



Analyzing Canadian Municipalities'  
Community Energy Plans:  
A Report for the Municipality of Essex  
August 2020



WINDSOR LAW  
**Centre for Cities**



This report was prepared for the County of Essex, Ontario and the Essex Region Conservation Authority (ERCA) by the Windsor Law Cities and Climate Action Forum class of 2019-2020.

For information about the Cities and Climate Action Forum (CCAF), and to access other resources on municipal climate action created by CCAF, please visit our website at [www.windsorlawcities.ca/climate](http://www.windsorlawcities.ca/climate).

# BURLINGTON, ON

## Quick Facts

- Estimated Population: 190,214
- Climate Emergency Declaration: April 23, 2019
- Climate Action Plan:  
<https://burlingtonpublishing.escribemeetings.com/filestream.ashx?DocumentId=37342>

## Next Steps Undertaken

- Climate Action Update Report - June 2019
  - The City of Burlington has one of the most ambitious carbon reduction target related to city operations in the province as stated in the city's Strategic Plan: The city's operations will be net carbon neutral (by 2040).
  - Staff are recommending \$80,000 in funding to support additional community engagement, the development of actions and tangible goals to reduce greenhouse gas emissions and a process to monitor progress and report on metrics.

## Initiatives Implemented Following the Next Steps

- Examples of completed actions or actions that are underway:
  - Planning for City View Park pavilion to be a net carbon neutral operation
  - Planning for a near net zero carbon Skyway Arena re-build
  - Four city facilities have met LEED (Leadership in Energy and Environmental Design) requirements (2 LEED gold and 2 LEED certified)
  - Almost 7 megawatts of installed renewable energy in Burlington (primarily solar)
  - Completion of the Sustainable Building and Development Guidelines which reference the Strategic Plan net zero carbon goal
  - 29 Level 2 electric vehicle charging stations have been installed on city property and an additional 64 Level 2 and 3 charging stations are available in the community as of 2018
  - Improved active transportation infrastructure – upgrading of the Francis Road multi-use trail and paving of the downtown multi-use trail from Elgin to Graham's Lane
  - Community engagement to promote active transportation with initiatives like bike to work day, bike to school events and cycling with councilors
  - Stormwater management measures to help manage flood events

- Low impact development measures such as improving filtration, permeable paving and rain gardens
- Quick wins planned for the next four years which are doable or low cost include:
  - Expanded electric vehicle charging stations to city recreation facilities and increased engagement to encourage electric vehicles in the community
  - Addition of electric vehicles to the city's fleet and updated Green Fleet Strategy
  - An updated *Corporate Sustainable Buildings and Energy Policy* to reflect the city's goal to be net zero carbon by 2040
  - A local program to support deep residential energy retrofits

## Ideas and Concerns about Implementing Similar Initiatives in Essex

- Burlington's plan is significantly more ambitious and they have been taking steps to reduce their carbon footprint since 2014
- Their implementation of electric vehicle charging stations might not have the same benefit in Essex County
- Some of the actions which might be more successful might include renewable energy installations, active transportation infrastructure, stormwater management measures and residential energy retrofits

# GUELPH, ON

## Quick Facts

- Estimated Population: 135,474
- Climate Emergency Declaration: N/A. Although they recognize a “climate crisis”.
- First community energy plan in 2007. Rebranded in May 2018 as a Community Energy Initiative (CEI).

## Next Steps Undertaken

- In 2017 they undertook a review by Our Energy Guelph (a social enterprise that Guelph City Council has now given the authority to coordinate and monitor the plan's goals).
- The main goal of the CEI is that Guelph will become a Net Zero Carbon community by 2050.
- Council has set a further goal that City corporate operations will be powered by 100% renewable energy by 2050.

## Ideas and Concerns about Implementing Similar Initiatives in Essex

- Guelph is an agricultural hub. Almost 26% of the city is used by agriculture.
- Several of their proposed actions such as retrofitting old homes and buildings are more about connecting individuals/entities to existing federal and provincial programs. All that is needed is some sort of coordinating organization to monitor and connect people to the right resources. Given resource constraints, this seems like an easy win approach.

