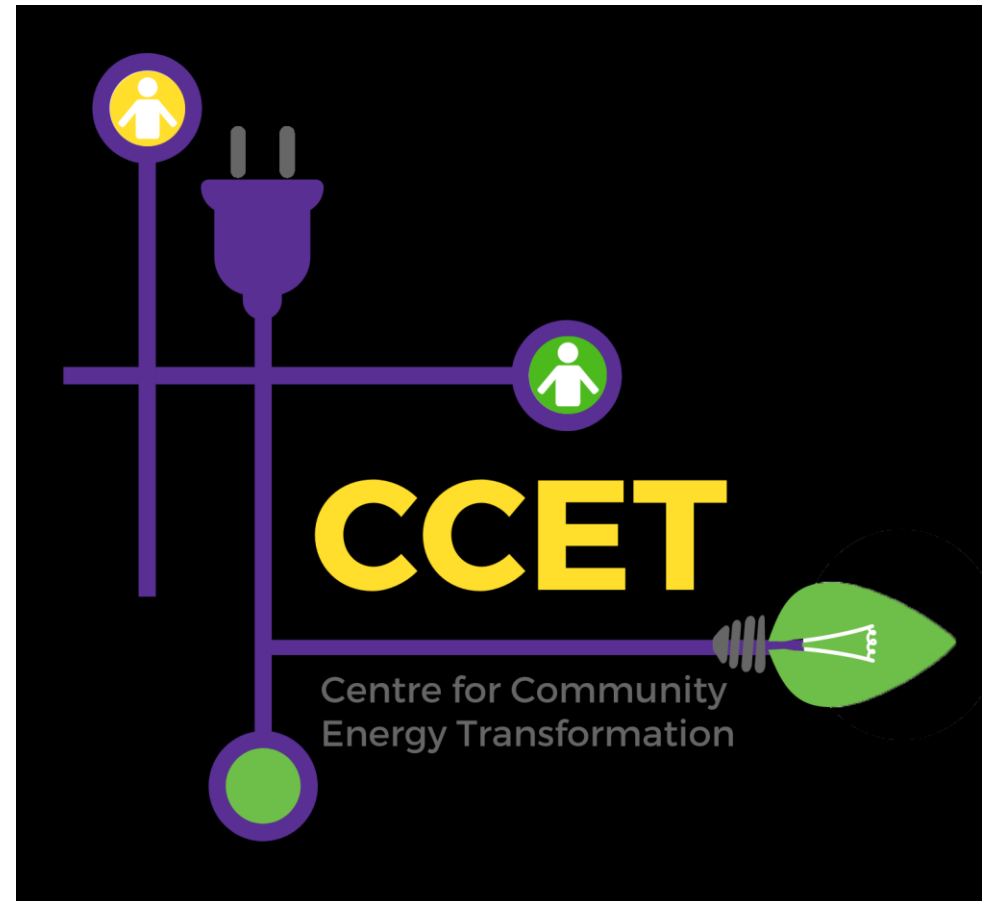


Centre for Community Energy Transformation

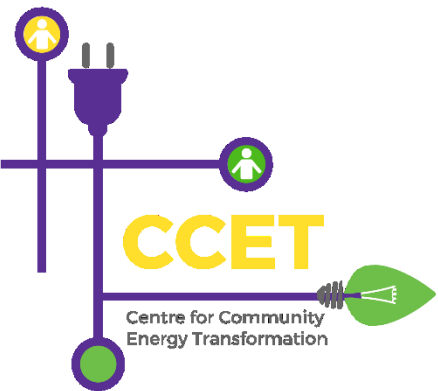
BEAC

2020.10.13



Impetus for Centre for Community Energy Transformation (CCET)

