

Report

Date February 1, 2023

File:

Subject Curbside Automation Implementation Plan – Cart Size

PURPOSE

To provide an estimate on the cost savings associated with an 80 litre cart size for garbage and organics as part of the curbside automation implementation plan.

BACKGROUND

At the January 18, 2023, Council Meeting, staff presented an implementation plan for an automated truck curbside system for solid waste. The plan recommended 100-litre cart sizes, three new diesel, and one electric garbage truck. The proposed cost for the service was \$183 per household per year, with \$360,000 in funding from the Climate Action and Energy Plan (CAEP) Corporate Reserve Fund.

Council resolved that staff report back to Council on the cost savings for an 80-litre cart size for garbage and organics.

DISCUSSION

A change in the default cart size from 100 to 80 litres will result in an estimated 20% reduction in weight and tipping fees for organics and garbage. This will reduce the total cost of tipping fees by approximately \$145,000 per year. There is no discernible difference in the purchase cost for the 80 and 100 litres carts. The below table outlines the garbage fees for the 80 and 100-litre cart sizes, as well as diesel and electric truck options:

TRUCKS	80 LITRE CART	100 LITRE CART
4 diesel trucks	\$172	\$183
3 diesel and 1 electric truck	\$175	\$187

It is being proposed that for the above four options, we purchase fully automated trucks in 2023, with the automated collection commencing in 2025. It is not recommended to stagger the purchase of these new trucks over two or more years. If two fully automated trucks are ordered in 2023 and another two in 2024, the automated collection cannot commence until all four trucks are delivered, thus delaying the program until 2026.

Another option is the purchase of combo manual/auto trucks: this would allow for the purchase of new trucks in 2023 and 2024, using the new trucks for manual collection until an automated system is ready to go in 2026 or beyond. The disadvantages of this system are the additional cost for the combo trucks, the ergonomics issues with the standup cab, and there is no decrease to the garbage fee over the fully automated options.

OPTIONS

- 1. (Recommended Option)** This is the recommendation that was presented on January 18, 2023., with the default cart size being 100 litres.

THAT Council:

- (1) Authorize staff to proceed with the Automated Curbside Collection Implementation Phase one Plan in 2025, including the purchase of four fully automated trucks (three diesel and one electric truck), yard waste collection and a default cart size of 100 litres;
- (2) Direct staff to increase the garbage fee in 2023 from \$125 per year to \$183 for phase one of the Automated Collection Program;
- (3) Allocate \$110,000 to cover the electric premium for the electric fully automated truck from the Climate Action and Energy Plan Corporate Reserve Fund; and,
- (4) Allocate up to \$250,000 on electrical upgrades and one level three charging station from the Climate Action and Energy Plan Corporate Reserve Fund and Local Government Climate Action Program grant.

- 2.** Option two, as it was presented on January 18, 2023, provides a default cart size of 100 litres and excludes the use of the CAEP Reserve Funds.

THAT Council:

- (1) Authorize staff to proceed with the automated curbside collection implementation phase one plan in 2025, including the purchase of four fully automated trucks (four diesel trucks), yard waste collection and a default cart size of 100 litres; and,
- (2) Authorize staff to increase the garbage fee in 2023 from \$125 to \$183 for phase one of the Automated Collection Program.

- 3.** This option is similar to Option one, except that the default cart size has been reduced to 80 litres and it includes an adjustment to the 2023 garbage fee.

THAT Council:

- (1) Authorize staff to proceed with the Automated Curbside Collection Implementation Phase one Plan in 2025, including the purchase of four fully automated trucks (three diesel and one electric truck), yard waste collection and a default cart size of 80 litres;
- (2) Direct staff to increase the garbage fee in 2023 from \$125 per year to \$172 for phase one of the Automated Collection Program;
- (3) Allocate \$110,000 to cover the electric premium for the electric fully automated truck from the Climate Action and Energy Plan Corporate Reserve Fund; and,
- (4) Allocate up to \$250,000 on electrical upgrades and one level three charging station from the Climate Action and Energy Plan Corporate Reserve Fund and Local Government Climate Action Program grant.

- 4.** This option is similar to Option two, except that the default cart size has been reduced to 80 litres and it includes an adjustment to the 2023 garbage fee.

THAT Council:

- (1) Authorize staff to proceed with the Automated Curbside Collection Implementation Phase One Plan in 2025, including the purchase of four fully automated trucks (four diesel trucks), yard

waste collection and a default cart size of 80 litres;

- (2) Direct staff to increase the garbage fee in 2023 from \$125 to \$172 for phase one of the Automated Collection Program.

IMPLICATIONS

Options 1 & 2 – 100 litre cart

There are some disadvantages to the 100-litre carts as follows:

- A larger cart may result in more waste generation or more waste set out for pickup.
- There could be less waste diversion into the organics and recycling programs.
- There will be an increase in garbage fees for residents with the 100-litre cart options.

Options 3 & 4 – 80 litre cart

There are some disadvantages to the smaller 80-litre cart as follows:

- The smaller cart may not have the same level of manufacturer's warranty or ability to handle the more extended term rigours of the mechanized collection system. It may be better suited to a semi-automated collection depending on cart type.
- An 80-litre cart limits a household to 80 litres of garbage only. There are no options for tags and handling extra garbage volumes because the automated system requires a standardized cart. Residents will be required to purchase a larger cart for an additional yearly fee.
- There is no flexibility for when collections are missed (weather or service disruptions), more waste generation during holidays, etc.
- 80-litre capacity does not lend itself to yard waste collection. No other collection programs to our knowledge, collect yard waste in a cart of this size.
- May not be suitable to be outfitted with bear-resistant mechanisms if the plastic lid is not substantial (robust) enough.

RECOMMENDATION

THAT Council:

- (1) Authorize staff to proceed with the Automated Curbside Collection Implementation Phase one Plan in 2025, including the purchase of four fully automated trucks (three diesel and one electric truck), yard waste collection and a default cart size of 100 litres;
- (2) Direct staff to increase the garbage fee in 2023 from \$125 per year to \$183 for phase one of the Automated Collection Program; and,
- (3) Allocate \$110,000 to cover the electric premium for the electric fully automated truck from the Climate Action and Energy Plan Corporate Reserve Fund; and,
- (4) Allocate up to \$250,000 on electrical upgrades and one level three charging station from the Climate Action and Energy Plan Corporate Reserve Fund and Local Government Climate Action Program grant.

Report prepared by:



Shawn Cator
Director, Operations
Community Services

Report reviewed by:



George Farkas
General Manager, Planning, Development and

Approved to be forwarded to Council:



Ted Swabey
Chief Administrative Officer