Phase 2 Long-term Waste Management Strategy Update: Residual Waste Management

Public Consultation Report

September 2025

TORONTO

Contents

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Executive Summary

This report details the activities and feedback received during Phase 2 consultation on Residual Waste Management as part of the Long-term Waste Management Strategy Update (Waste Strategy Update) consultation period that took place from May 21, 2025 to June 29, 2025.

During consultation, members of the public and interest groups representing Residential Associations, Property and Facilities Management, Environmental, Social Service and Community Organizations, Businesses and Business Associations, Waste Management and Processing, Indigenous Community Organizations, and Accessibility Organizations were invited to provide feedback on the City's long-term waste management goals and residual waste (garbage) management options, including energy-from-waste (incineration).

Public consultation activities engaged approximately 11,259 people through a public drop-in event, interest group meetings, an online survey and public opinion polling. Feedback was gathered on perceptions of residual waste management options and the values that influence those perceptions. Interest group meetings included participation from 94 organizations through virtual meetings. A full public consultation report on the Waste Strategy Update will be available at a later date and will be found at toronto.ca/wastestrategy.

Regarding Residual Waste Management, overall public and interest group feedback expressed:

- **Support for energy-from-waste (incineration) facilities as a method to manage Toronto's residual waste with conditions that facilities meet stringent environmental and public health standards.** Supporters of energy-from-waste point out that the practice could help manage residual waste closer to home, reduce reliance on landfilling and create usable energy from garbage. Those in support of energy-from-waste facilities also emphasized that as the Green Lane Landfill nears capacity, it is important for the City to adopt residual waste management technologies that minimize impacts to neighbouring communities, specifically Indigenous and equity-deserving communities. Supporters further pointed to the advanced technology seen in leading European and Asian jurisdictions that could be adopted by the City of Toronto. Concerns raised about the environmental and social impacts of energy-from-waste highlighted the need to prioritize the health of vulnerable populations when choosing the type and location of any future waste management facilities. Participants also emphasized the importance of ensuring that any future energy-from-waste facilities maintain stringent environmental protections, safeguard human health, meet best-of-class standards, and align with Toronto's Net Zero Strategy and climate goals.
- **Interest in alternatives to landfilling.** A majority of respondents support the City

further exploring energy-from-waste technologies, with 72% of public polling participants and 79% of survey respondents citing interest in generating usable energy from garbage and reducing reliance on landfilling as key motivators. Many voiced concerns about the long-term viability of landfilling, including land use impacts, leachate risks, and disproportionate effects on Indigenous communities. There was notable interest in exploring innovative technologies from around the world, such as those implemented at CopenHill in Denmark and the Reppie Plant in Ethiopia. Interest in alternatives to landfilling is driven by a desire for local waste management. Most respondents (64% of polling participants and 67% of survey participants) prefer that Toronto manage its waste within city limits rather than sending it elsewhere for disposal.

- **Concerns raised that energy-from-waste (incineration) facilities may have greater climate change impacts than other waste management approaches.** Participants opposing this option emphasized that incineration could result in higher greenhouse gas emissions compared to landfilling. There were calls for the City to conduct a comprehensive climate impact assessment of all residual waste strategies through a climate change lens.
- **Focus on upstream solutions including the five Rs (Refuse, Reduce, Reuse, Repurpose, Recycle).** Participants emphasized the importance of upstream solutions to reduce waste before it's created. This includes promoting the five Rs and holding producers accountable for the types and amounts of waste they generate. Participants called for greater investment in programs like Community Environment Days to support and strengthen these principals within individuals, while many felt targeting producers would be most impactful to reduce waste and in turn reduce residual waste.
- **Strong support for regulatory oversight and accountability.** Participants called for robust regulatory oversight for any future energy-from-waste facility, including regular audits, performance tracking and public reporting of emissions and air quality impacts. Suggestions included implementing fees and fines for non-compliance and ensuring facilities meet high performance and environmental standards.
- **It is unlikely that energy-from-waste (incineration) facilities will impact individual waste sorting behaviours**. Most participants (93% of polling participants and 94% of survey respondents) indicated their behaviours would remain unchanged while some said they would be more likely to sort waste correctly if the City adopted energy-from-waste technologies. Some respondents believe it could improve sorting habits if paired with strong public education and enforcement. However other respondents worry that the adoption of energy-from-waste facilities could reduce individual motivation to sort waste properly, Familiarity with energy-from-waste technology is relatively high, with 78% of survey and public opinion polling respondents indicating they are either very familiar or have a limited degree of familiarity with energy-from-waste (incineration).

Overview

The City of Toronto (the City) is updating the Long-term Waste Management Strategy (LTWMS) to accurately reflect Toronto's current and future waste management needs and to progress towards the aspirational goal of zero-waste. Long-term availability of landfill space across Ontario is limited and is expected to reach full capacity within ten years. This is also the case for the City, as the Green Lane landfill has an estimated lifespan of approximately 10 years, with closure anticipated in 2035. As the largest municipality in the province, the City needs to secure the best solutions to meet the needs of our growing population while mitigating unnecessary financial risk and environmental and social impacts. Residual waste management planning is focused on identifying solutions to the City's residual waste management needs as Green Lane Landfill nears capacity.

In 2023, City Council approved the Residual Waste Management Work Plan, which outlines strategic long-term options to manage residual waste. It also presents short- and medium-term actions that Solid Waste Management Services can initiate to extend the lifespan of Green Lane Landfill, which will provide time to study, develop and operationalize long-term options.

The long-term options being explored by the City are as follows:

- Partner with another municipality to purchase an existing public landfill, host a new landfill, or expand an existing public landfill
- Negotiate with private landfill owners for the purchase of an existing private landfill
- Assess energy-from-waste technologies (incineration)
- Explore the feasibility to expand Green Lane Landfill

All options for Toronto's residual waste disposal will be assessed through an environmental, social and financial lens to examine their potential impacts before any final decisions are made by City Council.

As part of broader consultation on the Waste Strategy Update, the City consulted on perceptions of energy-from-waste as a potential option to manage residual waste. Feedback was also sought on the values that influence these perceptions.

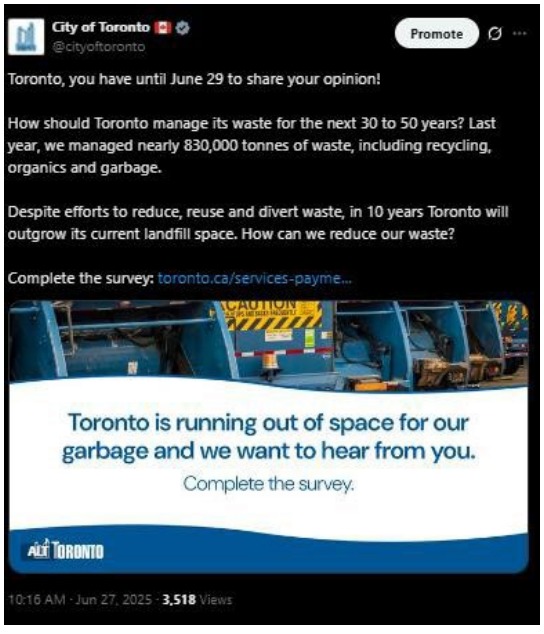
This report summarizes consultation activities and feedback received during Phase 2 of the Long-term Waste Management Strategy Update as it relates to residual waste management. Phase 2 built on Phase 1, which focused on informing the public and interested parties about the long-term options identified for managing residual waste. Phase 2 consultation took place between May 21 and June 29, 2025.

Notification & Consultation Activities

Notification Activities

As part of the Waste Strategy Update, a variety of methods were used to notify interest groups and members of the public about Phase 2 consultation held between May 21 and June 29, 2025.

- Project web page: toronto.ca/wastestrategy (46,352 unique views)
- City of Toronto public engagement calendar: toronto.ca/getinvolved
- Email to Long-term Waste Management Strategy list (7,391 contacts)
- Email to interest group list including 3Rs Ambassador Program (3Rs Ambassador Volunteer – City of Toronto), Residential Associations, Property and Facilities Management, Environmental, Social Service and Community Organizations, Businesses and Business Associations, Waste Management and Processing, Indigenous Community Organizations and Accessibility Organizations (1,239 contacts)
- Social media posts via City accounts on X, Instagram and Facebook.
    - X: 15,816 impressions and 89 clicks
    - Facebook: 85,561 impressions and 386 clicks
    - Instagram: 18,757 views and 250 clicks
- Digital advertising via Thestar.com, CP24, CTV news, The Weather Network, Rogers, PrimeDatalytics, mobile news and weather apps in multiple languages (Chinese, Tagalog, Spanish, Tamil)
- Mentions in City Councillor newsletters



Examples of social media posts shared via City accounts

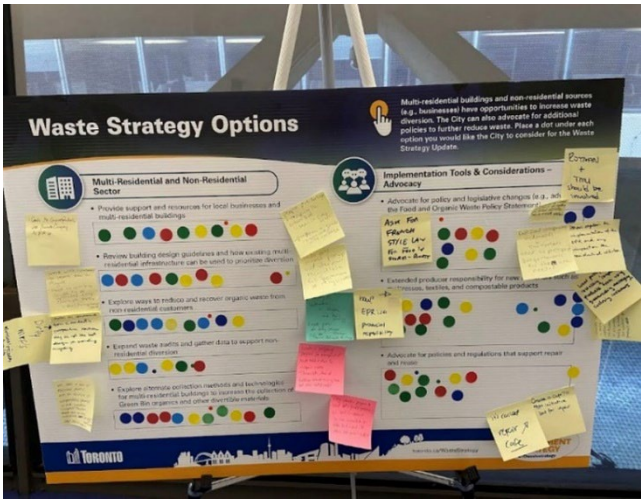
Consultation Activities

Online Survey and Public Opinion Polling

A survey was made available on the City's webpage from May 21 to June 29, 2025, that received 11,073 responses. Participation was anonymous and printed surveys were available upon request. The survey included questions asking about **Residual Waste Management.** Statistically representative Public Opinion Polling was conducted by Environics between June 3 to June 29, 2025, and received 1,143 responses.

Public Meeting

A public meeting took place in-person on June 10, 2025 from 4 to 8:30 p.m. at Toronto City Hall and was attended by 61 individuals in-person. A virtual livestream of the event was made available on YouTube and was attended by 21 individuals. A recording of the event remains available on YouTube, which has 748 views as of July 30, 2025.



Example of information panels

The event featured presentations on the Waste Strategy Update and Residual Waste Management, as well as opportunities to provide feedback on these projects. Additional presentations were provided on related City initiatives, such as the Circular Economy Road Map and the Single-Use & Takeaway Items Reduction Strategy.

Information panels displayed at the event provided attendees the opportunity to engage further with project materials and City staff before, during and after the presentations. Information panel topics included Waste Strategy Updates and Residual Waste Management. Presenters at the public meeting included Charlotte Ueta, Acting Director Policy, Planning and Outreach who provided opening remarks, followed by followed by Meaghan Davis, Manager of Circular Economy and Innovation, presenting on the Circular Economy Roadmap. Myron McLelland, Senior Project Manager in Solid Waste Policy and Planning, provided a presentation on the Single-Use Takeaway Item Reduction Strategy followed by Michael Cant, Principal and Vice-President at GHD who presented on the Waste Strategy Update and Residual Waste Management projects.

Following the presentations, a question-and-answer period allowed for virtual and in-person attendees to ask questions of project staff. Both Atif Durrani, Acting Project Director of Business Transformation and Erwin Pascual, Manager Solid Waste Policy and Planning, joined the presenters as panel members for the question-and-answer period. The comments received via the information panels and question-and-answer period are summarized in this report.

Interest Group Workshops

Five virtual interest group workshops were held on June 6, 9, 12 and 13, 2025 for interest groups representing the waste industry, and residential, community, commercial, institutional, environmental and Indigenous organizations. Each workshop featured a presentation on the Waste Strategy Update and the Residual Waste Management Work Plan. Opportunities for questions and a facilitated discussion followed the presentations. Participants were also invited to share additional feedback via the survey or by email.

More than 904 interest groups were invited to attend and 187 representatives from the following 94 organizations participated in the virtual workshops.

Accessibility, Community, Environmental, Indigenous & Social Service Organizations

- Astra Burka Design Ltd
- Black Creek Community Farm
- C40 Cities
- Citizens Climate Lobby
- Delta Family Resource Centre
- Don't Mess with the Don
- Environmental Defense
- ESS Support Services
- Etobicoke Climate Action
- Furniture Bank
- Metro Vancouver, National Zero Waste Council
- North York Harvest
- Oceana Canada
- Project Swallowtail
- Progress Place
- Seniors for Climate Action Now
- Street Haven
- Toronto Council Fire Native Cultural Centre
- Toronto District School Board
- Toronto Environmental Alliance
- University of Toronto
- University of Guelph

Business & Business Associations

- Art Gallery of Ontario
- Bloor-Yorkville BIA
- Blue Mountain Plastics Recycling/ Ice River Springs
- Broadview Danforth BIA
- Canadian Federation of Independent Grocers
- Clear Strategy
- Dart Container Corporation
- Downtown Yonge BIA
- Emery Village BIA
- Fairbank Village BIA
- Good Judy
- Green Standards
- Home Depot
- Kraft Heinz
- Lafarge Canada
- Mount Pleasant Village BIA
- Ontario Restaurant Hotel & Motel Association (ORHMA)
- Pathway Group
- Queen Street West BIA
- Suppli
- West Queen West BIA
- Yonge + St. Clair BIA
- Yonge Lawrence Village BIA

Residential Associations, Property & Facilities Management

- Bay Cloverhill Community Association
- Bayview Village Association
- BILD
- Canary District Neighbourhood Association
- CEED Canada
- Equity in Green
- EWCA Member
- FoNTRA
- GBRE
- GTA Apartment Association
- Greenwin Corporation
- Highland Creek Community Association
- Homes First Society
- Houselink & Mainstay Community Housing
- Kipling Residential Management
- M&R Holdings
- MetCap Living Management
- Presentation Manor for Seniors
- Scarborough Retirement Residence
- Seaton Village Resident Association
- Shibley Righton LLP
- St. Lawrence Neighbourhood Association
- Starlight Investments
- Summerhill Resident Association

Waste Management & Processing Organizations

- Blue Mountain Plastics Recycling/Ice River Springs
- Enwave
- Generate Upcycle
- Green Shields Energy
- H20 Group Inc
- Innovate Waste Solutions
- Lake Erie Green Power
- McMillan Vantage
- Republic Services
- Walker Industries
- Waste Management of Canada
- Wright Strategies

What We Heard

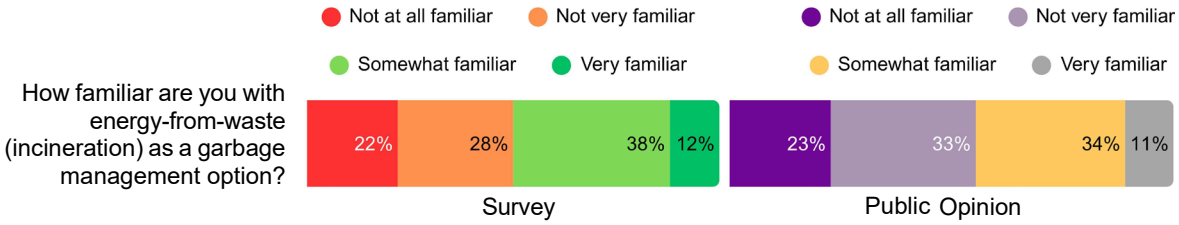
Online Survey and Public Opinion Polling

The following questions were part of the City of Toronto's Long-term Waste Strategy Update survey, which was open for comment from May 21 to June 29, 2025. This section summarizes responses to 10 Residual Waste Management questions that were asked in the larger Waste Strategy Update survey. All responses to the Waste Strategy Update survey, will be available at toronto.ca/wastestrategy under the Public Consultation tab.

