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# The Regional Municipality of Durham Report

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To: Works Committee  
From: Commissioner of Works  
Report: #2023-WR-4  
Date: May 3, 2023

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**Subject:**

Energy from Waste-Waste Management Advisory Committee 2023 – 2024 Workplan

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**Recommendations:**

That the Works Committee recommends to Regional Council:

- A) That the Energy from Waste-Waste Management Advisory Committee's 2023 – 2024 Workplan, as outlined in Attachment #1, be approved; and
  - B) That a copy of this report be forwarded to the Municipality of Clarington for information.
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**Report:**

**1. Purpose**

- 1.1 The Energy from Waste-Waste Management Advisory Committee (EFW-WMAC) has developed a proposed Workplan (Attachment #1) to guide EFW-WMAC activities for the remainder of 2023 and 2024. Details of the proposed workplan are provided herein for approval by Works Committee and Regional Council.

**2. Background**

- 2.1 The EFW-WMAC was formed in response to a condition within the Host Community Agreement between the Regional Municipality of Durham (Region)

and the Municipality of Clarington (Clarington) and in accordance with Regional Council directives.

- 2.2 The Terms of Reference for this committee was approved by both the Region and Clarington Councils and includes the following mandate for the committee:
- a. The EFW-WMAC will act in an advisory role to the Region's Works Committee on issues or concerns which arise with waste diversion, waste management, environmental performance and monitoring of the EFW facility, including the construction and operational phases.
  - b. The EFW-WMAC will be comprised of volunteers from Durham Region appointed by Regional Council and Clarington Council in accordance with these Terms of Reference.

### **3. Previous Reports and Decisions**

- 3.1 Report #2023-WR-2 recommended that five applicants selected by the Region's Works Committee be appointed for a two-year term on the EFW-WMAC. The remaining four Advisory Committee members were appointed by Clarington. Report #2023-WR-2 was approved by Regional Council on March 1, 2023.

### **4. 2023 – 2024 Workplan**

- 4.1 The purpose of the EFW-WMAC Workplan (Attachment #1) is to focus on tasks that will assist with implementation of waste to energy and waste diversion initiatives and to provide input on innovative approaches to waste reduction.
- 4.2 The key elements of the Workplan are consistent with the Guiding Principles endorsed by Regional Council for the development of the Long-Term Waste Management Plan 2022-2040. EFW-WMAC Workplan elements are:
- a. Emphasize rethink, reduce, and reuse principles as the first steps in reducing waste generation.
  - b. Deliver cost effective waste management services to a rapidly growing and diverse population.
  - c. Reinforce that producers and importers of designated products and packaging are to implement Extended Producer Responsibility (EPR). This will require adjustment to the Region's waste programs.

- d. Apply innovative approaches to Durham Region waste streams to manage them as resources in a circular economy.
- 4.3 The proposed 2023 – 2024 EFW-WMAC Workplan (Attachment #1) identifies key tasks to be addressed during the current term including:
- Supporting Plan and Program Implementation as it relates to the Long-Term Waste Management Plan, EPR, and changes and enhancements to the Region’s Organics Program.
  - Review and assess opportunities for the Region to optimize and increase diversion opportunities within Durham Region.
  - Review of key technologies which are or may be utilized by the Region in delivery of waste management services.
- 4.4 The EFW-WMAC will also take a supporting role in participating in community outreach programs that increase waste reduction and energy from waste awareness in Durham Region.
- 4.5 The EFW-WMAC will also consider the implementation of a Waste Reduction Achievement Award to be presented to the community on an aspect of recycling, waste to energy or waste diversion.

## **5. Relationship to Strategic Plan**

- 5.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
- a. Environmental Sustainability
- Goal #1.2 –Increase waste diversion and resource recovery.
  - Goal #1.3 –Protect, preserve and restore the natural environment including greenspaces, waterways, parks, trails, and farmlands.
  - Goal #1.4 –Demonstrate leadership in sustainability and addressing climate change.
- b. Service Excellence
- Goal #5.3 –Demonstrate commitment to continuous quality improvement and communicating results.

**6. Conclusion**

- 6.1 The Energy from Waste-Waste Management Advisory Committee 2023 – 2024 Workplan (Attachment #1) includes tasks to support waste diversion and community education in Durham Region. These tasks are complementary to the Regional Municipality of Durham’s approved objectives in the Long-term Waste Management Plan (Waste Plan) and will support implementation of the Waste Plan and Five-Year Action Plan.
- 6.2 For additional information, please contact Gioseph Anello, Director, Waste Management Services, at 905-668-7711 extension 3445.