# HALIFAX, NS

## Quick Facts

- Estimated Population: 424,900
- Climate Emergency Declaration: January 26, 2019
- Community Energy Planning process in progress

## Next Steps Undertaken

- Halifax has been tracking its progress since 2012 through the Halifax Regional Municipality Corporate Plan to Reduce Greenhouse Gas Emissions 2012-2020 (see <https://www.halifax.ca/sites/default/files/documents/about-the-city/energy-environment/HRM%20Corporate%20Plan%20to%20Reduce%20GHG%20Emissions%2012-2020.pdf>).
- This will be further modified by the HalifACT 2050: Acting on Climate Together plan, available online as of January 2020 (<https://www.halifax.ca/about-halifax/energy-environment/halifact-2050-acting-climate-together> ).

## Initiatives Implemented Following the Next Steps

- The Halifax Regional Municipality has replaced more than 44,000 traditional, high-pressure sodium streetlights in the Halifax region with energy efficient LED technology. There have also been separate lighting retrofit initiatives in over 100 municipal buildings, and the conversion of more than 250 traffic lights to LED technology.
- The municipality has installed solar energy systems on various public buildings, most notably fire stations and community centres.
- Vehicle fleet modernizing and efficiency: HRM has enacted an internal anti-idling policy and staff have begun working with Clean Nova Scotia to administer Fleetwiser and Drivewiser programs, which can reduce emissions by 30%.
- The Solar City program offers property owners in the municipality access to innovative solar energy options, which can be financed through a solar collector account with the Halifax Regional Municipality

# HALTON HILLS, ON

## Quick Facts

- Estimated Population: 61,161
- Climate Emergency Declaration: May 6, 2019
- Community Energy Plan adopted on May 15, 2015 with a goal to get to an 80% reduction of emissions of 2005 levels by 2050.

## Next Steps Undertaken

- The Mayor releases an annual report card that grades progress in different areas. See: [https://www.haltonhills.ca/Sustainability/pdf/2018%20Halton%20Hills%20Energy%20Report%20Card%2001\\_18.pdf](https://www.haltonhills.ca/Sustainability/pdf/2018%20Halton%20Hills%20Energy%20Report%20Card%2001_18.pdf).
- The report notes that the CEP will be updated in 2019 to reflect new provincial and federal targets, as well as technological advances.

## Ideas and Concerns about Implementing Similar Initiatives in Essex

- This plan was developed and presented to town Council by a consulting company named INDeco. The province does provide funding of up to \$90,000 to develop CEP's, but not every municipality can afford to outsource these types of tasks.
- During community consultations, locals noted that one of their top priorities was preserving local agriculture. Community members noted that they were proud of their history as an agricultural town. Therefore, they focused efforts on increasing the % of food sourced locally to reduce greenhouse gas emissions.

# HAMILTON, ON

## Quick Facts

- Estimated Population: 747,545
- Climate Emergency Declaration: March 27, 2019
- Community Energy plan in process. The City of Hamilton has created a benchmark with its Energy Mapping Strategy.

## Next Steps Undertaken

- The city will convene a multi-departmental "Climate Change Task Force" that will identify new ways to ensure net-zero carbon emissions by 2050.
- Developed City of Hamilton Conservation and Demand Management 5 Year Plan (2019-2023): <https://d3fpllf1m7bbt3.cloudfront.net/sites/default/files/media/browser/2019-06-28/2019-energy-conservation-demand-management-plan.pdf>

## Initiatives Implemented Following the Next Steps

- 10 Priority Actions from 2015 (see: <https://climatechangehamilton.files.wordpress.com/2017/08/impact-report-final-2015.pdf>)
  - Support local food production/consumption and integrate climate change mitigation/adaptation strategies into existing farm and food plans and initiatives
  - Establish ongoing education and awareness program/campaign for climate change
  - Develop a Community Energy Plan to guide the Hamilton community's energy future
  - Revise and update municipal infrastructure guidelines to prioritize Low Impact Development (LID) as a preferred method for stormwater management
  - Establish variable development charges to reflect real costs of buildings and maintaining infrastructure
  - Create an accessible toolkit for businesses to assist with impact analysis and business continuity planning
  - Conduct a local community vulnerability assessment of public health impacts from climate change
  - Expand public transit services to include dedicated rapid transit lanes where possible

- Secure property that serves as source water storage or preserves wildlife corridors within the catchment
- Establish an ongoing oversight and coordination body to guide implementation of the Hamilton Climate Change Action Plan and report back on community progress and success

## Ideas and Concerns about Implementing Similar Initiatives in Essex

- The City of Hamilton Conservation and Demand Management 5 Year Plan (2019-2023) notes that "An effort will be made to look at project proposals with the additional or primary benefit of GHG reductions." Some of these projects that can be implemented in Essex include:
  - Boiler Retrofits
  - Solar walls
  - Lighting retrofits
  - Battery Electric Buses
  - Pool Water Solar & Heat Recovery Project.

