

The Journey Begins on Ambitious Plan

By Joanna Burris

Carbon-Free Colchester is an ambitious plan to get Colchester to net-zero by 2050 while stimulating economic opportunities. Every tonne of greenhouse gas emissions released today will have even greater impacts in the future; therefore, the entire community of Colchester needs to act swiftly and decisively to implement the actions identified in the Energy Plan's low-carbon scenario.

In the immediate future, the next steps for Colchester are to:

- Expand Cozy Colchester and develop other building retrofit programs that can

address all types of buildings, including rentals, those heated by fossil fuels, and commercial and industrial buildings;

- Expand the Solar Colchester program to rapidly increase the amount of solar PV in Colchester and to include wind generation and community solar gardens;
- Develop community working groups with industry, businesses, and agricultural groups;
- Develop partnerships with other local municipalities to pool resources and share learnings about the implementation of low-carbon actions;

- Explore development guidelines to direct new development into designated compact, complete communities; and

- Work directly with communities to establish open lines of communication within Colchester and dig deeper into local understanding of program needs.

Climate science, technology, and local conditions change rapidly. Because of this, Colchester will need to revisit its targets, programs, and climate planning regularly.

Carbon-Free Colchester represents the first step on a long journey to transform the region immediately and for future generations. How Colchester faces this challenge will define the safety, economic security, and stability of the region for decades to come while enhancing the well-being and livelihoods of the current generation. Climate change is the biggest challenge faced by humanity, and by working together we can ensure a fair and equitable future for all members of society.

Learn More & Do More

Stay connected to keep

up to date on the implementation of Carbon-Free Colchester, share your input with the Municipality, and learn how to participate in programs and volunteer opportunities. The Municipality will be hosting a public launch for the Energy Plan this Spring, so stay tuned for details.

To be added to the Carbon-Free Colchester email list, send your name, community, and email address to: slynds@colchester

Visit: <http://www.colchester.ca/carbon-free> for more information about the Municipality's initiatives and follow @CarbonFreeColchester on Instagram for updates and climate education and to interact with the Carbon-Free Colchester team.

For references and elaboration on the above content, please refer to the Carbon-Free Colchester Community Energy & Emissions Plan, which can be found on the Municipality of Colchester website at:

www.colchester.ca/carbon-free Call 902-897-3170 to request a print copy.

Colchester's Emissions Target

By Joanna Burris

Colchester has established a climate target of producing net-zero emissions by 2050. Net-zero means that the region either releases no greenhouse gases or offsets the emissions it does release. To meet this target, Colchester will expand its existing programs to reduce emissions and conserve energy, develop new policies and programs, and invest in new infrastructure. Mitigating GHG emissions on this scale is an economic and social challenge, but it is also an opportunity for economic growth, for diversification of businesses and resources, and for establishing the region as a leader in climate change mitigation. Investment in actions to reduce GHGs across Colchester will save the community millions of dollars over time.

Colchester carried out a robust modelling exercise to investigate how the municipality uses energy and produces emissions today and into the future. The exercise also guided the development of a pathway to net-zero, called the *low-carbon scenario*.

Net-zero emissions is an opportunity—for economic growth, for diversification of businesses and resources, and for establishing the region as a leader in climate change mitigation.

Implementation of all actions proposed in the Energy Plan would result in a 52% reduction in annual energy consumption across the community and a 92% reduction in annual GHG emissions by 2050. Key pieces of the low-carbon scenario include working with the Lafarge cement plant to implement carbon capture, improving efficiencies, electrifying transportation, retrofitting houses and buildings, and removing fossil fuels from all sectors. Retrofitting refers to the process of improving the insulation and airtightness of the building envelope to reduce the amount of heat lost and to resize the HVAC system to meet reduced demand. Retrofits can greatly increase a building's efficiency, making it more comfortable to live or work in and cheaper to heat and cool.

If the Energy Plan helps Colchester to reduce its emissions

by 92%, there are still 8% of emissions that need to be eliminated or offset to reach net-zero emissions; this 8% difference is called a *carbon gap*. These remaining emissions are primarily from livestock and limited fossil fuels used in agriculture and transportation. This carbon gap will need to be addressed in future iterations of the Energy Plan, as new technologies and shifts in behaviour make net-zero possible. The Energy Plan is a "living" document that will be reviewed and updated as the climate, technological, and political contexts change over time.

Current Energy Use and Emissions in Colchester

In Colchester, residents, businesses, and the Municipality use energy to keep the lights on and the engines running. In turn, these energy sources release greenhouse gases (GHGs) into the atmosphere.

In 2016, Colchester's total GHG emissions from all sectors were 812,000 tCO₂e (tonnes of carbon dioxide equivalent) per year. That is an average of 21 tCO₂e/person per year. To provide context, 21 tCO₂e is equivalent to using nearly 9,000 litres of gasoline, or the amount needed to power a vehicle for 7 years, based on the average person's use in Nova Scotia. The sector producing the highest emissions is Industrial at 31%, followed by Transportation (22%), Residential (19%), Agriculture (13%), Commercial (12%), and Solid Waste (4%). The year 2016 was used as a baseline for the Energy Plan because it is the most recent year for which there is complete Census data available.



Drones are used to provide an overall aerial view of a solar panel installation. This group of photos show installations completed by Renewly Solar on Colchester County. (Submitted)

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COZY COLCHESTER

SOLAR COLCHESTER

Comfort | Savings | Efficiency

Let's make your home cozy, Colchester!

The Municipality of Colchester is offering 0% interest loans to homeowners for home efficiency upgrades, including heat pumps, solar panels, insulation, and more. You can use the savings from your energy bill to pay for the upgrades over time.

Why should I participate?

- No Upfront Cost
- 0% Financing
- Up to 15-Year Loan
- Professional Guidance
- Help Finding a Contractor
- Free Home Energy Assessment
- No Credit Check Required
- One-Time 5% Admin Fee (waived for eligible low-income applicants)

Combine with Other Incentives

Cozy Colchester and Solar Colchester are compatible with other efficiency offerings, such as Efficiency NS' low-income HomeWarming program and provincial and federal rebate programs.

To find out more:

VISIT our website
www.CozyColchester.ca
or www.SolarColchester.ca

CALL our energy advisor
(902) 920-0615

EMAIL the program
info@cozycolchester.ca
or info@solarcolchester.ca

ATTEND an information session
Dates and times of upcoming sessions are posted on the website

FOLLOW us on Instagram
@CarbonFreeColchester

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