Via Email to: <u>Clerks@Durham.ca</u>

May 22, 2024.

Durham Region Council c/o Clerks 605 Rossland Road East Whitby ON L1N 6A3

Re: Request Update Report re DYEC throughput capacity increase to 160,000 tonnes per year & May 8th Durham Works Correspondence Item 7.1 a) letter from MECP And Delegations Works Items 6.1 and 6.3

Dear Chair Henry and Regional Councillors:

The authors of this letter both delegated to Works Committee on May 8th regarding the Minister of the Environment, Conservation and Parks (MECP) letter informing Durham and York that they could proceed with the Project to increase throughput capacity, subject to any other required permits or approvals.

For the proposed capacity increase from 140,000 tonnes per year (tpy) to 160,000 tpy, Durham undertook an EA Screening process, which is self-directed and does not require the level of assessment and review that an Individual EA does. Durham held all three public consultations in the second half of 2019 **prior to** producing their Dec. 2021 EA Screening Report (ESR) and though requested to do so, none after release of ESR.

In our delegations we requested that Works Committee recommend to Council that Works staff produce a report to verify/update assumptions about the need for the capacity increase and to update council around costs assumptions which had been provided in January 2019 and other pertinent matters including updates around maximum achievable control technologies and monitoring, as per Durham's Host Community with Clarington, **prior to proceeding with** submitting applications to amend the Environmental Compliance Approval.

W. Bracken also delegated about new concerns with the invalidation of more months of AMESA data, further adding to the unresolved issues previously brought before this Council.

This council must provide much needed and long overdue project oversight, and require, and review, an update report.

While a motion requiring staff to produce an update report to address matters included in Slide 7 of L. Gasser's PowerPoint was discussed, it was not moved.

The Works minutes capture a staff statement they would provide a report to the CIP at some point, timing not specified, with staff giving every indication they intend to proceed to the ECA phase.

See page 8 extract from the May 8th minutes found at:

https://calendar.durham.ca/meetings/Detail/2024-05-08-0930-Works-Committee-Meeting/7591ff3d-928e-4cff-916e-b172013adaab

In response to a question from the Committee regarding whether staff could provide additional, updated information with respect to the concerns noted on Page 7 of L. Gasser's PowerPoint delegation [Refer to Item 6.2 A)], R. Jagannathan advised that staff could provide a Council information report that would address the additional information requested through the noted delegation. R. Jagannathan advised the next steps are to submit an Environmental Compliance Application (ECA).

A report updating council about various aspects of the DYEC throughput increase is required **before** Durham staff proceed to the ECA phase.

"Need" for Throughput Increase Not Demonstrated

Over the course of the Environmental Assessment for the incinerator, what is today known as the Durham York Energy Centre, was "sold" as being a 20 year "disposal solution".

Durham's share of the DYEC capacity is 78.6% i.e. 110,000 of the currently 140,000 initial capacity. In addition, landfill will always be needed for materials that cannot be processed at the DYEC, during maintenance and other outages and for ash residues which are shipped to landfills outside Durham.

Many of the assumptions around the "need" for this capacity increase were made over 5 years ago, with the request to increase capacity coming a mere three years after commercial start up in January 2016.

Durham has not demonstrated that they have maximized their waste reduction and diversion opportunities, have not reached the Council approved target of 70% diversion and have not demonstrated the "need" for this capacity increase. Please see the attached table I have compiled tracking Durham's Diversion Rates since 2009. Note the increase in diversion rates that Durham reports due to RPRA counting bottom ash beginning in 2017.

From chart on page 7 of the 2022 Waste Management Annual Report, other than an upward blip in 2020 & 2021 during early years of Covid, Durham's garbage tonnage (in purple) has trended downwards.

https://www.durhamyorkwaste.ca/en/education-and-resources/resources/Documents/2022%20Waste%20Diversion%20Reports/20231031 RPT Durham 2022 Annual Waste Diversion ACC RFS.pdf



2022 garbage tonnage at 123,369 tonnes is 13,369 tonnes above Durham's currently 110,000 share, which is LESS than the 15,720 tonnes of additional capacity.

IF Durham doesn't use their share of the increased capacity due to diversion and waste reduction improvements, then York Region would take up that capacity and burn in Durham.

Many growth assumptions were made prior to the pandemic and current housing & affordability crisis. While there will be some growth in Durham it may be lower than predicted due to housing constraints for some time to come.

Durham staff would have 2023 waste management data by now and should provide those numbers along with updated predictions about growth.

On page 6 of the 2022 Annual Waste Management Report, Durham reported that when conducting a curbside participation study, it was revealed **that only 61% of households** place a green bin out for collection. Given Durham has had a region-wide curbside green bin program

since 2006, this indicates that a lot more green bin material could be collected including with enhanced programs, public education and better enforcement.

Council approved the Enhanced Green Bin to begin on July 1st, 2024, which staff stated would divert approximately 10,000 tonnes per year from garbage.

As well, Durham staff intend to offer Source Separated Organics collection to Multi Residential units possibly by 2025, which would remove even more tonnage from the garbage. Currently multi res-units make up over 10% of the 248,846 households from which Durham collected in 2022 (pg 4 Annual Waste Management Report).

The 2022 Long Term Waste Plan included two charts depicting both single family home and multi res garbage bag composition, illustrating that large amounts of food waste remain in the garbage bags of both housing types (Single family & Multi-Res) as well as other divertible materials. See below:

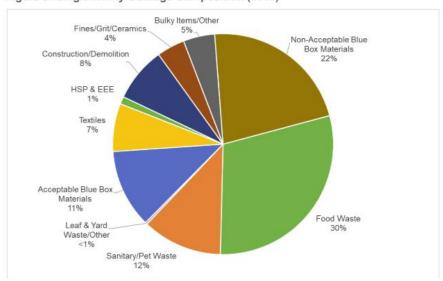


Figure 9: Single-family Garbage Composition (2018)

Source: 2018 Waste Composition Study - Single-family

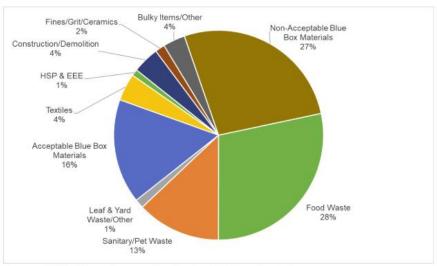


Figure 10: Multi-residential Garbage Composition (2018)

Source: 2018 Waste Composition Study - Multi-residential

From Durham's Long Term Waste Plan, see explanation from page 24 below (my emphasis added) which describes moving from reporting Diversion Rates to Waste Generation per Capita: https://www.durham.ca/en/living-here/resources/Documents/GarbageandRecycling/Long-Term-Waste-Plan/Final-Documents/Durham Region LTWMP FINAL Jan-31-2022-AODA.pdf

Many municipalities are starting to report on the total amount of waste generated, which typically includes garbage, Blue Box recycling, Green Bin organics, Leaf and Yard Waste (LYW) and other materials. This may be reported on a per capita basis (i.e. per person) to give a better indication of how these rates are changing from year to year. **This metric gives a truer picture of all materials that municipalities must manage**, rather than just reporting on what was diverted.