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



Why a CCET? Brampton's Climate Emergency










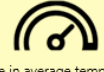

Brampton City Council Declares Climate Emergency

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

Like Share Tweet



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

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

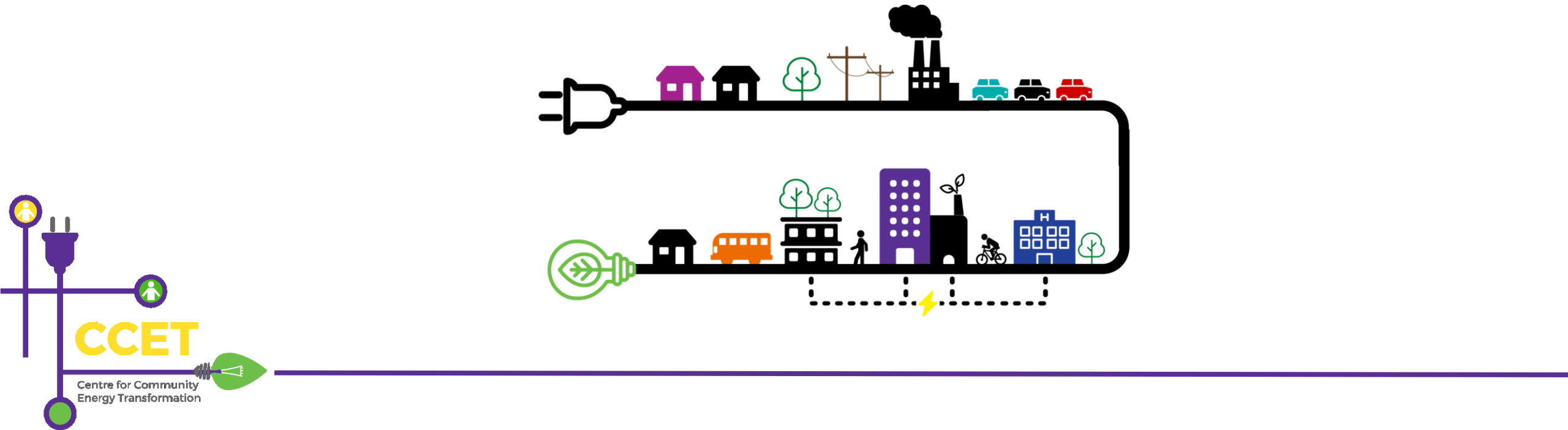
CCET

Centre for Community Energy Transformation

CEERP Framework

Addressing the Climate Change Emergency requires:

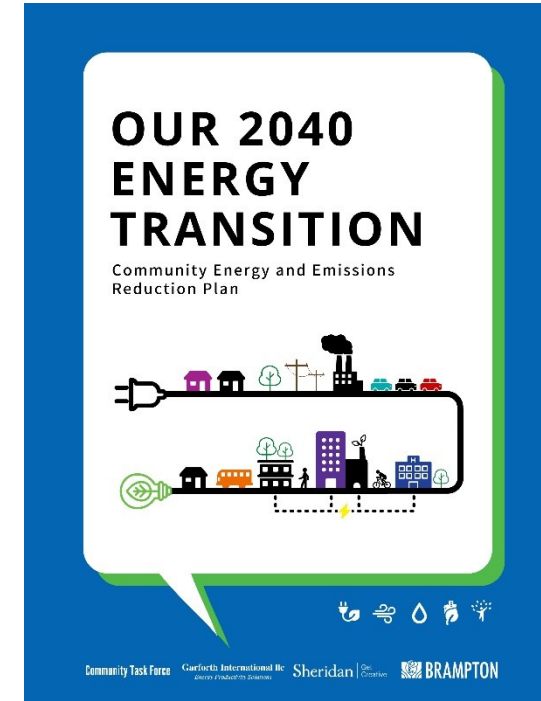
- Urban transition
- Energy transition
- Community commitment and collaboration



