

The Regional Municipality of Durham

Energy from Waste-Waste Management Advisory Committee

Tuesday, March 25, 2025

7:00 PM

Microsoft Teams Meeting

Please note: The Region of Durham continues to hold electronic meetings for Advisory Committees with limited in-person attendance at this time. Members of the public may <u>view the</u> <u>Committee meeting via live stream</u>. If you wish to register as a delegate regarding an agenda item, you may submit a <u>delegation request form</u> in advance of the meeting by noon on the day prior to the meeting and you will be provided with the details to delegate electronically.

- 1. Roll Call
- 2. Welcome and Introductions
- 3. Declarations of Interest
- 4. Elections
- A) Chair
- B) Vice Chair
- 5. Adoption of Minutes
- A) Of the EFW-WMAC meeting held on November 26, 2024

Pages 4 to 9

6. Announcements

7. Presentations

 A) Presentation by Andrew Evans, Director, Waste Management Services, and Lipika Saha, Manager, Waste Services, the Regional Municipality of Durham, regarding Waste Management Services Programs and Initiatives

8. Delegations

There are no delegations.

9. Correspondence

There are no items of correspondence.

10. Administrative Matters

- A) EFW-WMAC Work Plan (2025-2026)
 - Recommendation: Approve and forward to Works Committee for approval and subsequent recommendation to Regional Council.

B) Proposed 2025 Meeting Schedule

- May 27, 2025
- September 23, 2025
- November 25, 2025

11. Other Business

- A) Update by Lipika Saha, Manager, Waste Services, the Regional Municipality of Durham, regarding 2025 Community and Outreach Activities
- 12. Date of Next Meeting

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Pages 10 to 45

Pages 45 to 48

13. Adjournment

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The Regional Municipality of Durham

Minutes

Energy From Waste – Waste Management Advisory Committee

Tuesday, November 26, 2024

A meeting of the Energy from Waste – Waste Management Advisory Committee was held on Tuesday, November 26, 2024 in Council Chambers, Regional Headquarters, 605 Rossland Road East, Whitby, at 7:00 PM. Electronic participation was permitted for this meeting.

1. Roll Call

Present: G. Gordon, Whitby, Chair

- G. Baswick, Clarington
 - G. Best, Whitby
 - R. Fleming, Pickering
 - J. Vinson, Clarington

*all members of the Committee participated electronically

Absent: M. Cannon, Oshawa

- P. Haylock, Clarington, Vice-Chair
- K. Palinka, Oshawa
- T. Shomar, Clarington

Non-Voting Members

- B. Parayankuzhiyil, Facility Manager, ReWorld
 - N. Ratnasingam, Climate Action Response Coordinator, Municipality of Clarington

*all non-voting members of the Committee participated electronically

Staff

Present:

Present: S. Ciani, Committee Clerk, Corporate Services – Legislative Services

- K. Dykman, Supervisor, Waste Services
- A. Evans, Director, Waste Management Services
- R. Inacio, Systems Support Specialist Information Technology
- R. Jagannathan, Commissioner of Works
- L. Saha, Manager, Waste Services
- D. San Juan, Environmental Health Specialist, Health Department, Durham Region
- N. Williams, Project Manager, Waste Services attended the meeting at 7:36 PM

*all staff members participated electronically

Energy from Waste – Waste Management Advisory Committee Minutes November 26, 2024

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2. Declarations of Pecuniary Interest

There were no declarations of pecuniary interest.

3. Adoption of Minutes

Moved by R. Fleming, Seconded by G. Best, That the minutes of the EFW-WMAC meeting held on Tuesday, September 24, 2024, be adopted. CARRIED

4. Presentations

There were no presentations heard.

5. Delegations

There were no delegations heard.

6. Correspondence

 A) Correspondence dated October 22, 2024, from Linda Gasser, Durham Region Resident, regarding Bill C-59 Greenwashing Legislation and October 25th, 2024, DYEC Tours

A copy of the correspondence dated October 22, 2024, from L. Gasser, Durham Resident, regarding Bill C-59 Greenwashing Legislation and October 25th, 2024, DYEC Tours was received.

B) Correspondence dated October 30, 2024, from Linda Gasser, Durham Region Resident, regarding Further to Councillors' Questions October 2 – History and Overview of Durham's Monitoring Commitments re: DYEC Air and Soil <u>Monitoring</u>

A copy of the correspondence dated October 30, 2024, from Linda Gasser, Durham Region Resident, regarding Further to Councillors' Questions October 2 – History and Overview of Durham's Monitoring Commitments re: DYEC Air and Soil Monitoring was received.

C) Correspondence dated October 16, 2024, from Wendy Bracken, Durham Region Resident, regarding BBC News Article 'Burning Rubbish Now UK's Dirtiest Form of Power'

A copy of the correspondence dated October 16, 2024, from Wendy Bracken, Durham Region Resident, regarding BBC News Article 'Burning Rubbish Now UK's Dirtiest Form of Power' was received. Energy from Waste – Waste Management Advisory Committee Minutes November 26, 2024

D) Correspondence dated October 30, 2024, from Wendy Bracken, Durham Region Resident, regarding DYEC Monitoring Not Keeping Up with Other Jurisdictions

A copy of the correspondence dated October 30, 2024, from Wendy Bracken, Durham Region Resident, regarding DYEC Monitoring Not Keeping Up with Other Jurisdictions was received.