See below waste generation per capita report on page 8 2022 Annual Waste Management Report.

Waste Generation

Waste generation rate is a tonnage per person measurement (kg/capita) used to track progress towards the Long-term Waste Management Plan waste reduction efforts.

With the move to Extended Producer Responsibility for the Blue Box program, Durham Region will focus on two key streams of collected waste — green bin organics and garbage. Yard Waste generation is not included as this waste is mostly unpredictable, with yard waste tonnage greatly influenced by weather, not

Durham Region Garbage Generation Rate (kg/capita)							
Year Garbage							
2018	173.2						
2019	171.5						
2020	180.6						
2021	176.1						
2022	166.0						

In the Host Community Agreement between Durham Region and Clarington, Section 6.1: "Durham shall continue to implement and support an aggressive residual waste diversion and

recycling program to achieve and/or exceed a 70% diversion recycling rate for the entire Region".

Durham has not maximized Waste Reduction and Diversion opportunities and should do so before proceeding to expand capacity. (As at 2022 Durham's RPRA Diversion Rate was 62% which includes credit for bottom ash, grass cycling and back yard composting).

Financial Assumptions Reported January 2019 should be Updated & Confirmed

See below a table from page 13 of Report 2019 COW-3:

Footnotes:

- Reduced Covanta fee based on deduction of landfill charge and reduced processing fee for tonnages beyond 140,000 tonnes processed (estimated at \$35.45 per tonne in 2019, increasing to an estimated \$38.03 per tonne by 2023). It is assumed York Region uses its full 21.4 per cent share of amended capacity.
- Includes materials recovery facility residue tonnes, which are the cost responsibility of the MRF contractor (approximate recovery of \$0.3 million).
- Landfill fees are assumed to escalate from \$90.00 per tonne in 2019 to \$98.21 per tonne in 2023.
- Power revenues escalation estimates are based on 35 per cent CPI per the IESO Power Purchase Agreement. Conservatively, revenues for ferrous and non-ferrous metals recoveries are not assumed to escalate.

Since that time Covanta has a new owner. Durham should require written confirmation that the costs per tonne estimates from 2019 still hold.

At the time it was not known nor can we recall staff confirming IF the Ontario power purchase subsidy would be available for tonnage beyond 140,000 tpy. Without that subsidy burning is excessively expensive and those per tonne processing estimates would go out the window.

Staff should inform council how much has been spent on the EA Screening process from 2019 to date and should provide an estimate as to how much further studies and subsequent approvals would cost.

Staff should also confirm the landfill contracts they have secured, at what locations, at what cost and over what term(s).

No Update of 2009 SSHHERA and No Opinion from Durham's MoH

During the Works meeting discussion, your Waste Director mentioned the Site Specific Human Health and Ecological Risk Assessment that was completed in 2009 for the Individual Environmental Assessment (SSHHERA), perhaps leaving the impression that there had been a complete assessment of the 400,000 tpy scenario. He also stated that Durham's Medical Officer of Health was circulated with EA Screening matters

In her April 22nd, 2024 letter to those individuals requesting that the EA be elevated from a Screening to Individual Assessment (listed as an attachment to Works Correspondence 7.1.a) found at: https://pub-durhamregion.escribemeetings.com/filestream.ashx?DocumentId=4126 the Minister of the Environment, Conservation and Parks (MECP) wrote on page 2: "The Regions have committed to completing an updated Human Health & Ecological Risk Assessment for any future expansions of the DYEC to assess any potential impacts to human and ecological health". (emphasis added)

The Human Health and Ecological Risk Assessment (HHERA) and the Ministry Review of the original EA were **not specifically listed** as documents reviewed by the Regions in assessing potential impacts of their proposal to increase throughput to 160,000 tpy¹.

Yet those two documents identified potential health concerns and risks and provided expert reviews identifying capacity limits of comments as well as identifying pollutants whose emissions needed further mitigation.

The Regions' HHERA identified significant increases in the loading to soil, surface water, sediments, and fish for various contaminants in the 140,000 TPA case, including for dioxins/furans, mercury, cadmium, lead, and tin^{2,3,4,5}, yet the proposal to increase throughput to 160,000 TPA did not assess additional mass loading to the environment and, through the AQIA, only assessed impact to air quality.

Today, soil monitoring around the DYEC is conducted only every three years. The DYEC 2023 Soil Testing Report states "Per Table 4, concentrations of dioxins and furans in soil measured during the 2023 sampling event increased at both the upwind and downwind sampling locations relative to historical levels". The 2023 downwind dioxin/furan soil concentration is more than double the pre-incinerator 2013 value.

The Regions' HHERA also identified potential risks in its Multi-Pathway Assessment for various scenarios and pollutants including for infants and toddlers for PCBs, dioxins and furans and Chemical Mixtures. ^{8,9,10} Dioxin and furan emissions are a well-known issue with incinerators, especially during other-than-normal operating conditions (OTNOC). There have been stack exceedances for dioxins and furans at the DYEC, and there has been an ambient air exceedance for dioxin and furans next to this incinerator. The first four years (2015-2019) of AMESA

dioxin/furan data has been withheld and many months of AMESA data have been invalidated as well as withheld from 2020 to the present.

In Europe, recent studies have found dioxins/furans concentrations in backyard chicken eggs in the vicinity of incinerators (even around the newest Dutch incinerator) exceeding the EU limit and have prompted government warnings to affected residents not to consume them. ^{11,12} Europe has also recently issued a directive which now mandates that emissions to air from waste incineration shall also be monitored **during Other-Than-Normal Operating Conditions** (emphasis added) (OTNOC). ¹³

Back in 2009, Health Canada identified health concerns for fine particulate matter (PM2.5), nitrogen dioxide (NO2), and Respiratory Irritants exposures assessed in the EA for both the 140,000 TPA and 400,000 TPA scenarios and Health Canada recommended additional mitigation measures for these pollutants. ¹⁴ The Regions, however, did not act on this advice. Now, in 2024, the Regions are considering applying for a permit that goes in the opposite direction – instead of mitigating, the Regions are applying to increase pollution by burning an additional 20,000 tonnes per year for the next 20(?) to 30(?) years.

The Ontario Ministry of Environment's Human Health Toxicologists also identified concerns at the time of the EA^{15,16} and the Regulatory Toxicologist advised his comments were contingent on the 140,000 TPA scenario and that the proponent has committed to "conduct a new environmental study to support any increased capacity of the facility beyond 140,000 t/y that may occur in the future"¹⁷. Note the reviewer referred to "any" increase beyond 140,000 t/y.