**7. Attachments**

Attachment #1: EFW-WMAC Workplan 2023 – 2024

Respectfully submitted,

Original signed by:

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John Presta, P.Eng., MPA  
Commissioner of Works

Recommended for Presentation to Committee

Original signed by:

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Elaine Baxter-Trahair  
Chief Administrative Officer



# Energy from Waste-Waste Management Advisory Committee (EFW-WMAC) Workplan (2023-2024)

## 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 coming term (2023-2024).
- 1.2 The purpose of EFW-WMAC Workplan is to focus on tasks that will assist with cost effective implementation of Waste to Energy and Waste Diversion 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 and waste diversion system, balancing financial needs and environmental sustainability.

## 3. Waste Diversion Background

- 3.1 The Region provides service to over 247,900 households, 221,700 single-family households, and 26,200 multi-family households according to January 2023 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 Green Bin and waste collection by 2041.
- 3.2 To meet the Province of Ontario's organics diversion targets of 70 per cent and 50 per cent respectively, for single family homes and multi-residential buildings, a planned Mixed Waste Pre-sort and Anaerobic Digester was proposed. However, as a result of affordability concerns created as a result of global supply chain concerns, Regional Council acted on a staff recommendations to cancel the procurement, while undertaking short and long term solutions to meet the Region's organics targets.

- 3.3 In February 2023, Council approved the short-term plan to procure third-party organics processing capacity for an enhanced green bin program, while monitoring long term opportunities. Council also approved the investigation of the potential to establish a multi-residential organics program.
- 3.4 Management of Greenhouse Gas (GHG) emissions from legacy closed landfills through innovative approaches is also part of the Waste Management and Waste to Energy Programs. An important prior decision by Region Council is that no new landfills will be created. This prior decision was one of the reasons for establishing the Durham York Energy Centre.
- 3.5 Also, Extended Producer Responsibility (EPR) continues to be implemented via the Resource Recovery and Circular Economy Act (RRCEA), 2016. 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 transition date for the Blue Box Program to Producers will be July 1, 2024.
- 3.6 The Hazardous and Special Products (HSP) regulations were released in February 2021 are in effect on October 1, 2021. At that time, most materials (not including refillable propane cylinders and fertilizers) managed in the existing program will be transitioned to the new producer responsibility regime.

#### **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.
- Reinforce that producers and importers of designated products and packaging are to implement Extended Producer Responsibility (EPR). This will then cause adjustment to Region waste programs as required.
- Apply innovative approaches to Region waste streams to manage them as resources in a circular economy.

#### **5. EFW-WMAC Workplan 2023-2024**

##### **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) Long-Term Waste Management Plan Implementation

- i. Support the implementation of the first five-year action plan, and assess opportunities to advance longer term goals.
- ii. Assist in the transition to new reporting metrics as a result of EPR and industry changes.

#### b) Extended Producer Responsibility (EPR)

- i. Assist with a communication of what EPR is, what will occur, and why.
- ii. Assist the Region's Works Department with support to manage high density dwellings and their waste diversion.

#### c) Increased Organics Diversion

- i. Increase Green Bin usage - Green Bin usage is currently only 60 per cent, and garbage going to DYEC is approximately 40 to 50 per cent organic material that could go into the Green Bins.
- ii. Advise on potential opportunities and challenges related to the establishment of a multi-residential organics program.
- iii. Assist with a communication of what the enhanced green bin program is, what will occur, and why.

### 5.3 Diversion Program Assessment

Review and assess opportunities for the Region to optimize and increase diversion opportunities within Durham Region including:

- a) Additional waste/hazardous waste recycling efforts that have value for the Region:
  - i. Small propane bottle (sent to landfill).
  - ii. Larger propane bottle recycling, 10- and 20-pound bottles.
  - iii. Batteries (currently two curbside events per year).
  - iv. Spent printer cartridges (value for recycling)

- v. Other innovative reduce/re-use options (brainstorming).
  - b) Assess optimization of existing waste diversion programs in key growth areas including those potentially impacted by Bill 23. Assist in optimization of existing transfer stations.
  - c) Assess innovative opportunities for other potential programs such as curbside reuse days, mattress recycling or others.
- 5.4 Technology and Facility Review
- a) Anaerobic Digestion (AD):
    - i. Research and increase knowledge on AD technologies. Advise on other transition to a program including additional materials (examples: pet waste and diapers, which constitute significant volume in mixed waste garbage).
  - b) Durham York Energy Centre (DYEC)
    - i. EFW-WMAC to increase knowledge of DYEC and associated technologies.
  - c) Landfill Management
    - i. Assist and advise on the implementation of landfill remediation technologies and strategies (mining, biocover systems, small flares).

## **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, combine 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 Promote a Waste Reduction Achievement Award
- 7.2 Presentation to community on some aspect of recycling, Waste to Energy, Waste diversion. (example: the source of microplastics and their effect on the environment, composting, organics diversion, with a requirement to notify Works staff beforehand).