E) Correspondence dated November 22, 2024, from Linda Gasser, Durham Region resident, regarding Correspondence to EFW-WMAC – Why is Nov. 6th Works Report 2024-WR-7 & Works Cttee Disposition Not Provided to Members on agenda

A copy of the correspondence dated November 22, 2024, from Linda Gasser, Durham Region resident, regarding correspondence to EFW-WMAC with respect to why the November 6, 2024, Works Report #2024-WR-7 and Works Committee disposition were not provided to members on the EFW-WMAC agenda was received.

Moved by G. Best, Seconded by R. Fleming, That Correspondence Items 6. A) to 6. E) inclusive, be received for information.

CARRIED

7. Administrative Matters

A) Update by Andrew Evans, Director, Waste Management Services, The Regional Municipality of Durham, regarding the membership application process for the next term of the EFW-WMAC (2025-2026)

A. Evans advised that the Region is now accepting applications for the new term of the EFW-WMAC and that the deadline to apply is January 17, 2025. He stated that the application form can be found at durham.ca/committees and that this process would only pertain to the EFW-WMAC members appointed by Regional Council. Committee members representing the Municipality of Clarington would need to apply to the Municipality of Clarington directly.

B) Update by Greg Gordon, EFW-WMAC Chair, regarding the finalization and presentation of the EFW-WMAC 2024 Annual Report for presentation to Durham Region's Works Committee and the Municipality of Clarington's <u>Council in December 2024</u>

G. Gordon reviewed the EFW-WMAC 2024 Annual Report for presentation to the Durham Region's Works Committee and the Municipality of Clarington's Council in December 2024 and asked the Committee if they had comments or suggestions.

8. Other Business

A) Update by Lipika Saha, Manager, Waste Services, the Regional Municipality of Durham, regarding 2024 Community and Outreach Activities

L. Saha provided an update regarding the 2024 Community and Outreach activities.

L. Saha advised that a number of activities were hosted throughout 2024 such as the celebration of the Region's 50th anniversary where there was an activity booth at Regional Headquarters and an open house at the Durham York Energy Centre (DYEC), National Public Works Week (NPWW) that was held in May, and a booth that was placed at local farmers markets in July and August. She advised that the focus of 2024 was to promote the 5 R's and to further promote the new waste diversion initiatives such as the curbside giveaway days. She further advised that tours of the DYEC were hosted on PA days and that this initiative would continue into 2025 to create more opportunities for learning and community engagement.

B) Update by Andrew Evans, Director, Waste Management Services, the Regional <u>Municipality of Durham, regarding Expanded Green Bin Program</u>

A. Evans provided an update regarding the expanded green bin program.

A. Evans advised that the transition to extended producer responsibility (EPR) in July went well and that the expanded green bin program is currently under way, with a slight increase in green bin tonnages being found. He advised that the reduced cost of green bins would continue for the remainder of the year.

A. Evans advised that Report #2024-WR-8: Sole Source with Miller Waste Systems Inc. for the Collection of Source Separated Organic Waste from Regional Municipality of Durham Approved Multi-Residential Properties in Durham Region would be presented to Regional Council on November 27, 2024 for approval and would allow for the collection of source separated organic waste for the Multi-Residential Enhanced Green Bin Program from Region-approved multi-residential properties in the City of Pickering, Town of Ajax, Townships of Uxbridge, Brock and Scugog, and the Municipality of Clarington.

C) Update by Andrew Evans, Director, Waste Management Services, the Regional Municipality of Durham, regarding Automated Cart-Based Garbage Collection <u>Pilot Project</u>

A. Evans provided an update regarding the automated cart-based garbage collection pilot project.

A. Evans advised that staff will be going back to the communities that are participating in the pilot project with a survey in order to determine the

effectiveness and successes of the project. He advised that staff will also be sharing tips for the handling of the carts in the winter. He further advised that staff will be making a recommendation to the Works Committee and Regional Council on the use of the automated carts for future waste collection in the new year.

A. Evans responded to questions from the Committee regarding what the automated carts look like; their ease of use; how much the carts cost; and whether the collection trucks would need to be modified to accommodate the cart pick-ups.

D) Update by Andrew Evans, Director, Waste Management Services, the Regional <u>Municipality of Durham, regarding Durham York Energy Centre</u>

A. Evans provided an update regarding the Durham York Energy Centre (DYEC).

A. Evans advised that the quarterly ambient air report, the odour monitoring report, and the environmental compliance report have been submitted to the Ministry as required. He advised that the DYEC will go through its second voluntary source test next week.

A. Evans also advised that the facility went through its regular scheduled outage through much of September and into October for maintenance, and that the next outage would occur in the Spring and Fall of next year.