To summarize, the Regions had Toxicologist review up to 140,000 TPA. There has been no health expert that has reviewed this proposal to burn 160,000 TPA or provided an opinion on potential human health and ecological impacts.

The Works Commissioner stated at the around the 1:31 minute mark of the meeting that staff would be glad to engage the MoH "to get his endorsement "....on the impacts of going from the 140 (000) to the 160 (000)." **Any opinion from Durham's MoH must be in writing.**

Host Community Agreement with Clarington – Durham's Commitments

DYEC Monitoring/Surveillance is not keeping up with other jurisdictions. Durham also made commitments in the Host Community Agreement:

Section 3.1: Durham shall ensure that the EFW Facility incorporates and utilizes modern state of the art emission control technologies that meet or exceed the Ontario A7 air emission guidelines and European Union standards as identified below

Section 3.2, "Durham shall ensure that the EFW facility utilizes maximum achievable control technology (MACT) for emissions control and monitoring systems."

Section 3.3, "Durham shall ensure that, where technically feasible, the EFW Facility utilizes 24/7 monitoring systems for such parameters as are deemed appropriate by the Ministry of the Environment..."

Section 4.3 (emphasis added): "At the time of any expansion, Durham will give consideration to improvements to the emission control system to meet the then current MACT standards and shall apply for a new or amended Certificate of Approval if required by the Province of Ontario."

Notify/update public and Commit to Request posting of ECA documents on ERO

From Minister's request to Durham in April 22nd letter:

The reasons for my decision may be found in the attached letter to the requesters. In the interest of transparency, I encourage you to make my letter to you available to the public on the Project website.

Durham staff have posted the Minister's April 22, 2024 letter to Durham and York on the 160K pages of the DYEC website, but not the attachment, which explain the reasons for her decision.

https://www.durhamyorkwaste.ca/en/facility-approvals/resources/Documents/20240422_LTR_MECP_DYEC_%20Elevation%20Request_Response_ACC.pdf

While Durham may be exempt from the requirement to post the ECA applications on the Environmental Registry (ERO), Durham should be willing to post these and advise the Ministry that they wish to do so especially since there has been NO public consultation on the capacity increase since December 2019.

In the interests of transparency and communicating with the public, Durham should take all steps to ensure that the public would be informed about all aspects of the proposed capacity increase.

One of our requests was that staff should be directed to provide material/documents submitted to MECP since the Dec. 2021 Environmental Screening Report AND copies of the Ministry's comments over the course of the capacity increase application.

To summarize, we ask that Council consider the matters in our letter and pass a motion to require staff to produce an update report addressing the concerns raised, to be brought back to either Works Committee or preferably, to a Committee of the Whole given the financial and public health considerations.

Thank you for your attention.

Yours truly,

Linda Gasser	
Whitby	
Email:	
And	
Wendy Bracken,	
Newcastle	
Email:	

Cc: Dr. Robert Kyle, Medical Officer of Health

Clarington Council

Enclosures: L. Gasser & W. Bracken PPTS to May 8th Works Committee

Durham Diversion Rates table from 2009-2022

Host Community Agreement with Clarington

References for Health Related Concerns Below

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https://www.durhamyorkwaste.ca/en/facility-

approvals/resources/Documents/2021%20Environmental%20Screening%20Report/Accessible 2022/20220119 DY EC ESR FINAL ACC.pdf

¹ see Section 3.11, page 68 of ESR

² Site-Specific Human Health and Ecological Risk Assessment—Technical Study Report (HHERA), Durham York Residual Waste EA Study, December 10, 2009, Stantec, December 10, 2009, pages 80, 81 and *Section 6.2* p. 82-84 https://www.durhamyorkwaste.ca/en/resources/Archived%20Documents/Environmental%20Assessment%20Appendix%20C12%20HHERA%20Technical%20Study%20Report.pdf

³ HHERA, pages 85, 86 and *Table 6-2 Predicted Surface Water Loading as a Result of Normal and Process Upset Operation over a 30 Year Period for 140,000 tpy and 400,000 tpy, pages 87-89*

⁴ HHERA, pages 85, 86 and *Table 6-3 Predicted Sediment Loading as a Result of Normal and Process Upset Operation over a 30 Year Period for 140,000 tpy and 400,000 tpy, pages 90-92*

⁵ HHERA, Table 6-9 Predicted Fish Loading as a Result of Normal and Process Upset Operation over a 30 Year Period for 140,000 tpy and 400,000 tpy, pages 111-113

⁶ RWDI, *DURHAM YORK ENERGY CENTRE: 2023 SOIL TESTING* REPORT, RWDI #2301083, November 15, 2023, page 7 https://www.durhamyorkwaste.ca/en/environmental-monitoring/resources/Documents/Soil/2023/20231115 RPT DYEC 2023 Soils Testing ACC.pdf

https://zerowasteeurope.eu/press-release/long-awaited-revamp-of-industrial-emissions-directive-improves-dioxin-monitoring-in-incinerators/

⁷ Ibid., Table 4, pdf page 19/58

⁸ HHERA, Table 7-14, page 210-212

⁹ HHERA, Table 7-15, page 212-213

¹⁰ HHERA, Table 7-18, page 226

¹¹ Euronews, Millions in France warned not to eat eggs from backyard chickens due to forever chemical pollution, https://www.euronews.com/green/2023/11/21/millions-in-france-warned-not-to-eat-eggs-from-backyard-chickens-due-to-forever-chemical-p#vuukle-comments-2419688

¹² Arkenbout, A. (2018). *Hidden Emissions: A story from the Netherlands, a case study;* Zero Waste Europe https://www.toxicowatch.org/ files/ugd/8b2c54 a4360271e0a945f88a8d9b25ffe121f5.pdf

¹³ Zero Waste Europe, *Long-awaited revamp of Industrial Emissions Directive improves dioxin monitoring in incinerators*, November 29, 2023

¹⁴ Review of the Durham and York Residual Waste Study Amended Environmental Assessment, Ontario Ministry of Environment, 2010, (subsequent referenced as Ministry Review), page 125, Health Canada comments, September 25, 2009, reviewer M. Lalani on Durham/York Residual Waste Study Environmental Assessment Study https://www.durhamyorkwaste.ca/en/resources/Archived%20Documents/Ministry%20Review%20of%20Environmental%20Assessment.pdf

¹⁵ Ministry Review, Comments of Ministry Supervisor, Human Toxicology, Barry Lubek, June 25, 2009, page 85

¹⁶ Ministry Review, Comments of Ministry Toxicologist Samir Abdel-Ghafar, October 19, 2009, page 80

¹⁷ Ministry Review, Ministry Toxicologist comments by Samir Abdel-Ghafar, January 11, 2010, page 189, Comment 1



February 19, 2010

The Regional Municipality of Durham

Office of the C.A.O.

