The Regional Municipality of Durham
COUNCIL INFORMATION PACKAGE

Friday, October 6, 2023

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The Regional Municipality of Durham
Information Report

From:	Acting Commissioner of Works
Report:	#2023-INFO-85
Date:	October 6, 2023

Subject:

Update on Durham York Energy Centre 2023 Voluntary Source Test

Recommendation:

Receive for information.

Report:

1. Purpose

1.1 The purpose of this report is to provide an update on the 2023 Voluntary Source Test results at the Durham York Energy Centre (DYEC).

2. Background

2.1 As directed by Regional Council, the Owners of the DYEC are to perform an annual Voluntary Source Test in accordance with the procedures and schedules outlined in Schedule “E” of the Environmental Compliance Approval (ECA). The Voluntary Source Test measures the emission rate of the measurable contaminants from the stack.

3. Voluntary Source Test

3.1 The Voluntary Source Test was conducted between April 24, 2023, and April 27, 2023, for all test contaminants on Boiler #1 and Boiler #2.

3.2 The Voluntary Source Test results summary demonstrated that all emissions were within the limits detailed in the ECA (**Attachment #1**).

3.3 The full Voluntary Source Test Report was provided to the Ministry of Environment, Conservation and Parks (MECP) and posted to the project website.

3.4 The DYEC emissions dispersion was modelled utilizing the Voluntary Source Test data and the MECP-approved CALPUFF model. The results of the contaminants concentrations at the maximum point of impingement were then compared to the limits within the Ontario Regulation 419/05 Air Pollution – Local Air Quality. Ontario Regulation 419/05 Air Pollution – Local Air Quality limits are set to protect human health and the environment.

3.5 All the calculated impingement concentrations were well below the regulatory limits.

4. Owners' Consultant Reviews

4.1 Ausenco, the Source Test peer reviewer, provided their final report (**Attachment #2**) to the Region on September 15, 2023. Ausenco concluded that the review of the Source Testing Report, combined with their on-site observations, have not revealed any major concerns regarding the conduct of the source testing, the analytical analysis, or the analytical calculations. There is also no concern about the validity of the source testing data reported by Ortech, especially regarding comparisons to the relevant in-stack limits.

4.2 Ausenco identified some inconsistencies with regard to the air modelling and suggested a review of the model input files. However, the review determined that the modelling was conducted in accordance with the facility's ECA and O. Reg 419/05. Ausenco noted that a revision will not change the facility's compliance status.

4.3 HDR personnel were also present during the Source Tests. In their report (**Attachment #3),** HDR indicated that they observed the sampling procedures and facility operations throughout most of the testing period between April 24th and April 27th, 2023, and noted ORTECH following the approved stack sampling procedures and test methods. HDR also observed Covanta's plant personnel operating the DYEC under normal operating conditions and in accordance with acceptable industry operating standards. HDR concluded that based on the results summarized in ORTECH's final test report dated July 25, 2023, the air emission results of the Spring 2023 Voluntary Test demonstrated that the DYEC operated below the ECA's Schedule "C" limits.

5. Continued Demonstrated Performance

5.1 DYEC demonstrates consistent performance with the appropriate controls and monitoring, which provide safety and protection to human health and the environment.

5.2 The results of testing completed from 2019 to 2023 are presented in **Attachment #4**. The data indicates that the DYEC has consistently demonstrated that it can safely and effectively operate within the ECA Schedule "C" limits.

5.3 A table demonstrating a comparison of the latest source test results against the ECA limits and A-7 guidelines is presented in **Attachment #5**. It indicates that the DYEC consistently operates and performs below regulatory limits.

5.4 The chart in Figure 1 below shows how far below the regulatory limits each contaminant average falls. The dotted line represents the limits, and the arrows represent the per cent average below the limits.

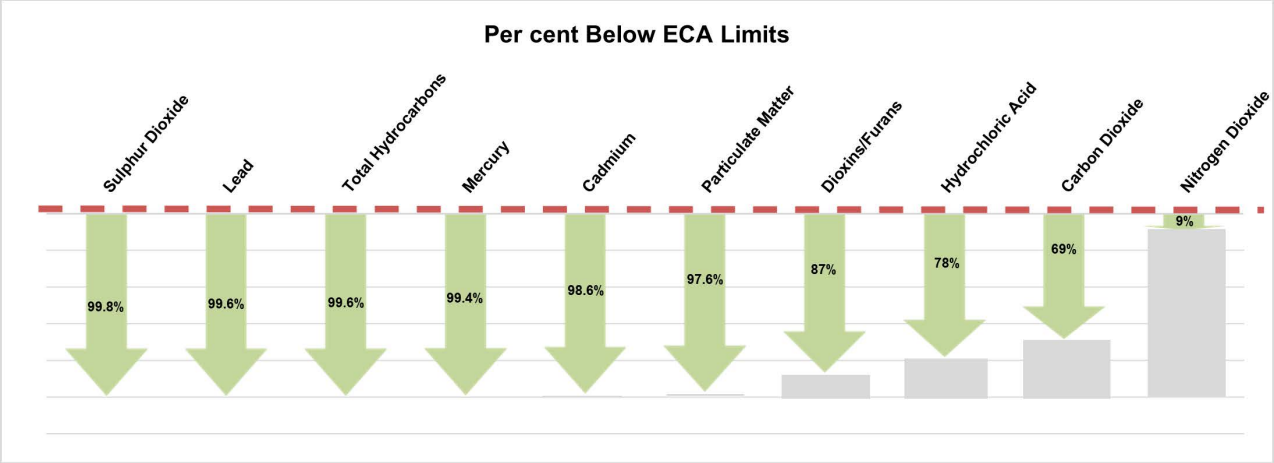

Figure 1: Average Result expressed as a percentage below the regulatory limits.

6. Conclusion

6.1 The Owners' technical consultants and peer reviewers have confirmed that the Voluntary Source Test was conducted in accordance with the Ministry of the Environment, Conservation and Parks' guidelines.

6.2 All results of the Voluntary Source Test were below the concentration limits prescribed in Schedule C of the Environmental Compliance Approval.

6.3 Using CALPUFF dispersion modelling techniques, the predicted maximum point of impingement concentrations, based on the average test results for both boilers, show Durham York Energy Centre to be operating well below all current standards in Regulation 419/05 under the Environmental Protection Act and other Ministry of the Environment, Conservation and Parks criteria including guidelines and upper risk thresholds.

7. Attachments

Attachment #1: Voluntary Source Test Executive Summary

Attachment #2: Ausenco 2023 Voluntary Source Test Final Report

Attachment #3: HDR Inc. 2023 Voluntary Source Test Technical Memorandum

Attachment #4: Source Test Results 2019-2023

Attachment #5: Comparison Table: 2023 Voluntary Source Test Results Compared to ECA limits and Ontario A-7 Guideline

Respectfully submitted,

Original signed by:

Ramesh Jagannathan, M.B.A., P.Eng., PTOE
Acting Commissioner of Works

EXECUTIVE SUMMARY

ORTECH Consulting Inc. (ORTECH) completed a voluntary compliance emission testing program at the Durham York Energy Centre (DYEC) located in Courtice, Ontario between April 24 and April 27, 2023. The voluntary emission testing program was performed at the request of the Regions of Durham and York. The current test program is the eighth voluntary test program conducted at the facility.

Ontario Ministry of the Environment, Conservation and Parks (MECP) Amended Environmental Compliance Approval (ECA) No. 7306-8FDKNX Section 7(1) states that "the owner shall perform annual source testing, in accordance with the procedures and schedule outlined in the attached Schedule E, to determine the rates of emissions of the test contaminants from the stack. The program shall be conducted not later than six months after the commencement date of operation of the facility/equipment and subsequent source testing programs shall be conducted once every calendar year thereafter". A list of the test programs conducted by ORTECH to date is provided below:

Test Program	Test Date	ORTECH Report No.
2015 Compliance	September/October 2015	21546
2016 Voluntary	May 2016	21656
2016 Compliance	October/November 2016	21698
2017 Voluntary	May 2017	21754
2017 Compliance	October 2017	21800
2018 Voluntary	May/June 2018	21840
2018 Compliance	September 2018	21880
2019 Voluntary	June 2019	21936
2019 Compliance	September 2019	21960
2020 Voluntary	June 2020	22001
2020 Compliance	November 2020	22050
2021 Voluntary	June 2021	22081
2021 Compliance	November/December 2021	22085
2022 Voluntary	May 2022	22158
2022 Compliance	November/December 2022	22160
2023 Voluntary	April 2023	22230

Source testing was performed on the Baghouse (BH) Outlet of Boiler No. 1 and BH Outlet of Boiler No. 2 for the test contaminants listed in Schedule D of the ECA.