A. Evans further advised that staff responded to the questions regarding the capacity increase from 140,000 to 160,000 from the Municipality of Clarington through Report #2024-WR-7: Response to Questions Raised by Municipality of Clarington Council in Correspondence Received at the June 5, 2024, Works Committee that was considered by the Works Committee on November 6, 2024.

A. Evans responded to questions from the Committee regarding whether a reduction in nitrous oxide limits would be reviewed in the future.

E) Closing Comments by Greg Gordon, EFW-WMAC Chair, on the EFW-WMAC's end-of-term

A. Evans thanked the members of the Committee for their participation and involvement through the numerous waste changes throughout the term.

G. Gordon provided closing comments on the EFW-WMAC's end of term.

9. Next Meeting

The next regularly scheduled meeting of the EFW-WMAC will be determined once appointments are made by Durham Region and Clarington Councils.

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10. Adjournment

Moved by R. Fleming, Seconded by G. Best, That the meeting be adjourned. CARRIED

The meeting adjourned at 7:39 PM.

G. Gordon, Chair, Energy from Waste – Waste Management Advisory Committee

S. Ciani, Committee Clerk



Waste Management Services

Energy from Waste-Waste Management Advisory Committee March 25, 2025



Who Does What





Who Receives Waste Management Services

- The Region provides waste collection and disposal services to homes in Durham Region.
- The Region services approximately 215,000 single-family households and 415 multi-residential buildings (apartments and condos).
- Oshawa and Whitby provide curbside collection service in their municipalities. The Region processes the collected material for diversion or disposal.
- The Region stopped collecting the Blue Box on July 1, 2024. As required by Ontario's Blue Box Regulation, producers of the material now manage the Blue Box Program.
- The Region does not collect waste from Industrial, Commercial and Institutional businesses such as factories, hospitals, restaurants and shopping plazas.







Integrated Waste Management System

The goal is to maximize diversion from disposal.

- Regular curbside collection for:
 - \circ Garbage
 - Source separated Green Bin organics
 - \circ $\,$ Leaf and yard waste
 - Household batteries (2/year)
- Curbside collection by appointment for:
 - \circ Electronics
 - \circ Scrap metal
 - \circ Porcelain
 - o Bulky items
- Residents can drop off household hazardous waste, tires and electronics at Waste Management Facilities.
- Waste processing at Durham York Energy Centre.
- Promotion and Education for waste programs.
- Ongoing management of seven closed landfills.

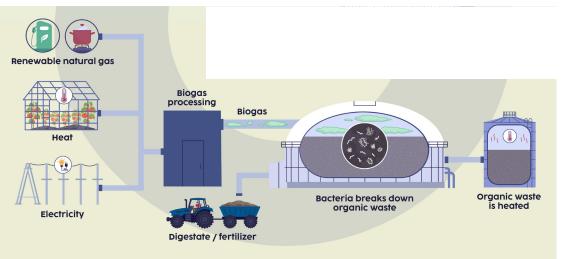




Waste Disposal with Energy Recovery

Garbage is taken to the Durham York Energy Centre (DYEC) for processing.

- The DYEC produces electricity using the steam generated from waste incineration.
- The electricity produced can power up to 10,000 homes annually.
- DYEC air emissions are monitored by Continuous Emissions Monitors with data available to the public online.





Source Separated Organics are managed at a contracted Anaerobic Digestion (AD) Facility.

- AD produces methane gas that can offset natural gas use in the grid or for electricity production.
- Other by-products include digestate for fertilizer and heat.



Waste Management Hierarchy

5Rs in the waste hierarchy



Promotion and Education with residents and schools to encourage waste reduction

Green Bin/Leaf & Yard Waste composting; Blue Box managed by Ontario Producers

Electricity generation from waste disposal at DYEC and renewable natural gas from source separated organics at an Anaerobic Digestion Facility

Landfill non-combustible rubble; Ash is beneficially reused



Rethink, Reduce and Reuse Initiatives

- The Region promotes a Curbside Giveaway Day in the Spring and Fall each year.
- Residents are encouraged to 'shop the curb' by placing unwanted but still useable items at the curb for other residents to take.
- Unwanted items must be taken back inside at the end of the day.
- Resident feedback via social media comments has been very positive.
- In 2025, Curbside Giveaway Days are June 14 and September 13.



Rethink and Reduce Initiatives

- The Region has partnered with Circular Innovation Council to join the Share, Reuse, Repair Hub.
- The Hub is a map-based resource of local repair, donation or lending options for residents to consider instead of buying new.
- Durham Region will join the Regions of York and Peel in providing a tool for finding ways to share, reuse and repair items.

ShareReuseRepairHub.ca



Source Separated Organics Management

Managed 61,795 tonnes of source separated organics (Green Bin) and Leaf and Yard waste in 2024.

The Enhanced Green Bin launched on July 1, 2024 allowing residents to place pet waste, diapers, incontinence and menstrual products in the Green Bin for Anaerobic Digestion.