# KINGSTON, ON

## Quick Facts

- Estimated Population: 136,685
- Climate Emergency Declaration: March 5, 2019
- Climate Action Plan adopted in 2014
- Municipal Energy Study, released in June 2018, identifies strategic energy objectives up to 2041.

## Next Steps Undertaken

- According to the City of Kingston website, it will "inform" planning decisions in the future. The Kingston Climate Hub offers a cynical take on it saying that it might be a good plan, but needs an operational plan and matching budget in order to put words into action.

## Initiatives Implemented Following the Next Steps

- Recommended Actions in MEP: reduce the energy and carbon footprint of new and existing buildings.
- Using organic materials to create biogas; a renewable form of natural gas that can be used to fuel transportation or heat buildings (reduce footprint; enhance economy).
- Electrifying transit.
- Growing green tech sector.
- Integrate desired energy outcomes into local urban planning.
- Establish microgrids and district energy (microgrids are subsets of the greater electrical grid which include generation such as photovoltaic, wind, and fuel cells, demand management and storage).
- Community Energy Knowledge, which includes reaching out to the community to develop grassroots awareness and action on energy sustainability.

## Ideas and Concerns about Implementing Similar Initiatives in Essex

- Of particular interest was the "Nodes and corridors" approach to land use planning. The idea is that "nodes" are selected areas designated for mixed use development connected by "corridors". This type of land use planning defines where growth can occur and where it's discouraged in favour of green space. Much of Essex is prime agricultural land and the communities that make up Essex are spread out. Using the

"nodes and corridors" concept would likely be an excellent fit with the circumstances of Essex county.

- The establishment of microgrids would also likely have application in an area where the flat landscape makes wind energy plentiful and communities are so spread out. For example, each community having its own power grid (or by extension each farm) would save a great deal on energy that is lost during transmission from more distant sources. It could also encourage more emphasis on wind and solar sources of energy.

# MONTREAL, QC

## Quick Facts

- Estimated Population: 1,780,000; Greater Montreal: 4,200,000
- Climate Emergency Declaration: November 5, 2018
- There is the Plan de réduction des émissions de GES de la collectivité montréalaise 2013-2020, the Climate Change Adaptation Plan for the Montreal Urban Agglomeration 2015-20, Sustainable Montreal 2016-20, and the Resilient City Strategy adopted in June 2018. In addition to the "Umbrella Plans" for the city of Montreal and the CMM there are also a number of localized plans that some of Montreal's boroughs and smaller communities within the CMM have created.

## Next Steps Undertaken

- (From Resilient City Strategy) The Bureau de la résilience, established under the Resilient City Strategy, will establish a committee to:
  - Study global methods of planning, adaptation and mitigation vis-à-vis natural hazards and, most importantly, floods;
  - Develop a planning model applied specifically to Montréal's reality;
  - Issue a report with recommendations on adaptation and mitigation measures to put in place.
- Implementation of smart technologies to assist in managing infrastructures.

## Initiatives Implemented Following the Next Steps

- Proposed Initiatives (From Sustainable Montreal 2016-20):
  - Action 1: Develop and implement a plan to reduce Montreal's Greenhouse gas emissions
  - Action 2: Reduce automobile dependency
  - Action 3: Reduce greenhouse gas emissions from existing and newly constructed residential, commercial or institutional buildings
  - Action 4: Increase the environmental performance of its conventional vehicle fleet
  - Action 5: Promote electrical transportation
  - Action 6: Take part in climate change awareness campaigns

## Ideas and Concerns about Implementing Similar Initiatives in Essex

- Within the CMM and City of Montreal plans, communities and city boroughs have put forth their own energy / climate action plans. This type of structure looks like it would fit easily into the Essex framework, where independent communities operate within the framework of the County of Essex.
- The idea of using smart technologies could also be very beneficial to Essex in terms of computer modelling for planning things such as wind / solar power collection, and urban development. Smart technologies could also have a very positive impact on energy management. This is something the University of Windsor could get involved in.

