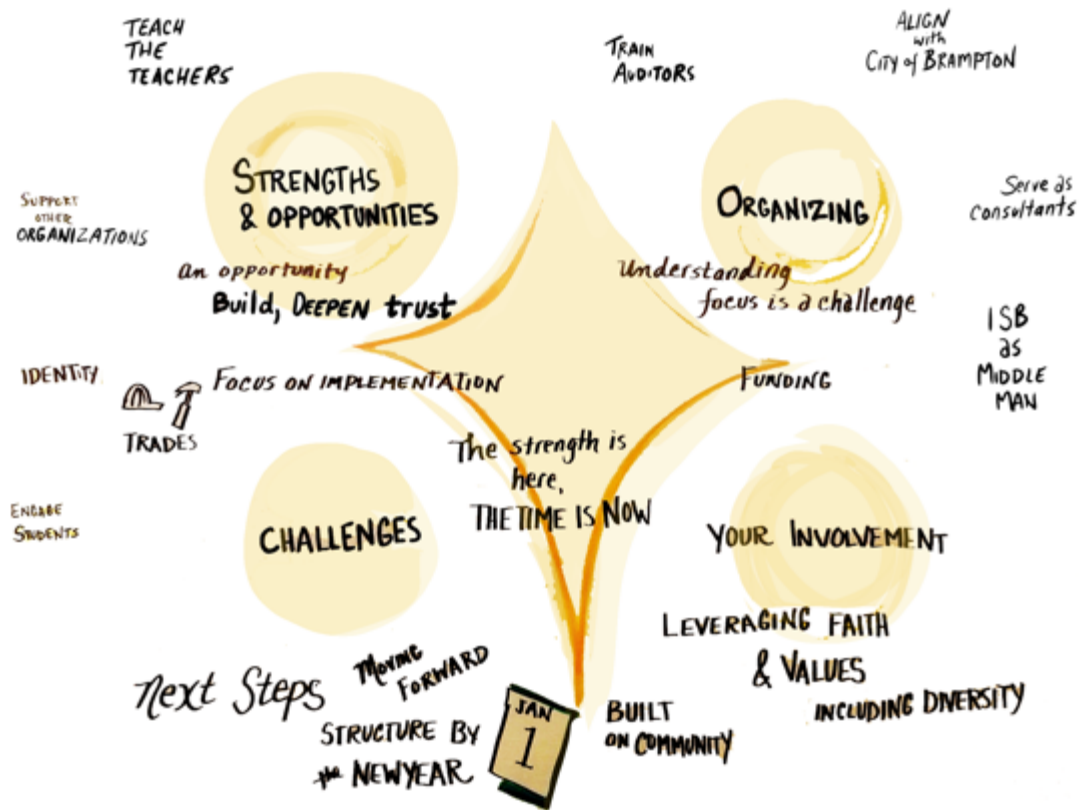


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Page 591 of 669



Recap of small group discussions about strengths, opportunities, challenges, governance and partnerships.



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Page 592 of 669



# FOUNDATIONAL ELEMENTS

The draft, foundational elements for the Institute for Sustainable Brampton are:

## VISION

A sustainable energy future

## MISSION

To lead an inclusive suburban energy transformation

## MANDATE

The ISB will be an action-oriented organization focused on convening partners to implement catalytic priorities from Brampton's Community Energy and Emissions Reductions Plan (CEERP)

## VALUES

The work we do will:

- Be informed by science
- Be replicable by other communities
- Have quantifiable, documented results
- Be collaborative with community partners to amplify our collective impact
- Ensure social justice and inclusivity
- Generate direct, local economic benefits
- Demonstrate the concepts of circular economy and one planet living
- Provide educational benefits to our community



*Panel discussion with presenters: Michael Hoy, Fiona Oliver-Glasford, Divya Arora, Herbert Sinnock, and Dan Pastoric.*

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Page 593 of 669



# FEEDBACK

Participant feedback from evaluation forms was positive, with an overall rating of **4.6/5** (1 = strongly disagree and 5 = strongly agree)



Some **additional feedback** is provided below:



A massive challenge ahead! Keep the lines of communication open.

Very positive, very well organized, could provide the avenue for additional engagement.



More information on format and objective prior to event would have been helpful.



This was a strong discussion. Thanks!

Missing a few stakeholders such as road engineering staff.

Get a more diverse audience (Indigenous communities, visible minorities, etc. are important).

Good energy in the room. Overall, a great day!



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# NEXT STEPS

- Project Team to meet to consider input received at the Stakeholder Workshop and future input
- Development of governance models
- Online questionnaire to seek additional feedback
- Continue to seek opportunities for alignment, partnership and funding
  - Please feel free to connect directly with the Project Team about alignment opportunities with your ongoing or planned work, shared funding models, and/or other ideas to advance the Institute (and your ongoing work!) will be helpful.
- Present a preferred model to Brampton City Council in early 2020, alongside the Community Energy and Emissions Reduction Plan (CEERP)
- Establish the Institute for Sustainable Brampton in 2020

## WE ARE ON A JOURNEY, TOGETHER...

Please feel free to direct all questions and comments the Project Team Chair, Michael Hoy, at the City of Brampton: [michael.hoy@brampton.ca](mailto:michael.hoy@brampton.ca) or 905.874.2608



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Page 595 of 669



# ATTENDEES

Attendees included the following individuals, listed in alphabetical order by first name.  
Please report any errors or omissions to [michael.hoy@brampton.ca](mailto:michael.hoy@brampton.ca)

## Participants

|                        |  |
|------------------------|--|
| Akeem Gardner          | Environment Advisory Committee 2018-2022         |
| Anand Balram           | City of Brampton                                 |
| Aneta Brynkus          | Climate ChangeHer                                |
| Anna Pautler           | Sheridan College                                 |
| Antonietta Minichillo* | City of Brampton                                 |
| Benjamin Ratcliffe     | Peel District School Board                       |
| Charmaine Whilliams    | City Councillor, Wards 7 and 8, Brampton         |
| Christine Tu*          | Region of Peel                                   |
| Clare Barnett          | City of Brampton                                 |
| Dan Pastoric           | Alectra Utilities                                |
| Dave Clark             | Sheridan   |
| Dave Kapil             | New Brampton                                     |
| David Laing            | Brampton Environmental Advisory Committee        |
| Divya Arora            | Climate ChangeHer                                |
| Doug Whillans          | City Councillor, Wards 2 and 6, City of Brampton |
| Eddie Camilleri        | William Osler Health Centre                      |
| Erika Lontoc           | Enbridge Gas Distribution                        |
| Fiona Oliver-Glasford  | Enbridge Gas Distribution                        |
| Gavin Bailey           | BILD, Peel Chapter                               |
| Hassaan Khan           | Johnson Controls Canada L.P.                     |
| Herbert Sinnock*       | Sheridan College                                 |
| Ian Klesmer            | The Atmospheric Fund                             |
| Ishu Singh             | Innstal  |
| Jeff Bowman            | City Councillor, Wards 3 & 4, City of Brampton   |
| Jennifer Jacuczek      | BILD   |
| Kieran Alkerton        | Environmental Defense                            |
| Laura Severinac        | Grow Green Network, Environmental Defence        |
| Lauren Mulkerns        | Brampton Brick                                   |
| Margaret Knowles       | Morguard Investments Limited                     |
| Mark Wilson            | Enbridge Gas Inc                                 |
| Michael Hoy*           | City of Brampton                                 |

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|                     |  |
|---------------------|--|
| Nathaniel Magder    | TRCA   |
| Noel Cubacub        | City of Brampton                                 |
| Orjan Carlson       | Urban Ecosystems                                 |
| Pamela Cooper*      | City of Brampton                                 |
| Peter Garforth      | Garforth International                           |
| Rosemary Keenan     | Grow Green Network, Sierra Club of Canada - Peel |
| Shahinaz Eshesh     | City of Brampton                                 |
| Stavroula Kassaris* | City of Brampton                                 |
| Trevor Boston       | Brampton Environmental Advisory Committee        |
| Zoe Milligan*       | City of Brampton                                 |

\*Indicates a member of the Project Team

## Facilitators

|                    |                        |
|--------------------|------------------------|
| Amanda Kennedy     | Kennedy Consulting     |
| Jeffrey Wilson     | University of Waterloo |
| Patricia Kambitsch | Redesign Network       |
| Peter Jones        | Redesign Network       |
| Sarah Burch        | University of Waterloo |

## Presenters

- Where are we now? (Michael Hoy, City of Brampton)
- What is possible? (Herbert Sinnock, Sheridan College)
- What could the future look like? (Dan Pastoric, Alectra)
- What could the future look like? (Fiona Oliver-Glasford, Enbridge)
- Why do we need to act? (Divya Arora, Climate ChangeHERs)



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Facilitated by:





# RESOURCES

## Copy of the Workshop Agenda

| TIME       | ITEM   |
|------------|--|
| 9:00 a.m.  | <b>1. Welcome and Introductions</b>  |
| 9:15 a.m.  | <b>2. Overview Presentations</b> <ul style="list-style-type: none"> <li>• Where are we now? (City of Brampton)</li> <li>• What is possible? (Sheridan College)</li> <li>• What could the future look like? (Alectra)</li> <li>• What could the future look like? (Enbridge)</li> <li>• Why do we need to act? (Climate ChangeHERs)</li> <li>• What does this mean for Brampton?</li> </ul> |
| 10:30 a.m. | <b>3. Panel Discussion</b>   |
| 10:45 a.m. | <b>4. Health Break</b>   |
| 11:00 a.m. | <b>5. Piecing it Together: Your Perspective</b> (Plenary Session)  |
| 11:30 a.m. | <b>6. Setting up the Institute for Success</b>   |
| 11:45 a.m. | <b>7. Lunch</b>  |
| 12:15 p.m. | <b>8. Setting up the Institute for Success</b> (Focused Group Work) <ul style="list-style-type: none"> <li>• Exploring potential strengths and opportunities</li> <li>• Addressing potential challenges</li> <li>• Organizing the Institute for Sustainable Brampton</li> <li>• Charting community involvement</li> </ul>  |
| 1:45 p.m.  | <b>9. Wrap-up</b>  |
| 2:00 p.m.  | <b>10. Adjourn</b>   |

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Page 598 of 669



## Presentations

All **presentations** from the workshop are available online at <https://www.brampton.ca/EN/residents/GrowGreen/Pages/Institute-for-Sustainable-Brampton.aspx>

- Where are we now? (Michael Hoy, City of Brampton)
- What is possible? (Herbert Sinnock, Sheridan College)
- What could the future look like? (Dan Pastoric, Alectra)
- What could the future look like? (Fiona Oliver-Glasford, Enbridge)
- Why do we need to act? (Divya Arora, Climate ChangeHERs)
- Overview (Amanda Kennedy, Facilitator)

## Additional Information and Resources

- City of Brampton Declares a Climate Emergency (starting on page 10 and including strong rationale on pages 10-12): <http://www.brampton.ca/EN/City-Hall/meetings-agendas/City%20Council%202010/20190605ccmn.pdf>
- Region of Peel Declares a Climate Emergency: <https://www.peelregion.ca/news/archiveitem.asp?year=2019&month=9&day=25&file=2019925.xml>
- Brampton's Community Energy & Emissions Reduction Plan, including the emerging priorities for action: <http://www.brampton.ca/EN/residents/GrowGreen/Pages/Community-Energy-and-Emissions-Reduction-Plan.aspx>
- Region of Peel's Climate Change Master Plan: <https://www.peelregion.ca/climate-energy/>
- Conceptual information about the Institute for Sustainable Brampton is included in Brampton 2040 Vision on page 22: <https://www.brampton.ca/EN/City-Hall/Documents/Brampton2040Vision/brampton2040Vision.pdf>
- A community-based ISB Task Force consisting of select members of the Brampton Grow Green Network developed a White Paper to build the case for an Institute for Sustainable Brampton in January 2019: <http://bikebrampton.ca/2019/01/13/institute-for-sustainable-brampton/>





# ESTABLISHING A CENTRE FOR COMMUNITY ENERGY TRANSFORMATION

## Report with Recommendations

Report written by  
**KENNEDY**  
CONSULTING

May 25, 2020



# TABLE OF CONTENTS

|                                |    |
|--------------------------------|----|
| EXECUTIVE SUMMARY.....         | 1  |
| 1. PROCESS OVERVIEW .....      | 3  |
| 2. WHY? .....                  | 6  |
| 3. WHERE? .....                | 11 |
| 4. WHAT?.....                  | 12 |
| 5. WHO? .....                  | 15 |
| 6. HOW? .....                  | 20 |
| 7. WHEN? .....                 | 23 |
| 8. HOW WILL WE GET THERE?..... | 25 |
| 9. RESOURCES.....              | 27 |



# EXECUTIVE SUMMARY

The **Centre for Community Energy Transformation** (CCET) is proposed as a not-for-profit, community-based organization that will help Brampton accelerate towards a low-carbon future. This report summarizes the collaborative, consensus-based process (Section 1) that was followed to conceptualize this new community organization, and provides a series of recommendations that will bring it to life.

## Why?

Establishing the CCET (Section 2) will help to:

- Respond to the community's climate emergency declaration
- Rebuild our economy, in light of COVID-19, in a sustainable and resilient manner
- Spur investment and create jobs
- Implement a primary, catalytic action of the Brampton 2040 Vision
- Advance the Community Energy and Emissions Reduction Plan
- Align with community needs and ongoing work
- Advocate to other levels of government
- Provide a centre for leadership, learning and collective experience
- Create a forum to work in partnership with the private sector and other public organizations to advance energy transformation

## Vision

A sustainable energy future

## Mission

To lead an inclusive suburban energy transformation

## Mandate

The CCET will be an action-oriented organization focused on convening partners to implement catalytic priorities from Brampton's Community Energy and Emissions Reductions Plan (CEERP)

## Values

The work we do will:

- Be informed by science
- Be replicable by other communities
- Have quantifiable, documented results
- Be collaborative with community partners to amplify our collective impact
- Ensure social justice and inclusivity
- Generate direct, local economic benefits
- Demonstrate the concepts of circular economy and one planet living
- Provide educational benefits and engagement opportunities to our community

## Where?

The City of Brampton, Ontario, Canada (Section 3)

Provided to:



Provided by:





|              |  |
|--------------|--|
| What?        | <p>The CCET will be a not-for-profit organization. It will focus on implementing the community-based actions emerging from the CEERP in a phased manner (Section 4), namely through projects related to:</p> <ul style="list-style-type: none"> <li>• Residential building efficiency</li> <li>• Institutional, commercial and industrial building efficiency</li> <li>• District energy</li> <li>• Low carbon energy sources</li> <li>• Industrial efficiency</li> <li>• Community outreach</li> </ul>  |
| Who?         | <p>All in Brampton have a role to play in the implementation of community-based priority projects – whether you are a resident saving energy or a business owner training new employees.</p> <p>The governance structure for the CCET will be developed in an iterative, phased approach (Section 5). Representative organizations from the CEERP Task Force will be invited to continue to provide expertise on an interim Board. This Board will transition to a permanent Board and will hire a skilled Executive Director.</p> <p>Community partners, including Sheridan College, will provide in-kind and leadership support.</p> |
| How?         | <p>The CCET will require long-term, continuous funding to operate efficiently and effectively. A five-year funding plan from the City to establish a baseline of support, along with other supportive funding and revenue diversification measures are outlined in Section 6.</p> <p>In its role, the CCET will continuously engage with the community, including its proposed multisectoral Board, funders, other institutions and not-for-profits, local businesses and suppliers, and residents. The CCET will report to Council annually, for at least the next five years.</p>  |
| When?        | <p>The CCET will be formed within 18 months of Council approval (Section 7). A recommended roadmap to the formation of the CCET is included in Section 8.</p>  |
| What's Next? | <p>This report, along with the Community Energy and Emissions Reductions Plan, will be presented to City Council for approval in the third quarter of 2020. The interim Board will be established in 2020, a formal Board will be established in early 2021, and an Executive Director hired, by the end of 2021.</p> <p>Facilitated and inclusive community engagement will continue during this period of transition.</p>  |

## We are on a journey, together...

Questions and comments about the CCET and this report are welcome: [michael.hoy@brampton.ca](mailto:michael.hoy@brampton.ca).

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CONSULTING



# 1. PROCESS OVERVIEW

In February 2019, Brampton City Council passed a resolution for staff to report back to Council at a later date about an “Institute for Sustainable Brampton,” based on the first catalytic action of [Brampton Vision 2040](#), and recommendations included in a [community-based report](#) by representatives from Brampton Grow Green Network. City staff initiated an exploratory process to examine the feasibility, function, and role of such an organization.

This report includes a series of recommendations emerging from a process that the City of Brampton undertook between August 2019 and April 2020. The inclusive engagement process explored the establishment of a new entity (previously referred to as the *Institute for Sustainable Brampton*). The newly recommended organization, the Centre for Community Energy Transformation (CCET), will spur local, community-based, and sustainably-minded action and local economic development, as per the spirit and intent of the Vision 2040 recommendation.