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Garry H. Cubitt, M.s.w., C.s.w. Chief Administrative Officer Ms. Patti Barrie Clerk Municipality of Clarington 40 Temperance Street Bowmanville, Ontario L1C 3A6

Dear Ms. Barrie:

Re: Host Community Agreement

As the official record keeper for the Municipality of Clarington, I am forwarding to you one original signed copy of the Host Community Agreement between the Municipality of Clarington and the Regional Municipality of Durham for your records and files.

Yours truly,

Garty H. Qubitt, M.S.W. Chief Administrative Officer

Attachment

c: F. Wu, Chief Administrative Officer, Municipality of Clarington

REVIEWED BY ORIGINAL TO: COUNCIL COUNCIL INFORMATION DIRECTION COPY TO: ☐ MEMBERS CA0 ■ MAYOR OF COUNCIL ☐ COMMUNIT! ☐ CORPORATE ☐ EMERGENCY SERVICES SERVICES ENGINEERING MUNICIPAL OPERATIONS SERVICES CLERK'S ☐ SOLICITOR ☐ TREASURY D PLANNING SERVICES OTHER MUNICIPAL CLERK'S FILE

Service Excellence for our Communities



100% Post Consumer

This Host Community Agreement dated the 18th, day of February, 2010 is made,

BETWEEN:

THE REGIONAL MUNICIPALITY OF DURHAM

("Durham")

-and-

THE CORPORATION OF THE MUNICIPALITY OF CLARINGTON

("Clarington")

WHEREAS:

- Durham jointly with The Regional Municipality of York, is in the midst of a procurement process designed to identify a preferred vendor capable of designing, building and operating an energy from waste ("EFW Facility") sufficient to meet their needs, as identified through an individual environmental assessment (the "EA") undertaken to identify a preferred method of processing post-diversion waste;
- (b) The EA process has resulted in the approval by Durham Regional Council of a preferred site for the EFW Facility within the Municipality of Clarington ("Clarington"), more particularly described in Schedule "A" hereto.
- (c) Durham is completing its requirements to finalize the EA for submission to the Minister of the Environment and to make application under the Environmental Protection Act for one or more Certificates of Approval.
- (d) Clarington will be the host community of the EFW Facility to the benefit of communities in Durham, York, the industrial/commercial/institutional sector, and potentially municipal waste from other municipalities identified in the EA.
- (e) Durham and Clarington wish to enter into this agreement in order to set forth their respective rights, duties, obligations and commitments regarding the development, construction and operation of the EFW Facility.

NOW THEREFORE the parties agree as follows:

1. Term

- 1.1 This agreement shall commence upon the date that it is last signed and shall last for the operational lifespan of the EFW Facility.
- 1.2 In the event that the facility is expanded beyond 400,000 tonnes per year and the expanded portions of the EFW Facility have a twenty five (25) year operating period, Durham and Clarington either shall extend the term of this agreement or enter into a new Host Community Agreement.

2. Community Consultation and Communications

- 2.1 Durham shall support the development and operation of an EFW Site Liaison Committee (SLC) for the purpose of facilitating input from the community and the distribution of relevant information in regards to the construction, operation and monitoring of the EFW facility.
- 2.2 The scope for a Terms of Reference for a new SLC shall be agreed upon by Durham and Clarington at the conclusion of the mandate of the initial SLC, which terms shall otherwise be generally analogous to the current committee.
- 2.3 Durham shall present to Clarington Council and hold one community information meeting prior to the submission of the final EA documentation to the Ministry of the Environment for approval. In addition, Durham shall make a presentation to Clarington Council and shall hold one community information meeting before the Site Liaison Committee regarding the terms of the Certificate of Approval for the EFW Facility subsequent to its issuance.

3. Protection of Human Health and the Environment

3.1 Durham shall ensure that the EFW Facility incorporates and utilizes modern, state of the art, emission control technologies that meet or exceed the Ontario A7 air emission guidelines and European Union standards as identified below:

THE REGIONS' AIR EMISSION CRITERIA BASED UPON THE PROVINCE OF ONTARIO AND EUROPEAN UNION AIR EMISSION REQUIREMENTS

10000 200000000000000000000000000000000			
Total Particulate Matter	mg/Rm3	9	(2)
Sulphur Dioxide (SO2)	mg/Rm3	35	(3)
Hydrogen Chloride (HCl)	mg/Rm3	9	(4)
Hydrogen Flouride (HF)	mg/Rm3	0.92	(4)
Nitrogen Oxides (NOx)	mg/Rm3	180	(4)
Carbon Monoxide (CO)	mg/Rm3	45	(4)
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Mercury (Hg)	μγ/Ρμ3	15	(2)
Cadmium (Cd)	μγ/Ρμ3	7	(2)
Cadmium + Thallium (Cd + Th)	μγ/Ρμ3	46	(2)
Lead (Pb)	μγ/Ρμ3	50	(2)
Sum of (As, Ni, Co, Pb, Cr, Cu, V, Mn,	μγ/Ρμ3	460	(2)
	160 Teles	4644	
Dioxins	pg/Rm3	60	(2)
Transfer Transfer	And the second	经验证的	(6)
Organic Matter (as CH4)	mg/Rm3	49	(2)

NOTES:

- (1) = All units corrected to 11% O2 and adjusted to Reference Temperature and Pressure mg/Rm3 = Milligrams per Reference Cubic Metre (25oC, 101.3 kPa)
- *g/Rm3 = Micrograms per Reference Cubic Metre (25°C, 101.3 kPa) pg/Rm3 = Picograms per Reference Cubic Metre (25°C, 101.3 kPa)
- (2) Calculated as the arithmetic average of 3 stack tests conducted in accordance with standard methods
- (3) Calculated as the geometric average of 24 hours of data from a continuous emission monitoring syster
- (4) Calculated as the arithmetic average of 24 hours of data from a continuous emission monitoring syster

- 3.2 Durham shall ensure that the EFW Facility utilizes maximum achievable control technology (MACT) for emissions control and monitoring systems. Durham and the operator shall seek to achieve normal operating levels significantly better than the emission limits identified in Section 3.1.
- 3.3 Durham shall ensure that, where technically possible, the EFW Facility utilizes 24/7 monitoring systems for such parameters as are deemed appropriate by the Ministry of the Environment. The results of such monitoring systems shall be made accessible to the public on a website or programmable display board designed for such purpose. In addition, Durham shall ensure that the operator monitors the ambient air in the immediate vicinity of the EFW Facility for a three year term commencing upon the commencement of operations.