# MISSISSAUGA, ON

## Quick Facts

- Estimated Population: 828,854 (2017)
- Climate Emergency Declaration: June 19, 2019
- They have a community energy planning process in progress.

## Next Steps Undertaken

- In the process of approving a community energy plan, but they have been implementing 5-year action plans (beginning in 2014) with smaller incremental goals, with the larger goal 80% emissions decrease by 2050.
- Two major stages of implementation which involve mitigation and adaptation.

## Initiatives Implemented Following the Next Steps

- In creating the climate change action plan draft the city incorporated technical studies, energy mapping, fleet analysis, park infrastructure assessments, cleantech sector assessments and risk and vulnerability assessments.
- Mississauga also worked closely with community partners and stakeholders in outreach projects with over 60 events.
  - Examples: retrofitting buildings, cleantech investments, community engagement, green infrastructure (solar panels to heat pools/ park lights).

## Ideas and Concerns about Implementing Similar Initiatives in Essex

- Mississauga is a much larger city so not all of the large GHG emitters will be the same and need to be targeted in the same way such as from transportation and mobility. However, the incremental planning process and targets of 5 years along with the broader 2050 targets are universally applicable.

# NEWMARKET, ON

## Quick Facts

- Estimated Population: 84,244 (2016)
- Climate Emergency Declaration: No
- Community Energy Plan adopted on May 19, 2016

## Next Steps Undertaken

- Following creation of the plan the town was awarded \$90,00 from the Federation of Canadian Municipalities (Municipalities for Climate Innovation Program) to study the Newmarket Energy Efficiency Retrofit (NEER) program. This program aims to reduce energy and GHG emissions by 40% by 2031 by retrofitting 80% of the homes in Newmarket.
- Newmarket has also been involved in engaging community stakeholders to inform and consult on the benefits of retrofitting

## Initiatives Implemented Following the Next Steps

- Prior steps still in progress as they decide on a business strategy.
- NEER program still being researched as the town engages the community.
- Looking to finalize the plan in 2019 for council consideration.

## Ideas and Concerns about Implementing Similar Initiatives in Essex

- The idea and program to retrofit houses seems excellent and applicable regardless of the size of the municipality. However, it is yet to be completed and does not have a flushed-out business model to encourage residential homes in the town to retrofit, so their success is still undetermined.

# OAKVILLE, ON

## Quick Facts

- Estimated Population: 193,830
- Climate Emergency Declaration: June 25, 2019
- In progress of creating a CEP after Climate Emergency Declaration

## Next Steps Undertaken

- Currently, the town of Oakville is working on a new CEP after its Climate Emergency Declaration in June 2019. Together with the Oakville Energy Task Force and Sheridan College, the town of Oakville is working to develop a Community Energy Plan.
- It's important to note that the Town of Oakville has a very comprehensive CEP from 2011 (called an "Environmental Strategic Plan"). In 2016, Oakville was awarded for being 1 of only 4 municipalities in Canada to have endorsed a Climate Change Strategy with over 3 years of implementation.
- Implementation Report  
<https://www.oakville.ca/assets/general%20-%20environment/Climate%20Change%20Strategy%20Implementation%20Report%202017.pdf>.

## Initiatives Implemented Following the Next Steps

- As part of the Environmental Sustainability Plan (ESP) 2016, the Town of Oakville collected annual "State of the Environment Reports," which reported on specific programs such as the amount of waste recycled or the number of environmental outreach events, and broader issues such as water and air quality. These reports have been collected from 2008-2016. Link to reports:  
<https://www.oakville.ca/environment/state-of-oakville-environment-report.html>.
- Initiatives for retrofitting and land use planning from the 2016 State of the Environment Report includes:
  - Goal 1: To Sustain and Enhance Natural Environment
    - In 2015, Oakville planted a total of 3,755 trees and has set a goal to achieve a canopy cover of 40% by 2057
    - TSS (total suspended solids) was down in all Oakville creeks, with levels remaining relatively low compared to prior year (Figure 2, p 6 of Report)
    - In 2015, phosphorus levels in Bronte and Sixteen Mile creek remained below PWQQ standards