The CCET will act as an arm’s length (from the City) implementation body for the community-based actions emerging from Brampton’s Community Energy and Emissions Reduction Plan (CEERP). The community is ready and willing to take ownership of these important actions to reduce Brampton’s emissions.

## About the CEERP & CEERP Task Force

Brampton’s Community Energy and Emissions Reduction Plan (CEERP) establishes an evidence-based strategy to reduce emissions in Brampton. The Plan was initiated to integrate efforts of the municipality, local utilities and community stakeholders and create a roadmap to improve energy efficiency, reduce greenhouse gas emissions, ensure energy security, create economic advantage, and increase resilience to climate change.








The City of Brampton and Sheridan College came together to facilitate the development of the CEERP and convened a Community Task Force, representing community stakeholders, to provide governance and oversight of the planning process. The City also secured funding from the Government of Ontario to support the planning. Both the City of Brampton and Sheridan College contributed funding towards the completion of the Community Energy and Emissions Reduction Plan and assigned staff to a Project Working Team to support the Community Task Force.

Members of the CEERP Task Force were also involved in the process to establish the CCET.



## The Centre for Community Energy Transformation Process

The process to establish the CCET involved:

|   |   |
|---|---|
|    | <p>Establishing a multidisciplinary Project Team to guide the process. We are grateful to the following individuals for meeting at six key points in the process to determine the strategic direction for the new community organization:</p> <ul style="list-style-type: none"> <li>• <i>Project Team Leadership:</i> Michael Hoy and Pamela Cooper – Environmental Planning, City of Brampton</li> <li>• <i>City of Brampton Representatives:</i> Antonietta Minichillo – Community Innovation and Resilience; Devin Ramphal– Economic Development; Lowell Rubin-Vaughan – Government Relations; Michael Heralall – Environmental Engineering; Stavroula Kassaris – Environmental Planning; and Zoe Milligan – Environmental Planning</li> <li>• <i>Sheridan College Representative:</i> Herbert Sinnock</li> <li>• <i>Region of Peel Representative:</i> Christine Tu</li> </ul> <p>The Region of Peel and Sheridan have been formative partners in the establishment of the CCET and CEERP.</p> |
|   | <p>Hiring a consulting team focused on facilitation, governance, and engagement for community sustainability: Amanda Kennedy, Dr. Jeffrey Wilson, Patricia Kambitsch, Dr. Peter Jones, and Dr. Sarah Burch.</p>   |
|  | <p>Conducting research and analysis of other communities, organizations, structures, and models regarding the advancement of community energy planning and emissions reductions.</p>  |
|  | <p>Hosting a full day, facilitated multisectoral workshop in November 2019 to:</p> <ul style="list-style-type: none"> <li>• Share the need for an action-oriented Institute in Brampton</li> <li>• Co-determine the desired vision, mission, values, and mandate for the organization</li> <li>• Share ideas to ensure the new entity is a success, and to align its work with ongoing work and projects in Brampton.</li> </ul>  |
|  | <p>Sharing ideas and what was heard by way of a <a href="#">workshop report</a> and <a href="#">webpage</a>.</p>  |
|  | <p>Meeting with the Community Energy and Emissions Reduction Plan (CEERP) <a href="#">Task Force</a>.</p>   |
|  | <p>Hosting pop-up open houses (with the CEERP) in March 2020 to expand public awareness of the City's work on community energy planning.</p>  |

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Promoting an online, public survey with to help inform the final name for the entity. During the planning process, the CCET was called the “*Institute for Sustainable Brampton*”. Community members recommended a name change to make it sound more meaningful and action-oriented, rather than a bureaucratic, formal, and research-oriented entity.

The emerging recommendation from this planning process is the **establishment of a Centre for Community Energy Transformation in Brampton** to help implement the community-based actions emerging from the CEERP to accelerate the City’s transition to a net-zero community.

The process to envision the CCET in Brampton was completed right as the **coronavirus changed Brampton’s, and the world’s, operating landscape**. That said, the CCET represents exactly the sort of entity and process that is needed to rebuild Brampton’s economy, while aligning with low carbon development.

The next two years will provide an absolutely crucial opportunity to ‘build back better’ rather than resorting to old, fragile, carbon-intensive modes of development. The CCET represents a clear pathway to a low carbon, resilient future in Brampton that has been co-developed with the community.

The CCET aligns with signals from other levels of government looking to implement measures to stimulate the economy, create jobs and build resilient communities. The CCET represents a leadership opportunity for Brampton: to be at the forefront of our new reality, spur local investment and jobs, and foster low-carbon industries.



*During the planning process, the Community Energy Transformation was called the “Institute for Sustainable Brampton”. Community members recommended a name change to make it sound more action-oriented and less research-based.*

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## 2. WHY?

### Why is this important?

Having a mission, vision, set of values, and a mandate will provide a starting point and guiding light for the CCET. Now, more than ever, there is a need to:

- Act on the desires of the Brampton community to move towards a low carbon community
- Differentiate Brampton by becoming a leader in the advancement of sustainable cities, and especially evolving suburban communities
- Respond to a post-COVID-19 reality in a meaningful and impactful way
- Attract and retain green jobs and investments
- Allow the community to take ownership of the implementation of the CEERP, and
- Nurture the big, bold ideas that are percolating in Brampton
- Establish a collective, working framework for the powerful integration of private and public sectors



It is critical that the CCET have a clear mandate and a very focused vision.

### What have we heard?

The CCET is needed because it will **fulfill multiple distinct needs** in Brampton; it will:

#### Respond to the Climate Emergency

The City of Brampton has declared a climate emergency; it is meant to help with “aiming, framing and deepening the City of Brampton’s commitment to the protection of our ecosystems, and our community from climate change.” Council and the community recognize the urgent need for an energy transformation to achieve “a climate change target of 80 percent greenhouse gas reduction by 2050.” Brampton’s Council and residents are keen to move swiftly to accelerate the transition to a climate-resilient and low-carbon future.





*Brampton is a Green City. We make it a priority to reduce our carbon footprint through projects that are geared towards sustainability.” (Brampton Mayor Patrick Brown)*

There are also regional synergies - in 2019, the Region of Peel declared its [climate emergency](#) in solidarity with the local municipalities and to provide context for approving and implementing of the [Region’s Climate Change Master Plan](#), which has alignment with actions in the CEERP.

## Implement a Catalytic Action from Vision 2040

The conceptual framework for an Institute for Sustainable Brampton was imagined, via input from thousands of residents, as the first catalytic action in Brampton’s bold and ambitious [2040 Vision](#).

Take this idea and run with it – test it, transform it, make it happen...

### **Action #1-1 Institute for Sustainable Brampton**

Found a public-private facilitator for local environmental progress to position Brampton in the vanguard of suburban sustainability.

## Advance the CEERP

The CCET will act as a critical, arm’s length community organization to take the lead on implementing select priority projects from Brampton’s forthcoming CEERP. This work will help achieve Brampton’s CEERP vision and inspire other communities.



*Brampton’s Community Energy and Emissions Reduction Plan was initiated to integrate efforts of the municipality, local utilities and community stakeholders and create a roadmap to improve energy efficiency, reduce greenhouse gas emissions, ensure energy security, create economic advantage, and increase resilience to climate change.” (CEERP, forthcoming)*



## Stimulate Economic Development

As outlined in the CEERP, the opportunity for the CCET to spur local economic development is significant. The CCET will support local job creation by facilitating:

- “Direct jobs by businesses that support improvements to energy efficiency (e.g. construction trades) or design, build and/or operate local supply and distribution systems;
- Indirect jobs in supply chains that deliver goods and services to businesses in the direct job category; and
- Induced jobs when the newly-hired workers in direct or indirect jobs spend their new earnings on goods and services in the community.



In addition, the provision of competitive energy services will also serve to attract and retain investment in all community sectors.”

*(Extracted from the CEERP, 2020)*

## Align with Community Needs

The spirit and intent of the CCET aligns with the recommendations from a 2019 community-led [White Paper](#) supporting the establishment of an Institute. The report had cross-sectoral input and was lead by community members from from the Brampton Grow Green Network.

In addition, the recommendations included in this report rely heavily on the broad range of community input received at the workshop in November 2019 and ongoing input from the CEERP Task Force. There was strong support for a focused, action-oriented, arm’s-length community organization dedicated to energy planning.

The CCET will take on the important role of community-led civic engagement, with the City as an active partner, as proposed in 2040 Vision.

## Align with Ongoing Work

The CCET, while arm’s length from the City of Brampton, needs to be anchored to Council’s priorities - developing a CEERP is one of the initiatives under *Leading Environmental Innovation* of the Green City Pillar in the 2018-2022 Term of Council Priorities.

The CCET also needs to be rooted in action and reflective of the ongoing climate change work in Brampton including the CEERP, Global Covenant of Mayors for Climate and Energy commitments,



Sheridan College's energy leadership, and the Region of Peel's Climate Change Master Plan and the Peel Climate Change Partnership. The CCET will also support and enhance energy use reductions for ongoing and proposed private development in the City.

The CCET does not represent starting from scratch. This process is building off of two years of momentum and a very strong 2040 Vision process, as well as recently declared climate emergencies and ongoing, foundational work in the community by residents, businesses, institutions, and other organizations.

*For more information about these initiatives, refer to Section 9: Resources.*

### Provide a Centre for Leadership, Learning and Collective Expertise

The CCET is an opportunity for Brampton to continue to show progressive leadership on energy and environmental challenges – to its own community, and as an example to others, especially suburban communities.



*A point of focus, a point of pride, and a point of positive reputation.” (Brampton 2040 Vision)*

It is also an opportunity to mobilize resources, secure partnerships, and build and share the necessary expertise to implement the community-based priority projects defined in the Community Energy and Emissions Reduction Plan. The power of collective action goes beyond what a singular organization, for instance a municipality, can provide.

### Respond to a Post-COVID-19 Reality

Governments across the world, including other levels of government in Canada, are looking to implement measures to stimulate the economy, create jobs and build resilient communities. The CCET provides a natural channel to:

- Drive emissions reductions
- Provide job (re)training
- Focus on clean energy
- Provide local results



## What do we recommend?

The community engagement process revealed strong consensus for the establishment of an independent, arm's length organization to the City focused on the following **foundational elements**:



### Vision

A sustainable energy future



### Mission

To lead an inclusive suburban energy transformation



### Mandate

The Centre for Community Energy Transformation (CCET) will be an action-oriented organization focused on convening partners to implement catalytic priorities from Brampton's Community Energy and Emissions Reductions Plan (CEERP)



### Values

The work we do will:

- Generate direct, local economic benefits
- Be informed by science
- Be replicable by other communities
- Have quantifiable, documented results
- Be collaborative with community partners to amplify our collective impact
- Ensure social justice and inclusivity
- Demonstrate the concepts of circular economy and one planet living
- Provide educational benefits to our community



# 3. WHERE?

## Why is this important?

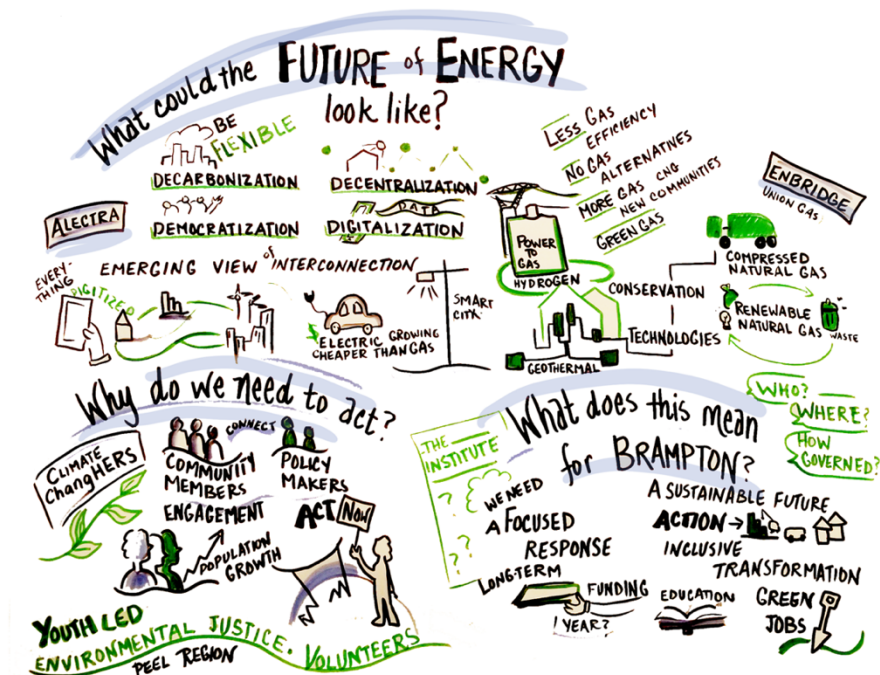
Setting a geographic boundary for the CCET will help focus time, energy, and resources.



## What do we recommend?

The CCET will be based in **Brampton**. The CCET will actively demonstrate transformation in Brampton with the goal that other communities and organizations can be inspired by, and learn through, example.

As the CCET evolves, the partners will continue to document the process. If, in the future, there is interest in expanding the geographic scope of the CCET, the recorded processes and structures will be available to ensure scalability and replicability. There may be opportunities to secure funding from other sources, and/or attract new partnerships that can share resources, if the CCET can be replicated as a suburban example of sustainable governance and implementation more broadly.



Outcomes from the community workshop on November 14, 2019

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# 4. WHAT?

## Why is this important?

A clear set of recommendations around the focus, form, and type of organization will help establish the CCET in a manner that is responsive to the community's needs. The CCET will play an important local role to contribute to positive, systemic, and sustainable change in Brampton.



## What do we recommend?

### Type of Organization

The CCET will be an **independent not-for-profit corporation** with its own governance structure (Section 5) and funding (Section 6). The CCET will move through an iterative process to become a stand-alone organization, at arm's length to all of the organizations that have been a part of its formation, including the City of Brampton, Sheridan College, and the Region of Peel. A roadmap to establish the CCET is included in Section 8.

### Focus

The process revealed a strong preference for the CCET to **focus on energy and emissions reductions** and to act as a community-based implementation body reflecting the priorities of the City's Community Energy and Emissions Reduction Plan.

### Role

The CCET will have a **separate and distinct role** from other organizations in Brampton. It is envisioned that the organization will focus, for the first five years, directly on energy and emission reduction solutions from a community-led perspective. After five years, it is expected that the strategic direction of the organization will be revisited and renewed with community input. The CCET's core roles will be:

### Program Planning and Delivery

- Plan, coordinate and deliver select 2020-2025 priority projects with partners
  - Specific projects are including in the CEERP Action Plan (attached to the CEERP), and include projects related to:
    - Home efficiency



- Including home energy retrofit program for 80% of Brampton's homes
- Building efficiency
  - Including retrofitting 60% of Brampton's buildings
- District energy
  - Implementing district energy in high growth districts with a mix of combined heat and power and other low-carbon heating and cooling sources
- Community outreach
  - Working with partners across the community
- Ensure program governance, funding, and resources align with the strategic objectives, and priority projects
- Provide strategic oversight and technical advisory services for project delivery
- Stimulate local economic development
- Access global knowledge base and subject matter experts

## Community Engagement and Communications

- Build a network of cross-sector stakeholders and partners
- Provide direction as well as strategic, promotional, and funding support to delivery partners
- Secure funding opportunities from the private and public sector
- Communicate and engage regularly with stakeholders, the public, and funding partners
- Advocating for funding and regulatory changes
- Develop a brand and virtual presence

## Transparency and Accountability

- Identify key performance metrics related to management and administration of priority projects
- Validate business cases and verify results
- Link and coordinate priority projects to identify resource efficiencies and accelerate implementation where possible
- Report on progress to the public, investors, and funders

## Management

- Anticipate and plan for future resourcing on an as-needed basis
- Write and partner to submit grant applications
- Develop a budget and medium- to long-term revenue model



In essence, the CCET will be a **partnership platform** that will harness the knowledge, expertise, and other resources of a broad range of organizations in Brampton to ensure the funds awarded, the investments made, research completed, and project initiated will contribute significantly to local resilience and economic strength while reducing energy usage and emissions.

The community organization will make it easier to develop those good ideas and one-off pilots that often get stuck, allowing them to be implemented more broadly and scaled up more quickly. For example, funding might support training for trades development in order to implement building retrofits.

### Form

The physical form of the CCET will be **phased, in an iterative approach**, from initial virtual meetings coordinated by City staff, to meetings hosted by the Interim Board, to in-kind space donated by community partners, to an eventual physical storefront in the heart of Brampton (Section 8).

Sheridan College has offered space and in-kind support to nurture the growing CCET. Many other organizations and individuals, as part of the CEERP Task Force, have also offered their ongoing support and knowledge. As the process evolves, it is expected that these entities and individuals will help to lead the transition from a CEERP Task Force to a transitional Board to an independent governance Board. Over this time period, it is also expected that the role of the City will evolve to one of a partner, rather than primary facilitator.