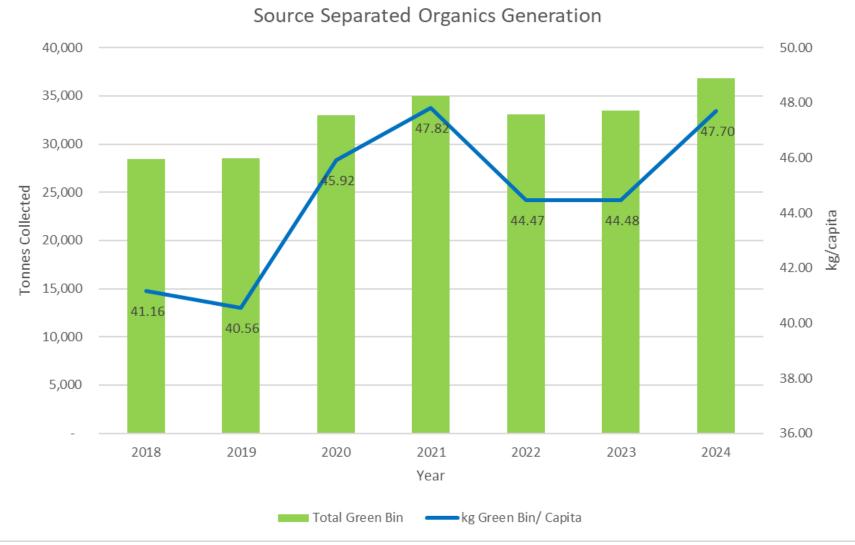
Ontario established a target to divert 50% of organic material generated in multi-residential buildings by 2025, The Region will launch a multi-residential Enhanced Green Bin program in mid 2025.

The Leaf and Yard waste collection program remains unchanged and produces the compost the Region provides to residents free of charge every spring.





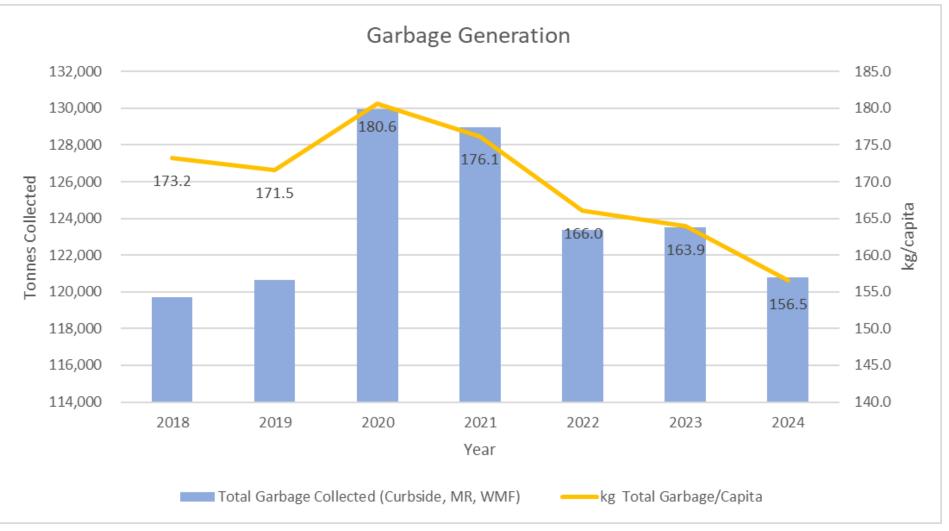
Source Separated Organics Generation Trend



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Garbage Generation Trend



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Blue Box Recycling



Managed 18,297 tonnes of Blue Box material in January – June 2024. On July 1 the producers of Blue Box material in Ontario took financial and operational responsibility for the Blue Box Program.

Collect from single family and multi-residential buildings and downtown businesses in all eight local area municipalities.

In 2026 service levels will change. Blue Box collection in downtown cores (Business Improvement Areas) will end as it is not a regulatory obligation for producers to collect from this source.



Automated Cart Collection

- The Region is completing an Automated Cart Collection Pilot in Scugog and Ajax.
- One truck and one operator can complete the collection route vs. one truck and two operators for manual collection.
- More efficient collection method with more homes collected in same time period.
- Operator health and safety and operator retention greatly improved with automated collection – no repetition, no heavy lifting.
- Resident ergonomics/accessibility are improved.
- Wind-blown litter is reduced.





Automated Cart Collection Pilot

- Staff are recommending the Region switch to automated cart collection for garbage and organics with the next collection contracts.
- With Council approval, The Municipality of Clarington and Townships of Brock, Scugog and Uxbridge would transition to carts in 2028 followed by Ajax and Pickering in 2030.
- Oshawa and Whitby are responsible for collecting garbage and organics from their residents and would not transition to carts on the Region's schedule.



Durham York Energy Centre



Processes 140,000 tonnes of garbage a year to make electricity that can power up to 10,000 homes.

Focus of waste management is to keep as much waste out of the garbage stream as possible to delay needing more waste processing capacity at the DYEC.

Durham Region's population is growing meaning more garbage will be created. Recycling programs keep that garbage out of the DYEC.