Brampton's Approach to Mitigating Climate Change



Urban transition =
Brampton 2040 Vision

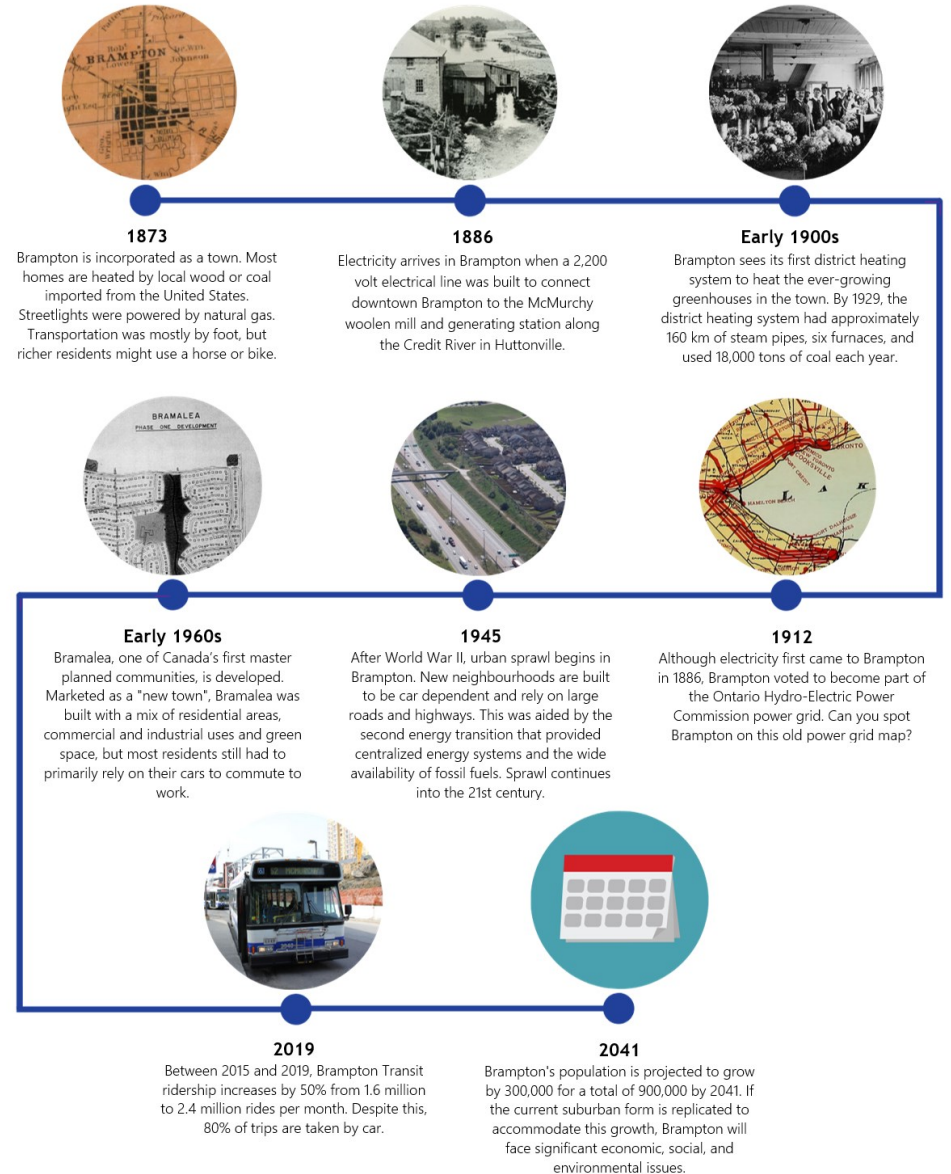


Energy Transition =
Community Energy &
Emissions Reduction Plan



Energy Transitions

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

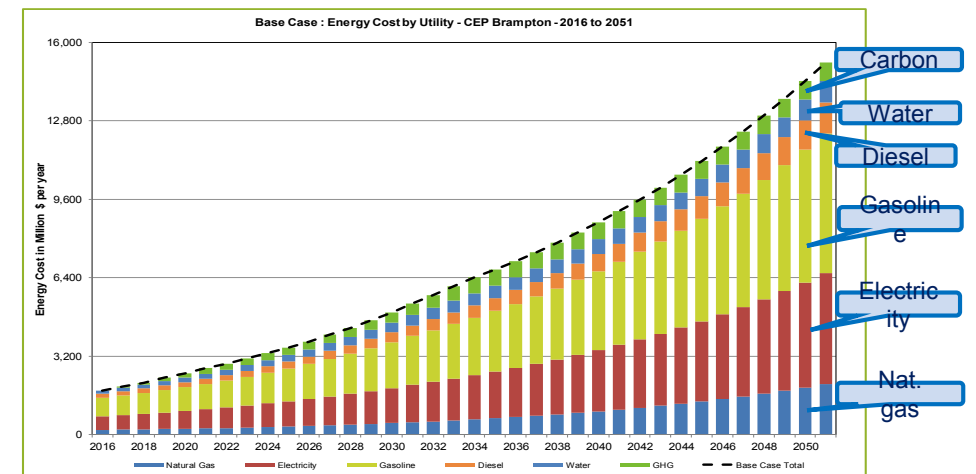
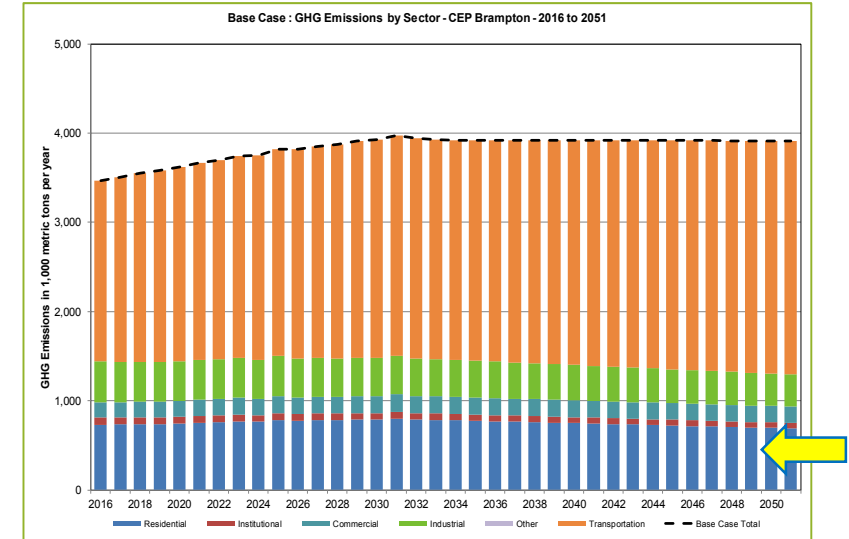