# 5. WHO?

## Why is this important?

Understanding roles, responsibilities, and oversight mechanisms will be vitally important to all involved with the CCET.

## What do we recommend?

There is a **role for everyone** to play in the CCET. All parties in Brampton - the municipality, the Region of Peel, local utilities, industry, businesses, residents, and community members - can contribute to the success of the implementation of the CEERP's community-based priority projects.



Over the last six months, the City of Brampton has taken a leadership role in convening the process to shape the CCET. It is expected that over the next six months, a process will be facilitated to solidify the proposed roles and responsibilities of potential leaders, contributors, and partner organizations, including a phased withdrawal of primary support from the City.

Sheridan College has offered space and in-kind support to nurture the growing CCET. Many other organizations and individuals, as part of the CEERP Task Force, have also offered their ongoing support and knowledge. As the process evolves, it is expected that these entities and individuals will help to lead the transition from a CEERP Task Force to a transitional Board to an independent governance Board. Over this time period, it is also expected that the role of the City will decline.

The following table highlights a number of responsible parties and their proposed roles, organized by function: oversight, management, contributors, and supporters.

### Oversight

The CCET, as an incorporated not-for-profit, will require an independent governance body. As with most aspects of the CCET, a phased approach is proposed: an interim Board (comprised of select members - or organizational representatives - from the CEERP Task Force) will transition to a permanent multisectoral Board over the course of a year. As it has done over the past year, the City will continue to convene parties and facilitate the process until the governance Board is in place.



## CEERP Task Force/ Interim Board

- *About:* The CEERP Task Force is uniquely positioned to act as an Interim Board to assist with getting the CCET up and running. The Task Force members have background on the CEERP priority projects and development of the Plan's targets and are representative of the wider Brampton community.
- *Size:* A group of between 12 and 16 members is proposed
- *Composition and Size:* Considerations for the following multisectoral representation
  - City of Brampton (1 staff, 1 Councillor, 1 Brampton Environmental Advisory Representative)
  - Region of Peel
  - Sheridan College (and/or other post-secondary institution)
  - Toronto and Region Conservation Authority (Partners in Project Green), and Credit Valley Conservation (up to 2)
  - Utilities (up to 2)
  - Private industry (up to 3)
  - Not-for-profits (up to 2)
  - Indigenous community representatives (1)
  - Residents, including youth (up to 2)
- *Role:*
  - Establishing a permanent Board Terms of Reference
  - Developing By-laws
  - Fleshing out CCET roles and responsibilities
  - Establishing Board sub-committees, as necessary to advance the CCET
  - Developing a job description for the Executive Director (ED) and initiating a hiring process

## Permanent Board

- *About:* In 2021, the Interim Board will transition to a permanent, multisectoral CCET Board based on a series of director competencies and a skills matrix
- *Composition and Size:*
  - Similar to Interim Board recommendations
  - Board committees to be established
- *Role:*
  - Finalizing the hiring process for the Executive Director (ED)
  - Advancing the strategic direction of the CCET
  - Working with the ED to enable the CCET to obtain the resources, in-kind donations, funding, and personnel necessary to implement the strategic objectives
  - Overseeing the development and execution of the CCET's strategic plan



## Management

The CCET will have a strong, respected, and strategically-minded Executive Director (ED). The staffing composition is yet to be determined in precise terms – as form follows function, it will be the ED's role to establish a meaningful operational structure to execute the Board-approved strategic plan.

### Executive Director

- *About:* The Board of the CCET will hire a permanent Executive Director. The ED will report directly to the Board.
- *Role:* This individual will be responsible for:
  - Overseeing the administration, strategic plan, and programs of the CCET
  - Spurring fundraising, marketing, and community outreach
- *Suggested Competencies:* Throughout the process, we heard that this person needs to:
  - Have strong relationship skills to broker the necessary partnerships to advance the CCET
  - Understand the pulse of Brampton
  - Knowledge of energy planning and/or the energy sector
  - Be entrepreneurial and flexible given the CCET will be an emerging organization

### Staff

- It is presently envisioned that the ED would be supported by staff to execute all of the programs/roles listed and described in the table in Section 4.
- These staff members may be:
  - Provided on a secondment basis from a supporting community organization
  - Hired as co-op students or interns
  - Working part-time, on an in-kind basis, while fully employed at a supporting organization
  - Hired full-time by the CCET, and/or
  - Contracted to support specific objectives of the CCET

### Project Leads

- Staff will be hired (or seconded) to act as Project Leads to advance the priority projects of the CEERP as listed in the table in Section 4.
- Their roles are described in the table in Section 4



## Contributors

An open, multisectoral, collaborative approach has guided the development of the CEERP and will continue to guide the implementation of community-based priority projects via the CCET.

### Community Partners

- **About:** There are committed community-based partners to support the CCET and see it succeed. The CEERP was developed in partnership, and the implementation process should be no different. Representatives from municipal and regional governments, Sheridan College, Toronto and Region Conservation Authority (Partners in Project Green), Peel's school boards, Alectra, Enbridge, developers, the Board of Trade, private industry and businesses, not-for-profits and civic society have all been engaged and many have expressed a desire to continue their involvement. Sheridan College has indicated its willingness to provide in-kind support and take a lead on governance and organizational matters.
- **Role:** Community partners may:
  - Seek and fill suitable governance roles (as Board or Committee members)
  - Provide in-kind support
  - Provide financial support
  - Provide seconded staff members
  - Seek and present viable opportunities for collaboration
  - Provide specific expertise to advance priority projects emerging from the CEERP

### City of Brampton

As mentioned above, the City has had a unique, convening and facilitative role with respect to the establishment of the CCET and the development of the CEERP:



*While implementation is a community-wide effort, municipal government (including regional government) is a key stakeholder and has five essential roles, which include community facilitation, municipal policy alignment, economic development, corporate leadership and education.” (Extracted from the CEERP)*

It is expected that over the next six months, the City will continue to convene and facilitate a process to solidify the proposed roles



and responsibilities of potential leaders, contributors and organizations. This process will include a phased withdrawal of primary support by the municipality, as the City of Brampton moves toward a cooperative, partnership-based role as an independent, funding member of the CCET Board.

Part of the rationale for the City stepping back, in time, is to allow for more creative and flexible funding mechanisms and revenue streams as a non-profit. In addition, it will create space for other leaders and organizations to take a fulsome role in civic engagement.

## Supporters

As noted above, all in Brampton have a role to play in the implementation of community-based priority projects emerging from the CEERP.

### Community Members

Community members will be able to contribute by:

- Seeking and filling suitable governance roles (as Board or Committee members)
- Providing in-kind support or donations
- Provide recurring or one-time financial support
- Reducing energy consumption and greenhouse gas emissions through adopting new technologies or changing behaviour
- Spreading the word about the CCET
- Promoting and/or participating in community engagement events

### Funders

Consistent, continuous, and secured funding will be required to ensure the success of the CCET (refer to Section 6 for more details).

Proposed funders include:

- City of Brampton
- Community partners
- Federal and Provincial Government

### Customers

The CCET will have wide-reaching community impact. The recipients of the services offered by the CCET will be Brampton's homeowners, building owners and operators, and others involved in community energy planning.



# 6. HOW?

## Why is this important?

As previously stated, consistent, continuous and secured funding will be required to ensure the success of the CCET. How and when it will be funded will affect all aspects of its operation. Funding uncertainty can be disruptive to fledging organizations.



A robust engagement process will also be critical to the success of the CCET.

## What do we recommend?

### Funding

The CCET will act as community-based hub to mobilize resources, secure partnerships, and share the necessary expertise to implement the community-based priority projects defined in the Community Energy and Emissions Reduction Plan.

Its form and function will purposefully evolve over time and throughout service delivery to meet the needs of the community and the spirit and intent of the CEERP.

**Seed funding** is requested from the City of Brampton to establish the CCET. The provision of funding will:

- Provide stability to a nascent organization during a turbulent and uncertain time
- Allow the Interim Board to recruit a top-quality Executive Director
- Signal support to community partners
- Provide a minimum base level of support for annual operations (see below)

Seeking a funding commitment for five years, with \$300,000 in the first year, and \$200,000 in each of the remaining four years. This funding will be approved for a five-year cycle based on agreed-upon monitoring and reporting criteria. At the end of the five-year period, the CCET is intended to be self-sustaining.

*A cost breakdown is provided on the following page.*



## Cost Breakdown: First Eighteen Months of Operations

| <i>In the first 18 months, the secured funding of \$300,000 from the City will be used to:</i>  | <i>In-kind support will be relied upon to:</i>   |
|---|--|
| <ul style="list-style-type: none"> <li>○ Hire an Executive Director (\$140,000)</li> <li>○ Hire Program Leads (\$80,000 x 2 = \$160,000)</li> <li>○ Start the engagement program</li> </ul> | <ul style="list-style-type: none"> <li>○ Recruit Board Members</li> <li>○ Provide support to transition the current CEERP Task Force into an Interim Board and Permanent Board, including clarifying roles and responsibilities, drafting by-laws and a Terms of Reference</li> <li>○ Incorporate the not-for-profit, including legal and administrative matters</li> <li>○ Secure virtual and physical office space, furniture, equipment (as needed)</li> <li>○ Secure information technology resources</li> <li>○ Provide legal, communications, administrative, and human resource services</li> </ul> |

Over time, as mentioned above, the funding model will shift from a reliance on seed funding to a diverse basket of external revenue sources.

The Project Team recognizes that additional funding and in-kind support from the community is necessary for the CCET's short- and long-term success. A formal request for **equivalent funding, in-kind donations, and/or staff resources** will be circulated to all partner organizations that are part of the CEERP Task Force to ask them to determine how they would like to contribute.

As with many aspects of the CCET, a phased and evolving approach to contribution by community partners will be welcome. Contributions may include:

- Monetary donations or investments
- Legal, human resources, marketing, communication, and project management skills
- Technical advisory services
- Participation on the interim or permanent Board
- Office space, furniture, equipment, and utilities, and /or
- Individuals to place on secondment

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The CCET will not rely solely on donations. In addition, the Executive Director will be tasked with:

- Seeking Federal and Provincial grant funding as the CCET evolves
- Leveraging community partnerships to help fund priority community projects
- Exploring private fundraising as a revenue stream
- Pursuing creative financing techniques such as membership-based funding or fees, municipal endowments/investments, fee for service models, co-funded community-based projects, property tax levy, on-bill financing, community bonds, community corporation, etc.

The CCET will work towards a sustained self-financing model over a five-year period. The organization, structure, and funding models of a number of other, related, entities were reviewed (Section 9) and key elements from those organizations were considered during the establishment of the CCET.

## Engagement

Continuous, consistent engagement with community partners will be critical to the success and longevity of the CCET. The ED will oversee the development and implementation of a community-based engagement program with targeted outreach, by priority project. This is echoed in comments from workshop participants:



*A pre-requisite for long-term success will be to engage the public and to contribute to creating a place-based identity for Brampton.”*

*“Work must be done on scoping the ISB’s work to engage the public community, placemaking. People need to see ISB is about their city and culture and it can create a sense of belonging.*





# 7. WHEN?

## Why is this important?

Understanding the proposed timing for the phased establishment of the CCET is important to help the community and partners understand the urgency of the transformation.



## What do we recommend?

The implementation of the CCET will evolve over the short-, medium-, and long-term. There will be stages of implementation to achieve the desired future state.

The proposed, **staged timing** for the establishment of the CCET is included on the following page (Section 8).

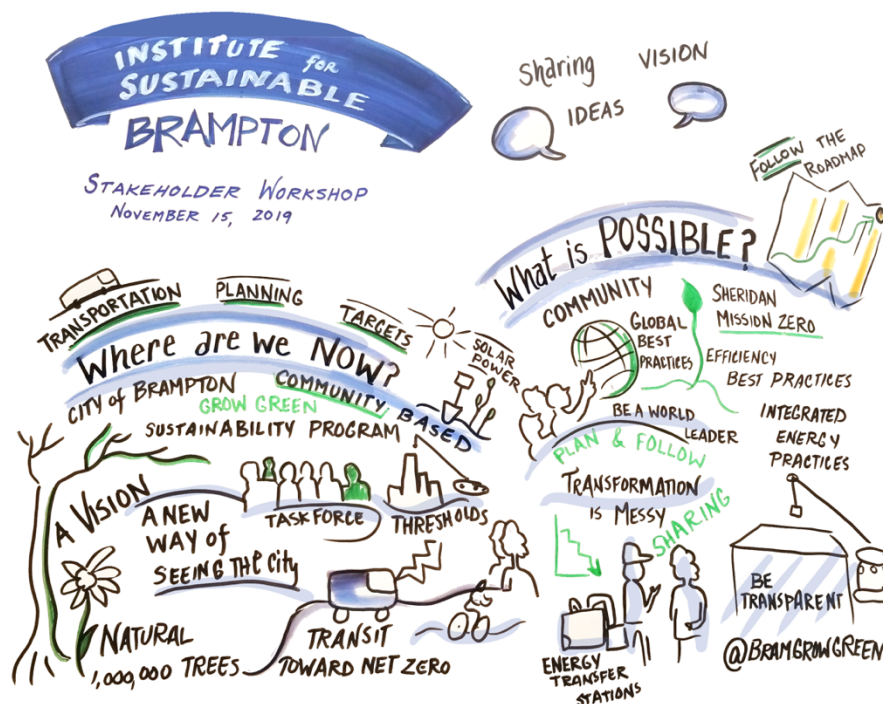
In the short term, it is expected that within eight months of the approval of these recommendations:

- Brampton City staff will have presented the CEERP and CCET to Council
- Council will have approved one-year seed funding and ongoing, annual contributions
- The CCET will have incorporated as non-profit organization
- A process will be undertaken to clarify roles and responsibilities of potential leaders, contributors, and partner organizations
- A set of desired Interim Board competencies will be drafted
- An interim, transitional Board based on the CEERP Task Force will be in place
- An Interim Board work plan will be in place
- A list of desired financial and in-kind contributions from community organizations, businesses, and individuals will be in place including:
  - Monetary contributions
  - Legal, human resources, marketing, communication, and project management skills
  - Technical advisory services
  - Office space, furniture, equipment, and utilities, and /or
  - Individuals to place on secondment



It is expected that by the end of 2021:

- Associated legal and filing fees will have been paid and completed
- Insurance will have been obtained
- Terms of Reference and By-laws will have been drafted and approved
- A job description will have been drafted, a search executed, and an Executive Director retained
- A strategic planning process will have been launched, followed by the development of an operational plan
- The CCET will have officially launched
- Job descriptions for Program Leads completed
- Priority projects will be underway
- The Interim Board will be transitioning to a permanent, multisectoral CCET Board based on a series of competencies and a skills matrix



Outcomes from the community workshop on November 14, 2019

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# 8. HOW WILL WE GET THERE?