4. Facility Size

- 4.1 Durham is seeking approval from the Ministry of the Environment to construct and operate an EFW Facility with a total processing capacity of up to 400,000 tonnes per year of municipal solid waste.
- 4.2 The parties hereto acknowledge and agree that EFW Facility will not immediately be constructed to the ultimate capacity. Durham will be seeking an initial Certificate of Approval for the construction and operation of a facility for approximately 140,000 tonnes per year. The capacity of the EFW Facility may be expanded, as required by Durham and York, up to the maximum permissible capacity set forth by the Ministry of the Environment in the Certificate of Approval which may be amended from time to time. The EFW Facility may not be expanded in excess of 400,000 tonnes per year.
- 4.3 At the time of any expansion, Durham will give consideration to improvements to the emission control system to meet the then current MACT standards and shall apply for a new or amended Certificate of Approval if required by the Province of Ontario.
- 4.4 Durham will not construct a transfer station for ICI waste in Clarington without the agreement of Clarington.

5. Architectural/Site Plan Considerations

- 5.1 Clarington shall be consulted with respect to the architectural and site plan requirements section(s) of the Request for Proposals.
- 5.2 Clarington and Durham shall negotiate in good faith the terms of a site plan agreement for the development of the EFW Facility site which shall include the lands required for the private truck access lane referred to in paragraph 9.5. Durham shall comply with normal site plan and building code permit requirements and shall construct Energy Drive through their lands identified on Schedule "A".
- 5.3 Durham shall incorporate a cash allowance of no less than Nine Million Dollars (\$9,000,000) in the Request for Proposals ("RFP") for the provision of architectural treatments and upgrades to the EFW Facility. Durham shall consult with Clarington on the proposed architectural treatments received from the preferred bidder and prior to submitting their site plan application to Clarington for approval.

5.4 At the time of any expansion, Durham will include similar and consistent architectural treatments and upgrades to any new portions of the EFW Facility. Durham shall consult with Clarington on the proposed architectural treatments during the finalization of the arrangements with the Operator for the expansion and prior to submitting their site plan application to Clarington for approval of the expansion.

6. Commitment to a Comprehensive Waste Management Strategy

- 6.1 Durham shall continue to implement and support an aggressive residual waste diversion and recycling program to achieve and/or exceed a 70% diversion recycling rate for the entire Region.
- 6.2 Durham shall establish a hazardous waste depot to serve the residents of Clarington within one (1) year of commissioning of the EFW Facility.

7. EFW Facility Waste Sources

- 7.1 Durham shall ensure that the source of the waste processed at the EFW Facility is consistent with that identified in the EA Terms of Reference and supporting documentation.
- 7.2 The Parties agree that Industrial, Commercial and Institutional ("ICI") Waste, with a similar composition to municipal solid waste, may be processed at the EFW Facility provided that said ICI Waste is first screened at a transfer station to ensure the removal of any undesirable and hazardous materials
- 7.3 The EFW Facility may be utilized to process biosolid wastes generated from water pollution control plants located within Durham Region on an emergency basis in order to support Durham's other operations provided that biosolid wastes do not comprise more than 10% of the total annual tonnage of waste processed at the EFW Facility in a calendar year.
- 7.4 Notwithstanding the provisions of 7.1 hereof, in the event that the source of waste processed at the EFW Facility at any subsequent time includes the City of Toronto, then Clarington shall be paid the sum of Ten Dollars (\$10.00) per tonne for each tonne of waste from that source.

8. Payments in Lieu of Taxes

- 8.1 Durham shall not structure the ownership of the EFW Facility in any way designed to attain tax exempt status or to avoid the Payments in Lieu of Taxes (PIL's).
- 8.2 Durham acknowledges that the PIL will be in the vicinity of \$650,000 per year. However Durham cannot guarantee the exact amount as that is a matter outside of its direct control.

9. Economic Development

- 9.1 Durham shall acquire title by way of agreement or expropriation to the properties described in Schedule "B". Upon the properties described in Schedule "B" being determined by Durham Regional Council to be surplus to the present or future requirements of the Regional Municipality of Durham, then Durham shall convey, at nominal consideration, some part of the lands described in Schedule "B" to The Municipality of Clarington.
- 9.2 Prior to the commissioning of the EFW Facility, Durham shall complete construction of Energy Drive from Courtice Road to Osbourne Road as a Type "C" Arterial road, complete with

all applicable services including: sanitary sewerage, watermains, storm drainage, district heating, and street lighting and shall dedicate Energy Drive to Clarington as a public highway.

- 9.3 Durham shall construct a storm water management facility of a sufficient size to accommodate development of the Energy Park and Clarington shall execute a front-ending agreement in order to receive and reimburse Durham for the proportional costs of same from any benefiting landowners within the Energy Park. Provided approval to cross the CN Railway line with the necessary drainage works can be reasonably obtained from the Canadian National Railway, then Durham shall construct the storm water management facility on the lands described in 9.7 hereof.
- 9.4 Durham shall commence an environmental assessment process to support the provision of municipal services to the east Bowmanville science park which is located north of Highway 401.
- 9.5 Durham shall construct a private truck access lane with landscaping or other screening on its lands on the north side of the Canadian National Railway line connecting with Courtice Road to be utilized, where possible, for all deliveries of waste to the EFW Facility.
- 9.7 Durham shall convey to Clarington at a nominal cost the lands on the west side of Courtice Road identified in Schedule "C".
- 9.8 Concurrent with the construction of the EFW Facility, Durham shall construct a segment of a paved asphalt waterfront trail on a mutually agreed upon alignment from Courtice Road to the eastern limits of Durham's lands south of the Courtice Water Pollution Control Plant.

10. Operational Issues

- 10.1 Durham shall require the operator of the EFW Facility (the "Operator") to have the EFW Facility compliant with the International Standards Organization 14001:2004 Environmental Management Standard (ISO 14001) within thirty six (36) months of its commencing operations and to maintain such compliance thereafter.
- 10.2 Durham shall ensure that the Operator prepares, maintains and adheres to an Emergency Management Plan (including spills) for the EFW Facility which Plan shall be reviewed and approved by the Clarington Emergency and Fire Services Department.

10.3 Deleted

- 10.4 Durham shall ensure that the bottom and fly ash generated at the EFW Facility are dealt with in a manner which complies with all applicable legal and regulatory requirements and approvals. Bottom ash can be stored outside if fully screened. Fly ash shall be stored internally in a building until the time of transfer to a disposal site. No bottom ash or fly ash shall be disposed of in a landfill site in Clarington.
- 10.5 Durham will require the Operator of the EFW Facility to provide a certificate of insurance showing the Municipality of Clarington as an additional insured thereon.
- 10.6 Durham hereby agrees to indemnify and hold Clarington harmless from all manner of actions, causes of action, suits, demands, and claims whatsoever in connection with any and all injuries up to and including death, or damages to its property, which may occur as a result of the design, construction or operation of the EFW Facility save and except when such injury, loss or

damage is occasioned by the negligent acts or omissions or willful misconduct of Clarington, or those for whom it is at law responsible.