CCET

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CEERP: Energy and Emissions

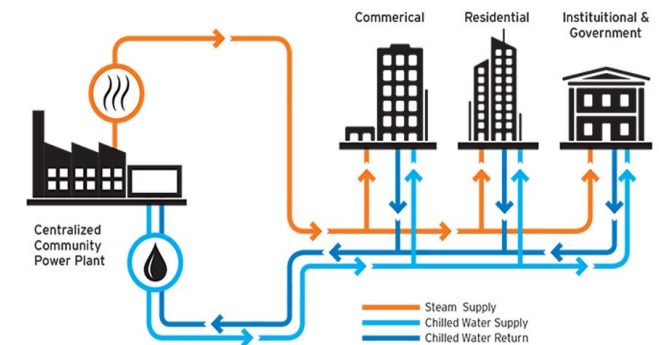
- Brampton spends +\$1.8 billion on energy
- ~ 80% of those energy dollars leave the city
- Energy costs projected to quadruple by 2050
- 5.6 tonnes CO₂e of GHG per resident (Ontario = 3.7t /capita)
- Brampton buildings ½ as efficient as global best practices
- Transportation sector almost 60% of GHGs



CEERP Priority Projects

Implement in the next 5 years:

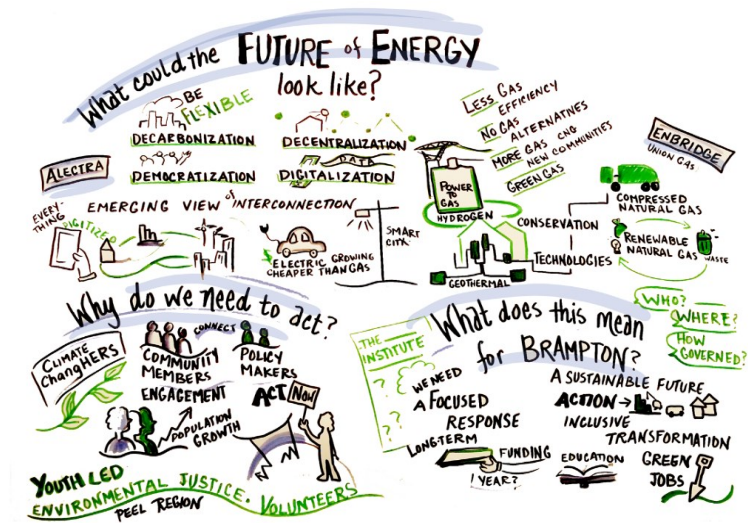
- Align City policies/programs to support CEERP targets
- Establish a standardized Home Retrofit Program
- Update Transportation Master Plan
- Integrate District Energy Systems into City/Town Centres
- Develop Integrated Energy Master Plans
- Establish a Community Organization