Public opinion polling was conducted by Environics between June 3 and June 29, 2025, to complement the online survey. The results of both the public opinion polling and the survey are shown below in comparison below.

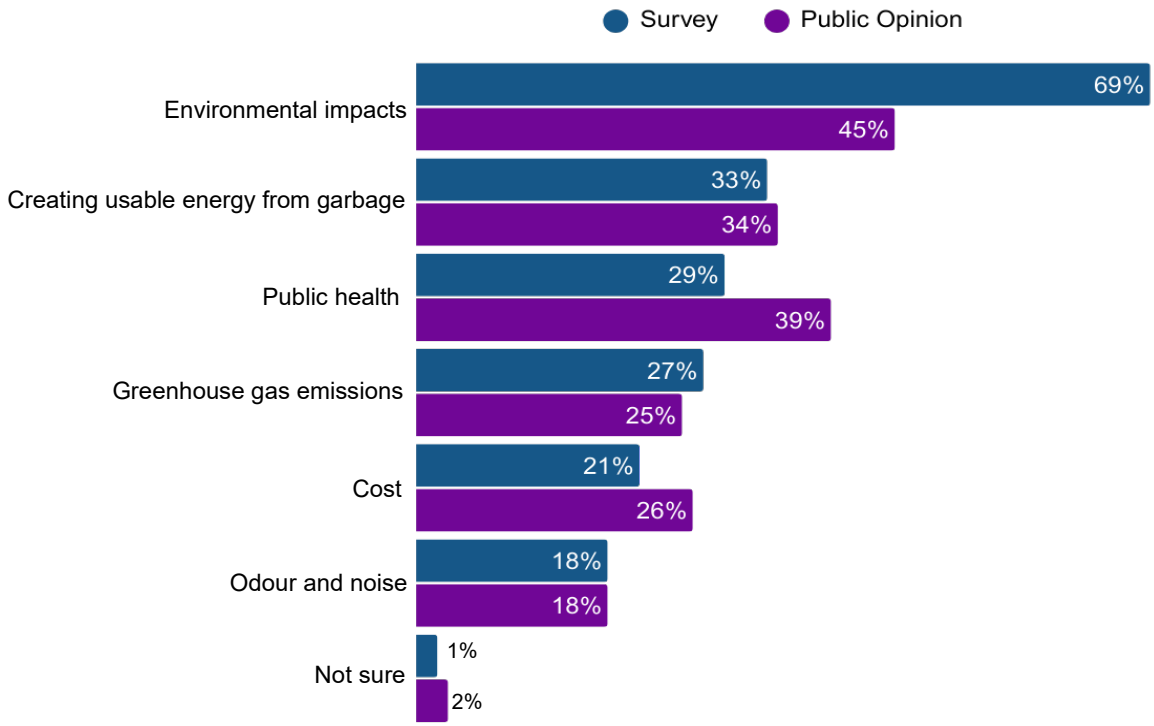
See Appendix A Survey Demographics and Appendix B Public Opinion Polling for additional details on survey demographics and public opinion polling.

How familiar are you with energy-from-waste (incineration) as a garbage management option?



Only 12% of survey respondents said they were very familiar with energy-from-waste (incineration), while 66% reported having limited familiarity (including “somewhat familiar” and “not very familiar”) and 22% said they were not familiar at all. Similarly, the public opinion polling showed that 11% of respondents reported being very familiar with energy-from-waste, while 67% reported having limited familiarity, and 23% said they were not familiar at all.

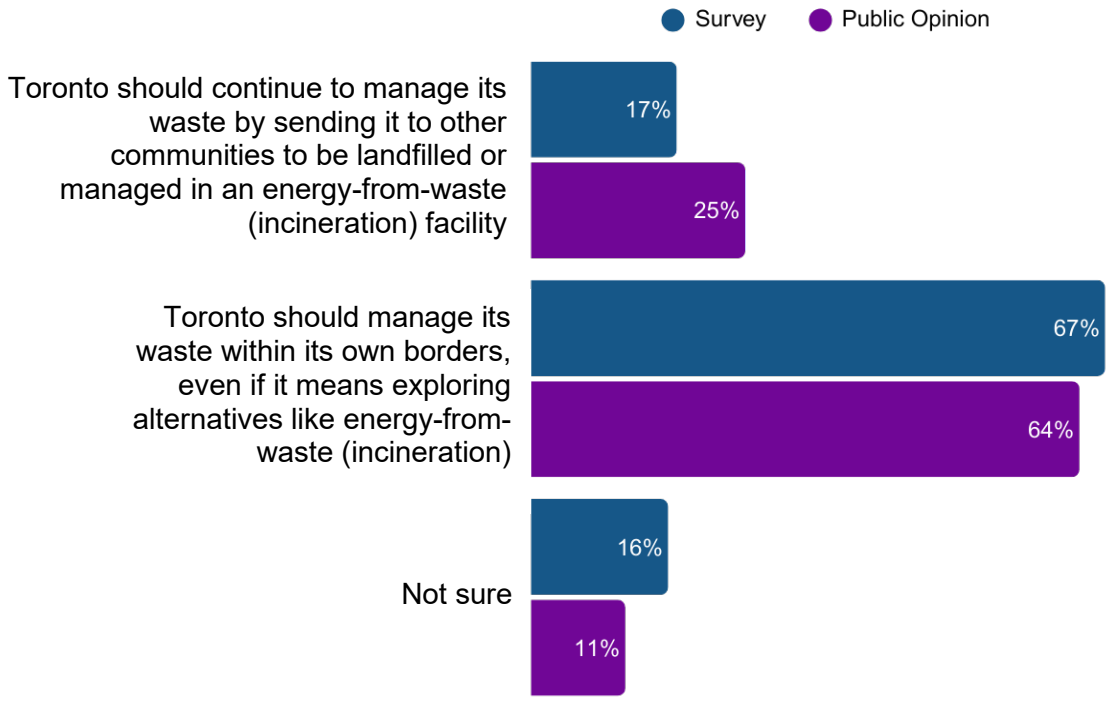
There are many considerations when the City makes decisions about how to dispose of waste. Select the top two considerations most important to you.



Across all respondents, environmental impacts were the most important consideration when deciding how the City should dispose of residual waste, followed by creating usable energy from garbage and public health.

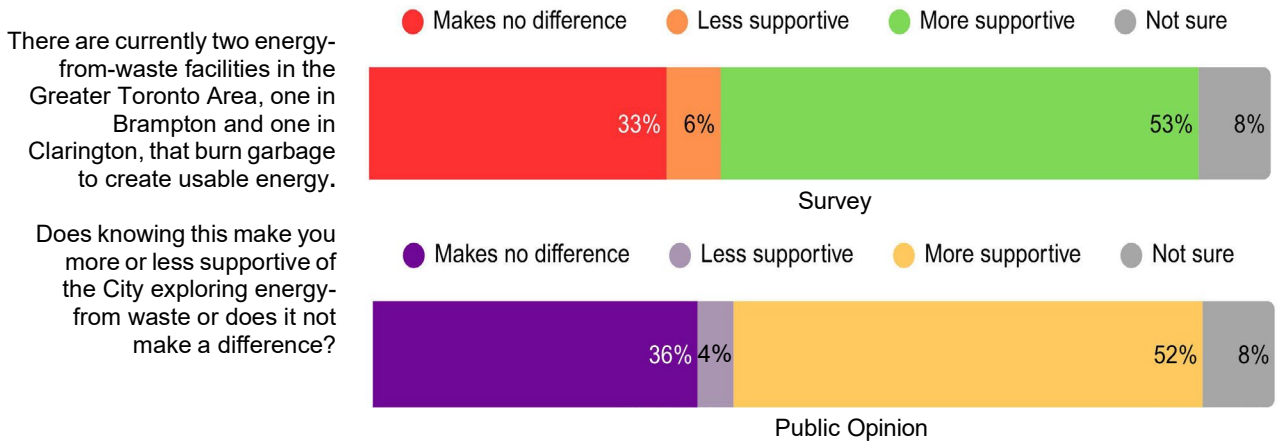
In the survey, the second most important consideration was creating usable energy from garbage, followed by public health. In the polling, public health was the second most important consideration, followed by creating usable energy from garbage. Survey respondents between the ages of 20 and 29 placed more emphasis on public health and greenhouse gas emissions, while respondents over 55 years of age showed stronger support for creating usable energy from garbage.

Space limitations make it difficult to build a new landfill in Toronto. Energy-from-waste (incineration) facilities require less land and can be built in urban settings. Which option do you prefer for managing Toronto's garbage in the future? Please select one of the options below.



In both the survey and public opinion polling, the preferred option is for Toronto to manage its waste within its own borders, even if it means exploring alternatives, such as energy-from-waste, with strong support shown across all age groups. Support is highest among those aged 30–54.

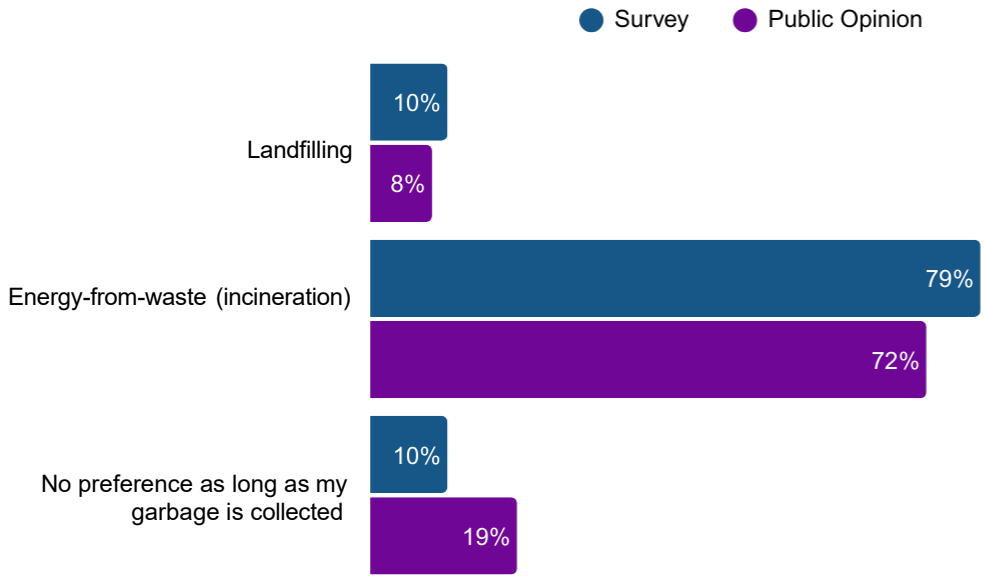
There are currently two energy-from-waste (incineration) facilities in the Greater Toronto Area, one in Brampton and one in Clarington, that burn garbage to create usable energy. Does knowing this make you more or less supportive of the City exploring energy-from waste or does it not make a difference?



In the survey, most respondents expressed that they are more supportive of the City exploring energy-from-waste facilities knowing that these strategies are already employed in Brampton and Clarington (53%). A comparable sentiment is found in the public opinion polling with over half of respondents expressing support for energy-from-waste facilities after knowing the strategies are employed elsewhere in the Greater Toronto Area (52%).

Survey respondents under the age of 29 show relatively higher uncertainty and less support, while respondents aged between 30 - 54 shared the strongest support. Survey respondents over the age of 55 tended to be more supportive or neutral.

If you had to choose between sending garbage to landfill or to an energy-from-waste (incineration) facility, which would you prefer? Please select one of the options below.



The majority of survey and public opinion polling respondents prefer energy-from-waste over landfilling. In the survey, businesses who receive City of Toronto waste collection services shared strong preferences for sending garbage to an energy-from-waste facility (80%). Similarly, property managers and superintendents expressed preference towards sending garbage to energy-from-waste facilities over landfilling (81%).

Survey respondents who live in multi-residential buildings expressed preference for energy-from-waste over landfilling (80%). Survey respondents living in single-family homes expressed similar levels of preference for energy-from-waste over landfilling (79%).

Respondents, whether familiar or unfamiliar with energy-from-waste, were equally likely to prefer this waste management option over landfilling (80% and 78.6% respectively).
In the survey, the question above about preference between energy-from-waste facilities and landfilling was followed by an open-ended prompt inviting respondents to explain their choice. The following summarizes comments shared in response.

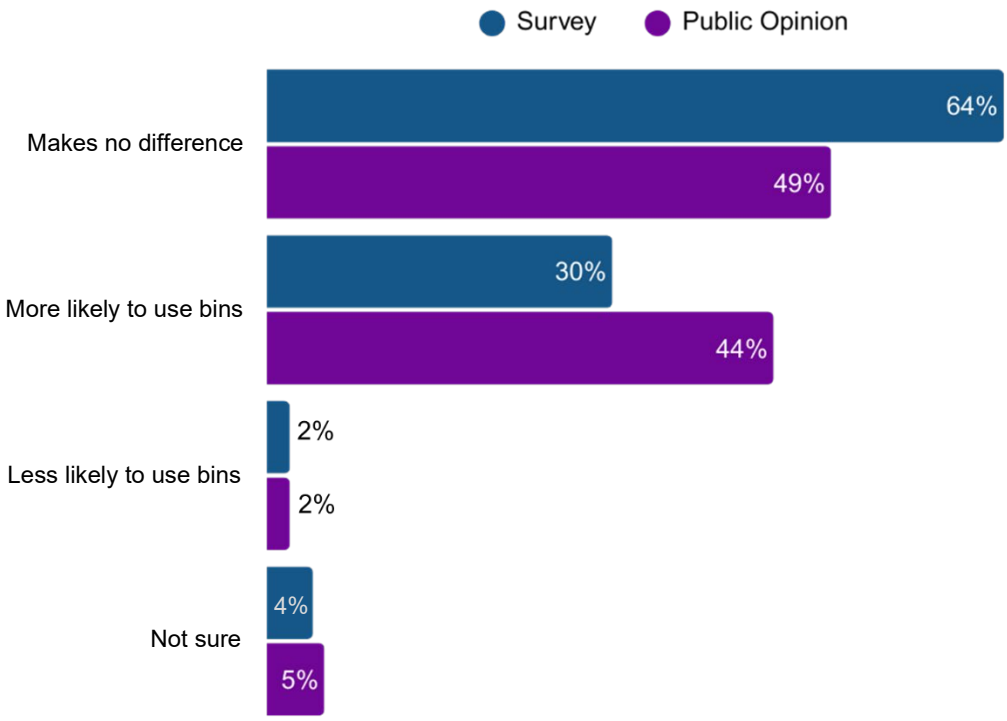
Please explain your response to the previous question:

Theme	Comment Summary
Communication, Education & Engagement	• Concerns about misleading public messaging, greenwashing and promotion of incineration without fair consideration of alternatives • Strong call for transparent, unbiased and updated information before decisions are made on energy-from-waste versus landfilling, desire for

	independent experts to explain the risks, limitations and environmental impacts of each waste management option • Need for better public education on how energy-from-waste technologies work, their environmental impacts and its place in the waste hierarchy • Interest in alternatives to incineration and aligning with broader City sustainability goals • Suggestions to improve education, enforcement and incentives around recycling, sorting and waste minimization
Energy-from-Waste (Incineration) - Opposition	• Incineration is seen as undermining recycling and diversion efforts and can divert resources from more sustainable solutions like reduction, reuse and composting • Skepticism about pollution controls, data transparency and the City's ability to manage facilities safely and long-term viability due to declining waste volumes and costly infrastructure • Strong opposition to siting near residential areas due to concerns about air quality, odours and impacts to property value
Energy-from-Waste (Incineration) - Support	• Incineration is seen as a way to reduce landfill use, lower emissions, convert waste into energy and valuable materials, supporting circular economy goals, offer cost savings by reducing transport/export costs and generating revenue through energy sales and material recovery • Support is conditional on strict safeguards to protect public health and the environment
Environmental & Public Health Concerns	• Air emissions and toxic outputs from incineration (e.g., dioxins, heavy metals, microplastics) are major concerns, especially for vulnerable populations like children, elders and those with pre-existing conditions • Calls for assurance that modern pollution control technologies (e.g., scrubbers, filters, high-temperature combustion) are effective, supported by real-world data • Preference for locating facilities in industrial zones, away from homes, schools and parks
Ideas & Innovations	• Scandinavian countries and Japan are cited as leaders in energy-from-waste, using advanced, space-efficient systems to generate energy and reduce landfill use with minimal pollution • Cities like Vienna and Copenhagen are praised for integrating incineration facilities into urban design, making them functional and publicly accessible (e.g., ski hills, recreation spaces) • There is interest in alternative technologies (e.g., biofuels, fermentation) that may offer lower health and environmental risks • Emphasis on ensuring financial benefits remain public, reinvested into City services or used to reduce living costs
Landfilling - Opposition	• Continued reliance on landfills is considered unsustainable, delaying real solutions and burdening future generations • Landfill gas recovery systems are seen as inefficient and prone to failure, contributing to fugitive methane emissions

	• There is a trade-off between air pollution from incineration and soil/water contamination from landfilling
Landfilling - Support	• Landfilling is often viewed as more familiar, stable and manageable than incineration • Some argue that landfilling creates less greenhouse gas emissions when compared to energy-from-waste • Landfills are seen as better aligned with waste reduction goals since they don't require a constant waste supply
Reduce, Reuse, Recycle, Recovery	• Strong support for waste reduction as a priority, with calls for systemic changes, such as regulating packaging, promoting reuse and rewarding sustainable behaviour • Emphasis on improving sorting and separation of recyclables and organics and investing in systems that reduce landfill-bound waste • Support for extended producer responsibility, harmonized packaging standards, deposit-return schemes and stricter rules for high-waste businesses • Managing waste locally can reduce emissions from hauling, increase accountability and encourage waste reduction

If garbage were sent to an energy-from-waste (incineration) facility, would you be more or less likely to use the Blue Bin for recycling and the Green Bin for organics, or would it make no difference? Please select one of the options below.



Most survey respondents expressed that if garbage were sent to an energy-from-waste facility it would make no difference in their usage of the Blue Bin and the Green Bin (64%). Similarly, public opinion polling also indicates that almost half of respondents feel that the adoption of energy-from-waste facilities would make no difference in their usage of the Blue Bin and Green Bin (49%).

Survey respondents between the ages of 20-29 were more likely to say they would increase their use of the Blue and Green Bins if energy-from-waste were adopted (42%). Residents of multi-residential buildings were more likely than those in single-family homes to say they would increase their use of the Blue and Green Bins if energy-from-waste were implemented.

One third of businesses that receive City waste services expressed they would be more likely to use the Blue Bin and Green Bin, a sentiment also shared by one third of businesses who do not currently receive City waste services. However, the majority of businesses that do and do not receive City waste services said that it would make no difference in their recycling behaviours if waste were sent to an energy-from-waste facility. Similarly, most survey respondents who work as property managers or superintendents stated that sending garbage to an energy-from-waste facility makes no difference in their usage of the Blue Bin and Green Bin (68%).

Public Meeting

During the public drop-in event, participants expressed comments as summarized below.

Theme	Comment Summary
Communication, Education & Engagement	• Host waste strategy consultation events in North York, Scarborough and Etobicoke • Launch a city-wide education campaign on recycling, composting and waste reduction, using subway ads, signage and multilingual materials
Energy-from-Waste - General	• Emissions calculations are complex and depend heavily on waste composition
Energy-from-Waste (Incineration) - Opposition	• The term “energy-from-waste” can be misleading and may downplay environmental and health impacts • Incineration facilities raise concerns about air quality, greenhouse gas emissions especially from organics and the adequacy of emission controls • Toronto’s waste stream may not be suitable for incineration due to contamination (e.g., electronic waste), highlighting the need to remove hazardous and organic materials beforehand • Incineration may conflict with Toronto’s Net Zero strategy and could reduce public motivation to sort waste properly • Concerns that older technologies may lack proper carbon capture systems
Energy-from-Waste (Incineration) - Support	• Energy-from-waste can generate offset income, bottom ash can potentially be used in construction projects, and facilities tend to have longer lifespans than landfills • Landfilling delays environmental impacts, while incineration may offer more immediate solutions • Strong regulatory models, like those in Southern California, could guide Toronto in setting high standards
Residual Waste Management Work Plan	• Improve organics management to reduce the amount of waste going to the landfill for disposal • Include data on the Green Lane Landfill’s remaining lifespan and explore strategies to extend it • Prioritize environmental outcomes in all decision-making

Interest Group Meetings

Between June 6 and June 13, 2025, five interest group meetings were held and input was gathered through two question-and-answer periods per meeting and facilitated small group discussions that are summarized below.

See **Appendix C** - Interest Group Workshop Summary Report for additional notes categorized by theme and grouped by meeting type including Residential Associations, Property and Facilities Management, Environmental, Social Service and Community Organizations, Indigenous Organizations, Businesses and Waste Industry Organizations.

Topic	Comment Summary
Communication, Education & Engagement	• Concerns that consultation presentation materials are biased toward incineration • Support for direct engagement with Indigenous communities near Green Lane Landfill and other future waste processing facilities • Communication and engagement strategies need to focus on why • Suggestion to give students recycling facility tours to educate and inspire
Energy-from- Waste (Incineration) - General	• Strong regulatory frameworks for energy-from-waste exist as seen in the South Coast Air Quality Management District in Southern California. Suggestion for Toronto to adopt standards that meet or exceed this framework • Ash from energy-from-waste can be reused in construction materials • Concerns about Toronto's waste whether it is clean enough to incinerate • Emphasis on the importance of removing hazardous and organic materials from the waste stream prior to incineration to allow for cleaner outputs • Interest in potential offset income streams from incineration
Energy-from- Waste (Incineration) - Opposition	• Incineration does not align with the City's Net Zero strategy • Air quality around incineration facilities, including methane gas release • The term "energy-from-waste" can be misleading and not fully represent environmental and health impacts • Calculations of greenhouse gas emissions are complicated and depend on the type of waste that enters the system. Concerns about organics entering the residual waste stream resulting in higher greenhouse gas emissions • Individuals may be less incentivized to sort properly if they believe waste will end up in an incineration facility

	• Concerns that older and less advanced technologies may be used for energy-from-waste processing that are not equipped with adequate carbon capture or emission control systems
Energy-from- Waste (Incineration) - Support	• Landfilling pushes the problem further down the road • Suggestion that in West Palm Beach, Florida, the launch of an energy-from- waste facility led to improved recycling rates • Energy-from-waste facilities can be built faster with less land use impacts than landfilling • Energy-from-waste technologies have longer lifespan than landfills
Ideas & Innovation	• Suggestions for biotechnology-based solutions, insect-based food waste processing and gasification • Interest in pilot programs and academic partnerships to explore new technologies • Interest in incentives and support for businesses to adopt on-site food waste processing infrastructure to reduce organics waste down the road
Landfilling - General	• Suggestion that incineration is adopted in countries where there is not enough space for additional landfills
Landfilling - Opposition	• Suggestion that social impacts of incineration and landfilling are highest in underserved communities • Suggestion that landfilling may be a cheaper option but the perpetual care, runoff, land use consumption and impacts to nearby Indigenous communities should be weighed as costs when considering residual waste management options

Email and Phone Comments

Members of the public and interest groups were invited to share comments and ask questions via email, phone or written letters. Comments were received **from 39 people between May 21 and June 29, 2025.** All comments were recorded and reviewed for consideration and response. Comments relating to Residual Waste Management are summarized below.

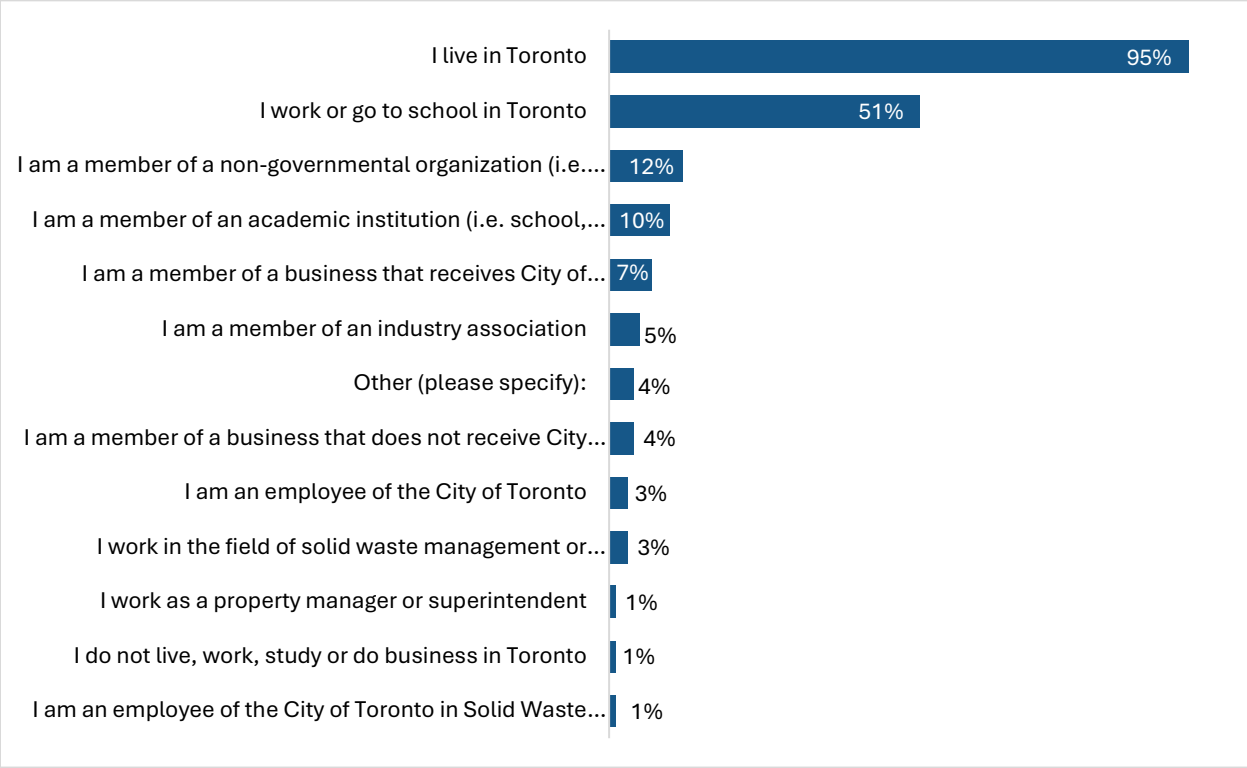
Theme	**Comment Summary**
Communication, Education & Engagement	• Concerns about greenwashing, that “energy-from-waste” is misleading and not truly sustainable
Landfilling - General	• Calls for upstream waste reduction to avoid reliance on landfilling • Concerns about Green Lane Landfill nearing capacity and the lack of viable alternatives
Landfilling – Opposition	• Strong concerns that landfilling is unsustainable, citing impacts on Indigenous communities, leachate, groundwater contamination, land use consumption
Energy-from-Waste (Incineration) - Opposition	• Concerns about air quality, greenhouse gas emissions and health risks as a result of incineration • Some believe incineration undermines waste diversion efforts by reducing motivation to sort waste properly • Concerns that greenhouse gas emissions will be higher than

	anticipated due to organic waste contamination in the incineration stream
Energy-from-Waste (Incineration) - Support	• Cited international models (e.g., CopenHill in Denmark, KVA Linth in Switzerland) as successful examples of incineration facilities near residential communities • Support for energy-from-waste include energy recovery, space efficiency and reduced landfill dependency

Appendix A: Survey Participant Demographics

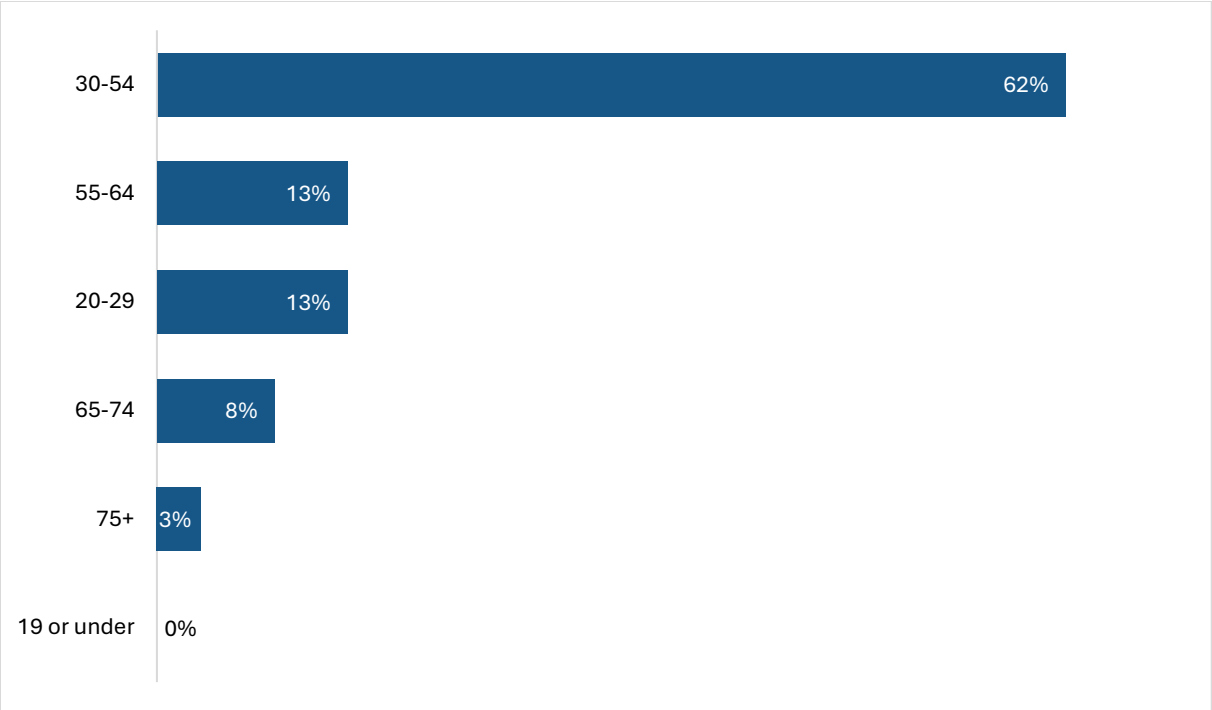
A total of 9,011 survey respondents provided optional demographic information described below.