Triplicate emission tests were completed for particulate matter, metals, semi-volatile organic compounds, acid gases, volatile organic compounds, aldehydes and combustion gases at the BH Outlet of each Boiler. Triplicate emission tests were also completed for total hydrocarbons at the Quench Inlet of each Boiler. The contaminant groups included in the emission test program and the reference test methods used are summarized below:

Test Groups	Reference Method
Particulate and Metals	US EPA Method 29
$PM_{2.5}$/PM_{10} and Condensable Particulate	US EPA Methods 201A and 202
Semi-Volatile Organic Compounds	Environment Canada Method EPS 1/RM/2
Volatile Organic Compounds	US EPA SW-846 Method 0030 (SLO VOST modification)
Aldehydes	NCASI Method ISS/FP-A105.01
Halides and Ammonia	US EPA Method 26A
Combustion Gases:	
Oxygen and Carbon Dioxide	Facility CEM
Carbon Monoxide	Facility CEM
Sulphur Dioxide	Facility CEM
Nitrogen Oxides	Facility CEM
Total Hydrocarbons	ORTECH per US EPA Method 25A

Schedule C of ECA No. 7306-8FDKNX lists in-stack limits for the emissions of various compounds. In-stack emissions limits are given for particulate matter, mercury, cadmium, lead, dioxins and furans and organic matter for comparison with the results from compliance source testing. In-stack emission limits are also given for hydrochloric acid, sulphur dioxide, nitrogen oxides and carbon monoxide calculated as the rolling arithmetic average of data measured by a continuous emission monitoring system (CEMS).

Since relative accuracy and system bias testing was conducted in September 2022, the data recorded by the DYEC CEMS was used to assess against the in-stack emissions limits detailed in Schedule C of the ECA for hydrochloric acid, sulphur dioxide, nitrogen oxides and carbon monoxide. Note the DYEC CEMS data for the days when isokinetic testing was performed at each unit (April 24 to April 27, 2023) was used to determine the minimum, average and maximum concentrations of the combustion gases listed in the ECA. Concentration data measured by ORTECH on April 24 and April 25, 2023 was used to assess against the total hydrocarbons (organic matter) in-stack emissions limit detailed in Schedule C of the ECA.

Consistent with the approach commonly required by the MECP for compliance emission testing programs, the following results are conservative in the sense that when the analytical result is reported to be below the detection limit, the full detection limit is used to calculate emission data and is shown by a "<" symbol. Also, when one or both Boiler results are reported to be below the detection limit, the detection limit was used to conservatively estimate the total emission rate for the Main Stack.

The MECP "Summary of Standards and Guidelines to Support Ontario Regulation 419/05 – Air Pollution – Local Air Quality", dated April 2012, provides an updated framework for calculating dioxin and furan toxicity equivalent concentrations which includes emission data for 12 dioxin-like PCBs. This document was replaced by "Air Contaminants Benchmarks List: standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants", with the most recent version published in April 2023, however the dioxin and furan toxicity equivalent calculation methodology remains the same. The dioxins, furans and dioxin-like PCBs toxicity equivalent emission data was also calculated using half the detection limit for those compounds not detected. The half detection limit data was used to assess against the dispersion modelling Point of Impingement limit. The toxicity equivalent concentrations calculated using the full detection limit, for those compounds less than the reportable detection limit, were used to assess against the in-stack limit detailed in Schedule C of the ECA.

The average results for the tests conducted at Boiler No. 1, along with the respective in-stack emission limits, are summarized in the following table:

Parameter	Test No. 1	Test No. 2	Test No. 3	Average	In-Stack Limit
Total Power Output (MWh/day)*	-	-	-	392	-
Average Combustion Zone Temp. (°C)*	-	-	-	1267	-
Steam (tonnes/day)*	-	-	-	802	-
MSW Combusted (tonnes/day)*	-	-	-	221	-
NO_X Reagent Injection Rate (liters/day)*	-	-	-	718	-
Carbon Injection (kg/day)*	-	-	-	127	-
Lime Injection (kg/day)*	-	-	-	4033	-
Filterable Particulate (mg/Rm^3) (1)	<0.11	<0.18	<0.29	<0.20	9
PM_{10} with Condensable (mg/Rm^3) (1)	<2.88	<4.19	<5.66	<4.24	-
$PM_{2.5}$ with Condensable (mg/Rm^3) (1)	<2.81	<4.11	<4.68	<3.87	-
Hydrogen Fluoride (mg/Rm^3) (1)	<0.098	<0.11	<0.11	<0.10	-
Ammonia (mg/Rm^3) (1)	0.74	0.78	0.74	0.76	-
Cadmium (µg/Rm^3) (1)	0.15	0.049	0.16	0.12	7
Lead (µg/Rm^3) (1)	0.33	0.31	0.21	0.28	50
Mercury (µg/Rm^3) (1)	<0.086	<0.085	<0.084	<0.085	15
Antimony (µg/Rm^3) (1)	<0.046	<0.046	<0.041	<0.044	-
Arsenic (µg/Rm^3) (1)	<0.046	<0.046	<0.041	<0.044	-
Barium (µg/Rm^3) (1)	0.39	0.24	0.60	0.41	-
Beryllium (µg/Rm^3) (1)	<0.046	<0.046	<0.041	<0.044	-
Chromium (µg/Rm^3) (1)	0.90	0.88	0.82	0.87	-
Cobalt (µg/Rm^3) (1)	<0.046	<0.046	<0.041	<0.044	-
Copper (µg/Rm^3) (1)	2.63	2.01	1.81	2.15	-
Molybdenum (µg/Rm^3) (1)	8.31	8.41	7.49	8.07	-
Nickel (µg/Rm^3) (1)	0.79	0.63	0.84	0.75	-
Selenium (µg/Rm^3) (1)	<0.23	<0.23	<0.21	<0.22	-
Silver (µg/Rm^3) (1)	<0.046	<0.046	<0.041	<0.044	-
Thallium (µg/Rm^3) (1)	<0.046	<0.046	<0.041	<0.044	-
Vanadium (µg/Rm^3) (1)	<0.023	<0.023	<0.021	<0.022	-
Zinc (µg/Rm^3) (1)	7.12	7.17	5.49	6.60	-
Dioxins and Furans (pg TEQ/Rm^3) (3)	<2.70	<4.77	<12.4	<6.61	60
Total Chlorobenzenes (ng/Rm^3) (1)	<275	<227	<300	<267	-
Total Chlorophenols (ng/Rm^3) (1)	<161	<159	<161	<161	-
Total PAHs (ng/Rm^3) (1)	<378	<805	<249	<477	-
VOCs (µg/Rm^3) (1)	<261	<165	<969	<465	-
Aldehydes (µg/Rm^3) (1)	<95.5	<95.5	<104	<98.4	-
Total VOCs (µg/Rm^3) (1) (4)	<357	<261	<1073	<563	-
Quench Inlet Organic Matter (THC) (ppm, dry) (2)	0	0.1	0	0.03	50

* based on process data provided by Covanta

(1) dry at 25°C and 1 atmosphere, adjusted to 11% oxygen by volume

(2) dry basis as equivalent methane (average of each 60 minute test with data recorded in 1-minute intervals)

(3) calculated using the NATO/CCMS (1989) toxicity equivalence factors and the full detection limit for those isomers below the analytical detection limit, dry at 25°C and 1 atmosphere, adjusted to 11% oxygen by volume

(4) Includes all components from the volatile organic compounds test list in the ECA (i.e. Volatile Organic Sampling Train and Aldehyde Sampling train components).