It can take 10 years to get approvals to expand the DYEC so the Region has to plan ahead for its garbage needs.



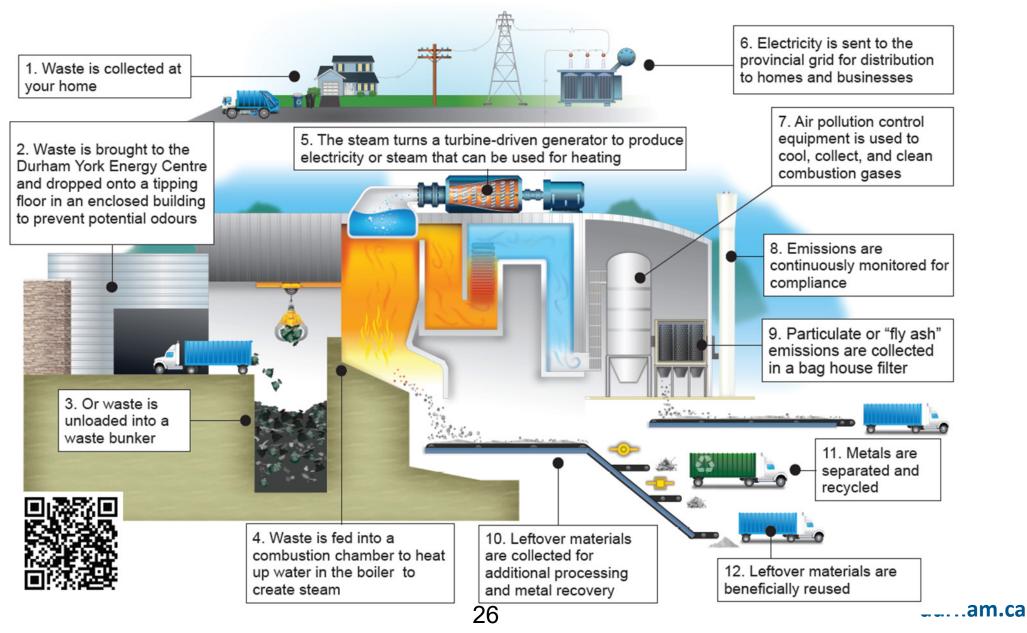
DYEC Quick Facts

- The DYEC is the smallest facility in Reworld's fleet.
- Proven mass burn technology.
- Operates 24 hours a day, 7 days a week, 365 days a year (except for outages).
- Two identical combustion trains, each having a nominal processing capacity of 218 tonnes of waste per day.
- Reduces the overall volume of garbage being sent to landfill by up to 90%.





The Energy from Waste (EFW) Process



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DYEC Waste Receiving



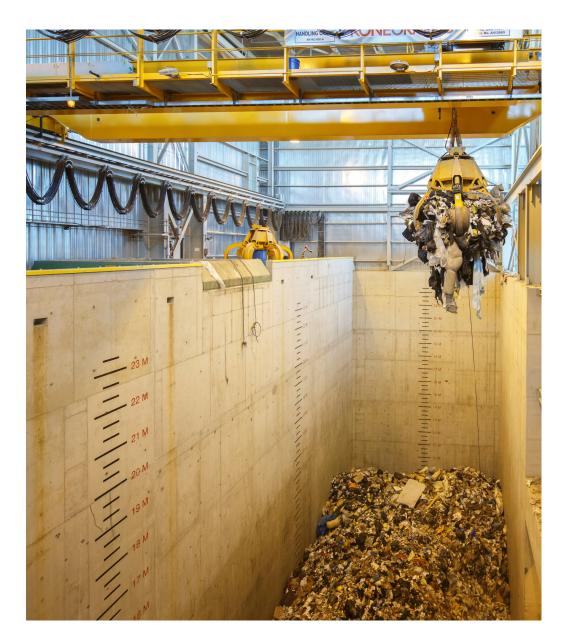
- Trucks unload waste in an enclosed tipping hall.
- The tipping area remains under negative air pressure to contain any dust and odours generated during the delivery process.
- The air in the tipping hall is drawn through large fans and used in the combustion process.





DYEC Waste Receiving

- Waste is contained in a large, waterproof concrete storage pit.
- The storage pit extends approximately eight meters into the ground.
- The pit can hold up to 3,100 tonnes of waste.