Relationship to Study Area (City of Toronto) | n= 9,011



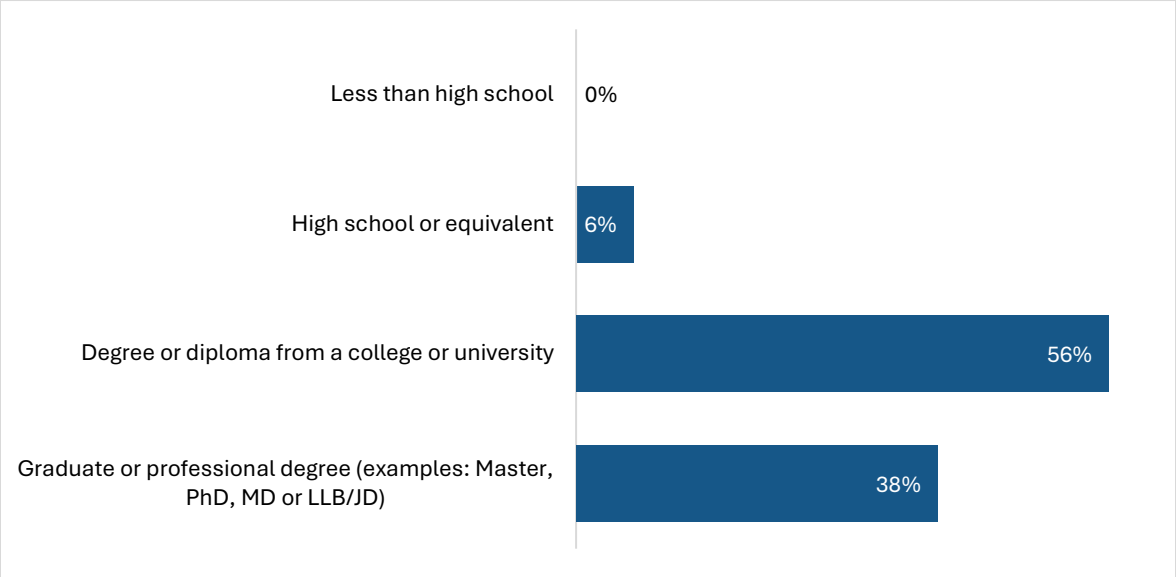
95% of respondents live in the city of Toronto, additionally 51% work or go to school in the city of Toronto.

Respondent Age | n= 8,921



Most respondents were in the working and young-adult age group.

Level of Education | n= 8,945

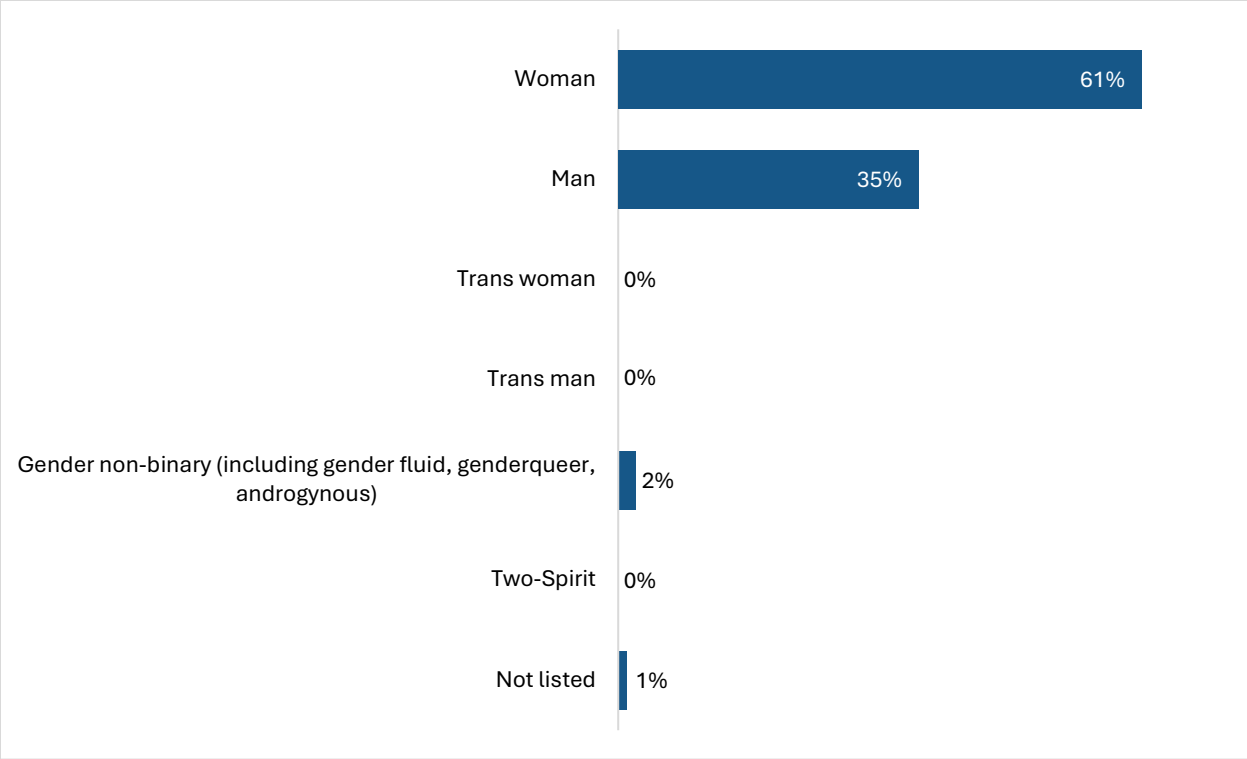


Majority of respondents indicated they have obtained a post secondary degree (56% degree or diploma from college or university and 38% graduate or professional degree).

Language Preference | n= 8,966

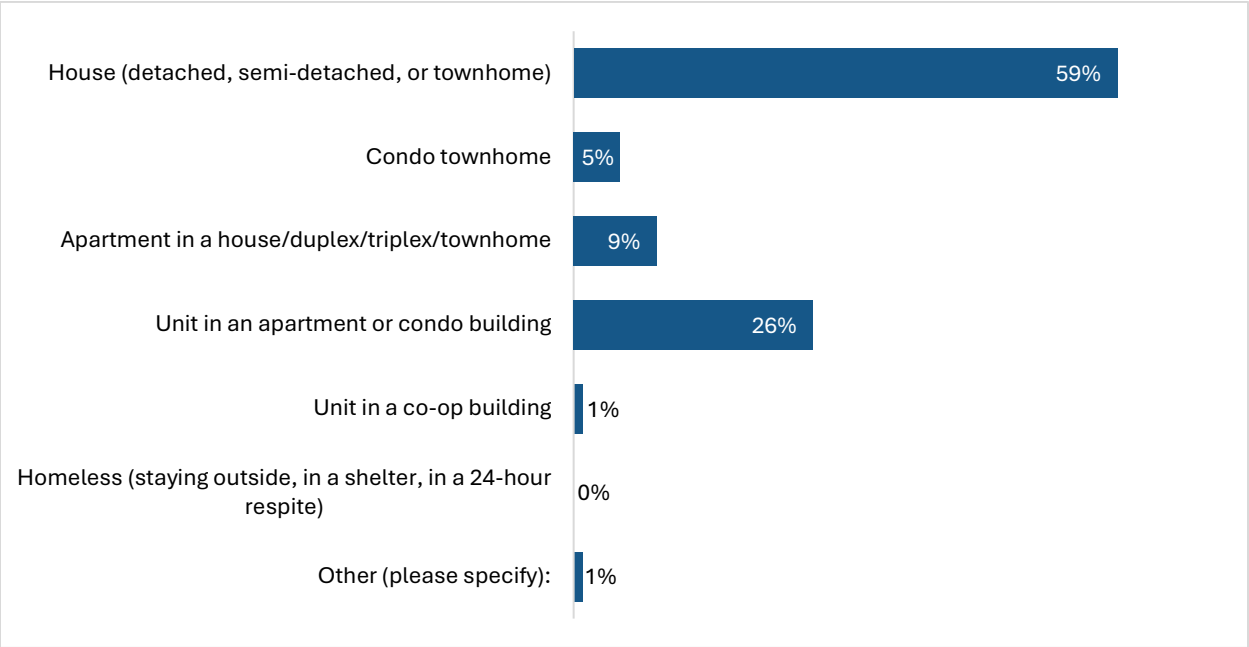
95% of respondents indicated a preference to speak English.

Respondent Gender | n= 8,829



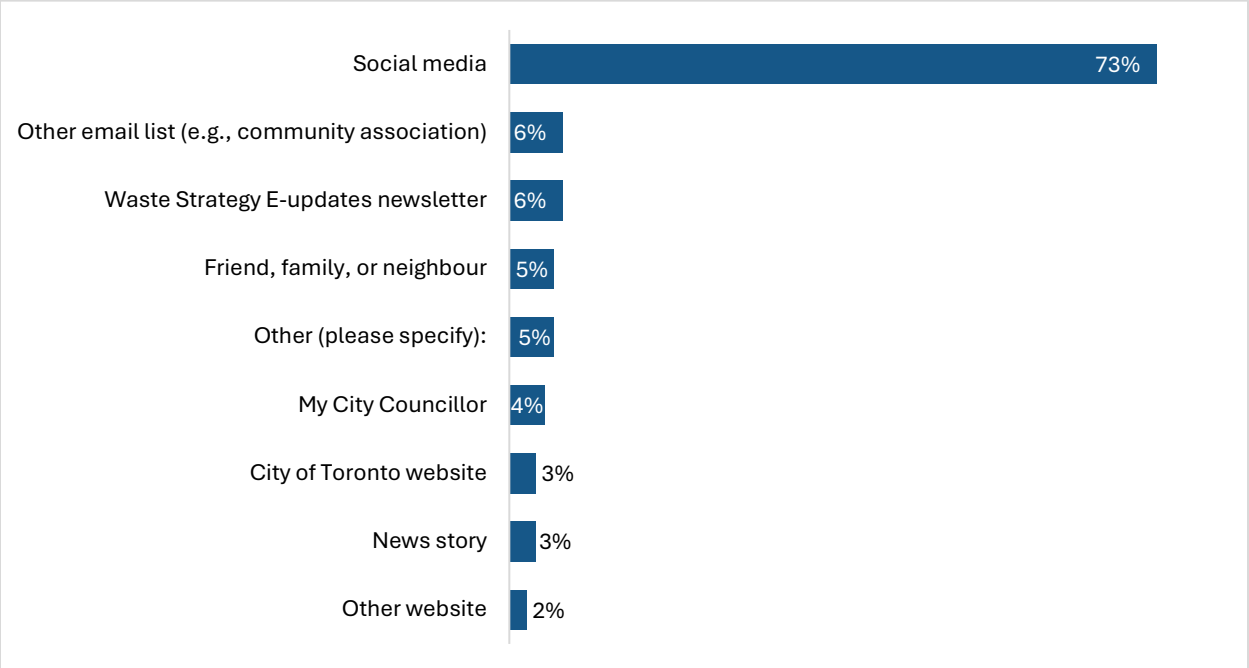
Majority of respondents identified as women (61%) followed by men (35%).

Respondent Dwelling Type | n= 8,910



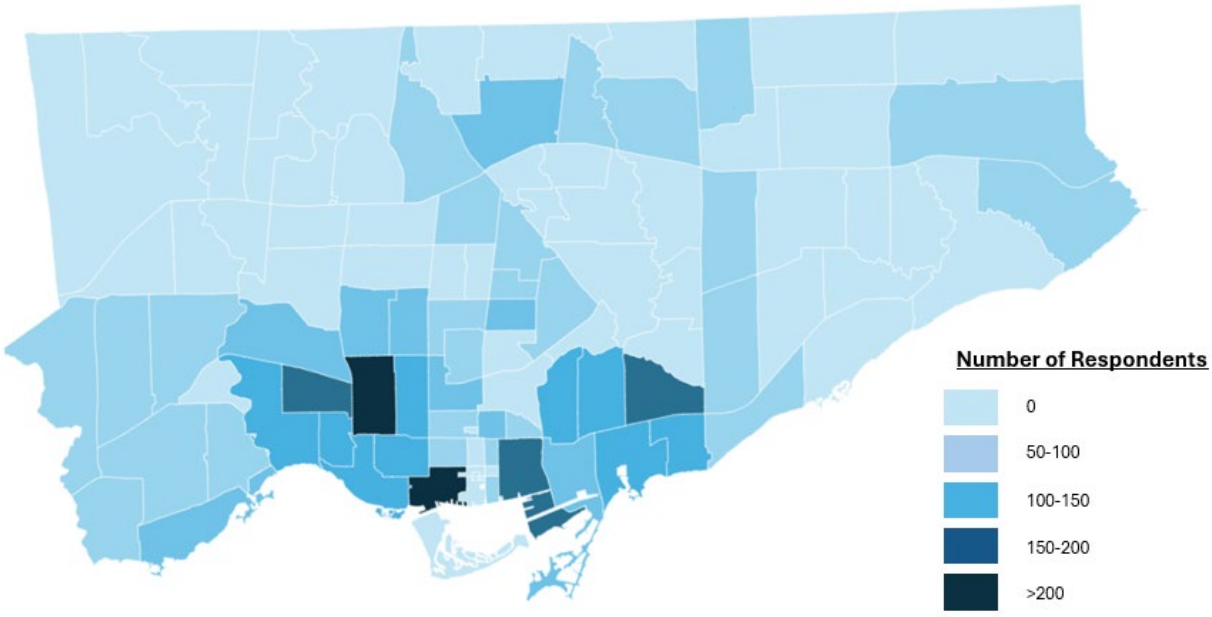
Majority of respondents reported to living in a house, followed by apartment or condo building.

How did you hear about this survey | n= 8,910



Most survey respondents heard about the survey and broader consultation through social media.

Postal Codes | n= 7,021



The postal codes with the highest response rate were M6H, M6P, and M5V.

Appendix B: Public Opinion Polling

This appendix item summarizes public opinion polling relating to Residual Waste Management.
A full summary of all polling conducted relating to the larger Waste Strategy Update will be available on toronto.ca/WasteStrategy at a future date.