- 10.7 Durham shall ensure that all waste haulage vehicles accessing and egressing the EFW Facility site will use the truck access routes.
- 10.8 In addition to all public information, the Operator shall on or before March 31st in each calendar year provide the Clerk of Clarington with a report related to the emissions output from the EFW Facility for the previous calendar year.

11. End Use Plan

11.1 Durham shall decommission and dismantle the EFW Facility within five (5) years of its ceasing of operations to a standard suitable for re-use as an industrial/commercial site.

12. Issue Resolution

- 12.1 In the event of any dispute, disagreement, or claim arising under or in connection with this Agreement, then the parties hereto shall, upon written notice from either party, meet as soon as reasonably possible in order to resolve said dispute.
- 12.2 In the event that informal discussions are not effective in resolving any disputes or differences of opinion arising between the parties which concern or touch upon the validity, construction, meaning, performance or effect of this Agreement, then said dispute shall first be mediated within a sixty (60) day time period prior to any dispute proceeding to arbitration. The parties shall determine a mutually agreeable location for the mediation to occur. The parties shall make all reasonable efforts to resolve their disputes by amicable negotiations and agree to provide, without prejudice, frank, candid, and timely disclosure of relevant facts, information, and documents to facilitate these negotiations. Any resolution of the dispute in mediation shall be kept confidential by all parties.
- 12.3 By giving a notice in writing to the other party, not later than ten (10) working days after the date of termination of the mediated negotiations, all matters remaining in difference between the parties in relation to this Agreement shall then be referred to the arbitration of a single arbitrator, if the parties agree upon one, otherwise to three arbitrators, one to be appointed by each party and a third to be chosen by the first two named before they enter upon the business of arbitration. The award and determination of the arbitrator or arbitrators or two of the three arbitrators shall be binding upon the parties and their respective heirs, executors, successors, administrators and assigns.

13. Clarington's Commitments

- 13.1 Clarington agrees, in consideration of the aforementioned commitments on the part of Durham, to be a willing host to the EFW Facility and to acknowledge that willingness as follows:
 - .1 It shall not oppose the development or operation of the EFW Facility;
 - .2 It acknowledges that, provided that there is public ownership of the EFW Facility and the site by one or more municipalities, it will be considered a "public use" for the purposes of the Zoning By-law and that is not necessary to amend the Clarington Official Plan or Zoning By-law;

- .3 It shall expedite the review of all applications for approval submitted by, or on behalf of, the Operator or Durham related to the construction, maintenance and operation of the EFW Facility; and,
- .4 Should the existing South Service Road ever be deemed to be surplus due to the construction of Energy Park Drive, the South Service Road shall be closed and conveyed to Durham for nominal consideration; and,
- .5 It shall strongly encourage and promote development within the Clarington Energy Business Park and other areas of Clarington to utilize district heating and cooling provided by the EFW Facility.

14. Miscellaneous

14.1 This agreement is entered into solely between Durham and Clarington and is not intended or designed, and in fact it explicitly excludes the creation of any rights or beneficial interests in any third party save and except the Regional Municipality of York in so far as its interest exists in the EFW Facility, from time to time.

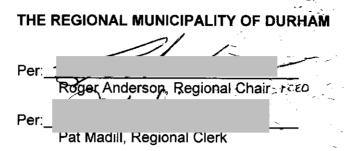
15. Further Assurances

The parties hereby covenant and agree, after a request in writing by one party to the other parties, to forthwith execute and provide all further documents, instruments and assurances as may be necessary or required in order to carry out (and give effect to) the true intent of this Agreement, and to effect the registration against and release from title to the lands subject to this Agreement of such notices or other instruments in accordance with the provision of this Agreement.

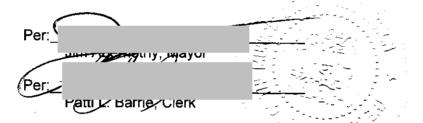
16. Enurement

This Agreement shall enure to the benefit of and bind the parties hereto and their respective successors and assigns.

IN WITNESS WHEREOF Durham and Clarington have executed this Host Community Agreement.



THE CORPORATION OF THE MUNICIPALITY OF CLARINGTON



Schedule "A"

Legal Description of Proposed Site of EFW Facility

Part of Lot 27, Concession Broken Front, Darlington, designated as Parts 1 and 2 on 40R-19984, save and except Parts 1 and 2 on 40R-20362, Municipality of Clarington, Regional Municipality of Durham, being all of PIN 26605-0082(LT)

Schedule "B"

Legal Description of Lands Proposed to be acquired

FIRSTLY: PT LTS 27 & 28 BROKEN FRONT CONCESSION, DARLINGTON, AS IN N41298 SAVE & EXCEPT PART 1 PL 40R21517 NORTH OF THE CANADIAN NATIONAL RAILWAY; MUNICIPALITY OF CLARINGTON, REGIONAL MUNICIPALITY OF DURHAM, being all of PIN 26605-0086 (LT)

SECONDLY: PT LT 28 BROKEN FRONT CONCESSION, DARLINGTON BEING PTS 2 & 3 on 10R2689; MUNICIPALITY OF CLARINGTON, REGIONAL MUNICIPALITY OF DURHAM, being all of PIN 26605-0030 (LT)

THIRDLY: PT LT 28 BROKEN FRONT CONCESSION, DARLINGTON being PT 1, 10R2689; MUNICIPALITY OF CLARINGTON, REGIONAL MUNICIPALITY OF DURHAM, being all of PIN 26605–0031 (LT)

Schedule "C"

Legal Description of Lands to be Transferred to Clarington

FIRSTLY: PT LT 29 AND 30 BROKEN FRONT CONCESSION, DARLINGTON being PTS 1, 2, AND 3, 40R20750; MUNICIPALITY OF CLARINGTON, REGIONAL MUNICIPALITY OF DURHAM, being all of PIN 26604-0017 (LT)

SECONDLY: PT LT 29 BROKEN FRONT CONCESSION, DARLINGTON being PT 1 on 10R571; MUNICIPALITY OF CLARINGTON, REGIONAL MUNICIPALITY OF DURHAM, being all of PIN 26604-0016 (LT)

Delegation to Works Committee May 8, 2024

W. Bracken

Proposed DYEC Throughput Increase to 160,000 tonnes per year (tpy)

2022 Region Responses did not resolve key issues. Reminder of Key Issues Raised Back Then:

- 1. Pursue claim that concentrations decrease.
- 2. Pursue Implications to 2011 ESDM, ECA Air Permit, Source Tests.
- 3. Request Regions to provide updated health assessment, toxicologist and medical opinions on proposal. Only have engineering opinions now.
- 4. Mass loading to environment 20,000 more tonnes of garbage burned for an unspecified number of years cannot be ignored and it was not assessed.
- 5. Pursue better monitoring and reporting, including for AMESA.

