Clean Air Partnership

February 10,2022

REDUCING EMISSIONS FROM MUNICIPAL LIGHT DUTY EQUIPMENT:

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Clean Air Council

Introduction

- Fossil fuel powered lawn and yard equipment have poorly developed emission treatment systems that contribute to GHG emissions, air pollution, health risks and noise pollution.

- Two-stroke engines that mix oil and gas emit carbon dioxide , carbon monoxide and other gases. (One hour of leaf blowing equals a 1700 kilometre drive. Also, a leaf blower produces a lot more pollution than a pick-up truck).

- In the cities, lawn equipment are estimated to be contributing 10 to 20 per cent of overall emissions.

Efforts From Toronto

- In 2021, the Toronto City Council endorsed a ban on the use of two-stroke engine leaf blowers and other lawn and yard equipment.

- As part of the City's Fleet Electrification Strategy, Toronto started transitioning to electric off-road equipment a few years ago, adding different types of equipment including zero-turn mowers, forklifts, leaf blowers, utility/golf carts, floor scrubbers, and small tractors.

- Infrastructure is in place to support light duty equipment

Efforts From Hamilton

- The City has conducted demonstrations on numerous pieces of electric lawn and yard equipment such as electric Utility Terrain Vehicles, Volvo EV mini excavator, electric tractors and zero turn lawnmowers.

- Currently in the process of developing tender specifications to procure zero turn lawnmowers for parks. (Zero turn lawnmower works great in flat and dry surfaces).

- Concerns about run time of hand-held equipment and infrastructure challenges.

Efforts from Vancouver

- In 2019, the Vancouver Board of Parks and Recreation passed a resolution to phase out two-stroke engines from its operational activities.

- By December 2020, 33% of all Park Board equipment was ‘zero-emission’. Full transition is expected to be completed by the end of 2024.

Challenges in Advancing Policies

- Upfront capital costs; purchase price of the equipment and the infrastructure. Municipalities have to consider their budgets and evaluate the economic costs of installing permanent charging stations in the yard to charge the light duty electric equipment.

- Lack of access to adequate information on alternative/non-polluting equipment and other products in the market as well as their manufacturers.

- Limited experiences from other municipalities to go by when considering electrifying the entire municipal light duty equipment.

Intervention

- Municipalities can bring their requirements into their RFPs
- Assess needs and operations before investing in the equipment
- Knowledge sharing with other municipalities
- Tests, training and pilot programs
- Good communication across different departments such as procurement, finance, parks and operations.

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THANK YOU

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