- ICLEI awarded Oakville with milestone 5 for building Adaptive and Resilient Communities program
- Goal 2: To Reduce Resource Consumption and Waste Production
  - LED street lights are now standard in new community developments
  - In 2015, 131 kgs of used batteries and phones were returned to Call2Recycle for proper recycling
  - Town reduced their power and air conditioning costs by consolidating, virtualizing, and purchasing more efficient servers which reduced power consumption by 40% and the air conditioning load by 50%
- Goal 3: To establish and support an Environmentally Friendly Transportation Network
  - In 2015 Council approved plan to improve Oakville transit and increase ridership; improvements made in 2009 resulted in increased ridership
  - 3 bike corrals added to the Downtown, Bronte and Kerr districts
  - 220 kms of trails in Oakville
  - In 2015, 28kms of active transportation facilities were implemented
  - 226 kms of cycling, sidewalk, and multi-use trails have been proposed to be completed by 2019 (In my personal hiking experience this summer, I have seen many accessibility improvements to bike lanes and the trails in Bronte Provincial Park)
- Goal 4: To Create and Support a Healthy Resilient Community
  - In 2015, a new Farmer's Market featuring fresh local produce opened on Navy Street
  - Community clean up during Earth week
  - 217 residents became park ambassadors to keep Oakville's greenspaces clean

# OXFORD COUNTY, ON

## Quick Facts

- Estimated Population: 110,000
- Climate Emergency Declaration: N/A although they voted to commit to 100% renewable energy by 2050

## Next Steps Undertaken

- They are setting out how they will achieve this 100% goal in decade long increments.

## Ideas and Concerns about Implementing Similar Initiatives in Essex

- Oxford County is mainly agricultural land. They are counting on farming innovations to help achieve their targets. They seem open to windmills, unsure if that is controversial in Essex County.

# SUDBURY, ON

## Quick Facts

- Estimated Population: 164,926
- Climate Emergency Declaration: May 29, 2019
- *Earth Care Sudbury* was adopted in 2010. An updated plan is currently in progress.

## Next Steps Undertaken

- Under the coordination of Earth Care Sudbury and in consultation with 150 local community groups, the next step is the creation of a Climate Change Adaptation and Mitigation Plan by the end of 2019.

## Initiatives Implemented Following the Next Steps

- Drafting plan, *Power Now Greater Sudbury*, in progress.
- Some guidelines for the proposed plan include promoting active transportation and / or public transportation, the development of reporting systems to help inform future policy, standards for municipal construction which reduce carbon emission, and the development of an advisory committee to provide guidance to deal with the climate emergency.

## Ideas and Concerns about Implementing Similar Initiatives in Essex

- Windsor and Essex are lacking in public transportation and increased focus on this area would go far in helping Windsor / Essex achieve carbon reduction. However, the communities that make up the county of Essex are spread out making it difficult (although not impossible) to implement a regional public transportation system.
- The development of an advisory committee that works in collaboration with community groups might be very beneficial to Essex as it works toward a more comprehensive energy / sustainability plan.

# WOODSTOCK, ONTARIO

## Quick Facts

- Estimated Population: 40,902
- Climate Emergency Declaration: N/A although Oxford County has committed to a 100% renewable energy target by 2050
- *Advancing the Future Oxford; Community Sustainability Plan* adopted in June 2018

## Next Steps Undertaken

- Strategies for Homes
  - Existing Residential Retrofit Program
  - New Residential Building Efficiency
- Strategies for Businesses and Institutions
  - Existing Commercial and Institutional Retrofits
  - New Commercial and Institutional Efficiency
- Strategies for Industry
  - Industrial Efficiency
- Strategies for Mobility
  - Alternative Fuel Vehicle Adoption
  - Active Transportation and Transportation Demand Management
- Strategies for Renewable Energy
  - Renewable Energy Generation
- Through the implementation of this plan, the City of Woodstock will: reduce total energy use by 26% from the 2013 baseline by 2031 and reduce GHG emissions by 25% from the 2013 baseline by 2031.