A summary of phased recommendations to establish a Centre for Community Energy Transformation in Brampton

|                 | 2020  | 2021  | 2022   | 2023                      | 2024   | 2025+                                 |
|-----------------|---|---|--|---------------------------|--|---------------------------------------|
| Structure       | Establish, register, and incorporate a not-for-profit corporation     |   |  |                           |  | Review and assess structure           |
| Governance      |   | Board Terms of Reference and by-laws developed      |  |                           |  | Review Terms of Reference and by-laws |
| Oversight       | CEERP Task Force transitions to CCET Interim Board                    |   | Permanent multisectoral Board in place<br>Board committees in place<br><i>Three-year terms with periodic Board assessments and recruitment</i> |                           |  |                                       |
| Planning        |   | Executive Director leads strategic planning process |  | Operational plan in place |  |                                       |
| Staffing        | None  | Executive Director hired                            | Phased hiring of four support staff<br>Community-based Project Leads in place  |                           |  | Full office complement (5)            |
| In-Kind Support | Human Resources<br>Communications<br>Administration<br>Legal Services |   | Phased reduction of external support<br><i>(Or continued in-kind support from community partners)</i>  |                           | Independent<br><i>(Or continued in-kind support from community partners)</i> |                                       |



|                          | 2020  | 2021   | 2022   | 2023   | 2024 | 2025+ |
|--------------------------|---|--|--|--|------|-------|
| Physical Form            | Virtual meetings  | In-kind office space provided by community partners  |  | Independent Brampton storefront established  |      |       |
| Funding                  | \$300,000 from City as seed funding                               | \$200,000 from City, per year<br>\$100,000+ raised from community partners, annually<br>Other, diverse revenue sources |  | \$200,000 from City, per year<br>\$100,000+ raised from community partners, annually<br>External revenue from projects, additional partner-based funding and creative finance mechanisms |      |       |
| Engagement               | Continuous, consistent engagement with community partners         |  | Develop and implement community-based engagement program with targeted outreach, by priority project |  |      |       |
| Monitoring and Reporting |   | Annual report on progress to Council and community<br>Develop and report on a set of key performance indicators        |  |  |      |       |
| Considerations           | Continuous alignment with the vision, mission, mandate and values |  |  |  |      |       |



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## 9. RESOURCES

- City of Brampton Declares a Climate Emergency (starting on page 10 and including strong rationale on pages 10-12): <http://www.brampton.ca/EN/City-Hall/meetings-agendas/City%20Council%202010/20190605ccmn.pdf>
- Region of Peel Declares a Climate Emergency:  
<https://www.peelregion.ca/news/archiveitem.asp?year=2019&month=9&day=25&file=2019925.xml>
- Peel Regional Council report for the Peel Climate Change Partnership (February 27 , 2020): <https://www.peelregion.ca/council/agendas/2020s/2020/2020-02-27-revised-rc-agenda.pdf>
- Brampton's Community Energy & Emissions Reduction Plan, including the emerging priorities for action:  
<http://www.brampton.ca/EN/residents/GrowGreen/Pages/Community-Energy-and-Emissions-Reduction-Plan.aspx>
- Brampton's Institute for Sustainable Brampton landing page:  
<https://www.brampton.ca/EN/residents/GrowGreen/Pages/Institute-for-Sustainable-Brampton.aspx>
- Region of Peel's Climate Change Master Plan: <https://www.peelregion.ca/climate-energy/>
- Conceptual information about the Institute for Sustainable Brampton is included in Brampton 2040 Vision on page 22: <https://www.brampton.ca/EN/City-Hall/Documents/Brampton2040Vision/brampton2040Vision.pdf>
- A community-based Task Force consisting of select members of the Brampton Grow Green Network developed a White Paper to build the case for an Institute for Sustainable Brampton in January 2019: <http://bikebrampton.ca/2019/01/13/institute-for-sustainable-brampton/>



The Project Team reviewed the organization, structure and models of other organizations, including:

- Burlington Green
- Clean Air Partnership (CAP)
- Credit Valley Conservation Foundation
- Flourishing Enterprise Institute
- Halton Climate Collective
- Institute for Sustainable Cities
- Our Energy Guelph
- Sustainable Waterloo Region (SWR)
- Tamarack Institute
- The Atmospheric Fund (TAF)
- Waterloo Institute for Sustainable Energy

*Note: All icons in the report are from [www.flaticon.com](http://www.flaticon.com)*







Johnson Controls Canada L.P.  
Building Technologies & Solutions, Performance Infrastructure  
7 Paget Road, Brampton, ON, L6T 5S2



June 17<sup>th</sup>, 2020

To: Mike Hoy, Supervisor, Environmental Planning

**Re: Letter of Support regarding the Community Energy and Emissions Reduction Plan and Institute for Sustainable Brampton**

The City of Brampton has demonstrated its commitment to becoming a Green City by declaring a climate emergency, developing a Community Energy and Emissions Reduction Plan (CEERP), working in partnership with the Region of Peel and Sheridan College to establish an Institute for Sustainable Brampton (ISB) and joining the Global Covenant of Mayors for Climate and Energy.

The Johnson Controls organization has enjoyed a partnership with the City of Brampton over the past year as a member of its Community Energy and Emissions Reduction Plan Task Force. We believe that this important initiative contributes to our shared goals for reducing community energy use, reducing Greenhouse Gas emissions and retaining energy costs within the city. We congratulate the City for embarking on this city-wide program to advance Brampton's energy transition to a future of clean, sustainable, resilient energy that supports the Brampton 2040 Vision.

This letter expresses the support of Johnson Controls Canada to continue working with the City and its partners to achieve the goals of the Community Energy and Emissions Reduction Plan, including towards the establishment of the proposed Institute for Sustainable Brampton. Pending Council approval of the CEERP and ISB, we will determine resources that we can allocate towards the implementation of this plan and we will continue to explore opportunities for greater commitment, which could possibly include in-kind and/or financial support. As a leading Energy services company (ESCO), and a leader in global energy efficiency and sustainability, we hope to share some of the advanced partnering models we have made commercially viable that may contribute to the desired outcomes.

We recognize that the CEERP has value and we are excited to continue to work with the City and its partners to meet our Climate Emergency and Brampton's commitment to be a Green City.

Regards,

A handwritten signature in black ink, appearing to read 'Hassaan Khan'.

Hassaan Khan

Co-chair City of Brampton CEERP Task Force &

Area General Manager – Canada Performance Infrastructure  
Johnson Controls Canada L.P.





March 26, 2020

To: Mike Hoy, Supervisor, Environmental Planning

Re: **Letter of Support Regarding the Community Energy and Emissions Reduction Plan and Institute for Sustainable Brampton**

The City of Brampton has demonstrated its commitment to becoming a Green City by declaring a climate emergency, developing a Community Energy and Emissions Reduction Plan (CEERP), working in partnership with the Region of Peel and Sheridan College to establish an Institute for Sustainable Brampton (ISB) and joining the Global Covenant of Mayors for Climate and Energy.

Brampton Brick Limited has enjoyed a partnership with the City of Brampton over the past year as a member of its Community Energy and Emissions Reduction Plan Task Force. We believe that this important initiative contributes to our shared goals for reducing community energy use, reducing Greenhouse Gas emissions and retaining energy costs within the city. We congratulate the City for embarking on this city-wide program to advance Brampton's energy transition to a future of clean, sustainable, resilient energy that supports the Brampton 2040 Vision.

This letter expresses the support of Brampton Brick Limited to continue working with the City and its partners to achieve the goals of the Community Energy and Emissions Reduction Plan, including the establishment of the proposed Institute for Sustainable Brampton.

Pending Council approval of the CEERP and ISB, we will determine resources that we can allocate towards the implementation of this plan and we will continue to explore opportunities for greater commitment, which could possibly include in-kind and/or financial support.

We recognize that the CEERP has value and we are excited to continue to work with the City and its partners to meet our Climate Emergency and Brampton's commitment to be a Green City.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "B. Cobbledick", is written over a horizontal line.

**BRAMPTON BRICK LIMITED**

Brad Cobbledick

Vice President of Technical Services



**April 3, 2020**

Mike Hoy  
Supervisor of Environmental Planning  
City of Brampton

Dear Mike,

**Re: Letter of partnership for the Community Energy and Emissions Reduction Plan**

On behalf of Enbridge Gas Inc. ("Enbridge Gas"), I am pleased to provide a letter of partnership for the City of Brampton's Community Energy and Emissions Reduction Plan (CEERP).

The creation of the Community Energy and Emissions Reduction Plan is a terrific milestone enabling the City of Brampton to:

- assess broader Municipal energy use and greenhouse gas emissions
- identify opportunities to conserve
- improve energy efficiency and reduce future greenhouse gas emissions
- consider the impact of future growth and options for local clean energy generation, fuel switching and storage; and
- support local economic development

Enbridge Gas has enjoyed its partnership with the City of Brampton – especially over the past year as a member of your Community Energy and Emissions Reduction Plan Task Force. With more than 20 years' experience in energy conservation we share the city's goal of reducing energy use and greenhouse gases.

This letter expresses Enbridge's support and commitment to continue to work with the City and its partners to achieve the goals of the CEERP including the establishment of the proposed Institute for Sustainable Brampton. Pending Council approval of the CEERP and ISB, we will determine what resources and/or financial support we can allocate towards the implementation of this plan.



We recognize that the CEERP has value and we are excited to collaborate with the city and its partners to reach our shared climate and energy conservation goals.

Yours truly,

*Chris Hamilton*

**Chris Hamilton**

Supervisor, Municipal Energy Solutions

**ENBRIDGE**

TEL: 416-495-6990

500 Consumers Rd., North York, Ontario, M2J 1P8

[enbridge.com](http://enbridge.com)

**Integrity. Safety. Respect.**



May 6, 2020, 2020

To: Mike Hoy, Supervisor, Environmental Planning

**Re: Letter of support regarding the Community Energy and Emissions Reduction Plan and Institute for Sustainable Brampton**

The City of Brampton has demonstrated its commitment to becoming a Green City by declaring a climate emergency, developing a Community Energy and Emissions Reduction Plan (CEERP), working in partnership with the Region of Peel and Sheridan College to establish an Institute for Sustainable Brampton (ISB) and joining the Global Covenant of Mayors for Climate and Energy.

As past Chair of the Brampton Environment Advisory Committee, past Chair of the Institute for Sustainable Brampton Task Force, Chair of BikeBrampton, member of the TRCA Regional Watershed Alliance, member of Sierra Club Peel Chapter, and a long-time Brampton resident, I have enjoyed a partnership with the City of Brampton over the past year as a member of its Community Energy and Emissions Reduction Plan Task Force. I believe that this important initiative contributes to our shared goals for reducing community energy use, reducing Greenhouse Gas emissions, and retaining energy costs within the city. I congratulate the City for embarking on this city-wide program to advance Brampton's energy transition to a future of clean, sustainable, resilient energy that supports the Brampton 2040 Vision.

This letter expresses my support and commitment to continue working with the City and its partners to achieve the goals of the Community Energy and Emissions Reduction Plan, including the establishment of the proposed Institute for Sustainable Brampton.

Pending Council approval of the CEERP and ISB, I will determine in-kind resources that I can allocate towards the implementation of this plan.

The implementation of the CEERP is a vital component of the City's plan for economic and environmental sustainability. I am excited to continue to work with the City and its partners as we tackle the declared climate emergency and fulfil Brampton's commitment to be a Green City.

Regards,

A handwritten signature in black ink, appearing to read "David Laing". The signature is fluid and cursive, with the first name "David" being more prominent than the last name "Laing".

David Laing



**Corporate  
Services**

10 Peel Centre Dr.  
Brampton, ON  
L6T 4B9  
tel: 905-791-7800

[peelregion.ca](http://peelregion.ca)

May 6, 2020

To: Mike Hoy, Supervisor, Environmental Planning, City of Brampton

**Re: Letter of Support regarding the Community Energy and Emissions Reduction Plan  
and Institute for Sustainable Brampton**

The City of Brampton has demonstrated its commitment to becoming a Green City by declaring a climate emergency, developing a Community Energy and Emissions Reduction Plan (CEERP), working in collaboration with the Region of Peel and Sheridan College to establish a framework for an Institute for Sustainable Brampton (ISB) and joining the Global Covenant of Mayors for Climate and Energy.

The Region of Peel has been working with the City of Brampton over the past year as an invited member of its Community Energy and Emissions Reduction Plan Task Force. This important initiative contributes to our shared goals for achieving Complete Communities within the Region of Peel, including increased energy efficiency, reducing Greenhouse Gas emissions and expanding green infrastructure. The CEERP also aligns with several Regional plans, strategies and priorities, including the Region's Climate Change Master Plan, Sustainable Transportation Strategy, Regional growth management planning and policies, and 2018 – 2022 Term of Council Priority *Build Environmental Resilience*.

This letter expresses the support of the Region of Peel to continue working with the City and its community stakeholders to achieve the goals of the CEERP, including further review of how the ISB could be established. Another important role the Region will play is bringing the goals, planning efforts and phased implementation of the CEERP and future ISB to the attention of the Peel Climate Change Partnership (PCCP), which was endorsed by Regional Council in February 2020. The PCCP has a broader mandate than the proposed ISB but has synergistic emissions reduction priorities. The City of Brampton is a member of the PCCP as are Peel Region, City of Mississauga, Town of Caledon and the Conservation Authorities.

Pending City Council approval of the CEERP and ISB, Regional staff from the Office of Climate Change and Energy Management, acting as Secretariat for the PCCP, can help ensure the transfer of knowledge and innovation stemming from the ISB flows seamlessly to the PCCP, fostering opportunities and efficiencies to scale energy technologies or programs that accelerate the region-wide transformation to low carbon, resilient communities.

The Region recognizes that the CEERP has value and is pleased to continue to work with the City of Brampton and its community stakeholders to meet shared outcomes that collectively support a low carbon and resilient Community for Life.

Regards,



Christine Tu, M.Sc.  
Director, Office of Climate Change and Energy Management  
Corporate Services  
Region of Peel



**Public Works**

230 Advance Blvd.  
Brampton, ON  
L6T 4T6  
tel: 905-791-7800

[peelregion.ca](http://peelregion.ca)

March 23, 2020

To: Mike Hoy, Supervisor, Environmental Planning  
Re: **Letter of support regarding the Community Energy and Emissions Reduction Plan and Institute for Sustainable Brampton**

The City of Brampton has demonstrated its commitment to becoming a Green City by declaring a climate emergency, developing a Community Energy and Emissions Reduction Plan (CEERP), working in partnership with the Region of Peel and Sheridan College to establish an Institute for Sustainable Brampton (ISB) and joining the Global Covenant of Mayors for Climate and Energy.

The Region of Peel has enjoyed a partnership with the City of Brampton over the past year as a member of its Community Energy and Emissions Reduction Plan Task Force. We believe that this important initiative contributes to our shared goals for reducing community energy use, reducing Greenhouse Gas emissions and retaining energy costs within the city. We congratulate the City for embarking on this city-wide program to advance Brampton's energy transition to a future of clean, sustainable, resilient energy that supports the Brampton 2040 Vision.

This letter expresses the support of The Region of Peel to continue working with the City and its partners to achieve the goals of the Community Energy and Emissions Reduction Plan, including the establishment of the proposed Institute for Sustainable Brampton.

Pending Council approval of the CEERP and ISB, we will determine resources can support the implementation of this plan and we will continue to explore opportunities for greater commitment, which could possibly include in-kind and/or financial support.

We recognize that the CEERP has value and we are excited to continue to work with the City and its partners to meet our Climate Emergency and Brampton's commitment to be a Green City.

Regards,



Megan McCombe,  
Supervisor, Environmental Education  
Operations Support, Public Works  
905-791-7800, ext 3367  
[megan.mccombe@peelregion.ca](mailto:megan.mccombe@peelregion.ca)



June 25, 2020

To: Mike Hoy, Supervisor, Environmental Planning

**Re: Letter of support regarding the Community Energy and Emissions Reduction Plan and Institute for Sustainable Brampton**

The City of Brampton has demonstrated its commitment to becoming a Green City by declaring a climate emergency, developing a Community Energy and Emissions Reduction Plan (CEERP), working in partnership with the Region of Peel and Sheridan College to establish a Centre for Community Energy Transformation (CCET) and joining the Global Covenant of Mayors for Climate and Energy.

Toronto and Region Conservation Authority (through the Partners in Project Green program) has enjoyed a partnership with the City of Brampton over the past year as a member of its CEERP Task Force. We believe that this important initiative contributes to our shared goals for reducing community energy use, reducing Greenhouse Gas Emissions and retaining energy costs within the city. We congratulate Brampton for embarking on this city-wide program to advance an energy transition to a future of clean, sustainable, resilient energy that supports the Brampton 2040 Vision.

This letter expresses the support of Partners in Project Green (PPG) to continue working with the City and its partners to achieve the goals of the Community Energy and Emissions Reduction Plan, including the establishment of the proposed Centre for Community Energy Transformation.

Pending Council approval of the CEERP and CCET, we will allocate resources towards the implementation of this plan, with staff support valued at \$1,000. Additionally, we will continue to explore opportunities for greater commitment.

We recognize that the CEERP has value and we are excited to continue to work with the City and its partners to meet our Climate Emergency goals and Brampton's commitment to be a Green City.

Regards,



Michael Tolensky  
Chief Financial and Operating Officer



# Sheridan

Michael Hoy  
Supervisor, Environmental Planning  
City of Brampton

August 20, 2020

Re: Support for the Community Energy and Emissions Reduction Plan and Institute for Sustainable Brampton

Dear Michael,

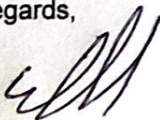
We applaud the steps City of Brampton has taken to establish itself as a global leader on climate action. Over the past few years, Brampton has declared a climate emergency, developed a Community Energy and Emissions Reduction Plan (CEERP), and joined the Global Covenant of Mayors for Climate and Energy.

We are proud of the partnership between our organizations that engendered the Community Energy Emissions Reduction Plan Task Force. Together we have articulated a vision and action plan to transform Brampton's energy-intensive structures into clean, sustainable, resilient systems that underpin the Brampton 2040 Vision. We believe this community-derived approach to shared goals for a smart energy future is crucial to ensuring the ongoing participation of the entire community as we work through the challenges of implementation.

We are proud to continue partnering with the City of Brampton and Region of Peel to establish and guide the Institute for Sustainable Brampton, which will be an important catalyst for leveraging our community's social and financial capital to undertake the major projects required for transformation at this scale.

Thank you for being such a supportive and engaged partner, and we are excited to embark on this next phase with you.

Regards,



Herbert Sinnock  
Director, Sustainability  
The Sheridan College Institute of Technology and Advanced Learning

Brampton | Mississauga | Oakville

The Sheridan College Institute of  
Technology and Advanced Learning  
1430 Trafalgar Road  
Oakville, Ontario L6H 2L1

T 905 845 9430  
sheridancollege.ca



**Date:** 2020-09-03

**Subject:** **COVID-19 Relief Funding for Brampton Transit**

**Secondary Title:** The Government of Canada and Province of Ontario is providing COVID-19 relief funding to municipal transit agencies, including Brampton Transit. This report seeks approval of a by-law required to authorize the execution of any Transfer Payment Agreements required for the City of Brampton to receive funds.