Establish a Community Organization

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

- CEERP assigns select priority actions to a Community Organization



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

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

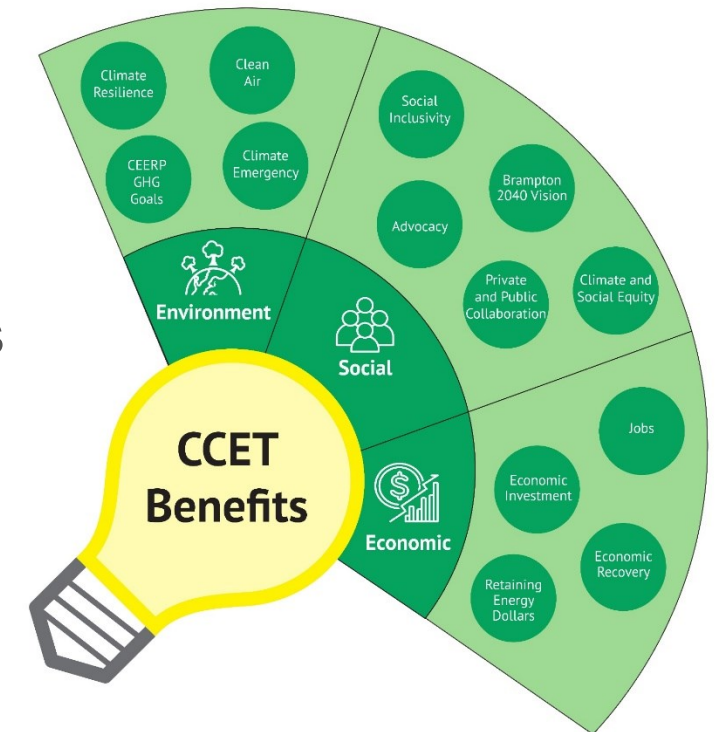


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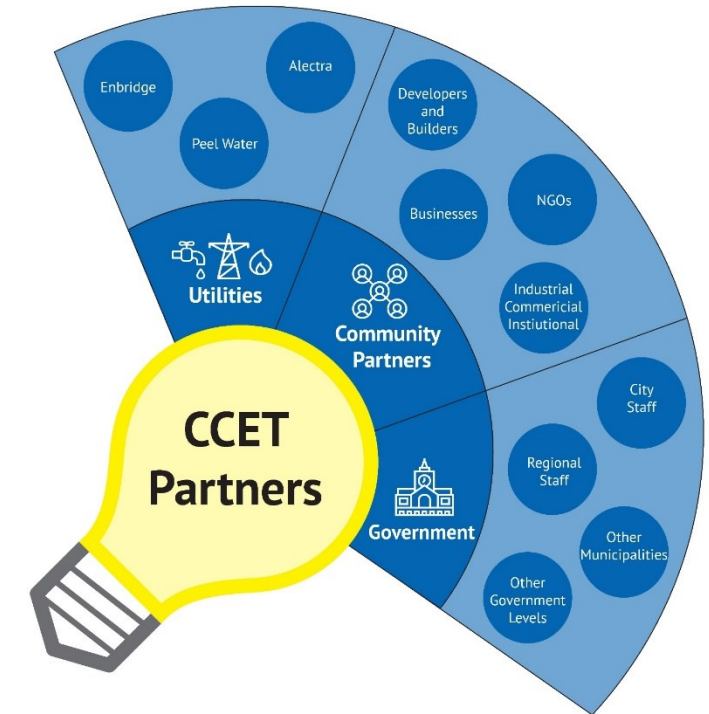
CCET: Potential Community Benefits