The average results for the tests conducted at Boiler No. 2, along with the respective in-stack emission limits, are summarized in the following table:

Parameter	Test No. 1	Test No. 2	Test No. 3	Average	In-Stack Limit
Total Power Output (MWh/day)*	-	-	-	392	-
Average Combustion Zone Temp. (°C)*	-	-	-	1270	-
Steam (tonnes/day)*	-	-	-	798	-
MSW Combusted (tonnes/day)*	-	-	-	222	-
NO_X Reagent Injection Rate (liters/day)*	-	-	-	707	-
Carbon Injection (kg/day)*	-	-	-	128	-
Lime Injection (kg/day)*	-	-	-	3978	-
Filterable Particulate (mg/Rm^3) (1)	<0.34	0.24	0.13	<0.24	9
PM_{10} with Condensable (mg/Rm^3) (1)	<8.93	<3.64	<4.97	<5.85	-
$PM_{2.5}$ with Condensable (mg/Rm^3) (1)	<8.86	<3.49	<4.34	<5.56	-
Hydrogen Fluoride (mg/Rm^3) (1)	<0.11	<0.10	<0.10	<0.10	-
Ammonia (mg/Rm^3) (1)	0.80	<0.28	0.36	<0.48	-
Cadmium (µg/Rm^3) (1)	0.056	0.081	0.11	0.083	7
Lead (µg/Rm^3) (1)	0.070	0.20	0.18	0.15	50
Mercury (µg/Rm^3) (1)	<0.083	<0.093	<0.091	<0.089	15
Antimony (µg/Rm^3) (1)	<0.045	0.074	0.067	<0.062	-
Arsenic (µg/Rm^3) (1)	<0.045	<0.044	<0.043	<0.044	-
Barium (µg/Rm^3) (1)	0.19	1.43	0.15	0.59	-
Beryllium (µg/Rm^3) (1)	<0.045	<0.044	<0.043	<0.044	-
Chromium (µg/Rm^3) (1)	0.90	1.48	0.76	1.05	-
Cobalt (µg/Rm^3) (1)	<0.023	<0.022	<0.021	<0.022	-
Copper (µg/Rm^3) (1)	1.93	1.95	1.53	1.80	-
Molybdenum (µg/Rm^3) (1)	8.57	8.31	7.84	8.24	-
Nickel (µg/Rm^3) (1)	1.08	0.54	0.41	0.68	-
Selenium (µg/Rm^3) (1)	<0.23	<0.22	<0.21	<0.22	-
Silver (µg/Rm^3) (1)	<0.045	<0.044	<0.043	<0.044	-
Thallium (µg/Rm^3) (1)	<0.045	<0.044	<0.043	<0.044	-
Vanadium (µg/Rm^3) (1)	<0.023	0.091	<0.021	<0.045	-
Zinc (µg/Rm^3) (1)	4.26	3.80	6.77	4.94	-
Dioxins and Furans (pg TEQ/Rm^3) (3)	<9.24	<8.67	<9.63	<9.18	60
Total Chlorobenzenes (ng/Rm^3) (1)	<352	<297	<351	<333	-
Total Chlorophenols (ng/Rm^3) (1)	<169	<169	<169	<169	-
Total PAHs (ng/Rm^3) (1)	<312	<371	<194	<292	-
VOCs (µg/Rm^3) (1)	<69.6	<63.1	<64.2	<65.6	-
Aldehydes (µg/Rm^3) (1)	<135	<107	<136	<126	-
Total VOCs (µg/Rm^3) (1) (4)	<205	<170	<200	<192	-
Quench Inlet Organic Matter (THC) (ppm, dry) (2)	0.5	0.4	0.3	0.4	50

* based on process data provided by Covanta

(1) dry at 25°C and 1 atmosphere, adjusted to 11% oxygen by volume

(2) dry basis as equivalent methane (average of each 60 minute test with data recorded in 1-minute intervals)

(3) calculated using the NATO/CCMS (1989) toxicity equivalence factors and the full detection limit for those isomers below the analytical detection limit, dry at 25°C and 1 atmosphere, adjusted to 11% oxygen by volume

(4) Includes all components from the volatile organic compounds test list in the ECA (i.e. Volatile Organic Sampling Train and Aldehyde Sampling train components).

A summary of the minimum, average and maximum concentrations for the combustion gases measured by the DYEC CEMS with in-stack limits listed in the ECA is provided below for the two units.

Boiler No.	Parameter	Minimum	Average	Maximum	In-Stack Limit
Boiler No. 1	Carbon Monoxide (mg/Rm^3) (1)	6.8	9.0	13.3	40
	Hydrogen Chloride (mg/Rm^3) (2)	0.7	0.8	1.3	9
	Nitrogen Oxides (mg/Rm^3) (2)	110	110	111	121
	Sulphur Dioxide (mg/Rm^3) (2)	0	0.02	0.04	35
Boiler No. 2	Carbon Monoxide (mg/Rm^3) (1)	10.3	16.1	27.3	40
	Hydrogen Chloride (mg/Rm^3) (2)	2.7	3.1	3.3	9
	Nitrogen Oxides (mg/Rm^3) (2)	109	110	112	121
	Sulphur Dioxide (mg/Rm^3) (2)	0	0.13	0.3	35

(1) 4-hour average measured by DYEC CEMS, dry at 25°C and 1 atmosphere adjusted to 11% oxygen by volume
(2) 24-hour average measured by DYEC CEMS, dry at 25°C and 1 atmosphere adjusted to 11% oxygen by volume

The emission data measured at each Boiler BH Outlet during the testing program was combined and used to assess the emissions from the Main Stack against the current point of impingement criteria detailed in Ontario Regulation 419/05.

Dispersion modelling was completed using the CALPUFF model (using Version 7.2.1 level 150618 as approved by the MECP in December 2021) by WSP Canada Inc. A summary of the results are provided in the tables appended to this report (Appendix 27) based on calculated ground level Point of Impingement (POI) concentrations for the average total Main Stack emissions. As shown in the tables, the calculated impingement concentrations for all the contaminants were well below the relevant MECP standards. Note the Ontario Regulation 419/05 Schedule 3 limits were updated in April 2023.

In summary, the key results of the emission testing program are:

- The facility was maintained within the operational parameters defined by the amended ECA that constitutes normal operation during the stack test periods. Testing was conducted at a steam production rate of greater than 794 tonnes of steam per day for each Boiler (approximately 98.3% of maximum continuous rating). The maximum continuous rating for the facility is 1614.7 tonnes of steam per day for the two Boilers combined (33.64 tonnes of steam per hour or 807.4 tonnes per day for each Boiler).
- The in-stack concentrations of the components listed in the ECA were all below the concentration limits provided in Schedule C of the ECA.
- Using CALPUFF dispersion modelling techniques, the predicted maximum point of impingement concentrations, based on the average test results for both boilers, show DYEC to be operating well below all current standards in Regulation 419/05 under the Ontario Environmental Protection Act and other MECP criteria including guidelines and upper risk thresholds.

Tables referenced in this report for the tests conducted at Boiler No. 1 and Boiler No. 2 are provided in Appendix 1 and Appendix 2, respectively.

Peer Review of DYEC Air Emissions Source Testing
Peer Review of Voluntary 2023 Source Testing

Photo Credit: https://www.plant.ca/features/cleaner-burn/

Prepared for:

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Project No. 106916-02

September 15, 2023

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Disclaimer

This work was performed in accordance with the Consulting/Professional Services agreement between Ausenco Sustainability Inc., a wholly owned subsidiary of Ausenco Engineering Canada Inc. (Ausenco), and The Regional Municipality of Durham (Client), dated April 3, 2023 (Contract). This report has been prepared by Ausenco, based on fieldwork conducted by Ausenco, for sole benefit and use by The Regional Municipality of Durham. In performing this work, Ausenco has relied in good faith on information provided by others and has assumed that the information provided by those individuals is both complete and accurate. This work was performed to current industry standard practice for similar environmental work, within the relevant jurisdiction and same locale. The findings presented herein should be considered within the context of the scope of work and project terms of reference; further, the findings are time sensitive and are considered valid only at the time the report was produced. The conclusions and recommendations contained in this report are based upon the applicable guidelines, regulations, and legislation existing at the time the report was produced; any changes in the regulatory regime may alter the conclusions and/or recommendations.