**Contact:** Alex Milojevic, General Manager, Transit  
905.874.2750 ext. 62332, alex.milojevic@brampton.ca

**Report Number:** Brampton Transit-2020-089

**Recommendations:**

1. That the report from Alex Milojevic, General Manager, Transit, dated September 3, 2020, to the Committee of Council Meeting of September 23, 2020, re: **COVID-19 Relief Funding for Brampton Transit (Report Number Brampton Transit-2020-089, IB.c)**, be received; and
2. That a by-law be enacted delegating authority to the Mayor and City Clerk to execute on behalf of the City of Brampton any Transfer Payment Agreements with the Her Majesty the Queen in right of Ontario as represented by the Minister of Transportation as required under the provisions that a) of any phases of Federal-Provincial Safe Restart Agreement (Municipal Transit), and/or, b) Provincial Municipal Transit Enhanced Cleaning Funding, under key business terms and conditions acceptable to the General Manager, Transit or designate, and in a form acceptable to the City Solicitor or designate; and
3. That the aforesaid by-law also delegate authority to the General Manager, Transit or designate, to act as the Authorized Representative of the City and to execute on behalf of the City any amending agreement(s) or other documentation pursuant to any such Transfer Payment Agreements, under key business terms and conditions acceptable to the General Manager, Transit or designate and in a form acceptable to the City Solicitor or designate.



**Overview:**

- **The Government of Canada and Province of Ontario recently released details around two funding programs that will provide financial relief to municipalities, and directly to municipal transit agencies, related to the impacts of COVID-19.**
- **These programs will provide (separately) funding to municipalities and municipal transit agencies. This report focuses on the municipal transit funding component.**
- **The City of Brampton (Brampton Transit) is set to receive up to approximately \$24.6M in funding to assist with the impact of COVID-19, including the support of transit financial pressures such as revenue losses, expenses incurred as a result of the outbreak including enhanced cleaning as follows:**
  - **Federal-Provincial Safe Restart Program (Transit; Phase I of 2) - \$24M**
  - **Provincial Municipal Transit Enhanced Cleaning Fund - \$0.6M**
- **In Ontario, The Ontario Ministry of Transportation (MTO) is administering these programs in partnership with the Government of Canada.**
- **A by-law authorizing the City of Brampton to enter into a Transfer Payment Agreement(s) (TPA) with the Province is required.**

**Background:**

The Government of Canada and Province of Ontario has recently announced details regarding a) the Federal-Provincial Safe Restart Funding (note separate funding is being provided to municipalities and municipal transit agencies), and, b) Provincial Municipal Transit Enhanced Cleaning (MTEC) funding programs. Under these programs Brampton Transit will initially be receiving up to approximately \$24.6M in COVID-19 relief funding.

This report recommends approval of the necessary by-law required to provide authorization for the Mayor and City Clerk to execute the required Transfer Payment Agreement(s) (TPA's) with the province. Additionally, this report seeks approval for the General Manager (or designate), Transit, to be authorized to execute any amending agreements, documentation, reports, claims, etc., that may be required under the TPA's.

**Current Situation:**

The Ontario Ministry of Transportation (MTO) is administering these funds directly with Ontario municipalities/transit agencies. In order to receive transfer of approved funds under these programs, Transfer Payment Agreements (TPA's) must be executed between the MTO and the City as required by the province. This practice is in keeping with other transit funding programs, including but not limited to, the Federal and



Provincial Gas Tax Funding Programs, Public Transit Infrastructure Funds, and the Investing in Canada Infrastructure Program (ICIP).

A | Federal-Provincial Safe Restart Agreement:

On July 27, 2020, as part of the federal-provincial Safe Restart Funding, the Ontario government announced that it had secured up to \$4 billion in one-time emergency assistance to provide Ontario's 444 municipalities with the support they need to respond to COVID-19, and deliver the critical services people rely on every day.

On August 12, 2020, the Minister of Transportation provided additional details regarding this investment. This program will provide support to municipalities and municipal transit systems to help them deal with financial pressures related to COVID-19, maintain critical services and protect vulnerable people as the province safely and gradually opens. It includes:

- Up to \$2 billion to support municipal operating pressures; and
- Up to \$2 billion to support municipal transit systems.

The City of Brampton is set to receive an allocation of \$10.9M for Phase 1 to support municipal operating pressures. This is in addition to the allocation to support municipal transit systems. Only the funding required to the support of municipal transit systems through the Safe Restart Program will be discussed further in this report.

The \$2 billion investment to municipal transit systems is being delivered in two phases as follows:

Phase 1:

- \$666 million (1/3rd) will be allocated to municipalities with transit systems based on the same ridership formula used to calculate the Gas Tax allotments.
- The City of Brampton (Brampton Transit) is set to receive \$24,031,309 in support for COVID-19 related expenditures incurred from April 1, 2020 to September 30, 2020.
- For Phase 1 there is no current requirement to execute a TPA.
- The province intends to make the Phase 1 payment to the City in September 2020.

Phase 2:

- Details on the remaining \$1.33B (remaining 2/3rds) are still to be announced at the time of writing this report, but currently, will be inclusive of expenditures up to March 31, 2021.
- The execution of a TPA will be required to receive Phase 2 funds.
- MTO intends to build specific requirements into the Phase 2 agreements to achieve important transit objectives to promote ridership growth and transit sustainability.



- MTO has advised that in order to qualify for funds under Phase 2 that additional requirements<sup>1</sup> will include:
  - Engage in consolidated procurement opportunities leveraging Metrolinx and other provincial procurement tools; (ALL MUNICIPALITIES); and,
  - Review the lowest performing bus routes and consider whether they may be better serviced by microtransit; (ALL MUNICIPALITIES); and,
  - Work with the Province and Metrolinx where appropriate to determine the feasibility of implementing microtransit options on viable routes; (ALL MUNICIPALITIES); and,
  - Participate in discussions with the Province on advancing fare and service integration; (GTHA & select municipalities); and,
  - Participate in discussions with the Province to optimize transit through new possible governance structures; (GTHA & select municipalities).

(B) | Provincial Municipal Transit Enhanced Cleaning (MTEC) Fund:

The provincial government has announced an incremental funding program to assist municipal transit agencies by providing funding under the Municipal Transit Enhanced Cleaning (MTEC) fund.

The Ontario Government is providing up to \$15M to 110 municipalities across the province to support enhanced cleaning of municipal public transit systems to keep passengers and employees safe and help reduce the transmission of COVID-19. Details of the MTEC are as follows:

On June 29, 2020, Mayor Brown was notified by the Minister of Transportation that the City of Brampton would be receiving an allocation of \$602,038 under the MTEC.

The following outline the steps and actions the municipality will be required to undertake to receive MTEC funding:

1. Confirmation by the municipality of interest in seeking MTEC funding by September 11, 2020.
2. Execution of the required TPA.
3. Provision of an authorizing by-law and, if applicable, resolution(s) as per this report.
4. Provision of Report on Expenditure
  - a. The City will be required to provide the Report on Expenditures on or before January 29, 2021.
  - b. Once received, MTO will review and initiate the payment of MTEC funding for eligible expenditures.

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<sup>1</sup> These requirements may have far reaching impacts to City's transit service. A further report to Council may be required before exercising delegated authority to sign a TPA under Phase 2 Safe Restart funding. Transit staff will consult with Legal and Purchasing as may be required.



### **Corporate Implications:**

A by-law has been prepared for the Mayor and City Clerk to execute; providing the necessary authority to enter into any required TPA's with MTO. Once the by-law, attached to this report as Appendix A, has been enacted by Council it will be provided to the MTO to begin the administration of the TPA's.

### **Financial Implications:**

The combined \$24.6M in COVID-19 relief funding being provided to Brampton Transit under Federal-Provincial Safe Restart Program (Phase 1) and the Provincial Municipal Transit Enhanced Cleaning (MTEC) Fund, along with any additional funding that may possibly be made available from Phase 2 of the Safe Restart Funding will contribute to the forecasted transit revenue losses and incremental transit expenditures related to COVID-19 up to March 31, 2021.

### **Term of Council Priorities:**

In support of *Living the Mosaic: Brampton 2040 Vision*, this report achieves the following priorities under the *2019-2022 Council Term of Direction: A Compass for our Community* by providing the necessary authority for the Mayor and City Clerk to execute the required TPA with the MTO under the programs outlined in this report:

- Brampton is well run City:
  - Collaboration and Advocacy. Effectively leverage and seek partnerships.
  - Maintaining effective stewardship of municipal assets and services.

### **Conclusion:**

The MTO has provided the City of Brampton with confirmation of funding allocated to Brampton Transit to assist with the impact of COVID-19. This includes approximately a) \$24M under The Federal-Provincial Safe Restart Agreement (Phase I of 2), and b) \$0.6M under the Provincial Municipal Transit Enhanced Cleaning Fund.

A By-law is required to proceed with executing the required TPA(s) with the MTO in order to receive Brampton's approved allocation of \$24.6M, along with any future releases of funds provided through new phases of these programs.

Authored by:

Scott Gillner  
Senior Policy Advisor, Transit

Reviewed by:

Ivana Tomas  
Director, Transit Services

Approved by:

Alex Milojevic  
General Manager, Transit

Submitted by:

David Barrick  
Chief Administrative Officer



**Attachments:** Appendix A - By-law: Transfer Payment Agreements for Municipal Transit COVID-19 Relief Funding



**Appendix A**  
**Transfer Payment Agreements: Municipal Transit COVID-19 Relief Funding**



THE CORPORATION OF THE CITY OF BRAMPTON

# BY-LAW

*Number* \_\_\_\_\_ - 2020

## **COVID-19 Relief Funding for Brampton Transit**

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**WHEREAS** the Municipality wishes to enter into the required Transfer Payment Agreements in order to receive COVID-19 relief funds for the City's transit operations through the Federal-Provincial Safe Restart Agreement and the Municipal Transit Enhanced Cleaning Funding Programs (Ontario);

**AND WHEREAS** The Ministry of Transportation Ontario (MTO) will be carrying out the administration and coordination with municipalities under said funding programs;

**AND WHEREAS** the City is required to enter into Transfer Payment Agreement(s) with MTO in order that the City receive its share of approved funding under these programs;

**NOW THEREFORE** the Council of The Corporation of the City of Brampton  
**ENACTS AS FOLLOWS:**

1. That the Mayor and the City Clerk are hereby delegated authority to execute on behalf of the City of Brampton any Transfer Payment Agreements with Her Majesty the Queen in right of Ontario as represented by the Minister of Transportation as required under the provisions of:
  - a) any phases of the Federal-Provincial Safe Restart Agreement (Municipal Transit); and
  - b) the Provincial Municipal Transit Enhanced Cleaning Program,under key business terms and conditions acceptable to the General Manager, Transit or designate, and in a form acceptable to the City Solicitor or designate; and,
2. That the General Manager, Transit or designate, is hereby delegated authority to act as the Authorized Representative of the City and to execute on behalf of the City any amending agreement(s) or other documentation pursuant to any such Transfer Payment Agreements, under key business terms and conditions acceptable to the General Manager, Transit or designate and in a form acceptable to the City Solicitor or designate.



**Appendix A**  
**Transfer Payment Agreements: Municipal Transit COVID-19 Relief Funding**

**ENACTED and PASSED** this [enter date] day of [enter month], 2020.

Approved as to  
form.

Patrick Brown, Mayor

Approved as to  
content.

Peter Fay, City Clerk



**Date:** 2020-09-03

**Subject:** **Electric Bus Status Update**

**Secondary Title:** Provides an update on the status of the CUTRIC Pan-Canadian Battery Electric Bus Demonstration & Integration Trial (Phase I), proposed scope of Phase II, and requests an amendment to the 2020 budget to complete required electrification studies.

**Contact:** Alex Milojevic, General Manager, Transit  
905.874.2750 ext. 62332 [alex.milojevic@brampton.ca](mailto:alex.milojevic@brampton.ca)

**Report Number:** Brampton Transit-2020-095

**Recommendations:**

1. That the report from Alex Milojevic, General Manager, Transit, dated September 3, 2020, to the Committee of Council Meeting of September 23, 2020, re: **Electric Bus Status Update (Report Number: Brampton Transit-2020-095, IB.c)**, be received; and,
2. That the General Manager, Transit will report back in 2022 on the status of battery-electric bus trial (eBus) Phase I following a period of one year after the official start of service with the new electric buses; and,
3. That Council consider the approval of a project to implement Phase II of the eBus trial in support of the transition to an electric bus fleet, as described in this report, to be considered as part of the 2021 budget discussions, contingent on external funding; and,
4. That Council approve an amendment to the 2020 capital budget to establish two new capital projects required to undertake the following key electrification studies: 1. Brampton Transit Network Electrification Feasibility Analysis and Rollout Plan (\$250,000), and 2. Brampton Transit Sustainable Fleet Transition Strategy (\$150,000), and that the combined total of these studies (\$400,000) be funded from Reserve 121 – Municipal Transit Capital Expenditures; and,
5. That the General Manager, Transit or designate be delegated the authority to execute on behalf of the City an agreement with CUTRIC<sup>1</sup> for the completion of

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<sup>1</sup> CUTRIC – Refers to the [Canadian Urban Transit Research and Innovation Consortium](#)



the Brampton Transit Network Electrification Feasibility Analysis and Rollout Plan on the terms described in this report and otherwise satisfactory to the General Manager, Transit or designate and in a form acceptable to the City Solicitor or designate; and,

6. That the Director, Purchasing and General Manager, Transit, be authorized to begin procurement of the Brampton Transit Sustainable Fleet Transition Strategy as described in this report; and,
7. That the General Manager, Transit or designate, be delegated authority to act as the Authorized Representative of the City and to execute on behalf of the City any necessary documents, proposals, agreements including any amending agreement(s) or other documentation as may be required to complete the two studies noted in recommendations five (5) and six (6) of this report, under key business terms and conditions acceptable to the General Manager, Transit or designate and in a form acceptable to the City Solicitor or designate.

**Overview:**

- **The implementation of Phase I of Pan-Canadian Battery-Electric Demonstration and Integration Trial, including 8 battery-electric buses and 4 overhead chargers is progressing towards launch in early Q2 2021.**
  - Phase I is a \$16M project, of which \$11M is being funded by the Government of Canada.
  - Phase I is being administered by the Canadian Urban Transit Research and Innovation Consortium (CUTRIC) and involves Brampton Transit, York Region Transit, and TransLink (BC).
  - Phase I trial will last 30 months after start of service, and the official launch date will be planned for Q2/2021.
- **Scope and funding (\$32M) for the expansion of Phase I into Phase II eBus trial with launch in late 2022 or early 2023, as proposed in this report, and subject to consideration as part of the 2021 budget discussions.**
- **Council authority requested to amend the 2020 budget, with funding in the amount of \$400K, be provided from Reserve 121 – Municipal Transit Capital Expenditures; and**
- **With the \$400K in funding to establish two new capital projects to undertake consulting assignments required to progress the planning and transition towards a full electric bus fleet as follows:**
  1. **Brampton Transit Network Feasibility Electrification Analysis and Rollout Plan (\$250K) through a direct consultancy assignment with CUTRIC.**
  2. **Brampton Transit Sustainable Fleet Transition Strategy (\$150K) through a competitive public procurement for consulting services.**



## **Background:**

This report provides an update on the status of the CUTRIC Pan-Canadian Battery-Electric Bus Demonstration and Integration Trial (“eBus” Phase I), the proposed scope and timing of eBus Phase II, the need to complete two priority transit electrification studies, and the opportunity to include support for full zero emission bus fleet operating from the new Third Transit Facility as part of Phase I construction (2022-2024).

## **Current Situation:**

To keep pace with population and employment growth and deliver on the public’s expectations of transit service, the City of Brampton needs to invest further in its transit infrastructure. The City has defined the need for a larger vehicle fleet and a new operations, maintenance and storage facility through the Future Transit Provisions Technical Report as part of the 2015 Transportation Master Plan (TMP).

### eBus Phase I

CUTRIC Pan-Canadian Battery Electric Bus Demonstration & Integration Trial:

- Led by CUTRIC, with Brampton Transit, York Region Transit, TransLink (BC)
- Brampton’s portion = \$15.96M project; with \$11.15M (or 70%) being funding by the Government of Canada (through Natural Resource Canada’s Electric Vehicle Infrastructure Demonstration Program (EVID) and the Energy Innovation (EIP) Programs.
- Eight (8) battery-electric eBuses: Nova Bus (2) and New Flyer (6)
- Four (4) on-street Chargers: ABB (3) and Siemens (1)
- Largest single global deployment of fully interoperable eBuses and opportunity (overhead pantograph) eChargers from multiple manufacturers.
- Following the launch, currently targeted for early Q2/2021, this trial will operate for 30 months (2021-2023). Staff will report back to Council with the results of Year 1 in 2022.