Control Room / Crane Operator

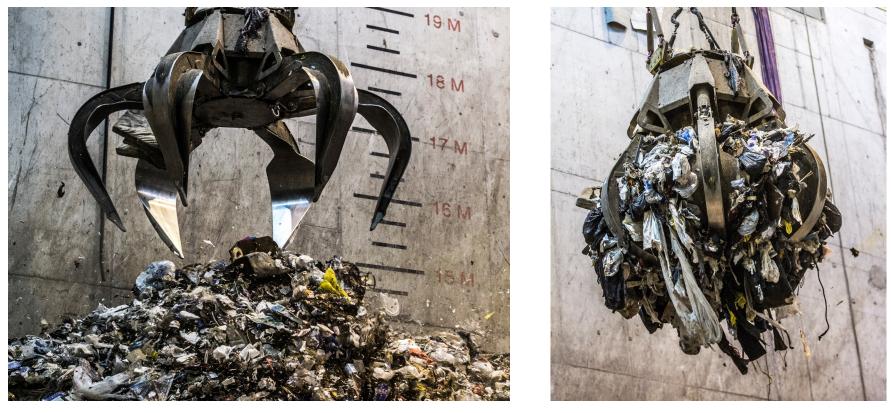
Control Room / Control Room Operator



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- Operators in the Control Room manage the waste in the pit.
- They also control and adjust process parameters associated with the numerous automated systems throughout the facility.
- This includes the combustion process, steam flow, and air pollution control equipment.





- An overhead grapple crane is used to mix and fluff waste before feeding waste into the hoppers.
- Each crane load of waste weighs approximately 2.5 tonnes.
- That's enough waste to power about two homes for one month! 30



Once placed into the hoppers, gravity moves the waste down the hopper onto a feed-table.

Hydraulic rams push the waste onto a stoker grate within the combustion chamber.





- The stoker grate is a mechanical device that transports waste material through the combustion chamber.
- The waste is agitated to promote air flow and good





- The waste is combusted at extremely high temperatures in a self-sustaining process at over 1,000 degrees Celsius.
- Natural gas is only used to:
 - Bring the boilers up to temperature.
 - Ensure environmental compliance and assist in controlling combustion if operators detect any issues, such as waste being too wet or not fully combusting.
 - Control temperatures while taking the system offline.





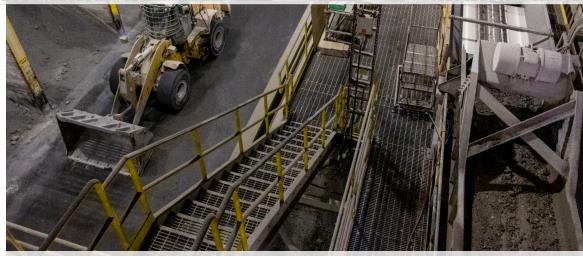
- **Bottom Ash Discharger** 34 Vibrating Conveyor
- Bottom ash from the combustion chamber is discharged onto a vibrating conveyor.
- The conveyor belt moves the ash through the facility for processing and metals recovery.



- Metals are recovered from the bottom ash for recycling.
- A large rotating drum magnet removes ferrous metals (like steel and iron).
- An eddy current system removes nonferrous metals (like aluminum and copper).
- Recovered metals are sold to be made into new products.



Ferrous Magnet



Eddy Curreg5/ Residue







- The facility generates up to 17.5 megawatts of renewable energy.
- A portion of the electricity is used to power the operation of the Durham York Energy Centre.
- The remaining electricity is sold to the provincial grid and is used to power homes and businesses.
 durham.ca

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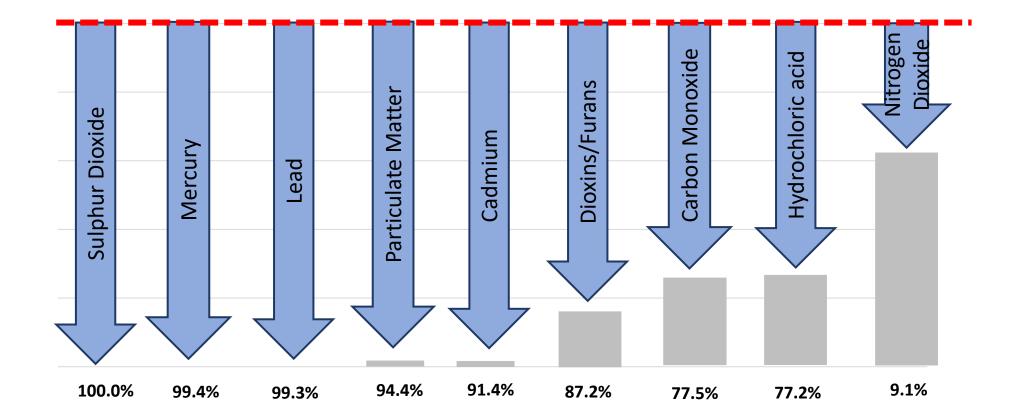
DYEC Environmental Monitoring Program

- The DYEC operates in accordance with a strict environmental monitoring program, developed in consultation and approved by the Ministry Environment, Conservation and Parks (MECP).
- These Environmental Monitoring Programs include:
 - Air Emissions Monitoring (CEM at stack).
 - Annual Stack Tests and RATA.
 - Ambient Air Monitoring (off-site).
 - Groundwater and Surface Water Monitoring (on and off-site).
 - Noise Monitoring (off-site).
 - Odour Management and Mitigation
 Monitoring (on and off-site).
 - Soils Monitoring (off-site).