TORONTO

PHASE 2 POLLING FOR THE WASTE STRATEGY UPDATE: RESIDUAL WASTE MANAGEMENT

SURVEY RESULTS
August 2025

ENVIRONICS RESEARCH

IMAGE CREDIT: PATRICK TOMASSO ON UNSPLASH

RESEARCH METHODS

Environics conducted a mixed-mode survey with 1,893 adult Toronto residents. The telephone phase of n=750 was conducted from June 11 to 29, 2025. The online survey of n=1,143 was conducted from June 3 to 27, 2025. Quotas were established for single- and multi-family dwellings, regions of the city, age and gender, and survey language (English, Punjabi, Chinese Simplified and Traditional). The final data were weighted to ensure the sample is inclusive of the target audience, except for residence type, where single- and multi-family dwellings are kept at 50-50. The table below presents the unweighted sample sizes and proportions by region.**

	*Population percent (%)	Unweighted counts (n)	Unweighted percent (%)
Scarborough	22%	444	23%
Etobicoke/York	21%	320	17%
North York	24%	523	28%
Old Toronto/East York	32%	606	32%
TOTAL	**100%**	**1893**	**100%**

*NOTE: Population data is based on the 2021 Census.
Results may not add to 100% due to rounding or multiple responses. All results are based on the entire sample unless otherwise noted. ***Data labels for values less than 4% may not be shown on some charts.***
**The three languages were chosen as they are the top non-official languages spoken by City residents.

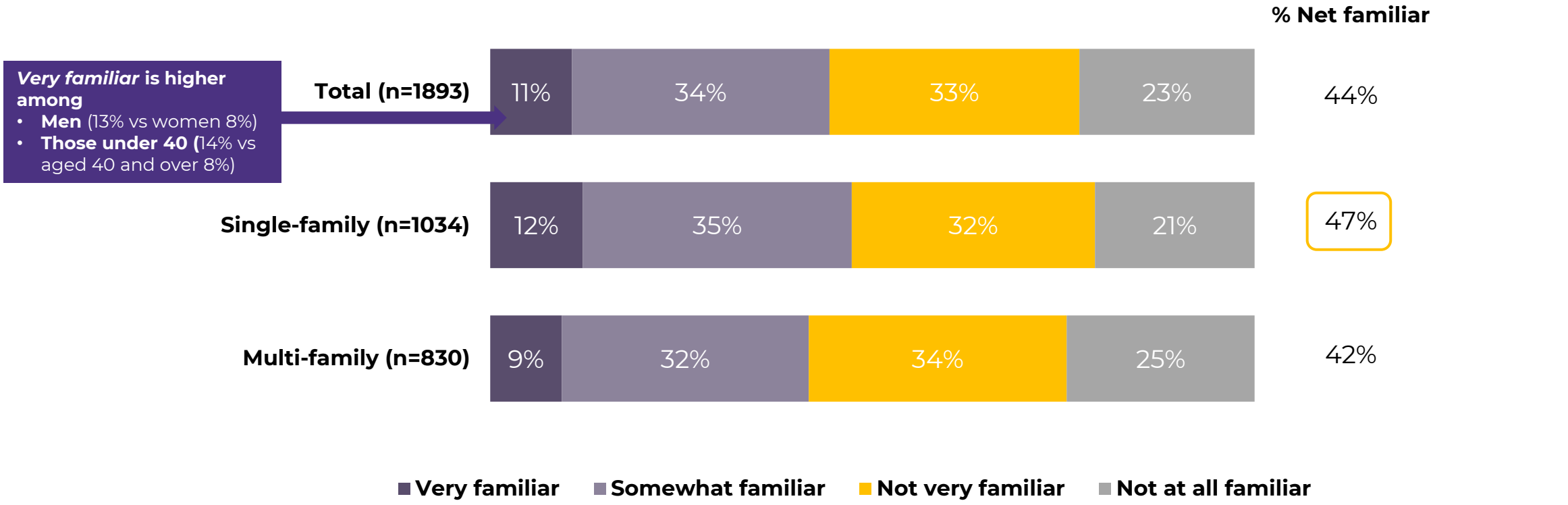
RESIDUAL WASTE MANAGEMENT

IMAGE CREDIT: UNSPLASH

AWARENESS | **FAMILIARITY WITH ENERGY-FROM-WASTE (INCINERATION)**

Over two in five are familiar with energy-from-waste (incineration), with only one in ten saying very familiar. Familiarity is slightly higher among residents of single- than multi-family dwellings.

Q4. How familiar are you with energy-from-waste (incineration) as a garbage management option?

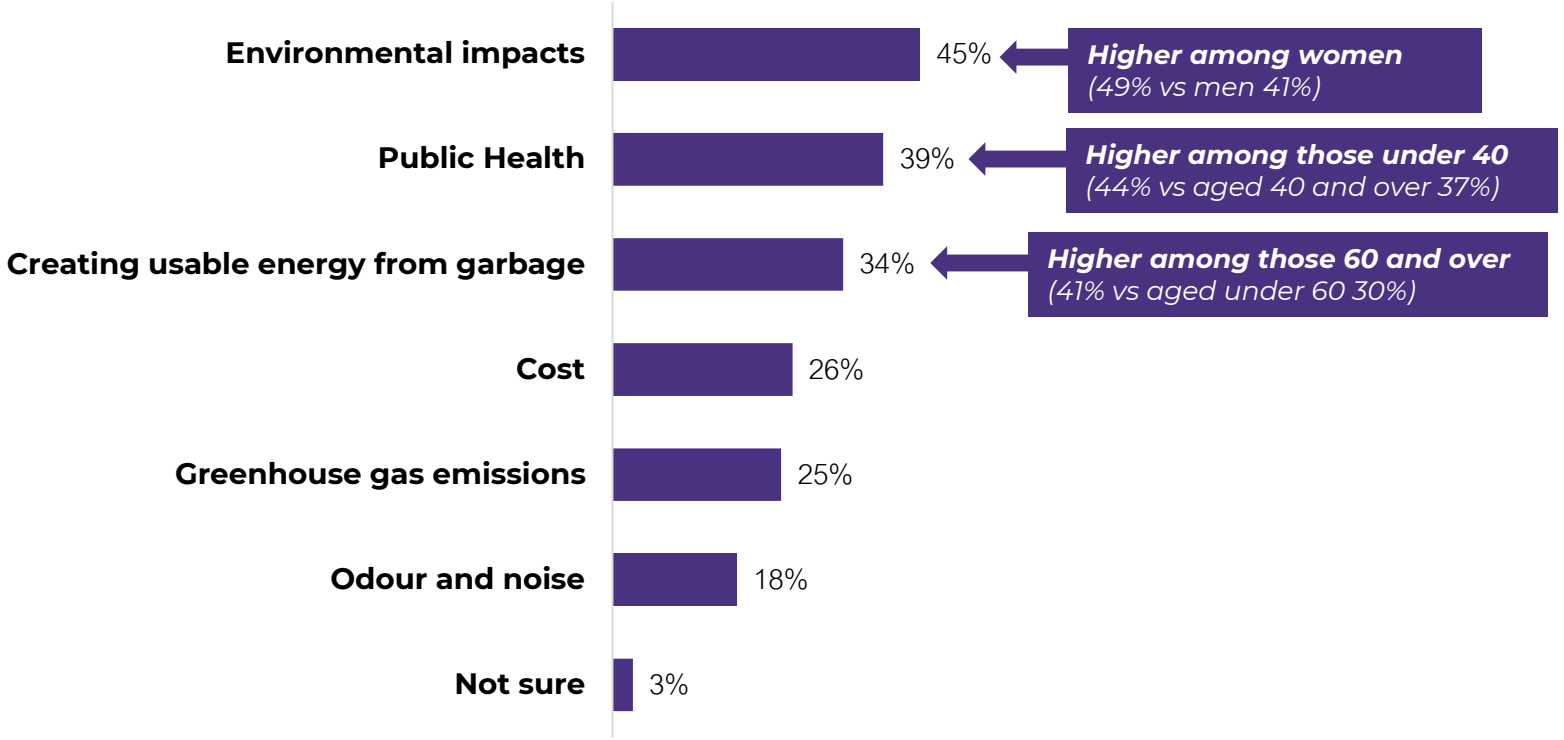


NOTE: The yellow circle indicates a statistically significantly different score between single-family and multi-family.

PRIORITIES | **TOP WASTE DISPOSAL CONSIDERATIONS**

Residents are most likely to identify environmental impacts and public health as top considerations in achieving waste goals. One in three identify creating usable energy from garbage as an important consideration.

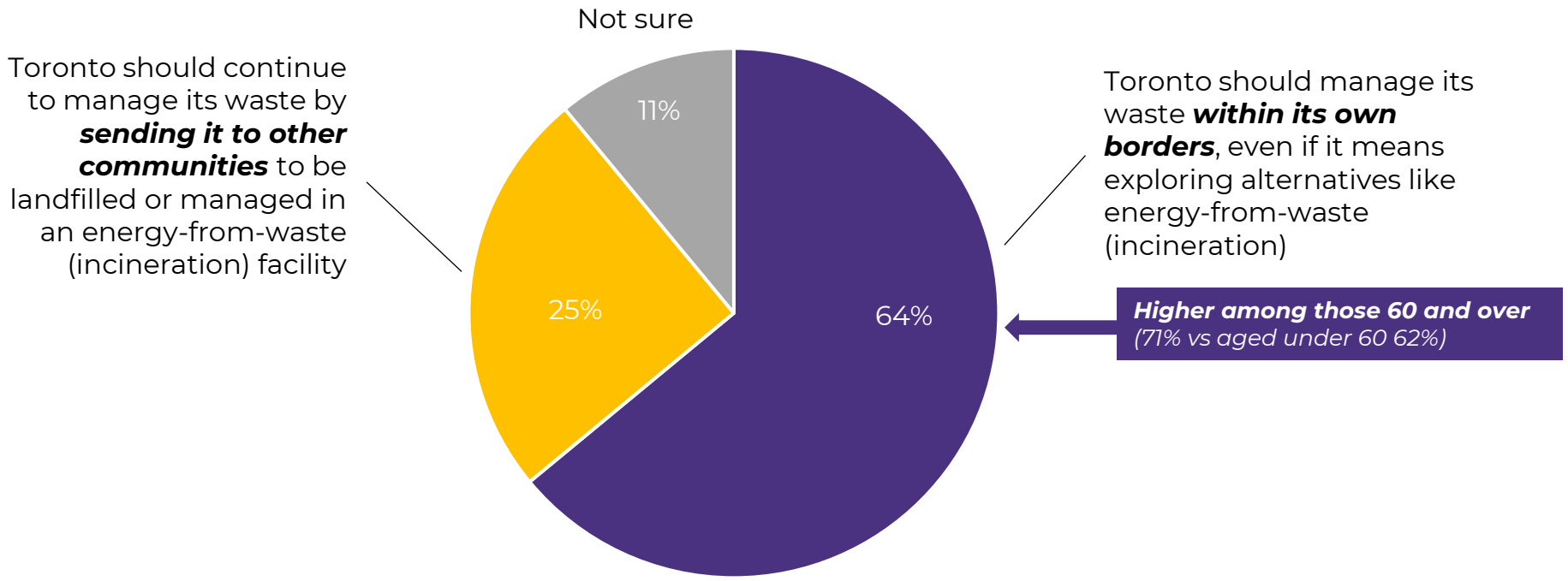
Q5. What do you believe the City should focus on to achieve its waste goals? There are many considerations when the City makes decisions about how to dispose of waste.
NOTE: Respondents could pick up to two options.



PREFERENCE | **LOCATION FOR TORONTO WASTE**

Two in three think Toronto should manage residual waste (garbage) within its borders, even if that means exploring alternatives like energy-from-waste (incineration).

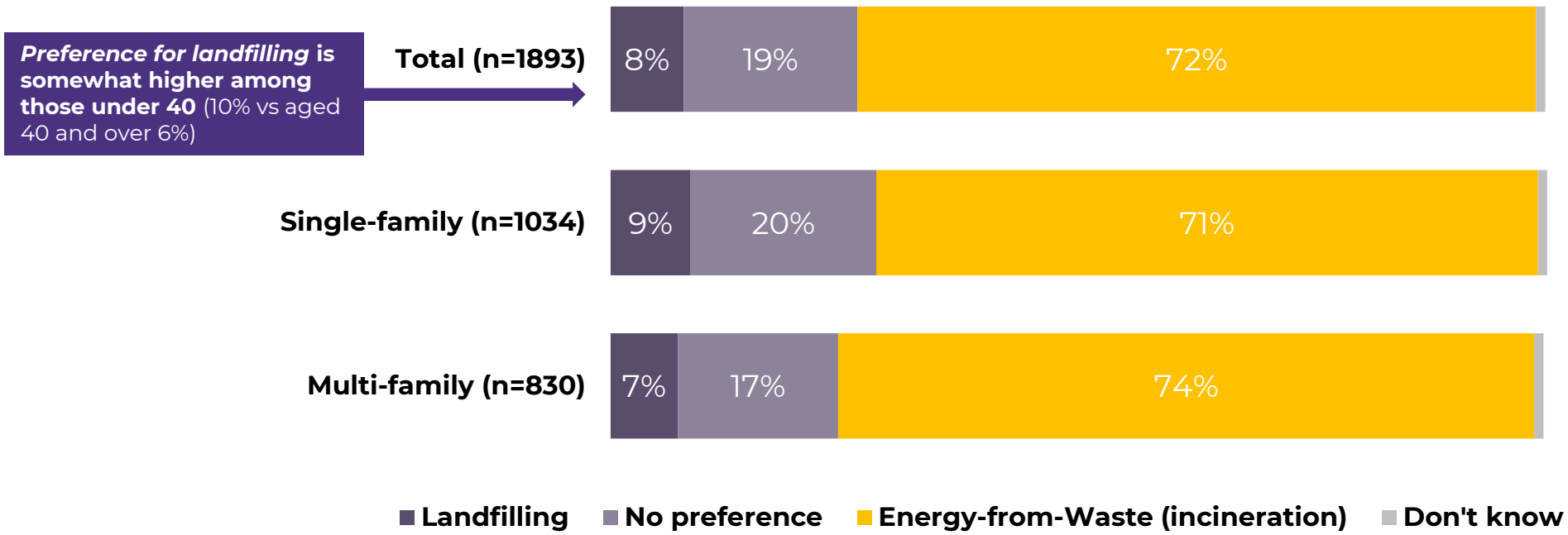
Q6. Space limitations make it difficult to build a new landfill in Toronto. Energy-from-waste (incineration) facilities require less land and can be built in urban settings. Which option do you prefer for managing Toronto's garbage in the future?



PREFERENCE | **LANDFILLING VS. ENERGY-FROM-WASTE (INCINERATION)**

Seven in ten prefer energy-from-waste (incineration) over landfilling. Less than one in ten prefer landfilling. Another one in five has no preference.