### eBus Phase II

Proposed scope and timing of eBus Phase II will be presented for Council’s consideration during the 2021 budget process, and will expand the Phase I trial as follows:

- High level estimate of \$32M includes:
  - Additional ten (10) battery-electric zero tailpipe emission buses to be procured through a competitive procurement process.
  - One (1) high-powered (600kWh) on-street charger
  - One (1) energy storage device; for peak-shaving and energy management
  - Project management, data collection, installation site feasibility, charger performance, and energy analysis (site and buses) using on-board telemetry devices consistent with Phase I for comparison purposes.
  - Up to four (4) overhead chargers and required power upgrades (substation, etc.) for Sandalwood Transit Facility.



- Timing: 2021 budget consideration. Order equipment in early 2021 for late 2022 /early 2023 implementation pending further detailed engineering design.
- Upon Council approval of the project as part of the 2021 budget, contingent on external funding, staff will commence a review of external funding opportunities to provide potential support of this project and will report back to Council as required.

### Electrification Studies

There are a number of key environmental initiatives being brought forward to Council in the fall of 2020 for consideration. These include the Community Energy & Emissions Reductions Plan (CEERP), the Brampton Grow Green Environmental Master Plan Refresh, and the Corporate Sustainable Fleet Plan (which includes Transit's non-revenue support fleet vehicles).

Transportation Planning staff have also initiated the Transportation Master Plan (TMP) review process. The TMP is a long-range strategic document that identifies multi-modal policies and infrastructure needs. The TMP will be updated again in 2021, with formal project kick-off before the end of the year.

The transition from the current diesel/diesel-hybrid bus fleet to battery-electric buses in eBus Phase I and proposed Phase II, and beyond to a full zero tailpipe emission bus fleet, will be complex and challenging from a capital funding perspective (both on the fleet and facility side). This process will require significant investment by the City and financial support from senior levels of government. This is required due to the higher capital costs for electric buses versus standard diesel buses and the high capital costs associated with the supporting electric infrastructure (eChargers, facility retrofits, power upgrades including substations, etc.).

Based on the initial modelling completed by CUTRIC for Phase I (routes 23 and 26), these higher capital costs are expected to be offset by operational savings, in diesel and maintenance costs, in the range of approximately \$40K per year per bus and \$13K per year per bus, respectively, for a combined net savings of approximately \$53K per year per bus. These studies will further quantify these estimates based on total cost of ownership, factoring in additional costs for increased service hours and eBuses (to account for additional charging time).

In order to quantify and prioritize the transition to fully electric (which routes first, which type of electric buses, etc.) and ensure the maximum returns on the City's investment, two key studies must first be completed as described below:

1. **Brampton Transit Network Feasibility Electrification Analysis and Rollout Plan:**
  - Estimated value: \$250,000
  - Procurement: Direct contract with CUTRIC, with possible co-funding opportunity of up to 50% provided by the Federation of Canadian Municipalities (currently being explored).



- Brampton Transit is a paying member of CUTRIC, and CUTRIC has offered Brampton Transit a 40% discount to complete this assignment.
- CUTRIC has previously completed similar modelling for Brampton Transit, under eBus Phase I, in conjunction with the National Research Council (NRC) OF Canada. CUTRIC has the industry leading expertise in this very specialized field and is already a strong partner in our electrification effort.
- CUTRIC is a not-for-profit organization and is therefore exempt from the City of Brampton's Purchasing By-law.
- Purchasing has been consulted and is in agreement with and support of this approach given the significant benefits to the City.
- CUTRIC was contracted directly in the same manner in 2019 by eBus Phase I participants to provide Program Management and Data Analytics; which is being funded 100% by the Government of Canada through the approved eBus Phase I project with NRCan.
- Models diesel/diesel-electric hybrid buses versus both on-route opportunity (overhead/pantograph style) and depot (plug-in style) charging battery electric buses (BEB), and hydrogen fuel cell electric buses (FCEB).
- Highly technical, block-by-block / route-by-route techno-economic feasibility analysis and simulation including: energy (kW), economic (\$), and environmental (GHG).
- Over the past 36 months, CUTRIC has completed simulation work for more than 25 transit agencies, including full and partial fleets deployments assuming BEB and FCEB and their varying charging and fueling solutions.
  - This includes the Toronto Transit Commission and TransLink (larger transit agencies in Canada).
  - CUTRIC has also recently completed modelling work in California (USA) for Riverside Transit, Orange County Transit, and Santa Monica Big Blue Bus.

## **2. Brampton Transit Sustainable Fleet Transition Strategy:**

- Estimated value: \$150,000
- Procurement: Competitive Public Procurement.
- Transition pathway from current diesel/diesel-hybrid bus fleet to full zero tailpipe emission transit, procurement plan.
- Review operating complexities for Züm bus rapid transit.
- Deep costing analysis and short, medium, and longer term budget forecasting.
- Includes total cost of ownership life cycle costing analysis.

The above studies will help to determine opportunities for electrification rollout within Brampton Transit.

### New Third Transit Facility

The project was originally proposed to be delivered as a diesel/diesel-electric hybrid bus storage and maintenance facility, with space provisions for the future installation of electric charging infrastructure. The project has been split into two phases, and with



Phase I (of 250 buses) construction anticipated between 2022-2024 it is highly desirable to construct bus electrification infrastructure during Phase I.

Phase I of the project is already at the pre-design stage and gearing up towards the design-build stage. The design-build stage is pending funding confirmation through the Public Transit Stream of the Investing in Canada Infrastructure Program. Phase II (an additional 188 buses) is to be constructed at a later date, expanding the facility to full build out capacity as growth in the City of Brampton continues and service is increased beyond the end of this decade

Through CW128-2020, approved by City Council on June 10, 2020, Council passed a resolution which included the following:

*“Brampton City Council request to the Government of Canada, an incremental funding grant of approximately \$150M (to be confirmed), to provide the required investment to consider full electrification of the third transit facility in the City of Brampton”.*

The City of Brampton has an immediate opportunity to build and commission one of Canada’s first maintenance and storage facilities built to support a fully electric zero tailpipe emission bus fleet from this new location. Refer to the City’s website for a copy of the City’s [Media Release](#) regarding future possible electrification of the New Third Transit Facility. Being in the pre-design stage of facility development, there is a unique opportunity to establish electric bus infrastructure in a purpose built facility in the most cost effective manner.

### **Corporate Implications:**

#### Financial Implications:

Subject to Council approval, a new capital project will need to be established in the total amount of \$250,000 for a Brampton Transit Network Electrification Feasibility and Rollout Plan and a new capital project in the total amount of \$150,000 for a Brampton Transit Sustainable Fleet Transition Strategy. Funding for these initiatives, in the overall amount of \$400,000, is available from Reserve 121 – Municipal Transit Capital Expenditures.

#### Other Implications:

Staff are investigating a possible opportunity with CUTRIC regarding collaborating with FCM on a possible co-funding arrangement to complete the Network Feasibility Electrification Analysis and Rollout Plan. This may include possible funding of 50% project costs up to a maximum of \$350,000.

#### Purchasing:

1. Network Feasibility Electrification Analysis and Rollout Plan:



- Under Schedule D, paragraph 9(e) of the City's Purchasing By-law, procurement of goods or services from non-profit organizations are exempt from the procurement processes set out in the Purchasing By-law.

## 2. Sustainable Fleet Transition Strategy:

- A public Procurement Process will be conducted and proposals shall be evaluated in accordance with the published evaluation process within the bid document. Purchase approval will be obtained in accordance with the Purchasing By-law.
- All communication with Bidders involved in the procurement must occur formally, through the contact person identified in the bid document.

### **Term of Council Priorities:**

Transitioning the current diesel/diesel-electric hybrid bus fleet to full zero tailpipe emission buses supports the Brampton 2040 Vision and the 2019-2022 Term of Council Priorities established to improve transit, implement a green framework, sustainable growth, and lead in environmental innovation.

Transitioning to a fully electric zero emission bus fleet in the future builds on Council's commitment to reducing our carbon footprint and building a Green City, and helps to achieve the goals established by the Government of Canada to become net zero emissions by 2050.

### **Conclusion:**

Transit electrification projects such as: eBus Phase I, eBus Phase II, the Brampton Transit Network Feasibility Electrification Analysis and Rollout Plan, the Brampton Transit Sustainable Fleet Transition Strategy, and electrification of the new Third Transit Facility are all critical milestones in the City's journey to reducing greenhouse gas emissions generated in Brampton by 80% by 2050. The new Third Transit Facility serves an important role in supporting Brampton's future fully electric zero tailpipe emission bus fleet.

A well-connected environmentally sustainable transit network is critical to building Brampton's position on Canada's Innovation Corridor, and these electric bus initiatives will bring more Brampton innovation to the Corridor, while continuing to position Brampton Transit as a leader in sustainable transportation.

The studies identified in this report need to begin in 2020 with completion in 2021 to further inform the preparation of the 2022 budget discussions for the 2022-2031 forecast, and provide the necessary information required to plan a wider transition to electric buses during the short (2022-2031), medium (to 2040), and longer term (2050).



Authored by:

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Submitted by:

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Chief Administrative Officer

**Attachments: N/A**



**Date:** 2020-09-03

**Subject:** **Update on Transit Services**

**Secondary Title:** To provide a status update regarding impacts of COVID-19 on Brampton Transit, and to request a deferral of transit services planned for 2020 to 2021.

**Contact:** Alex Milojevic, General Manager, Transit  
905.874.2750 ext. 62332 [alex.milojevic@brampton.ca](mailto:alex.milojevic@brampton.ca)

**Report Number:** Brampton Transit-2020-072

**Recommendations:**

1. That the report from Alex Milojevic, General Manager, Transit, dated September 3, 2020, to the Committee of Council Meeting of September 23, 2020, re: **Update on Transit Services (Report Number Brampton Transit-2020-072, IB.C)**, be received; and,
2. That Council defer the fall 2020 transit service increases, approved as part of the 2020 budget, to the fall of 2021.

**Overview:**

- Effective July 2, 2020, Brampton Transit re-introduced front door boarding, resumed fare collection, introduced a mandatory non-medical mask or face covering policy, and increased capacity from a 50% seated load to the equivalent of a seated load (with passengers able to choose to sit or stand as they wish).
- Effective July 15, 2020, Brampton Transit updated the mandatory mask policy to the City Mandatory Face Covering By-law 135-2020.
- Since April 2020, Transit has experienced increases in the average monthly absenteeism rates within the Maintenance and Operations divisions.
- Ridership: High level estimates for YTD as of August 19, 2020 is approximately 61% of 2019 ridership and is summarized as follows:
  - Jan 1 – Mar 20 | Pre-COVID:
    - 13% higher than 2019.
  - Mar 21 – Jul 1 | Ceased fare collection:



- 30% of 2019.
  - Jul 2 – Aug 19 | Resumed fare collection:
    - 49% of 2019.
  - Year-end Dec 31:
    - Projected to grow to approximately 60% of 2019 ridership.
- The Transit budget shortfall was \$12M at the end of July and is expected to grow to \$18M by the end of the year.
- As part of the 2020 budget, Council approved a transit service increase of 27.6K service hours (annualized), to address critical ridership pressures and to expand Züm service to Toronto Pearson Airport.
- As a result of COVID-19 and the reduced ridership demand, the 2020 transit service increases will be deferred to fall 2021, subject to Council approval of the recommendations contained within this report.
- As part of the 2020 budget, Council approved a one-time transfer from the General Rate Stabilization (GRS) fund, in the amount of \$900K, to offset the costs to expand Züm service to Toronto Pearson Airport.
- As a result of the deferral of services, the \$900K one-time transfer from the GRS will not be required in 2020 and will be carried over to Transit's 2021 operating budget, then operating impacts will be determined for the 2022 budget process.
- Brampton Transit will be receiving approximately \$24.6M in funding to assist with the impact of COVID-19 as follows:
  - Federal-Provincial Safe Restart Program (Transit) (Phase I of 2) - \$24M. This covers losses up to September 30, 2020. Phase 2 is still to be announced.
  - Provincial Municipal Enhanced Transit Cleaning Fund - \$0.6M
- Staff will report back to Council as may be required with further updates on transit services, funding, or the impacts of COVID-19.

## **Background:**

### Approved 2020 Fare & Service Adjustments:

At a Special Council Meeting, held on February 26, 2020, City Council approved Brampton's 2020 budget, which included:

- An increase of 17,200 transit service hours (annual), to address critical ridership demands, at a net cost of \$1,482K.
- An increase of 10,400 transit service hours (annual), to extend Züm service to Toronto Pearson Airport, at a net cost of \$900K offset by the approval of a one-time transfer from the GRS fund of \$900K.
- A fare change, effective April 13, 2020, contributing \$1.05M in revenue on an annual basis.
- Free Fares for Brampton seniors at an annual loss in revenues of \$750K.

At the Council Meeting, held March 25, 2020, Council enacted By-law 52-2020 to amend User Fee By-law 380-2003 regarding Brampton Transit Fees in response to the



COVID-19 Emergency, to amend the effective date of the fare change from April 13, 2020 to August 31, 2020.

At the Council Meeting, held on June 10, 2020, Council enacted an amendment to By-law 52-2020 to further adjust the effective date of the fare change from August 31, 2020 to a "Date to be set by Council". Also at this meeting, to avoid requiring seniors to come, in person to Brampton Transit facilities to acquire a senior ID Card, Council approved staff's recommendation to defer the fall implementation of the free fares for Brampton senior residents to a date in 2021 to be proposed in a future report to Council or as part of the 2021 budget process.

#### Brampton Transit COVID-19 Response Plan:

As per Council approval of the Brampton Transit COVID-19 Response (C089-2020 on March 25, 2020):

- Effective March 21 through July 1:
  - Fare payment was not required.
  - Customers boarded through the rear doors.
  - Customers with accessibility needs who required the use of the ramp continued to use the front doors.
  - Operators area and priority seating was blocked off from riders to support physical distancing.
  - To ensure there was adequate distance between everyone on the bus, including employees, seats were identified with yellow tape and passengers were asked to not sit in these seats.
- March 23, service reductions were implemented.
  - Enhanced Saturday Service was provided Monday to Friday, regular Saturday service on Saturdays and regular Sunday service on Sundays.
  - Bus loads limited to half seated capacity to support recommended physical distancing practices. This means that once buses were half-full, stops will be bypassed and passengers may be left behind. Every effort was being made to deploy buses to pick up the remaining passengers.
  - On busier routes, articulated buses were put in place to assist with passengers' ability to maintain physical distancing while on board.

#### Brampton Transit COVID-19 Recovery Plan – Phase I:

As per Council approval of the Brampton Transit Recovery Plan (CW130-2020 on June 10, 2020), effective July 2, 2020:

- On buses and at Terminals, all passengers and operators are required to wear a non-medical mask or face covering (with the exception of children 2 years of age and under, the elderly or others that have medical conditions that would prevent them from wearing).
- Fare payment resumed, promoting PRESTO by waiving the \$6 card issuance fee for a limited time.
- Front door boarding resumed.



- Bus loads increased to the equivalent of full seated capacity, with passengers able to choose to sit or stand as they wish.

#### Brampton Transit Mandatory Face Covering By-law:

- Refer to C264-2020 being the Council report approving the Mandatory Face Covering By-law 135-2020 on July 8, 2020.
- Mandatory use of non-medical mask or face covering while attending an indoor public place including on Brampton Transit buses.
- By-law in effect, currently, from July 15, 2020 through September 30, 2020.

#### **Current Situation:**

The emergence of COVID-19 as a global pandemic has resulted in an unprecedented emergency response by the City. In support of provincial and regional emergency declarations, the City declared a Level 1 Major Emergency on March 17, 2020.

Measures were put in place to ensure the safety of all staff, our contractors, and the public. The City closed all facilities to the public on March 16, 2020. Brampton Transit Administrative Offices were closed to the public on March 23, 2020 and the Customer Service Counters at terminals were closed on April 27, 2020 (based on lower ridership and no fare payment required).

Customer Service counters at terminals (excluding Trinity Commons) were re-opened to the public on June 22, 2020, supporting the resumption of fare collection on July 2, 2020 along with returning to front door boarding and rear door exiting, maintaining physical distancing, and mandatory use of non-medical masks or face coverings.