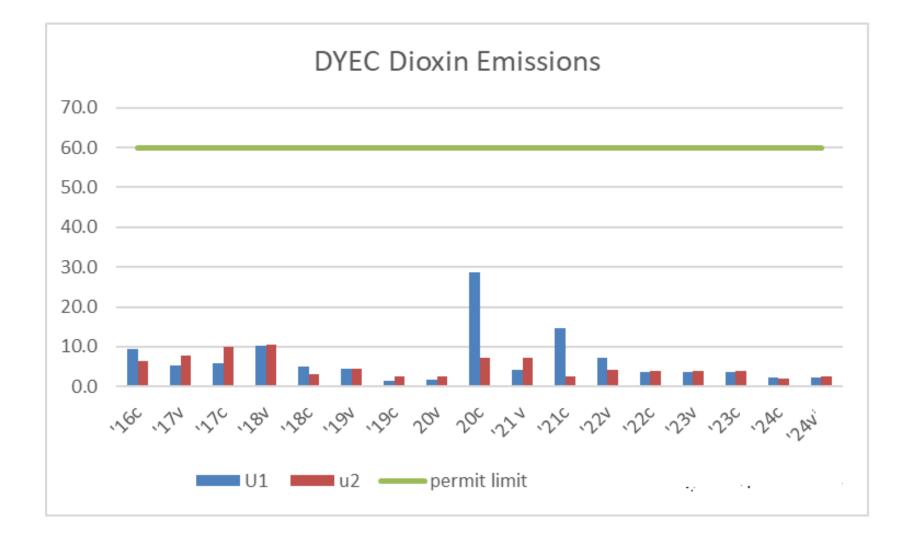
Emissions Performance Fall 2023 Stack Test Results





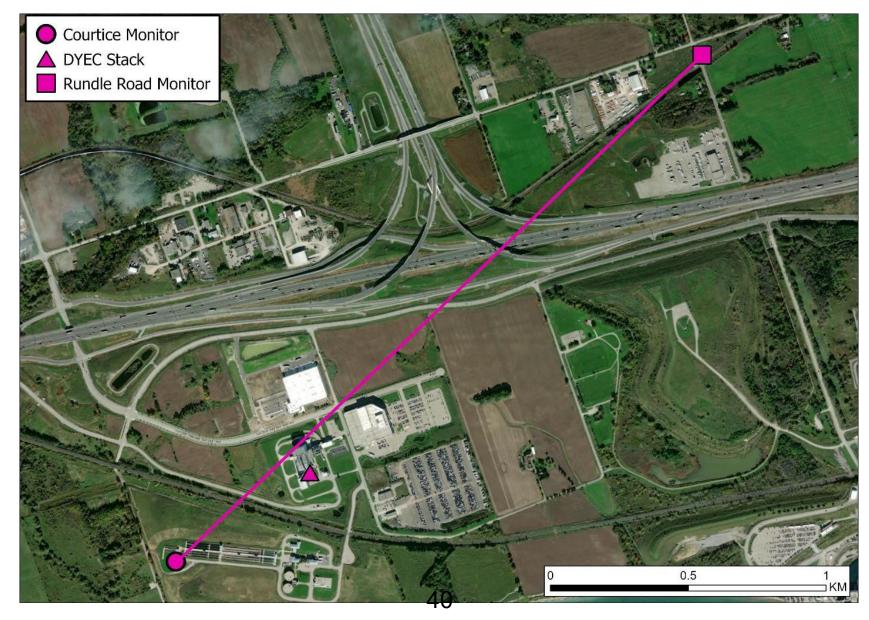
DYEC 38







DYEC Ambient Air Monitoring Stations



durham.ca 31



Dr. Adams Ambient Air Study

- Dr. Mathew Adams was retained to conduct a review of the local airshed around the DYEC including ambient air monitoring data.
- Hypothesis: If emissions from DYEC affect local air, downwind concentrations will be significantly higher than upwind concentrations
- The study concluded none of the pollutants analyzed indicate any notable contribution from the DYEC to ambient air pollution concentrations



Long-term Waste Management Plan 2022-2040

The Region adopted a Long-term Waste Management Plan or Waste Plan in January 2022 to guide waste decisions until 2040.



Together, with our residents, we will reduce the amount of waste we create and manage the generated waste as a resource. We will build an innovative system, balancing financial needs and environmental sustainability.



Waste Plan Objectives

Engage with residents to build an understanding and awareness of the 5Rs (Rethink, Reduce, Reuse, Recycle, Recover) and the Region's waste management programs and services.

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Reduce the quantity of waste we create.



Increase diversion of waste from disposal and support the Circular Economy.



Support the Region's greenhouse gas reduction and climate change mitigation efforts.



Protect or improve water, land, and air quality in Durham Region.



Conclusion

- The Region operates an Integrated Waste Management System guided by the Long-term Waste Management Plan and the 5Rs hierarchy.
- The Durham York Energy Center is the disposal option for garbage generated in the Region and recovers energy from waste that is not diverted by residents for recycling.
- Current Waste Management focus is diverting waste to meet needs of population growth and delay the need for a DYEC expansion:
 - Implement the Long-term Waste Management Plan with a focus on waste reduction and using waste as a resource.
 - Promote the Enhanced Green Bin to divert more organics out of the waste stream including in multi-residential buildings.