The "eyebrow raising" AQIA Conclusion:

"Overall, the results of the modelling assessment indicate that the 160,000 tpa would result in a small overall decrease in the maximum predicted concentration for all contaminants and the change in cumulative concentrations would be even less significant. The decrease is attributed to increased stack gas temperature and flowrate which improve the dispersion characteristics of the facility." 20

AQIA Mixed and Matched Theoretical and Empirical Data from different years to *create* a non-existent 140,000 TPA Scenario instead of using *actual* 140,000 TPA operational data, thereby inflating 140,000 TPA concentrations

TABLE 1: Data Sources For 140,000 TPA and 160,000 TPA Scenarios

STACK PARAMETER	"140,000 TPA" Scenario	160,000 TPA Scenario
	Represented in 2021 AQIA	Represented in 2021 AQIA
Volumetric Flow Rate	2011 ESDM (110% MCR)	2018 SOURCE TEST
		(100% MCR), pro-rated
Exhaust Temperature	2011 ESDM (110% MCR)	Contradictory information –
		SOURCE TEST (Ortech, 2021)
		as stated in AQIA or
		MANUFACTURER'S
		DOCUMENTATION provided
		by Covanta (Regions' March
		11 th letter to Clarington)?
Stack Concentrations	2020 SOURCE TEST	2020 SOURCE TEST
	(100% MCR)	(100% MCR)
	or stack emission limits or other	or stack emission limits or other
	emission factors	emission factors

Excerpts below From Host Community Agreement: <u>Time to Act is NOW For BACT, Better Monitoring & Reporting</u>

4. Facility Size

- 4.1 Durham is seeking approval from the Ministry of the Environment to construct and operate an EFW Facility with a total processing capacity of up to 400,000 tonnes per year of municipal solid waste.
- 4.2 The parties hereto acknowledge and agree that EFW Facility will not immediately be constructed to the ultimate capacity. Durham will be seeking an initial Certificate of Approval for the construction and operation of a facility for approximately 140,000 tonnes per year. The capacity of the EFW Facility may be expanded, as required by Durham and York, up to the maximum permissible capacity set forth by the Ministry of the Environment in the Certificate of Approval which may be amended from time to time. The EFW Facility may not be expanded in excess of 400,000 tonnes per year.
- 4.3 At the time of any expansion, Durham will give consideration to improvements to the emission control system to meet the then current MACT standards and shall apply for a new or amended Certificate of Approval if required by the Province of Ontario.
- 4.4 Durham will not construct a transfer station for ICI waste in Clarington without the agreement of Clarington.
- 3.3 Durham shall ensure that, where technically possible, the EFW Facility utilizes 24/7 monitoring systems for such parameters as are deemed appropriate by the Ministry of the Environment. The results of such monitoring systems shall be made accessible to the public on a website or programmable display board designed for such purpose. In addition, Durham shall ensure that the operator monitors the ambient air in the immediate vicinity of the EFW Facility for a three year term commencing upon the commencement of operations.

DYEC Monitoring Not Keeping Up With Other Jurisdictions

- Europe has continuous emissions monitoring of particulate matter (we have outdated opacity monitoring)
- Europe now requires testing during Other-Than-Normal Operating-Conditions (OTNOC)
- Oregon has established new law requiring continuous testing for many pollutants including PCBs, lead, mercury and arsenic

https://www.wastedive.com/news/oregon-incinerator-emissions-law-sb-488-covanta-marion/689838/https://www.energyjustice.net/index.php/or/sb488

• US Environmental Protection Agency is proposing new air quality standards that are lower than existing limits and removal of startup, shutdown and malfunction (SSM) exclusions and exemptions

https://www.federalregister.gov/documents/2024/01/23/2024-00747/standards-of-performance-for-new-stationary-sources-and-emission-guidelines-for-existing-sources;

https://www.epa.gov/newsreleases/epa-proposes-stronger-air-pollution-standards-large-facilities-burn-municipal-solid

European directive now mandates that emissions to air from waste incineration shall also be monitored during other than normal operating conditions (OTNOC)

European Parliament votes to hold waste incinerators accountable for emissions

A vote in the Parliament on the controversial Industrial Emissions Directive (IED) saw vital progress on preventing emissions originating from incineration, according to NGO Zero Waste Europe.

written by Gary Cartwright | July 11, 2023 | 0 comment



https://zerowasteeurope.eu/press-release/long-awaited-revamp-of-industrial-emissions-directive-improves-dioxin-monitoring-in-incinerators/

High Time to Include Biomonitoring (chicken eggs, flora) as done in other Countries

• DYEC 2023 Soil Testing Report: "Per Table 4, concentrations of dioxins and furans in soil measured during the 2023 sampling event increased at both the upwind and downwind sampling locations relative to historical levels"

Table 4: Soil Analytical Results - Dixoins and Furans

Durham York Energy Center The Regional Municipality of Durham Project No. 2301083

Parameters Ur		Units Soil Standards	UPWIND				DYEC			DOWNWIND							
rarameters	Ollits	Son Standards	22 Aug 13	25 Aug 15	17 Aug 16	23 Aug 17	19 Aug 20	14 Aug 23	25 Aug 15	17 Aug 16	23 Aug 17	22 Aug 13	25 Aug 15	17 Aug 16	23 Aug 17	19 Aug 20	14 Aug 23
Dioxins & Furans																	
Total PCDDs and PCDFs (TEQ)	TEQ ng/kg	7	0.977	1.32	0.622	0.47	0.596	1.3	0.9	1.29	1.44	1.12	0.7	0.626	1.22	1.23	2.4

Delegation to Works Committee re proposed DYEC throughput increase from 140,000 -160,000 tonnes per year

Linda Gasser

May 8, 2024.

Agenda Item 7.1 a) Minister of the Environment's (MECP) April 22nd letter to Durham and York Staff re proposed throughput increase to 160,000 tpy

- Should require a staff report to COW/Council to evaluate AND confirm IF it is in BEST interest of Durham to pursue increase. This council should have opportunity to decide whether to burn or focus on reducing garbage.
- The vote to incinerate in June 2009 was 16-12. Close and contentious.
- Minister suggested posting to project website the attachment to her letter (not included in your agenda) to inform public.
- April 22nd letter NOT yet posted –you must advise the public.
- DYEC's throughput increase to 160K webpage link: https://www.durhamyorkwaste.ca/en/facility-approvals/increasing-capacity-to-160000.aspx

How much is Covanta fee in excess of 140,000 tpy?

Does Ontario power subsidy apply to tonnage beyond 140K?

Current cost per tonne to landfill tonnage in excess of Durham's 110,000?