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List of Appendices

List of Acronyms and Abbreviations

Acronym / Abbreviation	Definition
ADMP	Air Dispersion Modelling Plan
AES	Adomait Environmental Services
CARB	California Air Resources Board
CB	Chlorobenzenes
CEM	Continuous Emissions Monitoring
CO	Carbon Monoxide
CP	Chlorophenols
D/F	Dioxins and Furans
DYEC	Durham York Energy Centre
ECA	Environmental Compliance Approval
HCl	Hydrogen Chloride
HF	Hydrogen Fluoride
MECP	Ministry of the Environment, Conservation and Parks
NOx	Nitrogen Oxides
O_2	Molecular Oxygen
O. Reg. 419/05	Ontario Regulation 419/05
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
POI	Point of Impingement
QA/QC	Quality Assurance/Quality Control
SO_2	Sulfur Dioxide
SVOCs	Semi-volatile organic compounds
TEQ	Toxic Equivalents
THC	Total Hydrocarbons

List of Symbols and Units of Measure

Symbol / Unit of Measure	Definition
g/s	gram per second
kg/hour	kilogram per hour
ppm	parts per million
m^3/hour	cubic metre per hour
tonnes/hr	tonnes per hour
µg/s	microgram per second
ng/s	nanogram per second
ng TEQ/s	nanogram of toxic equivalents per second
pg TEQ/Rm^3	picogram of toxic equivalents per reference cubic metre
°F	degrees Fahrenheit
°C	degrees Celsius
%	percent

1.0 Introduction

Ausenco Sustainability Inc. (Ausenco) was retained by The Regional Municipality of Durham (the Region) to provide oversight and expertise in air emissions source testing at the Durham York Energy Centre (DYEC) for the 2023 operating year. Voluntary Source Testing was conducted during the week of April 24th, with testing for semi-volatile organic compounds (SVOCs), including dioxins/furans, occurring on April 27th and 28th. Source testing was completed by ORTECH Consulting Inc. (Ortech), while laboratory analysis of the samples was completed by ALS Canada Ltd. (ALS).

As per the agreement between Ausenco and the Region, the entire scope of the peer review of the report produced by Ortech included the following:

1. Review of Laboratory Procedures and Results (excluding audit review of actual laboratory work).
2. Review of Ortech report[1], including results and discussions from testing campaign.
3. Review of Dispersion Modelling conducted as part of ECA condition 6.1 and Schedule B (excluding odour modelling). This included:
    a. Ensuring that emission estimates were calculated correctly from stack testing samples and laboratory results.
    b. Ensure that dispersion modelling was conducted in accordance with O. Reg. 419/05, and related guidance, such as the MECP's "Air Dispersion Modelling Guideline for Ontario, Version 3.0", dated February 2017 (Updated: April 17, 2023).

This report completes and summarizes all the above required tasks.

[1] Ortech, July 25, 2023. Covanta Durham York Renewable Energy Limited Partnership, Durham York Energy Centre, 2023 Voluntary Compliance Emission Testing Program. Report No. 22230. 804 pp.

2.0 On-Site Source Testing Observations

On-site auditing of the testing was sub-contracted to, and completed by, Adomait Environmental Solutions Inc. (AES), led by Martin Adomait, M.Sc., P.Eng. AES staff were on on-site during stack testing for the two (2) days of sampling for SVOCs, including dioxins and furans (D/F). The on-site review of the Stack Sampling Protocol ensures that it follows sampling methods described in the Ontario Source Testing Code and includes a review of:

1. On-site assessment of testing,
2. Sampling locations,
3. Sampling procedures,
4. Sample recovery and analysis, and
5. Process parameter review.

The following sections were provided to the Region in a memorandum dated May 10th, 2023. They are replicated here for completeness and to provide the Region with a single document summarizing the entirety of the peer review.

2.1 Observations of Process Operations Centre

Current policy, precipitated by COVID-19 pandemic health and safety measures to reduce the risk of infection, placed the control room off-limits to the auditor. Instead, the auditor was stationed in a conference room equipped with a screen to display real-time and recent data related to parameters being monitored. In addition, Excel files containing one-minute data were provided to the auditor at intervals during the stack testing events. The one-minute data corresponded to times of the stack tests for parameters monitored in previous audits, except for the quench-tower inlet/outlet temperatures and moisture levels. The temperatures were provided separately, reported at 10-minute intervals; however, moisture data could only be accessed directly from the system monitors in the control room. Therefore, the April 2023 Voluntary Source Testing audit does not include the monitoring of moisture levels.

The auditing process involved reviewing the Excel files, monitoring the real-time display of trending data, taking notes of anomalies and discussing deviations with facility staff and any measures taken as a result. In addition, rolling averages were calculated from the 1-minute data, consistent with performance requirements, as a measure of the unit's performance during the testing. The rolling averages included:

- O_2 – 60-minute rolling average
- CO – 4-hour rolling average
- NOx – 24-hour rolling average (in this case, portion of day that data was collected)

The following observations of the Process Operations Center were made during the stack testing:

1. As a general observation, parameters being recorded maintained stable readings throughout the observation periods. The few deviations that were observed, such as CO spikes, were typical of previous tests and generally did not persist beyond one minute.
2. The real-time display of carbon dosing for Boiler Unit 1 indicated periods of erratic fluctuations in the dosing on the first day, April 26. Despite the erratic fluctuations, the average feed rate remained stable. Periods of fluctuation occurred from about 9:16 to 10:38, and 11:22 to 11:28. On the second day, April 27, the erratic fluctuations recurred on Unit 1 carbon dosing at about 8:50 and persisted.

At 10:11 the third SVOC stack test on Unit 1 was paused to conduct maintenance on the carbon feed system. The conveyor screw shaft was removed from the hopper and examined. During the examination it was determined to be slightly out of alignment. The shaft was straightened and reinstalled in the hopper. The carbon feed system was allowed to run for a period of time to monitor carbon dosing, and it was confirmed that the problem had been resolved. The SVOC test resumed at 14:05 and was completed without incident at 16:20.

3. The DYEC's Environmental Compliance Approval (ECA) specifies that the O_2 concentration shall not be less than 6% as recorded by the CEM system. O_2 concentrations, calculated as a 60-minute rolling average, ranged from 7.4 to 8.3%, and are, therefore, compliant with the facility's permit.
4. CO concentrations were generally stable throughout the tests, ranging between 2.0 and 68.5 ppm. The calculated 4-hour average ranged from 8.4 to 16.9. Occasional spikes in CO concentration were less than 69 ppm and were likely cold CO spikes that may be attributed to incomplete combustion. In most cases, the CO concentrations immediately returned to typical CO concentrations. However, in one instance the CO spike lasted six minutes within the range of 34 to 63 ppm. The occurrence of CO spikes is normal, and the immediate suppression of spikes indicate that the systems are operating effectively.
5. The combustion zone temperatures for each boiler were maintained above the minimum temperature of 1000°C.
6. The average NOx concentrations during each day of testing ranged between 109 and 110 ppm, which is below the emission limit of 121 ppm calculated as a 24-hour rolling arithmetic average.
7. The quench tower inlet and outlet temperatures showed consistent control, reducing inlet temperatures by 14 to 17°F on average on both monitoring days during sample collection. The inlet temperatures gradually increased each day, from about 165°F in the morning to approximately 170°F by late afternoon. The outlet temperatures generally remained in the low to mid 150's°F.
8. As a result of consistent outlet temperatures from the Quench tower, the baghouse inlet temperatures remained steady, generally between 141°C and 145°C. This is near the midpoint of the performance requirement of 120°C to 185°C set out in the ECA (Section 6(2)(h)). These readings were consistent with observations from previous stack tests (typically in the range of 138°C to 145°C). Consistent temperatures in the baghouse allow comparison between data sets at different times. It is also important when considering the volatilization of various dioxins and furans that may be in particle-bound form in the baghouse. Increased temperatures could volatilize dioxins and furans already captured by the baghouse in particle-bound form.
9. Production at the plant is often evaluated in terms of steam flow. Steam flow was typically in the range of 31 to 35 tonne/hour per boiler, with recorded readings ranging between 29.3 and 35.0 tonne/hr. This is within range of the nominal steam generation rate 72 tonnes per hour of steam listed in the ECA. The production was similar to levels observed during other stack testing campaigns at this plant. Similar production also makes the comparison between different stack tests possible.
10. Carbon doses averaged ~5 to 6 kg/hour, which is consistent with the previous testing campaigns. However, it was increased slightly in the morning of April 27 for Unit 1 during the period of erratic fluctuations. For this period, the average feed rate was about 6.0 kg/hr. During the afternoon, after the problem was resolved, the feed rate was reduced, averaging about 5.2 kg/hr.