Questions?



Andrew Evans, P.Eng., M.A.Sc. Director, Waste Management Services Andrew.Evans@durham.ca

Lipika Saha, P.Eng. Manager, Waste Services Lipika.Saha@durham.ca

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Energy from Waste-Waste Management Advisory Committee (EFW-WMAC) Workplan (2025-2026)

1. Purpose

- 1.1. The Regional Municipality of Durham's (Region) Energy from Waste-Waste Management Advisory Committee (EFW-WMAC) requires preparation of a Workplan for the current term (2025-2026).
- 1.2. The purpose of the EFW-WMAC Workplan is to focus on tasks that will assist with waste diversion, Circular Economy initiatives and advise on innovative approaches for waste reduction.

2. Vision

2.1. Reduce the amount of waste created in Durham Region and manage the generated waste as a resource. Build an innovative waste-to-energy (WtE) and waste diversion system, balancing financial needs and environmental sustainability.

3. Waste Diversion Background

- 3.1. The Region and our communities provide services to over 225,000 households, 203,000 single-family households, and 22,000 multi-family households according to January 2024 records. Durham Region is one of the fastest growing regions in Canada. By 2041, Durham Region's population is expected to almost double, increasing to approximately 1.2 million people. This also means there will be a need for increased waste management services by 2041.
- 3.2. In July 2024, the Region launched an Enhanced Green Bin Program, which allows for the addition of materials to the Program including diapers and pet waste.
- 3.3. Regional Council has also approved the investigation of the potential to establish a multiresidential organics program, which is scheduled for launch starting in June 2025.
- 3.4. Management of Greenhouse Gas (GHG) emissions from legacy closed landfills through innovative approaches is also part of the Region's Waste Management and WtE Programs. An important prior decision by Regional Council is that no new landfills will be created. This prior decision was one of the reasons for establishing the Durham York Energy Centre (DYEC).

- 3.5. Extended Producer Responsibility (EPR) is implemented via the Resource Recovery and Circular Economy Act (RRCEA), 2016 (the Act). The Act, and its regulations are in force to ensure Producers of products become more responsible for managing recycling and minimize product packaging. The Region's operations transitioned to EPR on July 1, 2024. Transition within the remainder of Ontario is ongoing through the end of 2025. Starting in 2026, Circular Materials, as the operator of the program, may make additional changes to how materials are collected and managed within the Province.
- 3.6. The Hazardous and Special Products (HSP) regulations were released in February 2021 and have been in effect since October 1, 2021. At that time, most materials managed in the existing program were transitioned to the new producer responsibility.

4. Workplan Elements

- Emphasize rethink, reduce, and reuse principles as the first steps in reducing waste generation.
- Deliver cost effective waste management services to a rapidly growing and diverse population.
- Apply innovative approaches to the Region's waste streams to manage them as resources in a Circular Economy.

5. EFW-WMAC Workplan 2025-2026

Workplan Overview

5.1. Given the EFW-WMAC committee resources and two-year time horizon for the Workplan, tasks are defined below:

Workplan Tasks

- 5.2. Plan and Program Implementation
 - a) Waste Management Plan Implementation
 - i) Support the implementation of the first five-year action plan, provide input, ideas and track progress for the term and assist in development of future action plans.
 - b) Extended Producer Responsibility)
 - i) Provide input on programs, promotion and education

- c) Increased Organics Diversion
 - i) Assist with a communication to raise awareness and educate community about organics diversion.
- 5.3. Diversion Program Assessment
 - a) Review and assess opportunities for the Region to optimize and increase diversion opportunities within Durham Region including:
 - i) Additional waste/hazardous waste recycling efforts that may have value for the Region such as small propane bottle, batteries, spent printer cartridges and brainstorm other reuse/reduce options.
 - ii) Assess optimization of existing waste diversion programs in key growth areas and assist in optimization of existing transfer stations.
 - iii) Research diversion opportunities for other potential programs such as mattress recycling or others.
- 5.4. Technology and Facility Review
 - a) Landfill Management: Assist and advise on the implementation of landfill remediation technologies and strategies (mining, biocover systems, small flares).
 - b) DYEC: EFW-WMAC to increase knowledge of DYEC, energy from waste and associated technologies, environmental performance.

6. EFW-WMAC Supporting Activities

- 6.1. The Committee also has a role in participating in community outreach programs that support waste reduction and energy from waste awareness and appreciation in Durham Region. Examples are in-person events, education, and outreach, combining EFW-WMAC community activities at the same time as other Regional events.
- 6.2. Expanding knowledge of waste management and waste diversion technologies and principles by reviewing presentations and engaging in discussion on Regional Waste Management Strategies.

7. Community Outreach and Stewardship (potential actions)

7.1. Presentation to community on some aspect of recycling, WtE, waste diversion (example: the source of microplastics and their effect on the environment, composting, organics diversion, with a requirement to notify Works staff beforehand).