Require update of 2019 financial assumptions in Report 2019 COW-3, page 13/41

Footnotes:

- Reduced Covanta fee based on deduction of landfill charge and reduced processing fee for tonnages beyond 140,000 tonnes processed (estimated at \$35.45 per tonne in 2019, increasing to an estimated \$38.03 per tonne by 2023). It is assumed York Region uses its full 21.4 per cent share of amended capacity.
- Includes materials recovery facility residue tonnes, which are the cost responsibility of the MRF contractor (approximate recovery of \$0.3 million).
- Landfill fees are assumed to escalate from \$90.00 per tonne in 2019 to \$98.21 per tonne in 2023.
- Power revenues escalation estimates are based on 35 per cent CPI per the IESO Power Purchase Agreement. Conservatively, revenues for ferrous and non-ferrous metals recoveries are not assumed to escalate.

Request to Council to increase in 2019. Last public consultation December 2019. You owe Durham residents an update.

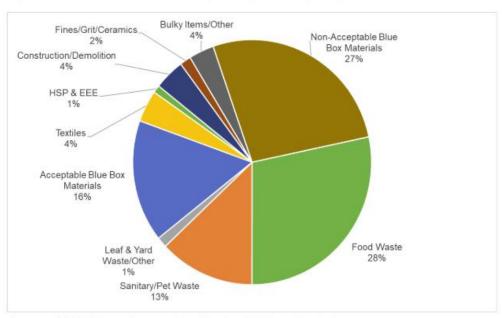
- A lot has changed since 2019's staff request to increase throughput including proposed programs proposed to reduce residual waste.
- Effective July 1, 2024, enhanced green bin to allow material such as pet waste (including cat litter), diapers and sanitary produces. Could divert approx. 10,000 tonnes per year.
- Effective possibly by 2025, Durham will offer source separated organics collection to multi-residential residents. Increasing share of new units will be multi-res.
- According to page 6 of 2022 Waste Management Annual Report (most recent) "61% of households place a green bin out for curbside collection".
- There's LOTS of opportunity to increase participation & capture of organics.

Pages 28-30 Attach. 2, Report 2022-WR-1 Long Term Waste Plan: "In summary, the waste profiles of single-family and multi-residential garbage are quite similar, with the largest component of garbage consisting of food waste (which was found in almost equal proportions for each sector)."

Figure 9: Single-family Garbage Composition (2018) Bulky Items/Other Fines/Grit/Ceramics Non-Acceptable Blue Box Materials Construction/Demolition 22% HSP & EEE 1% Textiles Acceptable Blue Box_ Materials 11% Food Waste Leaf & Yard Waste/Other <1% Sanitary/Pet Waste 12%

Source: 2018 Waste Composition Study - Single-family

Figure 10: Multi-residential Garbage Composition (2018)



Source: 2018 Waste Composition Study - Multi-residential

Capacity increase =14.28%. COW/Council should review impacts of increase including additional air pollution loading and increased GHGs

- Updated Audit info would help identify materials that could be diverted to existing programs AND those that should be investigated for new programs.
- There is little incentive to reduce waste is you apply to burn more!
- DYEC already Durham's largest GHG corporate emitter, even with only non-biogenic emissions reported. (Report 2024-COW-12).
- Additional loading of pollutants to Durham air shed is NOT insignificant.
- If Durham got serious about reducing waste and succeeded, then York Region could burn more garbage to use up the contracted capacity —they don't care, they don't live here.
- The more you burn, the more ash that you send to landfills outside Durham. Incineration = burning AND burying.
- In 2023, 25,087 tonnes of bottom ash sent to the US and 11,132 tonnes fly ash to Thorold landfill in Ontario YOU are already exporting problem waste.

Recommend an update report to COW/Council on costs and potential impacts of capacity increase. THIS council should decide

- Works should recommend to council that staff be required to produce a report that updates 2019 assumptions including:
- potential environmental & health impacts
- Includes opinion of Durham's Medical Officer of Health on potential health impacts of capacity increase
- Identify ALL costs associated with capacity increase including required study costs etc.
- Includes material provided to MECP since the Dec. 2021 Environmental Screening Report AND the Ministry's comments over the course of the capacity increase application.
- Report should provide results of recent waste audits. New audit should be requested if no update since 2018 audit data in 2022 Long Term Waste Plan.
- Works should direct staff to POST attachment to Minister's letter on DYEC website immediately to inform public and continue to update capacity increase web pages.
- IF proceeding, Council should direct staff to request/recommend that ECA application(s) be posted to the ERO and commit to posting all ECA study data to the DYEC project website promptly.
- THANK YOU QUESTIONS?

2010 to 2022 Diversion Rates (%) reported by Durham Region & from MBN Canada Annual Performance Measurement Reports (updated Jan.27, 2024)

YEAR	Durham Diversion/Annual Waste	MBN Canada Annual	MBN Re-stated
	Management Report	Performance Report	years 2018 & 2019
2009	52 (2009-J-44)	51	
2010	52	52	
2011	53	53	
2012	53	53	
2013	52	52.3	
2014	Reported 55 and 53%	53.2	
2015	Reported 55 and 52%	52	
2016	Reported 55 and 53%	52.8	
<mark>2017</mark>	*Reported 55% and 51%. Revised	47	
	retroactively to 65%		
2018	64	49	64
2019	64	47	64
2020	63	63**	
2021	62	62	
2022 ***	62	****did not report	
		percent diverted	

^{*}RPRA diversion numbers from landfill after curbside collection does not include Durham Region's approved energy-from waste initiatives. *Updated from 55 per cent to reflect finalized 2017 RPRA diversion rate. First year RPRA recognized recycled materials recovered through energy-from-waste. Durham 2021 Annual Waste Management Report, Page 15

https://www.durhamyorkwaste.ca/en/education-and-resources/Documents/2021%20Waste%20Diversion%20Reports/20221017 RPT 2022 Durham Annual Waste Diversion rfs ACC.pdf

(Durham Region is classified as Urban Regional by the RPRA, along with Essex-Windsor Solid Waste Authority, Waterloo Region, Simcoe County, Niagara Region, and City of Ottawa.) Durham 2022 Annual Waste Management Report, Page 6

https://www.durhamyorkwaste.ca/en/education-and-resources/resources/Documents/2022%20Waste%20Diversion%20Reports/20231031_RPT_Durham_2022_Annual_Waste_Diversion_ACC_RFS.pdf

http://mbncanada.ca/app/uploads/2023/12/2022-updated-public-report.pdf

^{**} In 2020 MBN changed how they report Durham's diversion rate to mirror RPRA and retroactively restated diversion rates for 2018 & 2019.

^{***} Pending verification. RPRA diversion numbers from landfill after curbside collection does not include Durham Region's approved energy-from-waste initiatives.

^{****}In 2022, MBN Canada did not percent of residential solid waste diverted, as it had previously