11. The lime feed rate generally ranged between 160 and 170 kg/hour, averaging about 165 kg/hr for both units. In one instance the lime feed rate jumped to 197 kg/hr but dropped back to normal levels within minutes. As noted by Covanta personnel, the lime control and wetting mixer systems are set up to respond to certain setpoints and criteria to ensure the outlet emissions are well below permit limits. The acquired 1-minute data for HCl concentrations demonstrate levels well below the permit limits, indicating that the lime control and wetting mixer systems are operating effectively.
12. Airflow remained stable throughout the stack tests. Airflow for Unit 1 generally ranged between 90,000 to 97,000 m^3/hour, and Unit 2 ranged between 93,000 and 97,000 m^3/hour.

2.2 Observations of the Stack Testing Operations

Observations of the stack testing procedures were undertaken during the SVOC sampling part of the program. On the first day of the field observations, the operations of the final Total Suspended Particulate/metals train on Boiler 2 was also observed. The field observations are provided in a series of tables in **Appendix A**.

1. Where possible, leak checks were observed at both the start, traverse change, and at the conclusion of all SVOC tests conducted. When the leak checks were successful, the tests could be regarded as valid. Leak checks were always performed in a systematic and non-rushed manner to ensure good QA/QC. The summary of AES field observations is provided in **Appendix A**.
2. Previous aberrations in the stack velocity measurements were reduced by using metal plates and rubber sealer plates to reduce and almost eliminate these problems. This set-up was similar to previous stack testing exercises.
3. Impinger/XAD temperatures were checked repeatedly at each sampling train. Ortech supplied plenty of ice to the crews. The temperatures were maintained in the range of 3.9°C to 8.3°C (39°F to 47°F). Maintaining low XAD temperatures improves adsorption of dioxins/furans on the sampling media. The temperatures were maintained at reasonably low levels and were deemed acceptable.
4. The audit team also recorded dry gas meter corrections and pitot factors for comparison with the final report.
5. All trains operating at the baghouse outlet locations were inserted and withdrawn from the stack while the sampling train was running. Given the high negative pressure at these locations, it was important to ensure that the filter was not displaced prior to sampling beginning. It also limits loss of any sample from the train.
6. No review of the sample recovery procedures conducted by Ortech staff were performed due to COVID-19 protocols being in effect.

Based on audit staff observations, it was confirmed that Ortech staff followed all appropriate sampling and recovery procedures as noted by the sampling methods (EPS 1/RM/2 and US EPA Method 23).

3.0 Report Review

The Region provided Ortech's draft report to Ausenco on July 11th, 2023, and the finalized report on August 4th, 2023 (the "Report"). Ausenco and AES provided preliminary comments, via email, to the Region dated July 17th, 2023, based on a high level read through of the draft report. The following sections include and expand upon that initial review, and subsequent review of the Report, and include an opinion regarding the sufficiency and accuracy of the submitted analyses.

3.1 Review of Source Testing Protocols

AES has conducted a thorough review of the source testing report and has found no discrepancies between the methods described in the report compared to the observations made during testing. AES is satisfied that all sampling protocols were followed according to appropriate methodologies. Consequently, AES has no concerns over the validity of collected samples, prior to shipment to the laboratory for analysis.

3.2 Review of Analytical Reporting

Ausenco has conducted a thorough review of the source testing report. As per the contract with the Region, focus was given to SVOCs. Based on this review, Ausenco provides the following comments:

1. As per the contract with the Region, the processing, handling, and analysis of laboratory samples were not audited as part of this peer review. Therefore, no statement of efficacy is provided regarding the processing, handling, and analysis of laboratory samples.
2. It is noted that both Ortech and ALS methods for collecting and analyzing SVOCs deviate slightly from reference methods. However, the potential biases and complications from these deviations have been discussed in previous source testing reviews and, therefore, are not discussed further here.
3. Dioxins and Furans

    a) The recoveries of Field Spike Standards of all D/F samples were within the acceptable range of recoveries provided in Environment Canada Reference Method EPS 1/RM/2 (70% – 130%).

    b) For the most part, the Extraction Standards for D/F are within the acceptable range of recoveries provided in Environment Canada Reference Method EPS 1/RM/2, which is either 40% – 130% or 25 – 130%, depending on the specific D/F. However, a few samples had Extraction Standard recoveries of some isomers outside the acceptable range, including Test #3 on APC Outlet #1 and BLANK2. As a result of the low extraction recoveries, the error associated with the determined concentrations may be larger than the standard error associated with the method. However, based on modelling results the D/F plus coplanar PCB TEQ values are more than 250x below the corresponding standards. Therefore, a correction factor for the decreased recoveries would still indicate D/F levels well below the standard. While the reduced recoveries may result in increased error in the determined concentrations, there is currently no concern that the error may lead to values that would have approached or exceeded the relevant in-stack or ambient standards.

    c) The recoveries of Cleanup Standards of all but one of the D/F samples were within the acceptable range of recoveries provided in Environment Canada Reference Method EPS 1/RM/2 (40% – 130%). Test #3 on APC Outlet #1 and BLANK1, at 16% and 153% recovery, respectively, were the only samples to have a recovery outside the method requirement. As described above with the Extraction Standards, the low Cleanup Standards recoveries on these samples are not expected to impact the facility's compliance.

d) Ortech (July 2023: p. 45) noted that "The amounts of dioxin and furan congeners detected in the blank sampling trains and in the laboratory blank were significant when compared to the amounts detected in the test trains". D/F samples, however, were not blank corrected based on the blank sampling train and laboratory blank results. Use of D/F congener concentration data that has not been blank corrected is an acceptable methodology, and consistently results in a concentration estimate that is higher than the true concentration within the samples.

e) Ausenco has conducted a review of the D/F congener group emission rate calculations (ng/s). Starting with the reported laboratory data, Ausenco was able to trace and confirm the calculations presented by Ortech provided in Section 7.9.1 (Page 45).

f) Ausenco has conducted a review of the D/F and dioxin-like PCB toxic equivalents (TEQ's) emission rate calculations (ng TEQ/s). Starting with the reported laboratory data, Ausenco was able to trace and confirm the calculations presented by Ortech provided in Section 7.9.1 (Page 46).

g) A review of the in-stack D/F dry adjusted TEQ concentration was conducted. Ausenco was able to trace and confirm the in-stack TEQ concentration calculations presented by Ortech (see Section 7.9.1, Page 47) and confirm that the D/F TEQ concentrations are below the maximum in-stack limit of 60 pgTEQ/Rm^3.

4. PCBs

   a) The recoveries of the Extraction Standards for PCBs are within the acceptable range of recoveries provided in US EPA Method 1668C (10% – 145%).

   b) The recoveries of Field Spike Standards of all PCB samples were within the acceptable range of recoveries provided in US EPA Method 1668C (70% – 130%).

   c) The recoveries of Cleanup Standards of all PCB samples were within the acceptable range of recoveries provided in US EPA Method 1668C (5% – 145%, or 10% – 145%).

   d) PCB samples were not blank corrected based on the blank sampling train and laboratory blank results. This is an acceptable methodology and will provide an over-estimate of the true concentrations within the samples.