## Initiatives Implemented Following the Next Steps

- Oxford County has been engaging in various renewable energy generation projects. The City of Woodstock also has an "implementation framework" for their CEP which focuses on:
  1. Governance, Administration and Collaboration
  2. Demonstrations and Pilots
  3. Raising Awareness in the Community
  4. Strategy Timing and Budget Considerations
  5. Funding Resources

6. Tracking and Monitoring
7. Recognition
8. Plan Renewal

## Ideas and Concerns about Implementing Similar Initiatives in Essex

- Their strategies seem to be quite thorough with costs and times for their implementation.
- There is a focus on creating more efficient residential energy use by retrofitting homes, for example. This is a similar issue to the old residential neighbourhoods in Windsor. The City of Woodstock has appointed an "Energy Manager" who will act as a facilitator for the CEP, and among other responsibilities, ensure there is regular monitoring and reporting of progress and proactively coordinate with City Council, City staff, County staff, local utility providers, stakeholders and community partners.
- The City also has a number of community partners, including but not limited to Oxford County, Hydro One Woodstock, Union Gas Limited, the IESO, various private actors, and the Ministry of Energy. It will be essential for the City of Windsor to have partners who are also on board with the plan for proper implementation.

# VANCOUVER, BC

## Quick Facts

- Estimated Population: 675,218 (2017)
- Climate Emergency Declaration: January 26, 2019
- *Renewable City Action Plan*: adopted in November 2017

## Next Steps Undertaken

- In April 2019, Vancouver City Council approved the Climate Emergency Response Report (“the Report”). The Report amplifies and builds on past progress to reduce carbon pollution, improve energy sufficiency, and transition to renewable energy.
- To ramp up the City’s actions to align with 1.5°C, the Report offers two complementary approaches:
  - 1. A set of six (6) “Big Moves” that would guide the City of Vancouver’s work in response to the climate emergency. The Big Moves are intended to direct staff to pursue the City’s key opportunities to meet the objective of limiting warming to 1.5°C.
  - 2. The report also includes 53 accelerated actions to help ramp-up local action right away. Some examples of accelerated actions include the goal to 1) Make it more affordable and easier to get a permit for heat pumps; 2) Transition the Neighbourhood Energy Utility from 70% (today) to 100% renewable energy before 2030; 3) Develop a power supply plan for film, food trucks, and special events to help them transition off of diesel and propane generators [in 2020 an accelerated action report back is to be issued].
- The municipality has formed an Equity Working Group to ensure that equity and community participation are central to the City's climate emergency and sustainability work. The city acknowledges that climate change impacts, such as extreme heat and poor air quality from wildfires, are already being felt disproportionately.

## Initiatives Implemented Following the Next Steps

- The Renewable City Action Plan focuses on 3 key sectors- renewable buildings, renewable transportation, and zero waste and cross-sectoral. It builds on a number of strategies already in place, such as the Greenest City Action Plan, Transportation 2040, Zero Waste and Healthy City Strategy. Their main targets will track emissions according

to the most stringiest international standards in order to achieve the goals of 1) 55% of energy used in Van is derived from renewable sources by 2030; 2) 100% of the energy used in Vancouver is derived from renewable sources before 2050; 3) 50% reduction of carbon pollution by 2030; and 4) 80% reduction in carbon pollution before 2050.

- The 2018-2019 Implementation Update of the 2020 Greenest City Action Plan presents progress highlights <https://vancouver.ca/files/cov/greenest-city-action-plan-implementation-update-2018-2019.pdf>.
- The Neighbourhood Energy Strategy is focused on developing neighbourhood renewable energy systems throughout Vancouver. Neighbourhood renewable energy systems supply centralized heating, hot water, and sometimes cooling for multiple buildings. These systems use low-carbon renewable energy sources, such as sewage waste heat, to reduce the use of fossil fuels. They also eliminate the need for boilers in individual buildings, and provide environmentally-friendly, affordable heat and hot water. An implementation strategy that could be applicable to Essex is Vancouver's initiative that along with reducing material waste, the waste decomposing in the city's landfill is a potential renewable energy source.

