
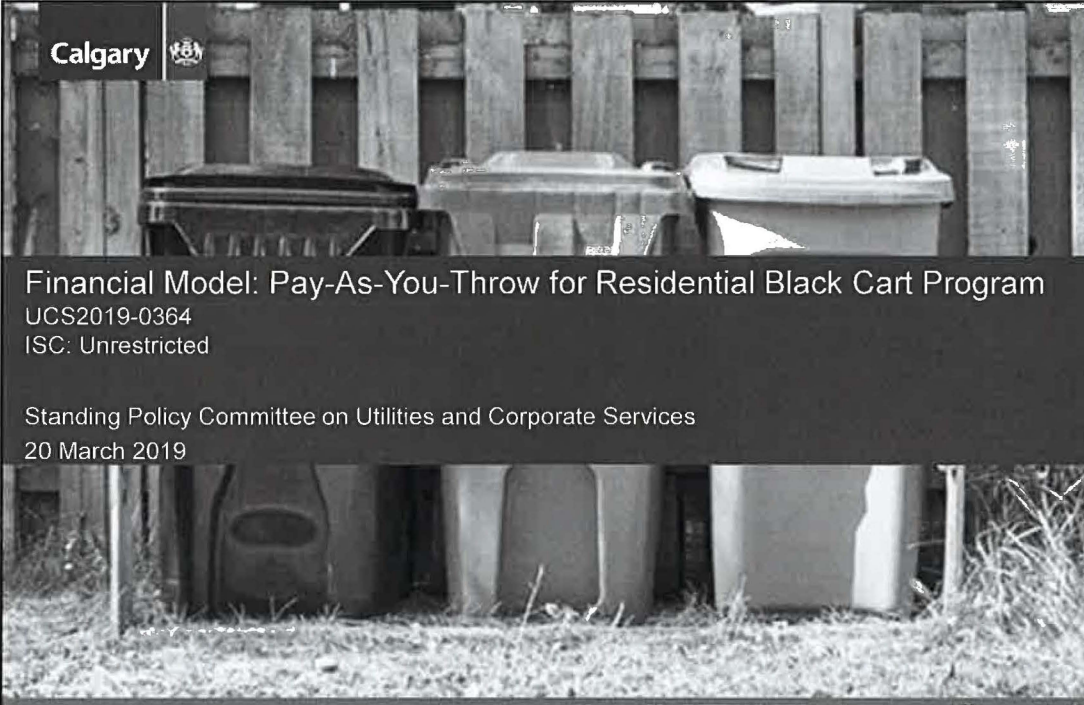



**Calgary** 

**Financial Model: Pay-As-You-Throw for Residential Black Cart Program**  
 UCS2019-0364  
 ISC: Unrestricted

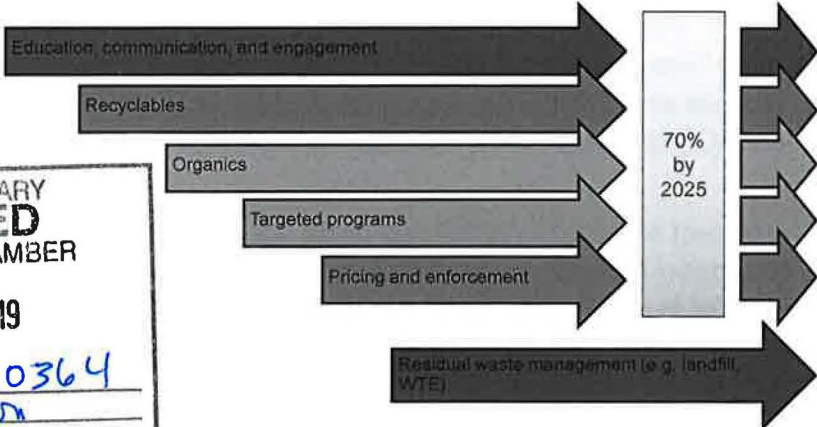
Standing Policy Committee on Utilities and Corporate Services  
 20 March 2019



V05 1

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**The plan for achieving 70% by 2025**  
 Waste & Recycling Services Outlook for 2018 to 2025 (UCS2018-0153)