5. Chlorobenzenes

   a) Chlorobenzene samples were not blank corrected based on the blank sampling train and laboratory blank results. This is an acceptable methodology and will provide an over-estimate of the true concentrations within the samples.

   b) Ausenco has conducted a review of the chlorobenzene emission rate calculations (mg/s). Starting with the reported laboratory data, Ausenco was able to trace and confirm the calculations presented by Ortech provided in Section 7.9.2 (Page 48).

   c) Ausenco was previously informed that Ortech had engaged in discussions with ALS about alternate analytical methods to improve recovery of monochlorobenzene. Based on those discussions, an alternative analytical method was chosen for analysis for this Voluntary Source Testing campaign to improve monochlorobenzene recovery. We have reviewed the correspondences between ALS, Ortech and Covanta. Based on this review, we believe that all due diligence was done to ensure an appropriate method was used to analyse for monochlorobenzene. This included informing the Standards Development Branch at the MECP of the proposed alternative analytical method. The MECP noted the change and had no concerns provided monochlorobenzene was reported from an acceptable test method. Furthermore, given that the modelled concentrations for monochlorobenzene are seven to eight orders of magnitude below the corresponding guidelines over the past three testing

campaigns, the variation in analysis method does not impact the conclusion regarding potential exposures to monochlorobenzene, which is extremely small.

6. Chlorophenols

   a) All CP samples experienced low Extraction Standard recoveries (i.e., outside the accepted window of 50 – 150%) for at least one standard, which indicates a potential low bias on the samples. CP sample concentrations were not corrected for this low bias; however, all CP sample concentrations were found to be below the detection limit. Therefore, correction for this bias would not have been statistically meaningful. While the reduced recoveries may result in increased error in the determined concentrations, there is currently no concern that the error may lead to values over and above relevant ambient air quality standards.

   b) Given that CPs in all samples were found to be below detection limit, emission rates for each compound were estimated based on the assumption that each analyte was at a concentration equal to the detection limit. This is an accepted methodology and provides a worst-case assumption to determine potential impacts.

   c) Ausenco has conducted a review of the chlorophenol emission rate calculations (mg/s). Starting with the reported laboratory data, Ausenco was able to trace and confirm the calculations presented by Ortech provided in Section 7.9.2 (Page 48).

7. Polycyclic Aromatic Hydrocarbons

   a) The recoveries of Field Sampling Standards for PAHs are within the acceptable range of recoveries provided in CARB method 429 (50% – 150%).

   b) The recoveries of the Extraction Standards for multiple PAHs were outside the acceptable range of recoveries provided in CARB method 429, which is 50% – 150%. This includes Tests #2 and #3 on APC Outlet #1 and all tests on APC Outlet #2. In all cases the recoveries were biased low, which indicates a potential low bias on the sample results. PAH sample concentrations were not corrected for this low bias. This may result in an underestimation of facility emission rates for PAHs. However, based on modelling results all PAH values are well below the corresponding standards. Therefore, a correction factor for the decreased recoveries would still indicate PAH levels well below the standard. While the reduced recoveries may result in increased error in the determined concentrations, there is currently no concern that the error may lead to values that would have approached or exceeded the relevant in-stack or ambient standards.

   c) PAH samples were not blank corrected based on the blank sampling train and laboratory blank results. This is an acceptable methodology and will provide an estimate of worst-case concentrations within the samples.

   d) Ausenco has conducted a review of the PAH emission rate calculations (mg/s). Starting with the reported laboratory data, Ausenco was able to trace and confirm the calculations presented by Ortech provided in Section 7.9.3 (Page 49).

3.3 Review of Dispersion Modelling

To complete the review of the modelling conducted as part of the source testing, the Region provided the most recent "Air Dispersion Modelling Plan" prepared by Golder, dated July 2020 (the "ADMP"). This report was prepared to outline the proposed dispersion modelling approach for the DYEC for future ECA amendment applications. This plan report was used for comparison to the source testing modelling, which was completed by WSP. WSP's modelling memorandum is provided as Appendix 27 of Ortech's report. The Region provided Ausenco with all relevant modelling files (e.g., input files, output files, etc.) for review.

Based on this review, Ausenco provides the following comments:

1. Ausenco confirmed that the CALPUFF and CALPOST version numbers and level numbers used in the model (as indicated in the corresponding input file) matches those provided in WSP's memorandum.
2. Ausenco confirmed that the CALPUFF options outlined in Table 2 of WSP's memorandum matches Table B1 of the ADMP.
3. Ausenco also confirmed that for modelling years 2017 and 2018 all CALPUFF options and flags within the supplied input files matched Table B1 of the ADMP. The 2017 year was chosen for review as it provided the highest 1-hr, 24-hr, and annual Point of Impingement (POI) values.
4. Ausenco confirmed the source parameters provided in Table 3 of WSP's memorandum relative to the source testing results.
5. For the 2017 and 2018 years, Ausenco confirmed that the CALPUFF input file contained one (1) point source with stack height, and diameter corresponding to the values in Table 3 of WSP's memorandum. The input file also utilized a unit emission rate (i.e., 1 g/s). There is a minor discrepancy with the exit temperature of the point source not matching the value listed in Table 3 of WSP's memorandum. However, this discrepancy is minor and will not materially impact the modelling results.
6. As a worst-case scenario, Ausenco reviewed the Dispersion Factors (without meteorological anomaly removed) provided in Table 4 of WSP's memorandum to confirm that they matched the maximum value provided in the CALPOST output files for all five years modelled. The values provided in the report agreed extremely well with the output files.

Averaging Period	10-min	½-hr	1-hr	24-hr	30-day	Annual
WSP Dispersion Factor before meteorological anomaly removal [µg/m³ per g/s]	51.52	37.47	31.23	1.32	0.17	0.06
Output File Dispersion Factor without meteorological anomaly removal [µg/m³ per g/s]	51.57	37.92	31.23	1.32	0.17	0.06

7. To review the Emission Summary Table provided (Appendix B of WSP's memorandum), a small number of critical chemicals were chosen to ensure that emission rates were multiplied by the Dispersion Factor shown in Table 4. In all cases, POI values were appropriately estimated for the corresponding averaging time. The list of substances reviewed were:
   a. Benzo(a)pyrene
   b. Chlorobenzene
   c. Dioxins, Furans, and Dioxin-like PCBs
8. The D/F emission rate used to estimate POI values appears to be using D/F concentrations estimated using the full detection limit approach. However, Section 7.9.1 of the report indicates that the half detection method limit approach was used for modelling. Given that the use of assumed concentrations at the detection limit would provide a conservative assessment of facility impact, we have no concern over this apparent discrepancy. Furthermore, the POI value for Dioxins, Furans, and Dioxin-like PCBs is well below the standard.

Based on the above review, there are no concerns with the conduct of the modelling. POI values presented in Appendix B of WSP's memorandum of the report provide a conservative estimate of potential impacts and are well below MECP criteria.

4.0 Conclusions

In conclusion, the review of the Source Testing Report, combined with our on-site observations, has not revealed any major concerns with regard to the conduct of the source testing, the analytical analysis, or the analytical calculations. Therefore, at this time, there are no concerns about the validity of the source testing data reported by Ortech especially with regard to comparisons to the relevant in-stack limits.

Ausenco has confirmed that WSP conducted the modelling in accordance with the facility's ECA (Condition 6.1 and Schedule B), as well as O. Reg. 419/05. However, some minor discrepancies were found between the model input files and the source testing data. We recommend that WSP review our comments and revise the modelling as needed. These revisions, however, are not expected to change the compliance status of the facility, as the facility's POI values are well below the specified MECP standards, based on the provided analysis.

5.0 Closure

We have appreciated the opportunity of working with you on this project and trust that this report is satisfactory to your requirements. Please feel free to contact the undersigned regarding any questions or further information that you may require.

Report prepared by:
Ausenco Sustainability Inc.

ORIGINAL SIGNED

Lucas Neil, PhD
Project Manager, Atmospheric Services

Report prepared by:
Adomait Environmental Solutions Inc.

ORIGINAL SIGNED

Martin Adomait, M.Sc., P.Eng.