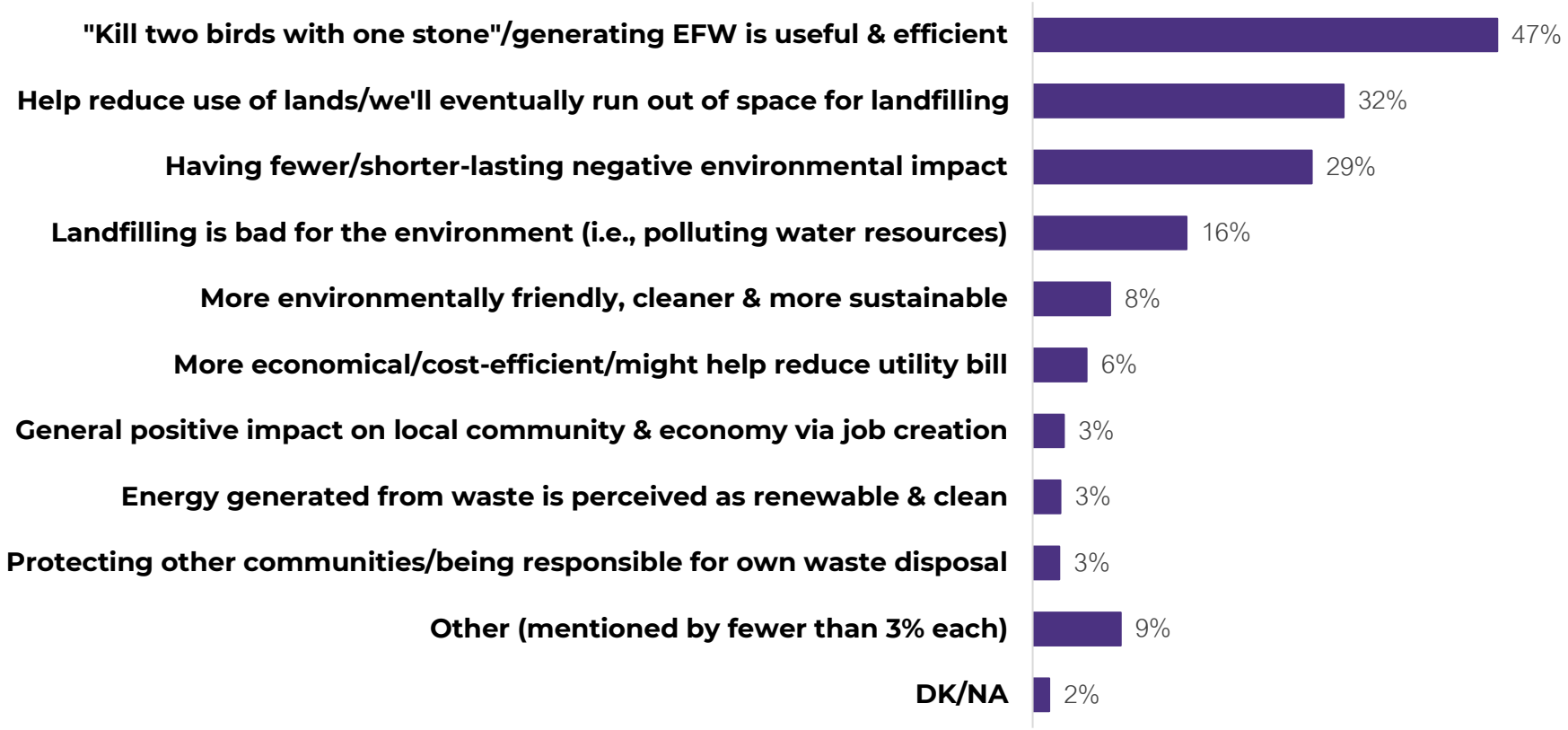
Q8. If you had to choose between sending garbage to a landfill or to an energy-from-waste (incineration) facility, which would you prefer, or would you have no preference?
(Note: half of respondents were shown EFW first, to address order bias)



OPINION | **REASONS FOR PREFERRING ENERGY-FROM-WASTE (INCINERATION)**

Reasons for preferring for energy-from-waste (incineration) over landfilling include creating energy, reducing the need for landfills, followed by environmental considerations.

Q9. Why do you say energy-from-waste (incineration)? BASE: Those preferring incineration (n=1370)



OPINION | **REASONS FOR PREFERRING LANDFILLING**

Concerns about the environmental impacts of burning residual waste (garbage) is a top reason for the minority who prefer landfilling over energy-from-waste (incineration). Landfilling is also thought to be easier, more convenient, and an established practice with some perceived benefits and is cheaper than the alternative, as processes are already in place.

Q9. Why do you say landfilling? BASE: Those preferring landfilling (n=167)

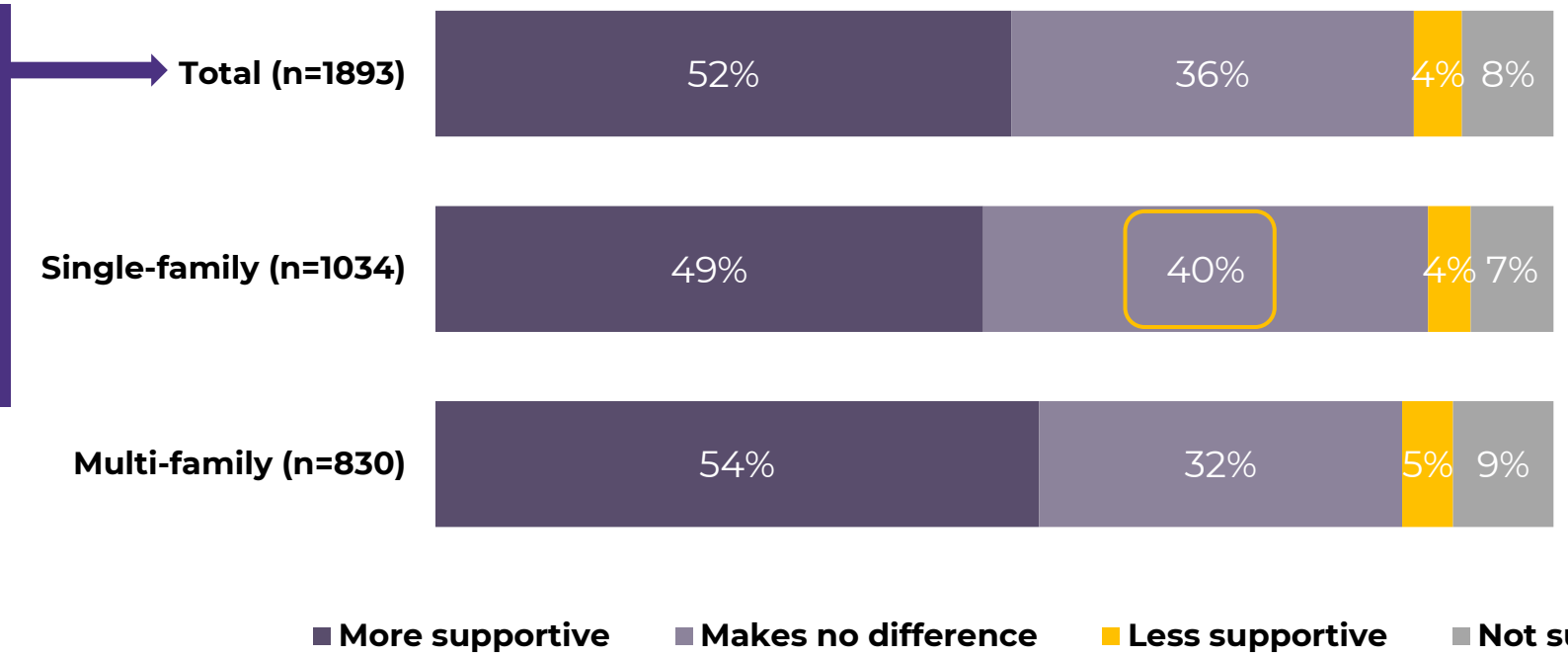
OPINION | **SUPPORT FOR ENERGY-FROM-WASTE (INCINERATION)**

Just over half say they would be more supportive after being told about the current energy-from-waste (incineration) facilities in the GTA; one in three say this makes no difference.

Q7. There are currently two energy-from-waste (incineration) facilities in the Greater Toronto Area, one in Brampton and one in Clarington, that burn garbage to create usable energy. Does knowing this make you more or less supportive of the City exploring energy-from-waste (incineration), or does it not make a difference?

More supportive **is somewhat higher among those 60 and over** (56% vs aged under 60 50%)

Makes no difference **is somewhat higher among residents of single-family (40%) than multi-family dwellings (32%)**



NOTE: The yellow circle indicates a statistically significantly different score between single-family and multi-family.

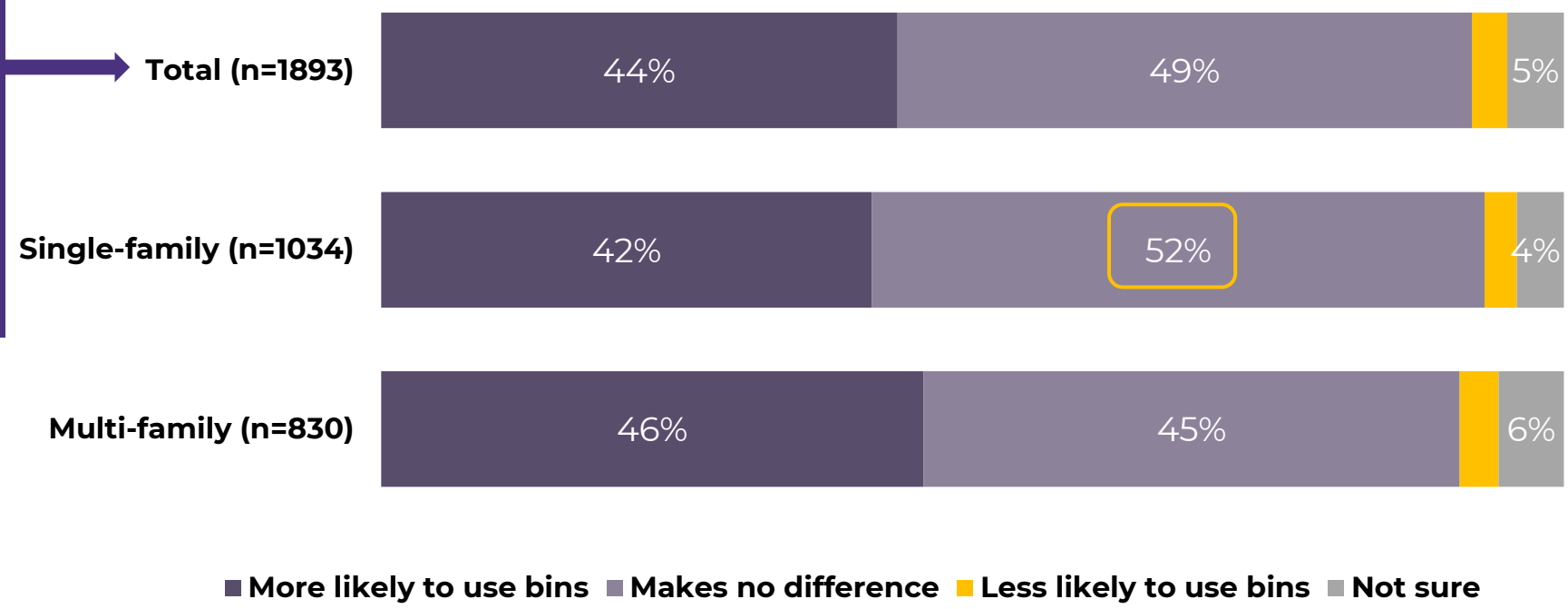
OPINION | **IMPACT OF ENERGY-FROM-WASTE (INCINERATION) ON SORTING WASTE**

Implementing energy-from-waste (incineration) would either increase or have no impact on waste sorting; only a very small proportion (3%) say they would use their Blue and Green bins less.

Q10. If garbage was sent to an energy-from-waste (incineration) facility, would you be more or less likely to use the Blue Bin for recycling and the Green Bin for organics, or would it make no difference?

***More likely* is higher among**
- **Those under 40** (54% vs aged 40 and over 38%)
- **Those born outside of Canada** (50% vs born in Canada 38%)

***Makes no difference* is higher among**
- **Those 40 and over** (37% vs aged under 40 35%)
- **Residents of single-family** (52% vs multi-family 45%)



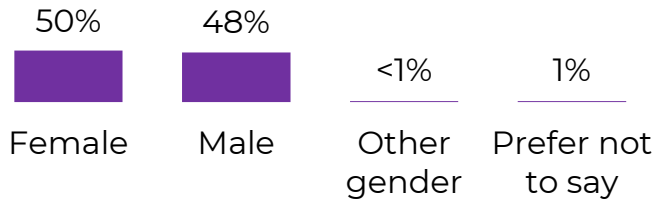
NOTE: The yellow circle indicates a statistically significantly different score between single-family and multi-family.