### Ideas and Concerns about Implementing Similar Initiatives in Essex

- The City of Vancouver is vastly larger than the County of Essex and is also urban/metropolitan instead of rural. The types of challenges and their scale, as well as viable solutions differ.
- Buildings are the largest source of emissions in Vancouver - 59% of the city's total emissions in 2017. Essex wouldn't face the same priorities. However, the planning structure community engagement are both transferable. For example, the implementation timeframe for these actions are short-term (less than two years), medium-term (two to four years), long-term (over four years), or ongoing. A range of timeframes can achieve visible progress by setting short-term goals as well as long term ones that can be frequently monitored and reported on. In terms of structure, Vancouver developed a plan specifically focused on transportation targets (Transportation 2040). Essex can develop separate plans on the sectors that account for the current highest emissions rates of the total emissions.
- Vancouver's cross-sectoral actions (included in the Renewable City Action Plan) focus on building partnerships and tracking results. Two examples of partnerships are to support the BC government in following through on their commitment to increase the carbon tax, expand its coverage and support local businesses in their efforts to reduce their carbon pollution (bottom-up as well as local partnerships). Such cross-sectoral approach can be applicable to Essex.

# VAUGHAN, ON

## Quick Facts

- Estimated Population: 323,281 (2017)
- Climate Emergency Declaration: June 4, 2019
- *City of Vaughan Municipal Energy Plan*: adopted in June 2016

## Next Steps Undertaken

- The City's Baseline Energy Study and Energy Mapping is forthcoming; The Plan Development is also forthcoming; The plan includes three different timeframes for action:
  - **Immediate Action:** The City will identify initiatives to increase the uptake of existing retrofit programs managed by PowerStream and Enbridge through communication of the Municipal Energy Plan and Green Directions Vaughan, as well as communication and outreach with the City's Economic Development team. The City will identify initiatives to increase the uptake of existing retrofit programs managed by PowerStream and Enbridge through communication of the Municipal Energy Plan and Green Directions Vaughan, as well as communication and outreach with the City's Economic Development team. The City will promote an environmental business leaders network, such as that based on Sustainability Co-Lab, which complements the programs of PowerStream and Partners in Project Green.
  - **Short-Term Actions (3-7 years):** The City will determine the best approach to implement a coordinated residential energy retrofit program to complement Provincial initiatives. Through the Secondary Plan process for New Community Areas, the City will identify the appropriate municipal role to leverage further GHG emissions reductions in ongoing energy efficiency improvements for new construction as part of Ontario Building Code revisions. Using the Sustainability Performance Metrics for New Development (Sustainability Metrics) and other planning tools, identify opportunities for improved energy efficiency and renewable energy generation in the IC&I sector.
  - **Longer Term Actions (8-20 years):** Reducing GHG emissions in the transportation sector through land use planning to create compact communities, promoting active transportation, and public transit enhancements reflect longer term outcomes advanced through the City's official Plan (VOP 2010) and related master plans (e.g. Transportation Master Plan; Active Together, the Recreation and Culture Master Plan; Pedestrian and Cycling Master Plan).

## Initiatives Implemented Following the Next Steps

- Embedded in community and corporate culture – Align with Integrated Regional Resource Plan
- Implementation appointed to members of the community (new construction, retrofits, redevelopment, land use planning, business engagement and leadership, etc.)
- Build resource and knowledge sharing opportunities
- Support funding solutions for actions and opportunities – Eg. \$20M for EV charging infrastructure partner with key stakeholders
- Monitor and Report
- Also see the Clean Air Partnership Project between the Cities of Vaughan, Brampton, and Richmond Hill

## Ideas and Concerns about Implementing Similar Initiatives in Essex

- The Vaughan Municipal Energy Plan comprehensively makes the connection between emission reductions and economic prosperity. Such framework is key to successful implementation and is a highly transferable strategy to any other municipality.
- Advisory group members identified economic development as an important goal to include as a part of this Plan. As the City, stakeholders and the community work towards implementing the actions described in Section 6, numerous economic opportunities will arise for businesses in Vaughan. The MEP can stimulate economic development in the form of new businesses that focus on the energy sector, whether this is alternative/renewable energy sources, energy storage solutions, conservation and efficiency, retrofit programs, and other innovative solutions. All of these businesses have the potential to thrive in a community that is growing while making energy conscious decisions and concerted efforts to lower GHG emissions on a per capita basis.