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



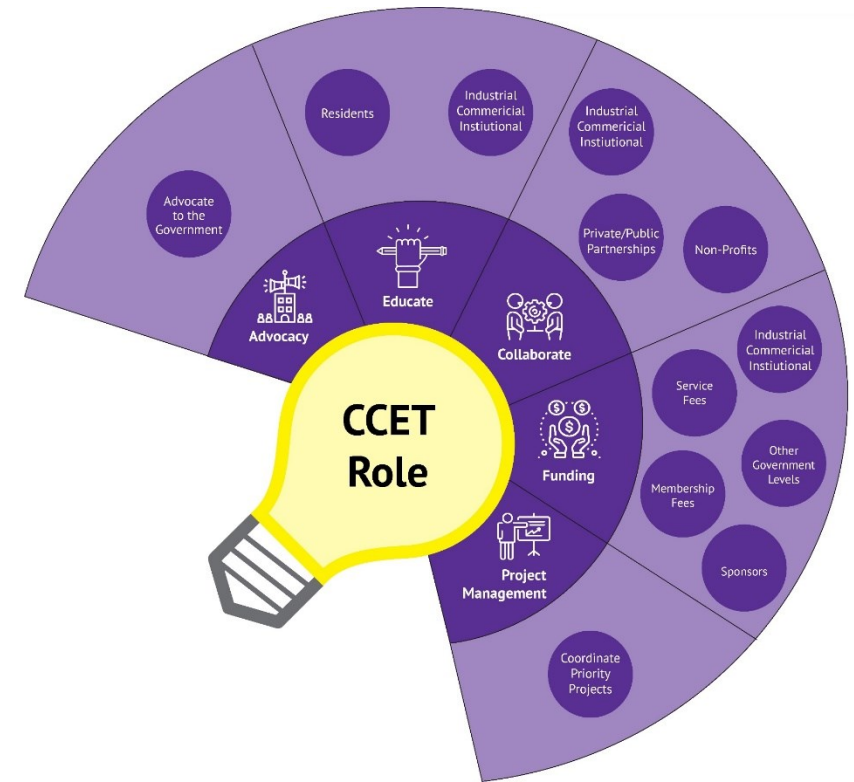
CCET is About Collaboration

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



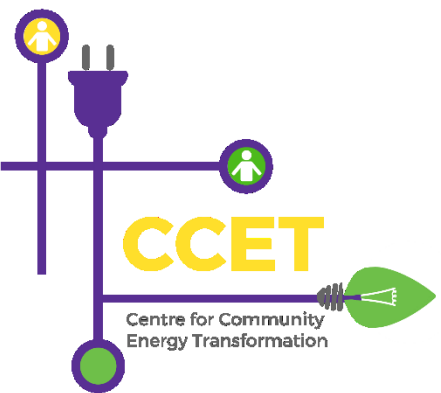
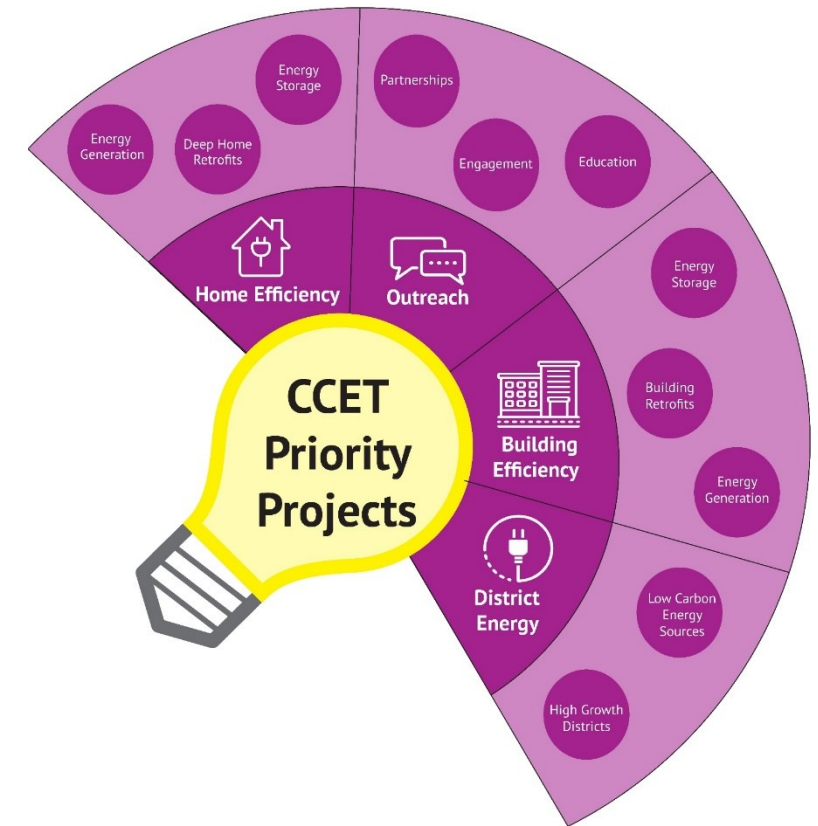
Role of CCET in Brampton's Energy Transition

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



CCET Priority Projects

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



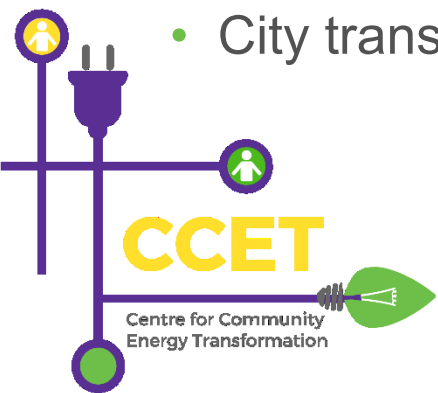
Establishing CCET: Community Task Force



Establishing the CCET: 2020-2022

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

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



CCET and BEAC

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



Thank you

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