DEMOGRAPHICS

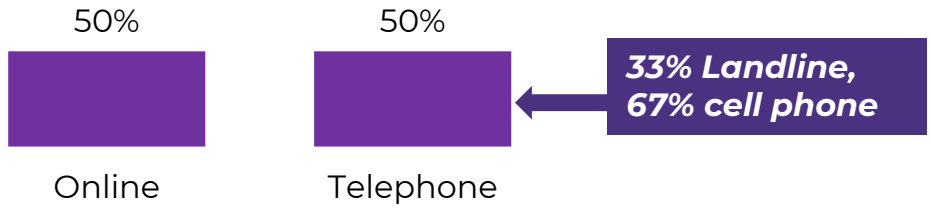
IMAGE CREDIT: UNSPLASH

DEMOGRAPHICS – General population

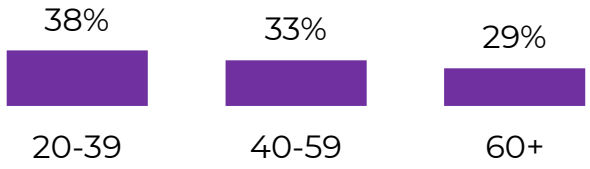
Gender



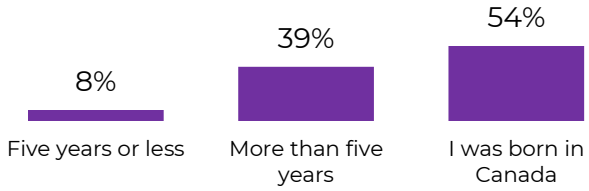
Mode



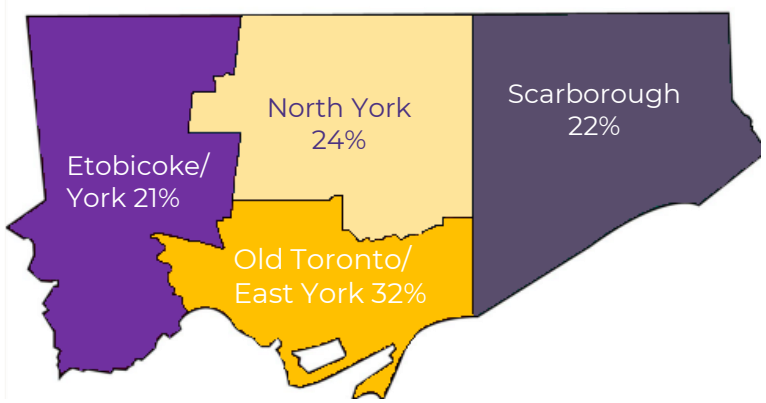
Age



Years in Canada

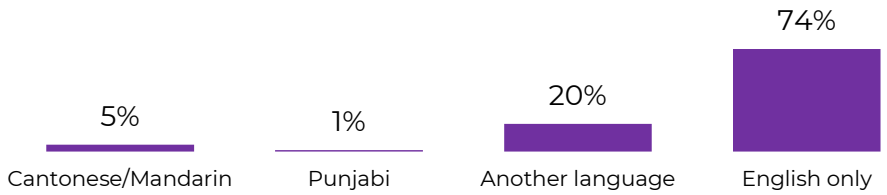


Community

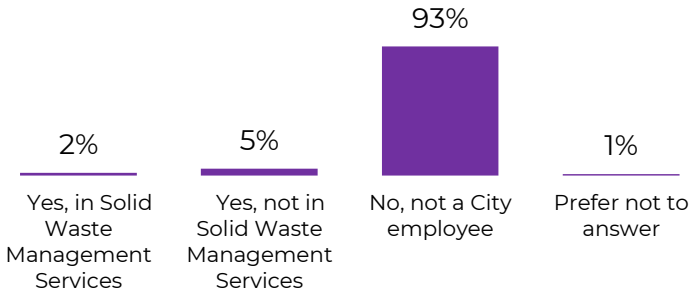


DEMOGRAPHICS – General population

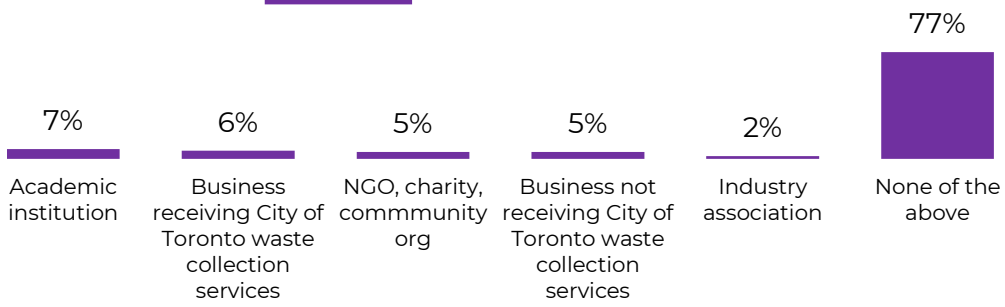
Language Read/Write



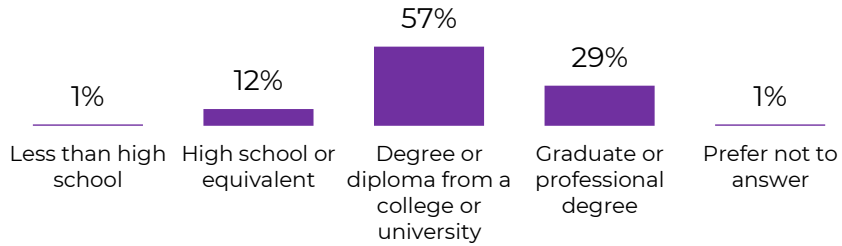
Work for City



Affiliation



Education



DEMOGRAPHICS – General Population

Residence type

32%

Detached single-family home

15%

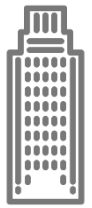
Semi-detached / townhouse

1%

Laneway home/unit on detached single-family home lot

2%

Family-style multi-unit house

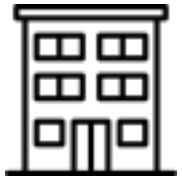


32%

Highrise (11+ storeys)

11%

Midrise (4 to 10 storeys)



6%

Lowrise (up to 3 storeys)

FOR MORE INFORMATION

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Environics Research
tony.coulson@environics.ca

Appendix C: Interest Group Workshops Summary Report

This appendix item summarizes interest group comments relating to Residual Waste Management. A summary of comments relating to the larger Waste Strategy Update will be available on toronto.ca/WasteStrategy at a future date.

Interest Group Workshops Summary Report (Residual Waste Management Excerpt)

City of Toronto Long-term Waste Management Strategy Update – Phase Two

City of Toronto

September 10, 2025

→ **The Power of Commitment**

Contents

Table Index

1. Introduction

This report summarizes the interest group workshops conducted virtually on June 6, 9, 12 and 13, 2025, during Phase Two of the City of Toronto's Long-term Waste Management Strategy Update (Waste Strategy Update). It provides an overview of the five workshops and a summary of the input shared by participants from environmental, social service, and community groups; waste industry; businesses and business associations; residential associations, property and facilities management; and the Indigenous community organizations. This document is an excerpt from the Long-Term Waste Management Strategy Update – Phase 2 Report and focuses exclusively on feedback pertaining to Residual Waste Management. The full report will be made available at a later date at **www.toronto.ca/wastestrategy**.

2. Workshops Overview

Interest group workshops were a key aspect of the Waste Strategy Update engagement strategy. These workshops provided a space for participants to learn about the Waste Strategy Update, share their opinions on the program options and the evaluation criteria used to assess them, and provide their perspectives on the future of waste management in the city, specifically, how we manage our garbage after we reduce, reuse, and recycle. The insights from participants, along with information gathered through other consultation activities, will be used to create an updated 10-year Waste Strategy implementation plan and inform the consideration of energy-from-waste (incineration) and landfilling as potential long-term options in the City's Residual Waste Management Work Plan for managing garbage.

Each of the five workshops included two presentations – one on the Waste Strategy Update and another on the Residual Waste Management Work Plan. Each presentation was followed by a question-and-answer session, which was followed by small group discussions covering the proposed options for the Waste Strategy Update and the evaluation criteria, as well as long-term residual waste management approaches, planning priorities, and environmental and community impacts.

Community members and organizations from the following five interest groups were invited by the City to participate in the workshops:

– Workshop 1 (June 6, 2025): Environmental, Social Service, and Community Groups
– Workshop 2 (June 9, 2025): Waste Industry
– Workshop 3 (June 12, 2025): Businesses and Business Associations
– Workshop 4 (June 13, 2025): Residential Associations, Property and Facilities Management
– Workshop 5 (June 13, 2025): Indigenous Community Organizations

A sixth workshop was planned with Accessibility Organizations but was cancelled due to low registration.

3. Summary of Input

Participants across all five workshops shared insights on the long-term options from the Residual Waste Management Work Plan. Table 1 below describes the discussion themes and guiding questions explored in each workshop in this focus area.

Table 1 Discussion Themes and Guiding Questions – Residual Waste Management

Workshop Group	Discussion Themes	Questions
– Environmental, Social Service, and Community Organizations – Waste Industry – Businesses and Business Associations – Residential Associations, Property and Facilities Management – Indigenous Community Organization	– Preferred Residual Waste Management Approach – Long-term Planning Priorities – Reducing Environmental and Community Impacts	– While the City remains committed to reducing and diverting waste, do you have a preference between landfilling residual waste (garbage) or using an alternate method like energy-from-waste (incineration) technologies? Why? – What key priorities should the City consider when planning for the long-term management of its waste? – How can the City ensure it reduces impacts from the management of residual waste on the environment, human health, and neighbouring communities?

Key Takeaways from input on Long-term Residual Waste Management Options

There were a wide range of perspectives presented on the City's long-term residual waste disposal options. While some participants supported energy-from-waste (incineration) as a modern alternative to landfilling, others raised concerns about its environmental, health, and social impacts. Across all groups, there was a consistent call for prioritizing waste reduction, improving diversion infrastructure, and ensuring that any residual waste solution is transparent, equitable, and environmentally responsible. Additional themes from the workshops that were discussed included:

– Feedback received from the public meeting and interest group workshops reflected a diversity of views: some supported landfilling due to concerns about incineration's emissions and long-term impacts while others saw energy-from-waste (incineration) as a necessary alternative given landfill constraints and capacity issues and its adoption in other jurisdictions across the world.
– Some raised concerns that incineration may undermine diversion goals by requiring a constant feedstock and could be perceived as a default solution rather than a last resort.
– Participants emphasized that much of what ends up in garbage is not truly residual, with estimates suggesting up to 60% could be diverted through better systems and support. They called for a greater focus on upstream efforts, including mandatory measures like food waste reduction policies, bans on non-recyclables, and enhanced producer responsibility. Concerns were raised about the misuse of diversion credits, prompting calls for clear oversight to prevent outdated technologies from being used under the label of diversion.
– Some participants recommended the City adopt the highest available emissions standards should it pursue incineration, preferably European, rather than less stringent models such as those in the United States, and to ensure strong oversight to prevent outdated or unregulated facilities from burning residuals under the label of diversion.
– The importance of removing hazardous and recyclable and organic materials from the feedstock prior to incineration was highlighted as critical to improving facility efficiency and reducing emissions.
– There were calls for transparency in how greenhouse gas emissions are calculated, and for third-party assessments of energy-from-waste (incineration) technologies that are free from conflicts of interest.
– Clear communication is needed to avoid greenwashing and to present the pros and cons of each option, including environmental justice implications. One participant felt the term "energy-from-waste" may be misleading and called for more public education on its risks and impacts.
– Source reduction, reuse, and circular economy infrastructure should be prioritized before investing in new disposal technologies. Policy tools such as tipping fees, deposit-return systems, and bans on non-recyclable materials were suggested to incentivize diversion.

- The City was encouraged to consider global examples of energy-from-waste (incineration), such as Yokohama, Japan; West Palm Beach, Florida, US; the EU jurisdictions, and lifecycle costs, emissions, and timelines in its planning.
- There was an emphasis on the importance of giving equal weight to upstream solutions and ensuring a transparent public engagement process.
- Site selection for any new facility should be transparent and consider traffic, safety, and proximity to communities, with a focus on minimizing long-term environmental harm. Routing and congestion were noted as important considerations, especially near existing waste infrastructure.
- Strong support for upstream food waste reduction policies, expanded composting, and Urban Harvest program to reduce organics in the residual stream.
- Clear interest expressed in exploring interim solutions such as baled waste storage and reverse vending machines to support diversion and reduce food insecurity.
- Some participants noted that energy-from-waste (incineration) should not be counted as diversion.
- Health and environmental impacts, particularly for Indigenous, racialized and lower income communities, must be prioritized, and siting of facilities should avoid impacts to these communities.
- Cost and convenience were identified as top priorities for businesses. Suggestions included free or subsidized waste audits, joint purchasing of eco-friendly supplies, and incentives for businesses that demonstrate waste reduction.
- Exploration of partnerships with the private sector to support residual waste solutions and reduce the financial burden on the City.

A summary of the discussion from the question and answer sessions and group discussions is further described in Sections 3.1 and 3.2 below.

3.1 Question and Answer Sessions

During the five workshops, participants were given the opportunity to ask questions before the facilitated group discussions. Below is a list of questions raised by interest group participants during the question and answer sessions:

Residual Waste Management

Waste Hierarchy and Diversion Priorities

- What would be the City's approach to discouraging reliance on landfilling by prioritizing waste reduction and reuse within the waste hierarchy rather than defaulting to incineration or disposal?
- Given that organics make up a significant portion of the waste stream, are there any plans to expand composting programs?

Technology and Infrastructure

- What waste management technologies is the City exploring beyond energy-from-waste (incineration) and landfill disposal?
- Is the composition of Toronto’s waste stream suitable for energy-from-waste (incineration) technologies, particularly with respect to contaminants like batteries?
- Does the need for a constant feedstock supply to energy-from-waste (incineration) facilities risk limiting diversion efforts, and how should this be addressed?
- What is the process for getting approval to bring new waste processing technology to Ontario that can handle Dirty MRF (Materials Recovery Facility), mixed solid waste, single-stream, and organic waste?
- Would it be helpful to consider insights from jurisdictions outside of Canada when evaluating cost-effective approaches to setting up energy-from-waste (incineration) facilities?

– Given that incinerating plastic can also contribute significantly to emissions, is the City considering diverting waste from landfill to incineration as part of its strategy?

Emissions and Environmental Impact

– Can you share the reports or research used to support the greenhouse gas emissions data that was presented during the Environmental, Social Service, and Community Groups workshop?
– How do greenhouse gas emissions from energy-from-waste (incineration) compare to those from landfilling, and is the City updating its research in light of recent studies?
– How much methane would be avoided with energy-from-waste (incineration) compared to landfilling?
– When we assess greenhouse gas emissions in relation to landfills, is it accurate to assume that methane is released gradually over several decades?
– Does diverting waste from landfills as a carbon reduction strategy include landfills that capture and utilize landfill gas to produce renewable natural gas or only those that do not have gas utilization systems?
– Will the City incorporate scientific evidence from lifecycle analysis when evaluating residual waste management options?
– Is mass burn incineration more environmentally sustainable than gasification?

Cost and Operational Considerations

– How do staffing requirements and related operational costs compare between energy-from-waste (incineration) facilities and landfills?
– When the City says landfilling is a lower-cost option, does that assume the landfill is City-owned or would the City also consider contracting with a privately owned landfill?
– If incineration costs more than landfilling but generates energy, does that energy create revenue, reduce the City's energy or environmental costs, or both, and are these factors considered when comparing the two?

Jurisdictional Comparisons and Standards

– Given that Europe applies higher standards for energy-from-waste (incineration), what is the penetration rate of energy-from-waste (incineration) in Europe compared to Canada?
– In Europe, where landfilling is discouraged through taxation, is energy-from-waste (incineration) considered the preferred alternative?
– Are new landfills currently being developed in Europe?
– Given Peel Public Health's concerns about Ontario's air quality standards in relation to the proposed expansion of the Emerald energy-from-waste (incineration) facility in Brampton, does the City have the authority to require any new incinerators within its jurisdiction to meet higher air quality standards, such as those used in Europe?

Equity and Service Access

– If the City moves forward with either landfilling or energy-from-waste (incineration) for residual waste, how will this affect properties that rely on private waste collection services, and are those properties currently being offered the same disposal options or is most of their waste still going to landfill?

3.2 Small Group Discussion: Residual Waste Management

The objective of this discussion was to gather input from participants representing each interest group on their perceptions of the use of energy-from-waste (incineration) technologies as a potential residual waste disposal option, compared to landfilling. Participants were also asked about the values influencing their views, including environmental, economic and social considerations.

City and GHD staff facilitated these discussions.

Table 2 below describes the themes and sub-themes under which the input was organized.

Table 2 ***Discussion Themes and Sub-Themes – Residual Waste Management***

Themes	Sub-Themes
– Residual Waste	– Energy-from-Waste (incineration) – Landfilling – Communication, Education and Engagement – Implementation Tools and Considerations – Ideas and Innovation – Reduce, Reuse, Recycle, Recovery – Waste Strategy – Other

The following is the summary of input provided by participants during each workshop.

3.2.1 Environmental, Social Service, and Community Groups

Residual Waste – Energy-from-Waste (Incineration)

- There was general support for greater efforts to increase diversion prior to focusing on disposal technologies and some criticism of the City's exploration of incineration as a potential option for residual waste management.
- A participant expressed support for energy-from-waste (incineration) based on research suggesting it produces fewer greenhouse gas emissions than landfilling. However, they acknowledged that landfill gas capture can also reduce emissions.
- Some participants cited studies that dispute claims of lower emissions from energy-from-waste (incineration) compared to landfilling, especially when biogenic emissions are considered.
- There was a call for transparency regarding greenhouse gas emissions and pollution from energy-from-waste (incineration). Some participants expressed concern that most available data comes from companies rather than independent third parties, and recommended a conflict-of-interest-free, third-party assessment. They also cautioned that incineration could lead to increased waste generation and greenhouse gas emissions and stressed that even the best scrubbed incinerators contribute to air pollution and health risks.
- Some participants felt the City had already decided in favour of energy-from-waste (incineration) and that the survey reflected this bias. They urged the City to give equal weight to upstream policies that reduce waste generation.
- Concerns were raised about the environmental and social impacts of energy-from-waste (incineration), particularly on Indigenous, lower income and racialized communities. Several participants described this as a form of environmental racism and urged the City to take these impacts seriously. To help prevent harm to neighbouring communities, the City was encouraged to sort waste within its boundaries and avoid sending toxic or hazardous materials elsewhere, where they could contaminate water sources.

