



December 5th, 2024

Ministry of Energy and Electrification,
Conservation and Renewable Energy Division
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Corporate Services

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Re: Peel Region's Feedback on New Proposal for An Electricity Energy Efficiency Programming to Promote Beneficial Electrification - ERO 019-9373

To whom it may concern:

Peel Region would like to thank the Ministry of Energy and Electrification for the opportunity to provide input on the New Proposal for An Electricity Energy Efficiency Programming to Promote Beneficial Electrification (ERO 019-9373).

Introduction

Peel Region commends the Ministry of Energy and Electrification's forward-looking strategy to enhance energy efficiency and promote electrification as key components of Ontario's decarbonization efforts. Empowering the Independent Electricity System Operator (IESO) to administer beneficial electrification program is a vital step toward achieving these objectives. This framework supports the transition from combustion-based systems to efficient, clean electric alternatives and enables Ontario to reduce energy use, lower consumer costs, and significantly cut greenhouse gas (GHG) emissions, advancing the province toward net zero by 2050.

Comments

Peel Region staff have reviewed the Ministry of Energy and Electrification's New Proposal for An Electricity Energy Efficiency Programming to Promote Beneficial Electrification (ERO 019-9373) and have general and specific comments about some of the proposed programming, which are outlined below. Please note that the following comments and recommendations are provided by Peel Region staff and may be considered by Regional Council for endorsement at a later date. If additional or differing comments are provided through a Council resolution, they will be forwarded to the Ministry for consideration.

- 1. Strategies for Demand-Side Management:** Proactive demand-side management is essential to reduce energy consumption and grid strain



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while advancing electrification. The proposed BE incentive program should consider including strategies for demand-side management, including promoting the following measures:

- 1.1. Building Envelope Enhancements:** Retrofitting building envelopes with improved insulation, airtightness, and windows to minimize energy loss, reduce peak demands, and enable smaller, cost-effective systems.
- 1.2. Efficient HVAC/Domestic Hot Water (DHW) System Design and Thermal Storage:** Promoting HVAC/DHW designs that integrate thermal energy storage for both space heating and domestic hot water generation will optimize energy use and enhance system efficiency. This approach reduces peak demand, supports load shifting, and minimizes the need for high-demand backup equipment, contributing to a more resilient and efficient energy system.

- 1.3. District Energy Systems and Resource Recovery Practices:** Introducing a beneficial electrification program specifically targeting water and wastewater service providers should be considered, as they are uniquely positioned to support Ontario's energy and climate goals. These providers can leverage their infrastructure and resources for energy recovery from wastewater, which could be utilized in district energy systems. Additionally, they can adopt innovative resource recovery practices, such as converting biosolids and biogas into renewable natural gas, generating heat and electricity to reduce grid load, and cutting greenhouse gas emissions. Peel Region staff highlight the need for funding to further explore beneficial resource recovery from wastewater systems.

Furthermore, incentivizing scalable, low-carbon district energy solutions that integrate heating, cooling, and energy generation, while reducing peak grid demand and enhancing community-level energy efficiency, should be considered.

- 2. Integration of Renewable Energy and Storage:** Coupling electrification with on-site renewable energy generation and storage systems, such as solar photovoltaics and battery solutions, reduces peak demand on the grid and enhances resilience. Incentivizing bundled solutions, including vehicle-to-grid (V2G) technologies, will ensure grid stability and further GHG reductions.



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Conclusion

Aligning incentives and programming to holistically support the above-mentioned elements will allow Ontario to advance its net zero emissions goals, maintain a reliable grid, and provide equitable access to energy-efficient solutions. This holistic approach will not only optimize energy performance but also foster a resilient and inclusive energy future.

If you have questions or require additional information, please contact Hemant Grover at hemant.grover@peelregion.ca.

Sincerely,

Signed by:


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