#### Ridership/Service:

Although transit facilities were closed to the public and access restricted to all contractors, transit buses continued to run as staff provided essential front-line services to the public. In terms of ridership demand, refer to Appendix A for a year over year comparison graph for 2018, 2019, 2020. For the period January 1 through August 19, 2020:

- From January 1 through March 22 transit services and facilities continued to run uninterrupted; and,
- Effective March 23 service frequencies were reduced and/or routes were temporarily suspended.
  - Additional service hours and the number of buses servicing those routes remaining in operation were increased however to manage capacity and support physical distancing.

| Period          | Ridership   | Service   |
|-----------------|---|---|
| Jan 1 to Mar 20 | <ul style="list-style-type: none"> <li>• Approximately 13% higher than 2019.</li> </ul> | <ul style="list-style-type: none"> <li>• This was the pre-COVID-19 period and full service was being provided.</li> </ul> |



|                 |   |   |
|-----------------|---|---|
|                 | <ul style="list-style-type: none"> <li>• This was prior to ceasing fare collection and introducing rear door boarding.</li> </ul>   |   |
| Mar 21 to Jul 1 | <ul style="list-style-type: none"> <li>• High level estimates of approximately 30% of 2019 ridership.</li> </ul>  | <ul style="list-style-type: none"> <li>• This was the period of no-fare collection</li> <li>• Rear-door boarding introduced</li> <li>• Capacity reduced to 50% seated load</li> <li>• General level of service was on average about 65% (weekdays) and 87% (weekends).</li> <li>• This includes cancelled services that was re-directed to busier routes to support physical distancing.</li> </ul> |
|                 | <ul style="list-style-type: none"> <li>• Implemented enhanced cleaning and daily sanitizing of buses and terminals, much of was achieved by re-assigning employees from the Customer Service Counters in our transit terminals that were closed because fare collection had ceased.</li> </ul>                    |   |
| Jul 2 to Aug 19 | <ul style="list-style-type: none"> <li>• Approximately 50% of 2019 ridership.</li> </ul>  | <ul style="list-style-type: none"> <li>• Resumed fare collection.</li> <li>• Returned to front door boarding.</li> <li>• Capacity was increased to equal fully seated loads.</li> </ul>   |
|                 | <p>Notes:</p> <ul style="list-style-type: none"> <li>• Mandatory Mask By-law restrictions introduced. Generally a very high rate of compliance continues to be observed by staff (95% or higher).</li> <li>• Ridership is projected to grow to approximately 60% of 2019 ridership levels by year-end.</li> </ul> |   |

#### Fall 2020 Service:

Additional service will be implemented effective September 8, 2020, with approximately half of the remaining routes that are currently temporarily suspended, reintroduced. Brampton Transit will also operate special service to support the reopening plans of school boards, as well as additional unscheduled services to help address some continued closed-door incidents. Further enhancements are planned for later in the fall and into 2021, which will be dependent on demand, capacity within the system and available resources.

#### Deferral Züm service to Toronto Pearson Airport to 2021

Given the impact of COVID-19 on revenue and ridership demand the above service is not required for implementation in the fall of 2020. Staff are therefore recommending a deferral of the Züm extension to Toronto Pearson Airport to fall of 2021.



As part of the 2020 Approved Operating Budget, Council approved the expansion of Züm service to Toronto Pearson Airport at a net cost of \$900K being funded from a one-time transfer from the GRS fund. As a result of this service being deferred to 2021, the \$900K one-time transfer from the GRS will not be required in 2020 and will therefore be carried over to Transit's 2021 operating budget, then operating impacts will be determined for the 2022 budget process.

#### 2020 Year-to-Date Revenues/Expenditures and Year-End Projection:

Refer to Table 1 below for a summary of the 2020 Transit financial overview:

**Table 1**

| 2020 Transit Financial Overview |   |              |             |                         |            |                          |              |             |                         |            |
|---------------------------------|---|--------------|-------------|-------------------------|------------|--------------------------|--------------|-------------|-------------------------|------------|
| Account Category                | 2020 Year-to-Date (as of July 31, 2020) |              |             |                         |            | 2020 Year-End Projection |              |             |                         |            |
|                                 | Budget                                  | Actuals      | % of Budget | Shortfall/<br>(Savings) | %          | Budget                   | Projection   | % of Budget | Shortfall/<br>(Savings) | %          |
| Transit Revenues [A]            | (\$48M)                                 | (\$23M)      | 48%         | \$25M                   | 52%        | (\$87M)                  | (\$45M)      | 52%         | \$42M                   | 48%        |
| Provincial Gas Tax [B]          | \$0M                                    | \$0M         | 0%          | \$0M                    | 0%         | (\$13M)                  | (\$13M)      | 100%        | \$0M                    | 0%         |
| Transit Expenditures [C]        | \$97M                                   | \$84M        | 87%         | (\$13M)                 | (13%)      | \$178M                   | \$154M       | 87%         | (\$24M)                 | (13%)      |
| <b>Net [A]+[B]+[C]</b>          | <b>\$49M</b>                            | <b>\$61M</b> |             | <b>\$12M</b>            | <b>25%</b> | <b>\$77M</b>             | <b>\$95M</b> |             | <b>\$18M</b>            | <b>23%</b> |
| COVID-19 Impacts**              | \$0M                                    | \$2M         |             | \$2M                    |            | \$0M                     | \$4M         |             | \$4M                    |            |
| <b>Transit Total</b>            | <b>\$49M</b>                            | <b>\$63M</b> |             | <b>\$14M</b>            | <b>29%</b> | <b>\$77M</b>             | <b>\$99M</b> |             | <b>\$22M</b>            | <b>28%</b> |

*Assumptions:*

*\*Ridership and fare revenues will return to 60% of budget by year end.*

*\*\*Incremental costs relating to COVID for items such as enhanced cleaning, additional sick credits, physical distancing and mandatory mask signage, etc. These expenses have been captured in the City's emergency measures cost centres.*

**Cost Containment:** In light of COVID-19 there were a number of cost containment measures implemented in an effort to minimize the financial impact due to the loss of fare revenues. Examples of some the key measures are summarized in Table 2 below:

**Table 2**

| Program Area  | Cost Containment Savings  |
|---------------|---|
| Labour/Salary | A large portion of these savings continue to develop as a result of reduced service.  |
| Overtime      | Limiting the amount of approved overtime to only essential needs (for example, only using overtime to avoid cancelling the last bus late at night).   |
| Diesel Fuel   | Two factors are contributing to these savings. 1. As are result of reduced service, there has been less diesel fuel consumed, and 2. There has been a reduction in the per litre cost of diesel fuel, resulting in budget savings (budgeted \$1.00/L, current rate approximately \$0.73/L). |



|                 |   |
|-----------------|---|
| Bus Maintenance | With reduced service and the subsequent reduction in kilometres driven.   |
| PRESTO Fees     | As a result of lower fare revenues, along with the period of free-fares, there has been a subsequent savings in commission fees paid to PRESTO. |

*COVID-19 Sick Time:* In consultation with Senior Leadership Team and Human Resources, 80 hours of COVID-19 sick time credits were provided to unionized Transit frontline staff, valued at approx. \$3.1M.

- July 31, 2020: Approximately \$0.8M (25%) of the sick time credit has been used.

*Absenteeism:* Transit has experienced an increase in absenteeism rates due to COVID-19. A continued higher than normal absenteeism rate may be experienced as service is fully restored to pre-COVID levels.

A high level summary of these impacts within our Maintenance and Operations divisions, comparing average monthly off hours from January through March 2020 to April through July, 2020, are approximately as follows:

- Maintenance: increased from an average of 6% (pre-COVID) to an average of 10% (during-COVID).
- Operations: increased from an average of 7% (pre-COVID) to an average of 15% (during-COVID).

*Pre-Screening:* Each employee is required to complete a pre-screening prior to coming to work for their shift. As service levels increase, absenteeism will be a limiting factor on the amount of service we may be able to provide.

*Daily Sanitization:* Since mid-March, Transit has been able to utilize modified workers and/or mobilize re-assigned staff to assist in these efforts. This is not sustainable, however, and a longer term solution is being developed for consideration as part of the 2021 budget when submitted to Council for approval. Staff effort and materials costs associated with daily sanitization of buses and facilities are expected to continue into 2021 and will need to be addressed through the 2021 operating budget process. This level of cleaning and sanitization is expected.

In response to COVID-19, transit drastically enhanced the level of cleaning and sanitizing both on-board transit buses and at transit facilities. Transit has a target of sanitizing all buses over a course of 48 hours, but through utilization of modified operators, the re-assigning of PT terminal staff and the use of overtime by transit general service persons, Transit staff have been able to sanitize all buses within a 24 hour period. Transit estimates the labour cost to perform this enhanced cleaning will be almost \$2M by the end of the year.



This level of enhanced cleaning may continue in 2021, especially if a second and/or third wave occurs, and any additional costs not reimbursed through the Safe Restart Program, will need to be addressed as part of the 2021 budget process.

Looking ahead to 2021:

- Economic results are uncertain.
- Ridership recovery will be uncertain including the impact of a possible second wave.
- What is certain:
  - (1) The economy is reopening gradually.
  - (2) Ridership is coming back slowly but relatively steadily.
  - (3) School trips will be impacted this fall, and staff will be closely monitoring the situation.
  - (4) Many companies are still having employees work from home.
  - (5) Job loss recoveries are uncertain, and
  - (6) At some point in the near future, operating at the equivalent of a seated load will mean ridership demand will exceed the effective capacity of the service, and a return to full pre-COVID-19 service may be required sooner than 2021.
- The 2021 Transit budget is being prepared based on the following assumptions:
  - (a) Ridership will start at approximately 60% of the 2019 ridership levels and will grow by 5% each quarter in 2021, reaching 80% of 2019 ridership by the end of 2021. Staff will continue to closely monitor ridership results and report on this during the budget process and throughout 2021.
  - (b) The 2020 service additions approved by Council for the fall of 2020 will be deferred and implemented in the fall of 2021, subject to Council approval of the recommendations contained within this report. Based on current and projected 2021 ridership levels there will be no additional service expansion requested as part of the 2021 budget process.
  - (c) Particular attention will be paid to the timing of the extension of Züm service to Toronto Pearson Airport and will only be implemented as service demand increases due to an increase in passenger volumes through the airport. This is subject to and upon Council approval of the recommendations contained within this report.
  - (d) Provincial gas tax funding for 2021 will be held at 2020 budget levels.

**Corporate Implications:**

Financial Implications:

Deferral of the 2020 approved transit service increases and the one-time transfer from the GRS fund, will result in a net budget savings of \$1,482K in 2020. These savings have been identified above as a cost containment measure and will reduce the impact of the 2020 revenue loss. As a result of discussion and details provided surrounding the Provincial-Federal Safe Restart Agreement, Transit staff anticipate COVID impacts for the 2020 budget year will be recovered.

Other Implications:



#### 2020 Growth Buses:

- Transit has taken delivery of the 23 growth buses scheduled for delivery in 2020.
- Ordering of in-service buses for 2021 will be delayed.

#### Federal-Provincial Safe Restart Agreement:

- On July 27, 2020, as part of the federal-provincial Safe Restart Agreement, the Ontario government announced that it had secured up to \$4 billion in one-time emergency assistance to provide Ontario's 444 municipalities with the support they need to respond to COVID-19, and deliver the critical services people rely on every day.
- This investment will provide support to municipalities and municipal transit systems to help them deal with financial pressures related to COVID-19, maintain critical services and protect vulnerable people as the province safely and gradually opens. It includes:
  - Up to \$2 billion to support municipal operating pressures; and
  - Up to \$2 billion to support municipal transit systems.
- The City of Brampton is set to receive an allocation of \$10.9M under Phase 1 to support municipal operating pressures.
- Brampton Transit is also set to receive additional funding support, which will be allocated as follows:
  - Phase 1: \$666 million (1/3<sup>rd</sup>) will be allocated to municipal transit systems based on the same ridership formula used to calculate the Gas Tax allotments.
    - City of Brampton will receive up to \$24,031,309 in support for COVID-19 related expenditures incurred from April 1, 2020 to September 30, 2020.
  - Phase 2: Details on the remaining \$1.33B (remaining 2/3<sup>rd</sup>s) are still to be announced at the time of writing this report, but are currently indicating coverage for eligible expenditures up to March 31, 2021.

#### Other funding programs

- New - ICIP Resiliency Funds:
  - Note this will allow municipalities to redirect up to 10% of the Investing in Canada Infrastructure Program (ICIP) allocation to COVID-19 related projects. The full City of Brampton ICIP allotment for the Transit Stream has been previously applied for and is awaiting various levels of approval.
- New - Provincial Municipal Transit Enhanced Cleaning (MTEC) Fund:
  - The provincial government has announced a new funding program to assist municipal transit agencies by providing funding under the Municipal Transit Enhanced Cleaning (MTEC) fund.
  - The Ontario Government is providing up to \$15M to 110 municipalities across the province to support enhanced cleaning of municipal public transit systems to keep passengers and employees safe and help reduce the transmission of COVID-19.



- On June 29, 2020, Mayor Brown was notified by the Minister of Transportation that Brampton Transit will receive an allocation of \$602,038 under the MTEC.
- Eligible costs will include direct costs incurred by the municipality on or after April 1, 2020 and on or before December 31, 2020.

### **Term of Council Priorities:**

In support of *Living the Mosaic: Brampton 2040 Vision*, this report achieves the following Term of Council Priorities for 2019-2022:

- Brampton is a healthy and safe City. Continue to ensure the safety and well-being of our citizens.
- Brampton is well run City. Maintaining effective stewardship of municipal assets and services.

### **Conclusion:**

Transit leadership would like to take this opportunity to acknowledge and thank our frontline workers for continuing to come to work during this pandemic and by doing so enabled Brampton's essential services to keep moving. Brampton Transit took reasonable steps in consultation with Peel Public Health and transit agencies country-wide.

Some staff were re-deployed from their regular duties, especially those affected by the closure of our Customer Service Counters at our terminals, to re-assigned duties including the sanitization of our buses and facilities to keep our customers and their co-workers safe. These tireless efforts continue today on daily basis.

Passenger loads on buses are currently limited to roughly a full seated load or 35 people on a standard bus. Ridership levels have returned to almost 60% of comparable 2019 levels. Based on these two items, staff do not believe the fall service increases approved as part of the 2020 budget are required. Staff recommend deferring the implementation of these service increases to the fall of 2021.

The City of Brampton is set to receive approximately \$24.6M in combined COVID-19 funding from the federal and provincial governments under Phase 1 of the Federal-Provincial Safe Restart Agreement and the Provincial Municipal Transit Enhanced Cleaning Funding. Additional funding is also possible beyond September 30, 2020 to March 31, 2021, as more details are released as part of Phase 2 of the Federal-Provincial Safe Restart program.

As Brampton Transit progresses forward along the reopening pathway, staff will continue to follow the recommendations and guidance provided by senior levels of government and public health officials. Further update reports will be submitted to City Council periodically for the duration of the pandemic as required.

Authored by:

Reviewed by:



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Chief Administrative Officer

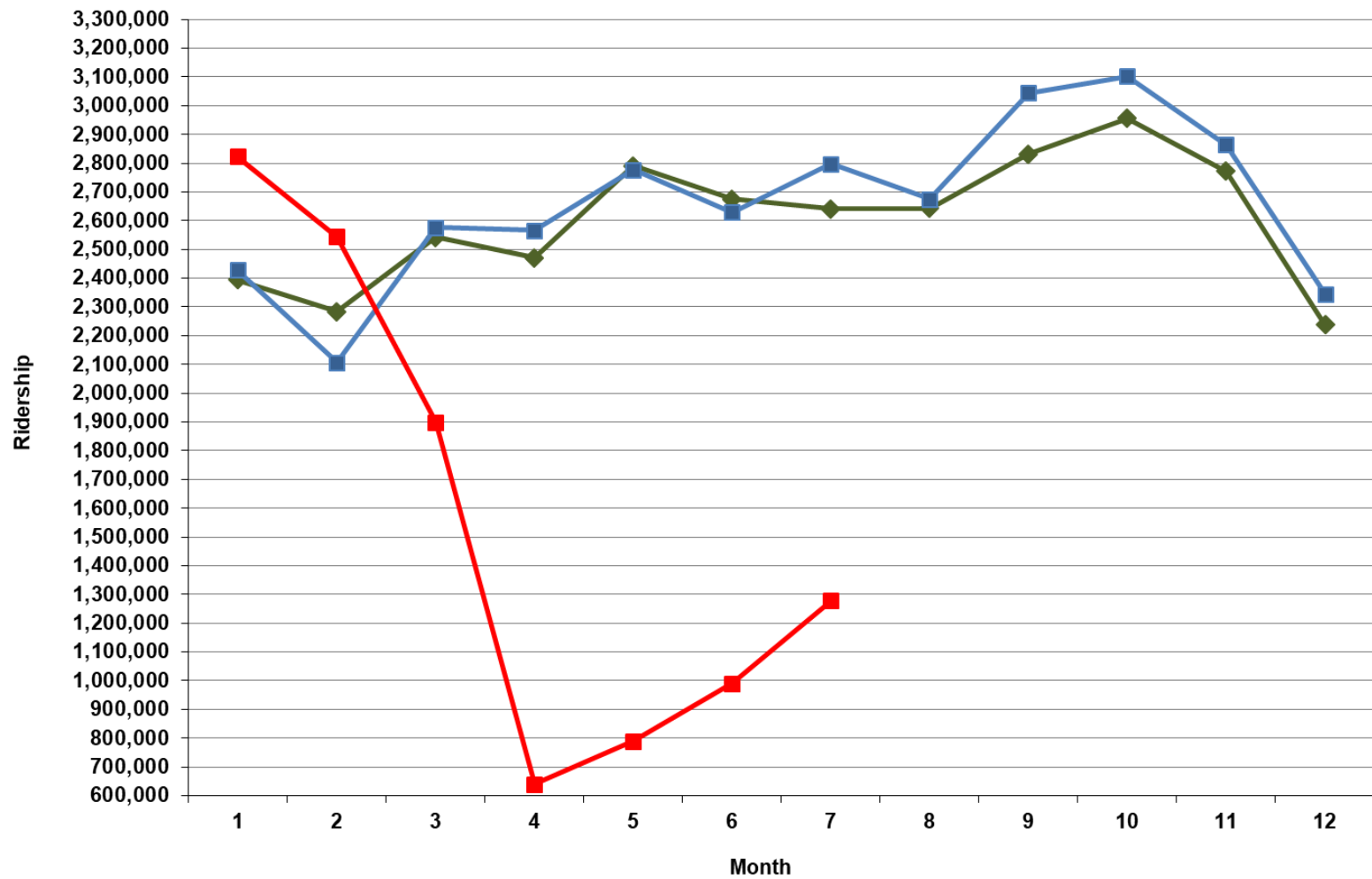
**Attachments: Appendix A – Brampton Transit Ridership: 2018, 2019, 2020 YTD**