Residual Waste – Landfilling

- Some participants noted that landfills allow for the possibility of future material recovery through landfill mining.
- A participant pointed out that energy-from-waste (incineration) requires a constant flow of materials, which may undermine diversion goals by creating a constant demand for waste as fuel.
- A participant opposed incineration but acknowledged improvements in energy-from-waste (incineration) technologies.

Residual Waste – Reduce, Reuse, Recycle, Recovery

- Participants called for a stronger focus on source reduction, particularly targeting single-use plastics, and emphasized the importance of education in shifting public behaviour. They highlighted the value of materials currently being discarded, citing examples such as companies that recycle bricks and repurpose wood. To support a circular economy, they encouraged investment in infrastructure that enables material recovery and reuse. In line with this, they supported textile diversion initiatives including textile donations, repurposing, clothing swaps, and second-hand donations. They also advocated for improved access to hazardous waste drop-off, organics chutes, and sorting infrastructure in multi-residential buildings to further support diversion efforts.
- It was pointed out that much of what ends up in garbage is not truly residual waste but materials that currently lack diversion streams. They encouraged the City to invest in diversion infrastructure and mixed waste processing to extract upstream materials before considering incineration.
- A participant suggested expanding the Urban Harvest program to more neighbourhoods to increase access to surplus produce and reduce food waste.
- There was a suggestion to implement mixed waste sorting facilities within City limits to recover the 60 per cent of material currently going to landfill that could be diverted.

Residual Waste – Communication, Education and Engagement

- A participant requested transparency and technical information on how energy-from-waste (incineration) has evolved over time to inform decision-making.
- Some participants raised concerns about the framing of energy-from-waste (incineration) as a potential emissions reduction strategy. They questioned whether the City is considering incineration as a landfill diversion method and emphasized that burning plastics contributes significantly to greenhouse gas emissions. Participants requested clarification to avoid public misunderstanding and asked that the City name “greenwashing” as a con in any pros and cons analysis.
- Some participants requested more detail on the methodology and calculations used by the City to assess the climate impacts of energy-from-waste (incineration).
- Participants recommended placing “Refuse” at the top of the waste hierarchy and educating the public about the health and environmental impacts of microplastics and incineration.

Residual Waste – Implementation Tools and Considerations

- A participant emphasized the need for a realistic waste management system and noted the political and regulatory challenges of siting new landfills in Ontario.
- Participants asked whether the City could implement a food reduction policy similar to the approach in France, which requires markets to donate edible food.
- There was support for upstream policies to reduce the need for landfills and incinerators. A participant noted that space is limited and communities are increasingly opposed to landfills.

Residual Waste – Ideas and Innovation

- A participant referenced Yokohama, Japan, as a model for implementing waste reduction strategies that led to reduced reliance on incineration. They encouraged the City to learn from Japan’s experience with both waste reduction and incineration practices.
- There was support for investing in new technologies that offer alternatives to landfill and help offset emissions, with an emphasis on long-term value over short-term cost savings. Suggestions to incentivize diversion included increasing tipping fees and introducing refund systems for bottles and tins, similar to programs in the Netherlands.

3.2.2 Waste Industry

Residual Waste – Energy-from-Waste (Incineration)

- A participant pointed out that globally, many jurisdictions are addressing land scarcity and advancing carbon capture technologies that can be integrated with energy-from-waste (incineration) facilities. These approaches reflect a modern perspective on waste management, emphasizing adaptability and the speed of deployment. Alternatives to landfilling should be considered in future planning.
- The technology used in energy-from-waste (incineration) facilities today, particularly in the EU, was noted to be significantly more advanced than what is currently operating in Canada. A participant particularly highlighted that there are also improved methods for managing waste before it enters an energy-from-waste (incineration) facility, such as removing metals, shredding, compacting, and baling. Baled waste can be stored for up to 10 years without degradation or attracting vermin, unlike loose waste. This approach is already being used in Edmonton, where baling helps reduce bird activity near a landfill close to the airport. Technologies like SCR (Selective Catalytic Reduction), used in places like West Palm Beach, Florida, also help capture additional emissions. According to the participant, these innovations can make energy-from-waste (incineration) facilities much cleaner and more efficient than older models, and especially when compared to landfilling.
- A participant observed that implementing an energy-from-waste (incineration) program is important given increasing waste volumes and more heavy trucks on congested roads. In making the point, they particularly noted that a 70 per cent diversion rate is ambitious and significant amounts of garbage are still being generated.
- Participants raised concerns about how energy-from-waste (incineration) facilities are perceived by the public. They noted that if people believe all waste will simply be incinerated, they may be less motivated to reduce or sort their waste. However, examples such as West Palm Beach, Florida, demonstrate that energy-from-waste (incineration) facilities can coexist with improved recycling outcomes, particularly for metals. Participants also emphasized the importance of timing. While landfills can take six to eight years to permit and construct, energy-from-waste (incineration) facilities may be developed more quickly. Interim options, such as storing pre-processed waste for nine to twelve months, were suggested as practical solutions during facility development. These considerations, including timing, scalability, and population growth, were seen as especially relevant for growing urban centres like Toronto.
- Several participants noted that the York-Durham model and other Canadian examples may not reflect the most cost-effective approaches to setting up energy-from-waste (incineration) facilities. Insights from other jurisdictions could inform energy-from-waste (incineration) pricing models. Additionally, the assumed lifecycle of a landfill (e.g., 25, 50, or 100 years) should be factored into cost comparisons with energy-from-waste (incineration) facilities, which may have longer lifespans.
- Some participants questioned what problem the City is trying to solve. While landfill space has long been a known issue, responsibility has often been deferred. There is concern that action may be delayed into an election year, pushing decisions to 2027 or later, even as landfill capacity continues to decline. Reducing consumption is seen as unrealistic, especially with 1.5 million new housing units planned and the resulting construction and demolition waste. Although proven technologies exist globally, the challenge lies in presenting them to Council in a way that prompts action, particularly as the sense of urgency has diminished for many.
- A participant clarified that energy-from-waste (incineration) technology has advanced significantly since the development of the York-Durham facility. They pointed to jurisdictions like the South Coast Air Quality Management District in Southern California, which enforce some of the highest emissions standards, as evidence that strong regulatory frameworks do exist. The participant encouraged the City to ensure that any future energy-from-waste facility is designed to meet or exceed these standards.
- Several participants weighed in on the fact that not all ash from energy-from-waste (incineration) facilities ends up in landfill. In some jurisdictions, ash is reused in construction materials. As technology advances, similar approaches are expected to emerge in Canada and Ontario, following examples from Europe and elsewhere. A Singapore-based company was mentioned as having developed a solution for managing ash from an energy-from-waste facility.

Residual Waste – Landfilling

- It was noted that while landfilling may seem less expensive at first, the long-term costs such as ongoing maintenance, runoff management, and land use impacts are significant and permanent. They also emphasized the importance of considering the social and environmental impacts of placing landfills on or near Indigenous lands.

Residual Waste – Reduce, Reuse, Recycle, Recovery

- It was noted that food waste remains a challenge across sectors. There is limited motivation to manage materials on site, particularly in the ICI sector and post-secondary institutions, where significant impact could be made. There are no grants supporting options like vermiculture, on-site composting, or automated systems, which could reduce material sent off-site or to energy-from-waste (incineration) facilities where it has no beneficial use. The conversation around food waste needs to become more detailed and urgent, especially in relation to the City's SUTI reduction priorities.

Residual Waste – Implementation Tools and Considerations

- Some participants expressed concern that discussions about energy-from-waste (incineration) facilities are occurring before broader system elements, such as circularity and upstream waste reduction, are in place. They emphasized that a premature focus on incineration could undermine public motivation to divert waste. There were calls for stronger leadership from provincial and federal governments to ensure that system-wide sustainability goals are prioritized and that solutions are scaled across Ontario and Canada.
- Energy-from-waste (incineration) should not be counted as diversion. Some companies shift from landfilling to energy-from-waste (incineration) and stop improving waste practices while claiming 100 per cent diversion which misrepresents true diversion. There is currently an Environmental Registry of Ontario (ERO) posting regarding the potential to claim up to 15 per cent diversion through energy-from-waste (incineration). This reflects a shift in the province's perception of energy-from-waste (incineration) and how it might be utilized, especially if technologies like carbon capture or other diversion-enhancing methods are integrated into energy-from-waste (incineration) operations.
- Some participants cautioned that early discussions about energy-from-waste (incineration) and diversion credits could lead to unintended consequences. For example, a concrete plant in Clarkson is exploring burning residual materials from recycling, raising concerns about outdated technologies being used under the label of diversion. One participant, referencing a cement facility in Scarborough, encouraged the City to consider how similar facilities might be affected, especially if they lack proper carbon capture or emissions controls. These developments could have environmental and regulatory impacts that were not originally anticipated.

Residual Waste – Ideas and Innovation

- Reverse vending machines were pointed out as a complementary solution. In a provincial project, they collected clean recyclables and provided food discounts which helped address food insecurity.

3.2.3 Businesses and Business Associations

Residual Waste – Energy-from-Waste (Incineration)

- While energy-from-waste (incineration) was seen by some as a promising alternative to landfilling, concerns were raised about its environmental and health impacts. Specifically, participants noted that it can pollute the air and affect lung health, and that more education is needed on these risks.
- A concern was raised regarding energy-from-waste (incineration) being viewed as producing fewer greenhouse gas emissions than landfilling. One participant, referencing recent studies suggesting that burning garbage may in fact result in higher emissions, requested that the City consider updating its research on this issue.

- Some participants expressed concern that Ontario's energy-from-waste (incineration) standards are less stringent than those in other jurisdictions. They urged the City to adopt the highest available standards rather than following less rigorous models, such as those in the United States.
- The importance of removing hazardous and organic materials from the feedstock prior to incineration was emphasized as a key factor for the success of energy-from-waste (incineration) processes. Facilities that receive cleaner inputs were observed to operate more efficiently and produce lower emissions.
- A participant stated that if the City proceeds with incineration it must adopt European standards as Ontario and other North American standards do not adequately regulate dioxins and other such dangerous toxins.
- Participants stressed the importance of minimizing environmental and health impacts from residual waste management, particularly in relation to air quality and emissions from energy-from-waste (incineration) facilities. There was a suggestion that the City consider adopting air quality regulations similar to or stronger than those used in the United States, while also recognizing that the United States standards may not be sufficient.

Residual Waste – Landfilling

- A participant noted that in their Business Improvement Area (BIA), there is a waste transfer station where traffic flows and vehicle routing are monitored due to concerns about congestion and safety. They emphasized that routing is an important consideration in site selection and highlighted the standard 3-kilometre distancing requirement for landfills as a key evaluation factor. They stressed that site selection should be a transparent, public process.

Residual Waste – Reduce, Reuse, Recycle, Recovery

- A participant highlighted that up to 60 per cent of what residents place in the garbage could be diverted, emphasizing this as a major opportunity for improvement. They urged the City to focus more on what residents need in order to divert materials properly noting that current discussions tend to emphasize enforcement and accountability over resident support.

Residual Waste – Communication, Education and Engagement

- A participant expressed concern that the term "energy-from-waste" may be misleading, as it sounds positive but does not fully reflect the potential environmental and health impacts. They felt the discussion should place greater emphasis on learning and education around energy-from-waste (incineration) and its impacts.
- The need for clear, transparent communication with the public about the risks and benefits of different waste management options was highlighted as a way to build trust and support.

Residual Waste – Implementation Tools and Considerations

- Some participants expressed a preference for waste management approaches that are safe, low-cost, and easy to implement, with cost identified as the top priority. They also encouraged the City to explore supportive measures such as subsidies, incentives, or partnerships to help businesses adopt eco-friendly practices and improve food waste management.
- Cost and convenience were noted as top priorities for businesses when it comes to waste management. Several participants noted that complex processes make participation more difficult. They suggested the City consider offering free or subsidized waste audits to help businesses reduce waste and explore incentives for those that show improvement. They also proposed joint purchasing of eco-friendly supplies to make sustainable practices more accessible.

Residual Waste – Others

- Participants emphasized the need for the City to consider the full potential of waste diversion, noting that up to 60 per cent of waste could be diverted with the right systems and supports in place. There was interest in exploring partnerships and incentive programs that could help businesses contribute to long-term waste reduction goals.

- A suggestion was made that the City should consider initiating discussions with the private sector to explore whether a joint approach to residual waste management could be beneficial. A participant noted there may be opportunities for private investment that could help reduce the burden on the City, such as supporting energy-from-waste (incineration) facilities or expanding landfill capacity and related regulations.

3.2.4 Residential Associations, Property and Facilities Management

Residual Waste – Energy-from-Waste (Incineration)

- Some participants were not in favour of energy-from-waste (incineration) noting that countries using incineration often do so due to land constraints, which is not currently an issue in Toronto. They emphasized that more should be done to reduce and divert waste before considering energy-from-waste (incineration).
- Some participants acknowledged that while emissions from energy-from-waste (incineration) facilities have improved over time, it is still not an acceptable option. Concerns were also raised about the social and financial impacts of energy-from-waste (incineration), including siting in underserved communities and higher associated costs.
- Participants highlighted the need to prioritize health impacts for vulnerable populations when evaluating residual waste management options.
- Concerns were raised about the siting of energy-from-waste (incineration) facilities in underserved communities and the associated environmental justice implications.

Residual Waste – Landfilling

- A participant, while recording their preference for landfills, noted that lifecycle analysis suggest landfilling may be more acceptable especially when dealing with certain materials like plastics.

Residual Waste – Reduce, Reuse, Recycle, Recovery

- There was support for advancing the 5Rs hierarchy to reduce overall waste generation.

Residual Waste – Communication, Education and Engagement

- A participant expressed concern about a perceived City's bias toward incineration. They noted that while incineration is often referred to as "energy from waste," landfills also capture energy through gas recovery systems. To reflect this more accurately, they suggested using the terms "incineration with energy recovery" and "landfill with energy capture."

Residual Waste – Implementation Tools and Considerations

- Participants, emphasizing the importance of addressing waste at the source, encouraged the City to focus its efforts on influencing both consumer and producer behaviours. They noted that achieving net zero would not be possible through incineration alone and called for stronger federal and provincial action to regulate producers.

Residual Waste – Ideas and Innovation

- The City was asked to confirm whether there is a minimum waste volume required for incineration and was presented with a suggestion to consider exploring bans on non-recyclable materials and investigate residual waste management models beyond Europe and US, such as those in Asia.

3.2.5 Indigenous Community Organizations

Residual Waste – Energy-from-Waste (Incineration)

- A participant indicated that energy-from-waste (incineration) may be the most attractive option, as developing a new landfill was seen as deferring the problem rather than solving it.