Education, communication, and engagement

Recyclables

Organics

Targeted programs

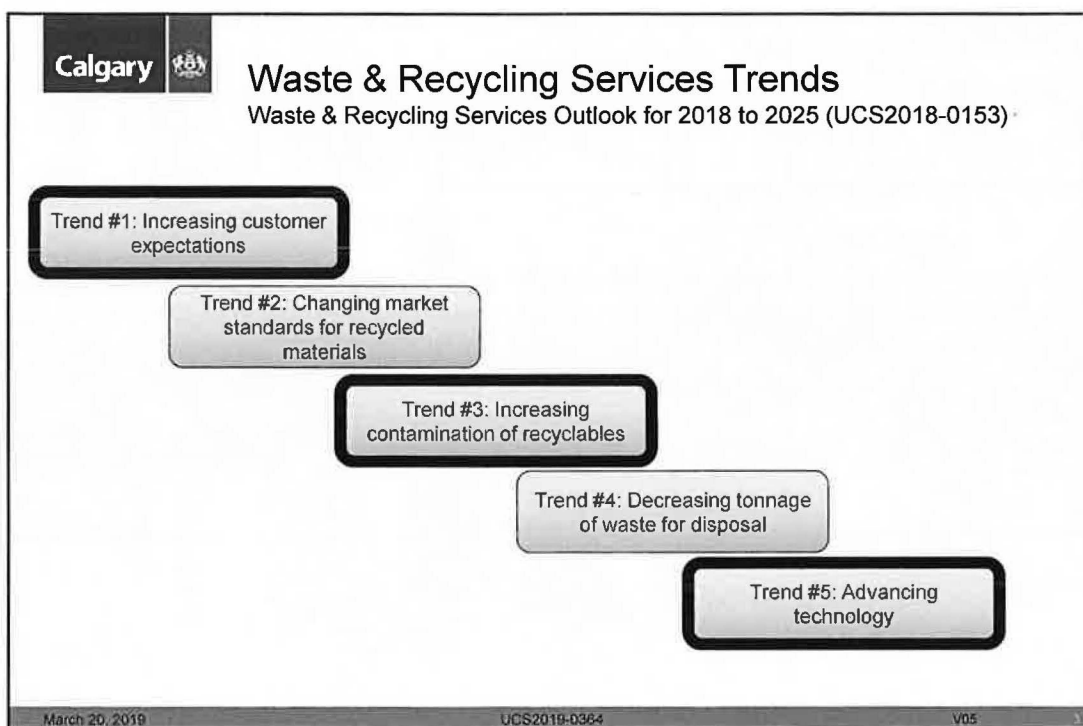
Pricing and enforcement


Residual waste management (e.g., landfill, WTE)

70% by 2025

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## Previous Council Direction

UCS2018-0656 *"Pay-as-You-Throw Program for Residential Black Cart Collection"* was presented to the Standing Policy Committee (SPC) on Utilities and Corporate Services (UCS) on 2018 June 13. The SPC on UCS directed Administration as follows:

*"That with respect to Report UCS2018-0656, Committee refer the following proposed Motion, to the Administration, **to return with a financial model including an option, for tag-a-bag only**, to return to Council through the SPC on Utilities and Corporate Services, no later than Q1 2019".*

March 20, 2019 UCS2019-0364 V05 4

## Current Residential Black Cart Program

- One standard 240 L cart for all residential single detached dwellings
- Automated garbage collection
- Unlimited excess garbage collection
- Every-other-week collection
- \$6.85 per household per month (2019)



Efficient and affordable because of its simplicity

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UCS2019-0364

V05

5

## Pay-As-You-Throw (PAYT)

PAYT programs charge households based on the amount of garbage put out for collection. Households that generate less waste pay less.

### Potential Benefits

- Fairness and customer choice
- Collection efficiency and safety
- Waste diversion and reduction

### Potential Consequences

- Additional program costs
- Complexity for customers
- Contamination of diversion programs

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V05

6

## Pay-As-You-Throw Scenarios

### Scenario 1:



Standard  
240 L



Tag-a-bag

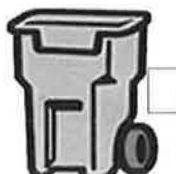
### Scenario 2:



Small  
120 L



Standard  
240 L



Large  
360 L



Tag-a-bag

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V05

7

## Tag-a-Bag Program Costs

- Customer education and communication
- Printing stickers or tags
- Managing distribution network

Current costs for collecting and disposing excess garbage would be transferred from the Black Cart Program to the Tag-a-Bag program

### First Year Costs

**\$300K**

### Annual Sustainment Costs

**\$200K**



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UCS2019-0364

V05

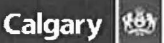
8



## Three Cart Sizes and Tag-a-Bag Program Costs

First Year Costs	Annual Sustainment Costs	
<b>\$11M - \$13.5M</b>	<b>\$1.5M - \$2.5M</b>	
		<ul style="list-style-type: none"> <li>Cart purchase and management</li> <li>Customer education and communication</li> <li>Customer request management</li> <li>Billing system upgrades</li> <li>Additional contamination costs in Blue Cart Program</li> <li>Tag-a-bag program costs</li> </ul>

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V05
9




## Financial Model Results (2020)

Indicative Household Monthly Charges


**Scenario 1:**

**\$6.85**



**Standard  
240 L**


**\$3 per bag**



**Tag-a-bag**


**Scenario 2:**

**\$6 - \$6.85**




**Small  
120 L**

**\$6.85**




**Standard  
240 L**

**\$10 - \$13**



**Large  
360 L**

**\$3 per bag**



**Tag-a-bag**

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V05
10

Recommend introducing tag-a-bag  
for excess garbage



Standard  
240 L



Tag-a-bag

Keeping the standard 240 L cart limits overall program costs and complexity for customers.

Introducing tag-a-bag:

- Allows us to reduce the monthly black cart charge
- Improves fairness
- May improve collection efficiency and safety
- May influence customers to reduce and divert waste

## Pay-As-You-Throw and RFID Technology

RFID technology may present a more-affordable option for PAYT with a variable set-out model (pay-per-tip).

- Black carts already have RFID chips
- Eliminates costs associated with extra cart purchase, exchanges, and storage
- Relatively new approach, few examples in North America
- Work required to confirm costs, billing and data management approach, customer interest, and benefits of program





That the SPC on UCS recommend that Council direct Administration to:

1. Implement a tag-a-bag program for residential garbage collected outside of the black cart starting no later than Q2 2020, with a price of \$3.00 per tag in 2020;
2. Bring bylaw amendments, if required, as part of the budget adjustment process in November 2019 to update the Black Cart Program charge in 2020 to adjust for excess garbage costs being recovered through tag-a-bag revenue; and
3. Develop a plan for piloting RFID technology for PAYT and report back to SPC on UCS no later than Q4 2019.

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