Appendix A

# BRAMPTON TRANSIT RIDERSHIP

2018, 2019, 2020 YTD





## Referred Matters List - 2018-2022 Term of Council

| RML ID               | Origin Meeting |                                |                        | Report to | Report Name (working title only)   | Original<br>Deadline/ Target | Revised Target<br>Date | Revision<br>Number | Contact                                   |
|----------------------|----------------|--------------------------------|------------------------|-----------|--|------------------------------|------------------------|--------------------|---|
|                      | Date           | Resolution /<br>Recommendation | Council /<br>Committee |           |  |                              |                        |                    |   |
| City Council         |                |                                |                        |           |  |                              |                        |                    |   |
| RM 50/2019           | 2019/04/24     | <a href="#">C136-2019</a>      | CL                     | CL        | Costs and Benefits of becoming a 5G Enabled City   | 2019/07/10                   | 2020/09/30             | 12                 | M. Fearon x42121                          |
| RM 91/2019           | 2019/07/10     | <a href="#">C271-2019</a>      | CL                     | CW        | Technology Research for the 2022 Municipal Election  | 2019/10/16                   | 2020/09/30             | 6                  | P. Fay x42172<br>S. Hans x43481           |
| RM 114/2019          | 2019/09/18     | <a href="#">CW374-2019</a>     | CW                     | CW        | Options to minimize the impact of major road closures through use of traffic light signal technology   | 2019/12/04                   | 2020/09/30             | 7                  | M. Parks x42572                           |
| RM 121/2019          | 2019/10/16     | <a href="#">CW428-2019</a>     | CW                     | CW        | Williams Parkway Widening Review   | Q2 2020                      | 2020/09/30             | 1                  | M. Won x42533                             |
| RM 134/2019          | 2020/12/11     | <a href="#">C441-2019</a>      | CL                     | CL        | Healthcare in Brampton - Confirmation of the City's Local Share Commitment   | 2020/03/11                   | 2020/09/30             | 5                  | L. Rubin-Vaughan x45977                   |
| RM 135/2019          | 2020/12/11     | <a href="#">C445-2019</a>      | CL                     | CL        | Work Plan for a Municipal Development Corporation  | 2020/03/11                   | 2020/09/30             | 5                  | G. Kaur x43694                            |
| RM 8/2020            | 2019/01/15     | <a href="#">CW004-2020</a>     | CW                     | CW        | Potential use of Block 109, 43M-1425 and Block 99, 43M-1378, for park-like purposes - Ward 10  | 2020/04/08                   | 2020/12/02             | 2                  | R. Gasper x46624                          |
| RM 18/2020           | 2020/02/18-25  | <a href="#">BC010-2020</a>     | BC                     | CW        | Brampton Sign for Tourism Promotion - Potential Partnerships   | 2020/04/22                   | 2020/10/28             | 1                  | J. Tamming x42889                         |
| RM 45/2020           | 2020/08/05     | <a href="#">C286-2020</a>      | CL                     | CL        | e-Scooter Pilot Program  | 2020/09/16                   | 2020/10/14             | 1                  | R. Forward x42052<br>H. Zbogar x43553     |
| RM 46/2020           | 2020/08/05     | <a href="#">C289-2020</a>      | CL                     | CW        | Blue Box Program Transition to Full Producer Responsibility  | 2020/11/25                   |                        |                    | D. Boyce x42358<br>J. Holmes x42554       |
| RM 56/2020           | 2020/09/16     | <a href="#">tbc</a>            | CL                     | CL        | 2020 Preliminary Road Rehabilitation – Potential Inclusion of Meadowland Gate and Balmoral Drive east of Bramalea Road; and Reclassification of Haggart Avenue North and Railroad Street | 2020/09/30                   |                        |                    | J. Holmes x42554                          |
| Committee of Council |                |                                |                        |           |  |                              |                        |                    |   |
| RM 46/2018           | 2018/12/05     | <a href="#">CW337-2018</a>     | CW                     | CW        | ROI and costs/benefits analysis of the Brampton Beast Hockey Club Sponsorship Agreement  | 2019/03/20                   | Q4 2020                | 7                  | D. Boyce x42358                           |
| RM 9/2019            | 2019/01/16     | <a href="#">CW028-2019</a>     | CW                     | CW        | Update on protecting the City's trademark, logo and wordmark   | 2019/04/03                   | Q4 2020                | 14                 | J. Tamming x42889                         |
| RM 12/2019           | 2019/01/30     | <a href="#">CW051-2019</a>     | CW                     | CW        | Development of a residential hospice in Brampton   | 2019/04/17                   | 2020/12/09             | 6                  | D. Boyce x42358                           |
| RM 45/2019           | 2019/04/03     | <a href="#">CW150-2019</a>     | CW                     | CW        | Housekeeping Amendments to Brampton Appeal Tribunal By-law 48-2008   | 2019/06/12                   | 2020/10/07             | 10                 | P. Fay x42172                             |
| RM 48/2019           | 2019/04/17     | <a href="#">CW187-2019</a>     | CW                     | CW        | Bovaird House – Robinson Barn  | 2019/09/04                   | Q4 2020                | 7                  | J. Holmes x42554                          |
| RM 54/2019           | 2019/04/17     | <a href="#">CW190-2019</a>     | CW                     | CW        | Proposed changes to legislation concerning consumption of alcohol in public spaces   | 2019/09/04                   | 2022                   | 3                  | L. Rubin-Vaughan x45977<br>B. Boyes x2722 |
| RM 62/2019           | 2019/05/15     | <a href="#">CW219-2019</a>     | CW                     | CW        | Downtown Mobility Hub and Metrolinx's transit oriented development strategy  | 2019/09/04                   | Q4 2020                | 8                  | P. Aldunate x42435                        |
| RM 84/2019           | 2019/06/19     | <a href="#">C247-2019</a>      | CL                     | CW        | Costs/Benefits related to Banning of Election Signs  | 2020/01/15                   | 2020/10/21             | 5                  | P. Morrison x63201                        |
| RM 106/2019          | 2019/09/04     | <a href="#">CW343-2019</a>     | CW                     | CW        | Proposed surplus declaration of 7752 Churchville Road  | 2019/12/04                   | Q4 2020                | 4                  | D. Boyce x42358                           |
| RM 107/2019          | 2019/09/04     | <a href="#">CW343-2019</a>     | CW                     | CW        | Proposed demolition of the Siemens Building at 2719 Bovaird Drive West   | 2019/12/04                   | Q4 2020                | 2                  | J. Holmes x42554                          |
| RM 108/2019          | 2019/09/04     | <a href="#">CW343-2019</a>     | CW                     | CW        | Proposed demolition of the residential structures at 10981 Torbram Road  | 2019/12/04                   | Q4 2020                | 3                  | J. Holmes x42554                          |
| RM 110/2019          | 2019/09/11     | <a href="#">C338-2019</a>      | CL                     | CW        | Safety and Security Measures in all City Facilities and Public Spaces in the Downtown Area   | 2019/11/13                   | Q4 2020                | 3                  | B. Boyes x 42722<br>R. Said x42645        |
| RM 117/2019          | 2019/10/02     | <a href="#">CW390-2019</a>     | CW                     | CW        | Expansion of entrepreneurial support city-wide   | Q2 2020                      | 2020/12/02             | 1                  | C. Barnett x43926                         |
| RM 130/2019          | 2019/11/13     | <a href="#">CW464-2019</a>     | CW                     | CW        | Effectiveness of improved winter maintenance service levels  | 2020/04/22                   | 2020/10/07             | 2                  | M. Parks x42572                           |
| RM 131/2019          | 2019/11/13     | <a href="#">CW477-2019</a>     | CW                     | BC        | Timeline, plan and costing to improve water quality of water bodies within the City's jurisdiction   | 2020 Budget                  | 2020/10/07             | 2                  | M. Won x42533<br>M. Hoy x42608            |
| RM 4/2020            | 2019/12/04     | <a href="#">CW498-2019</a>     | CW                     | CW        | Review of offers received for City Friendship Agreements with Ahmeda-bad, India, and Riberia Grande, Azores, Portugal  | 2020/01/29                   | 2020/10/07             | 4                  | J. Tamming x42889                         |
| RM 6/2020            | 2019/12/04     | <a href="#">CW513-2019</a>     | CW                     | CW        | Negotiations for structuring a long-term lease and funding arrangement for the joint development of the Trailhead Eco Park   | 2020/03/04                   | 2020/12/02             | 2                  | D. Boyce x42358                           |



| RML ID   | Origin Meeting           |   |                     | Report to | Report Name (working title only)   | Original Deadline/ Target | Revised Target Date | Revision Number | Contact                                   |
|--|--------------------------|---|---------------------|-----------|--|---------------------------|---------------------|-----------------|---|
|  | Date                     | Resolution / Recommendation                             | Council / Committee |           |  |                           |                     |                 |   |
| RM 9/2020  | 2019/01/15               | <a href="#">CW007-2020</a>                              | CW                  | CW        | Arm's Length Organization for Arts, Culture and Creative Industry Development in Brampton - Advisory Panel Appointments                                    | 2020/04/08                | Q4 2020             | 3               | J. Tamming x42889                         |
| RM 17/2020   | 2020/02/26<br>2020/03/04 | <a href="#">C052-2020</a><br><a href="#">CW080-2020</a> | CL/CW               | CW        | Implementation of the Driveway Permit Program  | 2020/06/17                | 2020/10/07          | 1               | Legislative Services<br>R. Forward x42052 |
| RM 19/2020   | 2020/03/04               | <a href="#">CW072-2020</a>                              | CW                  | CW        | Participation of Brampton-resident players with the Brampton Canadettes and with other affiliated local sport organizations                                | 2020/06/03                | 2020/10/07          | 2               | D. Boyce x42358                           |
| RM 20/2020   | 2020/03/04               | <a href="#">CW079-2020</a>                              | CW                  | CW        | Posting the land acknowledgement on city-owned parks and facilities  | 2020/06/03                | Q4 2020             | 2               | G. Kaur x43694                            |
| RM 23/2020   | 2020/03/11               | <a href="#">C081-2020</a>                               | CL                  | CW        | Youth Internships and Mentoring Programs   | Q2 2020                   | 2020/11/18          | 2               | S. Aujla x42155                           |
| RM 27/2020   | 2020/05/06               | <a href="#">CW094-2020</a>                              | CW                  | CW        | Sustainable Procurement Strategy   | 2020/09/09                | 2020/10/07          | 2               | D. Oliveira x5195                         |
| RM 32/2020   | 2020/05/27               | <a href="#">C186-2020</a>                               | CL                  | CW        | Downtown Brampton COVID-19 Sharps Disposal Mitigation Pilot - Quarterly Updates  | Q3 2020                   | Q4 2020             | 1               | M. Marr x45333                            |
| RM 36/2020   | 2020/06/03               | <a href="#">CW125-2020</a>                              | CW                  | CW        | Enhancement and Improvements to Service Delivery   | 2020/09/09                | 2020/10/21          | 1               | D. Barrick x42625                         |
| RM 37/2020   | 2020/06/03               | <a href="#">CW133-2020</a>                              | CW                  | CW        | Campaign to provide free, possibly branded, masks for limited distribution to riders and operators   | 2020/09/09                | 2020/10/07          | 1               | A. Milojevic x62332                       |
| RM 41/2020   | 2020/06/17               | <a href="#">CW141-2020</a>                              | CW                  | CW        | RCC Media Proposal - Revenue Generating Bridge Messaging Opportunities   | 2020/09/23                | 2020/10/07          | 1               | G. Kaur x43694                            |
| RM 42/2020   | 2020/06/17               | <a href="#">CW142-2020</a>                              | CW                  | CW        | Scope of potential road closures in the downtown to help downtown restaurants and businesses during the COVID-19 recovery efforts                          | 2020/09/23                | 2020/10/07          | 1               | J. Holmes x42554                          |
| RM 47/2020   | 2020/08/05               | <a href="#">C318-2020</a>                               | CL                  | CW        | Extension of Noise Wall at Highway 410 and Brussels Avenue to the Neighbouring Development   | 2020/11/18                |                     |                 | J. Holmes x42554                          |
| RM 48/2020   | 2020/09/09               | <a href="#">CW163-2020</a>                              | CW                  | CW        | Proposal for The City of Brampton-Lorne Scots Military Museum  | 2020/12/02                |                     |                 | D. Barrick x42625                         |
| RM 49/2020   | 2020/09/09               | <a href="#">CW164-2020</a>                              | CW                  | CW        | Road and Public Safety   | 2020/12/02                |                     |                 | B. Boyes x42722                           |
| RM 50/2020   | 2020/09/09               | <a href="#">CW166-2020</a>                              | CW                  | CW        | Excessive Exterior Lighting on Residential Property  | 2020/12/02                |                     |                 | P. Morrison x63201                        |
| RM 51/2020   | 2020/09/09               | <a href="#">CW167-2020</a>                              | CW                  | CW        | Neighbourhood Watch Brampton Program   | 2020/12/02                |                     |                 | B. Boyes x42722                           |
| RM 52/2020   | 2020/09/09               | <a href="#">CW170-2020</a>                              | CW                  | CW        | Micro-Mobility and the Broader Transportation Paradigm   | 2020/12/02                |                     |                 | H. Zbogor x43553                          |
| RM 53/2020   | 2020/09/09               | <a href="#">CW175-2020</a>                              | CW                  | CW        | Potential granting opportunities for women's support groups and empowerment initiatives, and possible existing gaps  | 2020/12/02                |                     |                 | J. Tamming x2889                          |
| RM 54/2020   | 2020/09/09               | <a href="#">CW176-2020</a>                              | CW                  | CW        | Salary Administration Policy, with particular reference to CW378-2017, and 2018 semi-annual review   | 2020/12/02                |                     |                 | M. Medeiros x42520                        |
| RM 55/2020   | 2020/09/09               | <a href="#">CW181-2020</a>                              | CW                  | CW        | Necessary headwall replacements on Links Lane, Champion Court and Classic Drive, along with the potential costs related to headwall replacements city-wide | 2021 Budget               |                     |                 | M. Parks x42572                           |
| <b>Planning and Development Committee</b>  |                          |   |                     |           |  |                           |                     |                 |   |
| RM 86/2019   | 2019/06/17               | <a href="#">PDC098-2019</a>                             | PDC                 | PDC       | Student Housing - Policy Review  | 2019/09/23                | Q3 2020             | 2               | B. Bjerke x42327<br>M. Palermo x42457     |
| RM 86/2019   | 2019/06/17               | <a href="#">PDC098-2019</a>                             | PDC                 | PDC       | Student Housing - Rental Protection  | 2020/03/23                | 2020/12/07          | 3               | B. Bjerke x42327<br>M. Palermo x42457     |
| RM 40/2020   | 2020/06/08               | <a href="#">PDC042-2020</a>                             | PDC                 | PDC       | Second Units Update - Mobile Inspect   | 2020/07/27                | 2020/12/07          | 2               | R. Conard x42440                          |
| RM 43/2020   | 2020/07/06               | <a href="#">PDC082-2020</a>                             | PDC                 | PDC       | Increasing the minimum sustainability threshold sought and required by new development applications as part of the Sustainability Matrix Scoring System    | 2020/10/26                |                     |                 | A. Parsons x42063<br>M. Hoy x42608        |
| RM 44/2020   | 2020/08/05               | <a href="#">C284-2020</a>                               | CL                  | PDC       | Unbanning of Day Nurseries in Residential Areas  | 2020/11/16                |                     |                 | R. Forward x42052                         |
| <b>Note:</b> Referred Matters for which a specific target date was not requested by Council/Committee have been issued an arbitrary target date approximately three (3) months from the date of the meeting at which the resolution/recommendation was passed. |                          |   |                     |           |  |                           |                     |                 |   |