Appendix A
AES Field Notes

	Semi-Volatiles-1		Semi-Volatiles-1	
Date	April 26-23		April 26-23	
Observation	Boiler #1		Boiler #2	
Nozzle Size/Type	0.251 glass		0.251 glass	
Meter Cal/ID	CAE 20090 1.000		CAE 20083 1.002	
Pitot cal	0.843		0.841	
Calc Moisture	-		-	
Static	-10.7		-10.8	
Pitot Leak Check	Yes good		Yes good	
Pre-traverse Leak Check	0.008@16”		0.009@15”	
SVOC Test Start Time	8:24		8:50	
Running On Insertion	Yes		Yes	
Stack temperature °F	280,282,284		220,284,283,287	
Trap temperature °F	39,41,44,43,44		42,44,43,43,43	
Running on removal	Yes		Yes	
Traverse Completed	11:01		10:50	
Post-traverse Leak Check	0.003@13”		0.009@17.5”	
Pre-traverse Leak Check		0.003@13”		0.004@17”
SVOC Traverse Start Time		11:08		11:13
Stack temperature °F		283,286,284		285,287,286
Trap temperature °F		43,43,44,45,46		42,43,44,45,45
Traverse Completed		13:08		13:15
Final Leak Check		0.002@15”		0.006@17”
Running on removal		Yes		Yes

Note: The Boiler 1 console lost power at 9:22. The probe was pulled without running. Moved probe to manual power and restarted test at 9:59. Manual power to probe was replaced with controlled power at 11:15.

	Semi-Volatiles-2		Semi-Volatiles-2	
Date	April 26-23		April 26-23	
Observation	Boiler #1		Boiler #2	
Nozzle Size/Type	0.251 glass		0.251 glass	
Meter Cal/ID	CAE 20090 1.000		CAE 20083 1.002	
Pitot cal	0.843		0.841	
Calc Moisture	-		-	
Static	-10.7		-10.8	
Pitot Leak Check	Yes good		Yes good	
Pre-traverse Leak Check	0.012@15”		0.006@17”	
SVOC Test Start Time	14:43		14:09	
Running On Insertion	Yes		Yes	
Stack temperature °F	245,281,282,282		285,285,285,285	
Trap temperature °F	43,44,40,38,40		43,44,42,43,43	
Traverse Completed	16:42		16:09	
Running on removal	Yes		Yes	
Post-traverse Leak Check	0.002@14”		0.002@17”	
Pre-traverse Leak Check		0.003@17”		0.002@17”
SVOC Traverse Start Time		16:53		16:19
Stack temperature °F		280,283,281		286,285,277
Trap temperature °F		43,43,44,44,39		44,46,43,43,43
Traverse Completed		18:53		18:19
Final Leak Check		0.003@14.5”		0.001@17”
Running on removal		Yes		Yes

	Semi-Volatiles-3		Semi-Volatiles-3		Metals/Particulate-3	
Date	April 27-23		April 27-23		April 26-23	
Observation	Boiler #1		Boiler #2		Boiler #2	
Nozzle Size/Type	0.251 glass		0.251 glass		0.212 glass	
Meter Cal/ID	CAE 20090 1.000		CAE 20083 1.002		ORTECH 20094 0.961	
Pitot cal	0.843		0.841		0.842	
Calc Moisture	-		-		16.3%	
Static	-10.7		-10.8		-10.8	
Pitot Leak Check	Yes good		Yes good		Yes good	
Pre-traverse	0.004@15”		0.005@16.5”		0.002@13”	
SVOC Test Start	8:06		8:06		8:47	
Running On	Yes		Yes		Yes	
Stack	279,281,284,284		282,284,285,285		286,285,284	
Trap	45,44,43,45,45		47,44,46,44,45			
Traverse	14:09		10:06		10:17	
Post-traverse	0.005@18”		0.007@17”		0.003@13”	
Running on	Yes		Yes		Yes	
Pre-traverse		0.004@16”		0.007@17”		0.004@13”
SVOC Traverse		14:20		10:15		11:18
Stack		282,284,284,280		285,286,287,288		285,284,282
Trap		39,41,40,41,42		48,44,50,52,48		
Traverse		16:20		12:15		12:48
Final Leak Check		0.001@19”		0.006@17		0.007@13”
Running on		Yes		Yes		Yes

Note: Boiler #1 test paused at 10:01. Probe removed running. Carbon feed system repaired and tested. Restart test at 14:04.

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Technical Memorandum

To: Andrew Evans, PEng, Region of Durham

Cc: Lipika Saha, PEng (Region of Durham)

Muneeb Farid, PEng (Region of York)

Annette Scotto, Kirk Dunbar, Alan Cremen, John Clark (HDR)

From: Bruce Howie, PE

Date: August 22, 2023

Re: **Durham York Energy Centre: Spring 2023 Stack Test**
HDR Observations During Testing and Summary of Results

Introduction

During the period from April 24 through April 27, 2023, ORTECH Consulting, Inc. (ORTECH) conducted the Voluntary Source Test at the Durham York Energy Center (DYEC) for the Regions of Durham and York. This voluntary testing has been performed annually since the start of Commercial Operation in 2016. Testing was performed in accordance with the reference methods required under Section 7(1) of the Amended Environmental Compliance Approval (ECA) No. 7306-8FDKNX, originally issued by the Ontario Ministry of Environment, Conservation and Parks (MECP) on June 29, 2011. HDR personnel were on-site to observe DYEC operations and stack sampling procedures during the testing on April 25th to April 27th. The purpose of this technical memorandum is to summarize the observations made by HDR personnel during the testing as well as to summarize our review of the results for the Source Test based on the information provided in the ORTECH Test Report dated July 25, 2023.

HDR Observations during the Compliance Source Test

The tentative testing schedule for the April 2023 Voluntary Source Test is included in Attachment A to this Technical Memorandum. Also included in Attachment A is a summary of the testing observed by HDR. HDR's role on-site was to observe Covanta's operations of the DYEC during test sampling, and to observe ORTECH's sampling procedures and activities. HDR personnel were on-site during the air emission testing on April 25th to April 27th to observe the source test sampling activities with particular focus on the Method 23 tests for Dioxins/Furans on both Units 1 and 2. HDR observed the operations of the boiler and air pollution control systems to verify the DYEC was being operated under normal operating conditions during the test periods. The following is a

summary of the key events and observations made by HDR during the sampling days that we were at the DYEC. Attachment A shows the start and stop times of each test.

Day 1: Monday, April 24th

Stack testing commenced at 09:56 and was completed at 18:04. Tests for both Units were completed as scheduled without any observed or reported upsets.

Day 2: Tuesday, April 25th

Stack testing commenced at 7:55 and was completed at 20:04. All tests for Unit 1 were completed as scheduled. The Unit 2, Run 1 for Particulate/Metals was discontinued due to the glass filter breaking, which resulted in broken glass in the filter. Particulate/Metals Runs 2 and 3 were completed as scheduled and a re-test of Run 1 was scheduled for the following day (April 26).

HDR observed a leak test of the sampling train on Unit 2 on April 25th and noted that it passed.

- Unit 2 at 13:35 during the Particulate/Metals Run 2 port switch.

The parameters below (data collected at 09:45) were observed to be within the normal range.

Parameter	Normal Range	Unit 1	Unit 2
Steam Load (kg/hr)	32,000-35,000	34,105	32,355
Ammonia (kg/hr)	25-80	35	23
Carbon (kg/hr)	4.5-5.5	NA	5.3
Steam Outlet Temp (°C)	495-502	502	504
Steam Pressure (bar)	86-90	89.9	90.0
Combustion Temps (°C)	>1,000	1,348	1,303
Baghouse dp (mBar)	10-20	18.9	14.9

Day 3: Wednesday, April 26th

Stack testing commenced at 8:25 and was completed at 18:53. Tests for both Units were completed as scheduled, as well as the Unit 2 Particulate/Metals re-test (identified as Run 4) that was originally scheduled for Day 2.

HDR observed three leak tests on April 26th and they all passed:

- Unit 1 at 14:44 during the Dioxins/Furans, Run 2
  - 0.006 cubic feet in 17 inches of vacuum
- Unit 2 at 14:09 during the Dioxins Furans, Run 2
  - 0.012 cubic feet in 15 inches of vacuum
- Unit 2 at 18:19 during the Dioxins Furans, Run 2
  - 0.003 cubic feet in 14.5 inches of vacuum

NOTE: Leak tests should not exceed 0.02 cubic feet in at least 13 inches of vacuum.

The parameters below (data collected at 12:11) were observed to be within the normal range.

Parameter	Normal Range	Unit 1	Unit 2
Steam Load (kg/hr)	32,000-35,000	33,982	33,727
Ammonia (kg/hr)	25-80	38	29
Carbon (kg/hr)	4.5-5.5	6	5.2
Steam Outlet Temp (°C)	495-502	506	511
Steam Pressure (bar)	86-90	89.9	90.0
Combustion Temps (°C)	>1,000	1,290	1,305
Baghouse dp (mBar)	10-20	19.9	15.8

Day 4: Thursday, April 27th

Stack testing commenced at 8:06 and was completed at 16:20. Tests for both Units were completed as scheduled.

HDR observed one leak test on April 27th and it passed:

- Unit 2 at 12:15 during the Dioxins/Furans Run 3

The parameters below (data collected at 11:00) were observed to be within the normal range. The Unit 1 carbon flow was higher than normal due to reported issues with the feed system. As a result, the Unit 1 Dioxins/Furans test was temporarily paused until the issue was resolved and the test was successfully completed.

Parameter	Normal Range	Unit 1	Unit 2
Steam Load (kg/hr)	32,000-35,000	33,148	33,150
Ammonia (kg/hr)	25-80	33	37

Carbon (kg/hr)	4.5-5.5	10	5.2
Steam Outlet Temp (°C)	495-502	506	510
Steam Pressure (bar)	86-90	89.9	90.0
Combustion Temps (°C)	>1,000	1,238	1,254
Baghouse dp (mBar)	10-20	20	15.4

HDR noted that Covanta's Rick Koehler was on-site throughout the testing period to assist in the coordination and to observe the Compliance Source Testing.

Based on HDR's observations of the Source Testing, ORTECH conducted the testing in accordance with the applicable standards and procedures. ORTECH was careful during each port change to ensure that the probe was not scraped inside the port during insertion and removal of the probe. In addition, sampling equipment was assembled properly, the ice used in the sample box was replenished in a timely manner, and all required leak checks were conducted. After each completed test, the sampling trains were transported to a trailer located outside the boiler building for recovery and clean up to avoid potential contamination at the test location. It should be noted that the actual clock times associated with each run, are slightly longer than the run lengths indicated in the test plan. This difference is due to the time required for ORTECH to pull the probe out of the first port, leak check the sampling equipment, and insert the probe into the second port. This is typical of stack sampling practices and is done in accordance with the test plan and approved procedures.

Attachment B provides a summary of the DYEC operating data recorded by Covanta's distributive control system (or DCS) during the Dioxins/Furans tests. As previously noted, HDR did not observe any deviations from the approved test protocol or applicable stack test procedures and based on the operational data and HDR's observations, the boilers and APC equipment were operated under normal conditions during the testing.

Summary of Results

The results of the testing program, based on ORTECH's July 25, 2023 report, are summarized in Table 1 and Figures 1 and 2. As shown, emissions of all pollutants are corrected to 11% oxygen and were below the ECA's Schedule "C" limits. As a part of HDR's review of the ORTECH report, we completed a review of the data presented and calculations. There were no errors in calculations found during this review.

Table 1 – Summary of April 2023 Voluntary Source Test Results

Parameter	Units	ECA Limit	Unit 1		Unit 2	
			Result	% of Limit	Result	% of Limit
Particulate Matter (PM)(1)	mg/Rm^3	9	0.2	2.2%	0.24	2.7%
Mercury (Hg)(1)	$\mu g/Rm^3$	15	0.085	0.6%	0.089	0.6%
Cadmium (Cd)(1)	$\mu g/Rm^3$	7	0.12	1.7%	0.083	1.2%
Lead (Pb)(1)	$\mu g/Rm^3$	50	0.28	0.6%	0.15	0.3%
Hydrochloric Acid (HCl)(2)(3)	mg/Rm^3	9	0.8	8.9%	3.1	34.4%
Sulphur Dioxide (SO_2)(2)(3)	mg/Rm^3	35	0.02	0.1%	0.13	0.4%
Nitrogen Oxides (NO_x)(2)(3)	mg/Rm^3	121	110	90.9%	110	90.9%
Carbon Monoxide (CO)(2)(4)	mg/Rm^3	40	9	22.5%	16.1	40.3%
Total Hydrocarbons (THC)(5)	ppm	50	0.03	0.1%	0.40	0.8%
Dioxins and Furans(6)	pg TEQ/Rm^3	60	<6.61	11.0%	<9.18	15.3%

(1) dry at 25ºC and 1 atmosphere, adjusted to 11% oxygen by volume

(2) based on process data or CEM data provided by Covanta

(3) maximum calculated rolling arithmetic average of 24 hours of data measured by the DYEC CEMS, dry at 25ºC and 1 atmosphere, adjusted to 11% oxygen by volume

(4) maximum calculated rolling arithmetic average of 4 hours of data measured by the DYEC CEMS, dry at 25ºC and 1 atmosphere, adjusted to 11% oxygen by volume

(5) average of three one hour tests measured at an undiluted location, reported on a dry basis expressed as equivalent methane

(6) calculated using the NATO/CCMS (1989) toxicity equivalence factors and the full detection limit for those isomers below the analytical detection limit, dry at 25ºC and 1 atmosphere, adjusted to 11% oxygen by volume

Figure 1 - DYEC Test Results as a Percent of ECA Limit

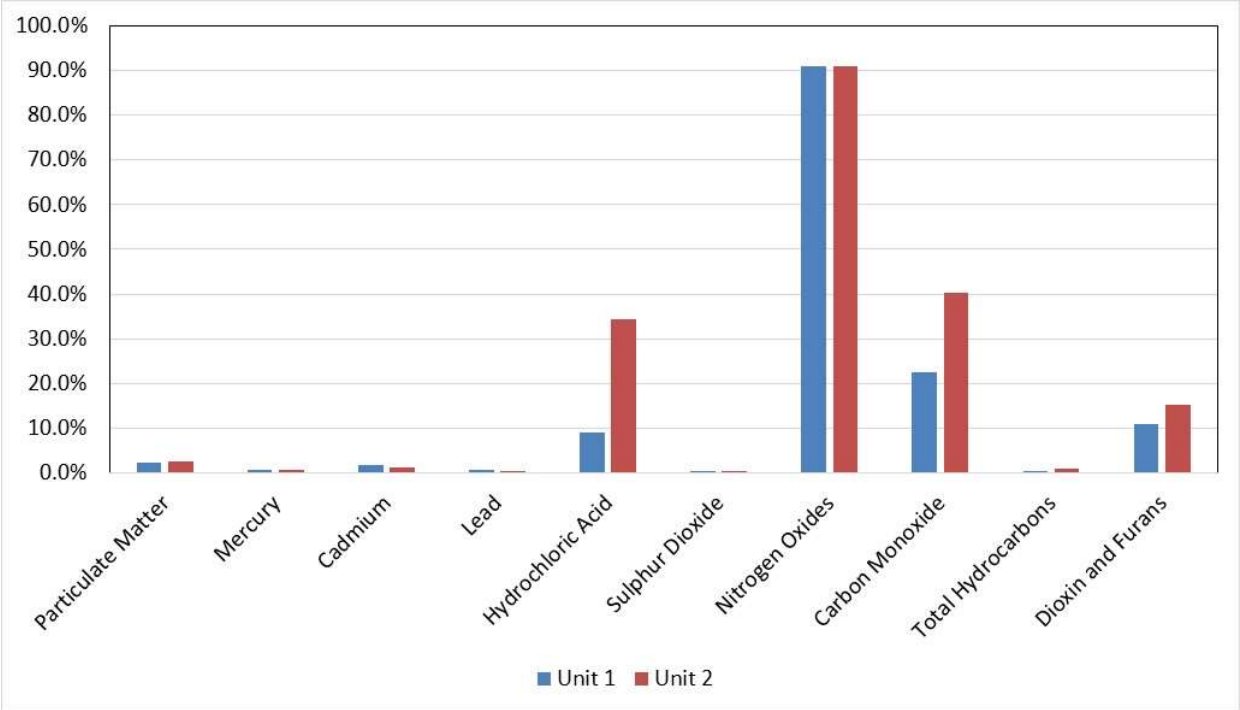
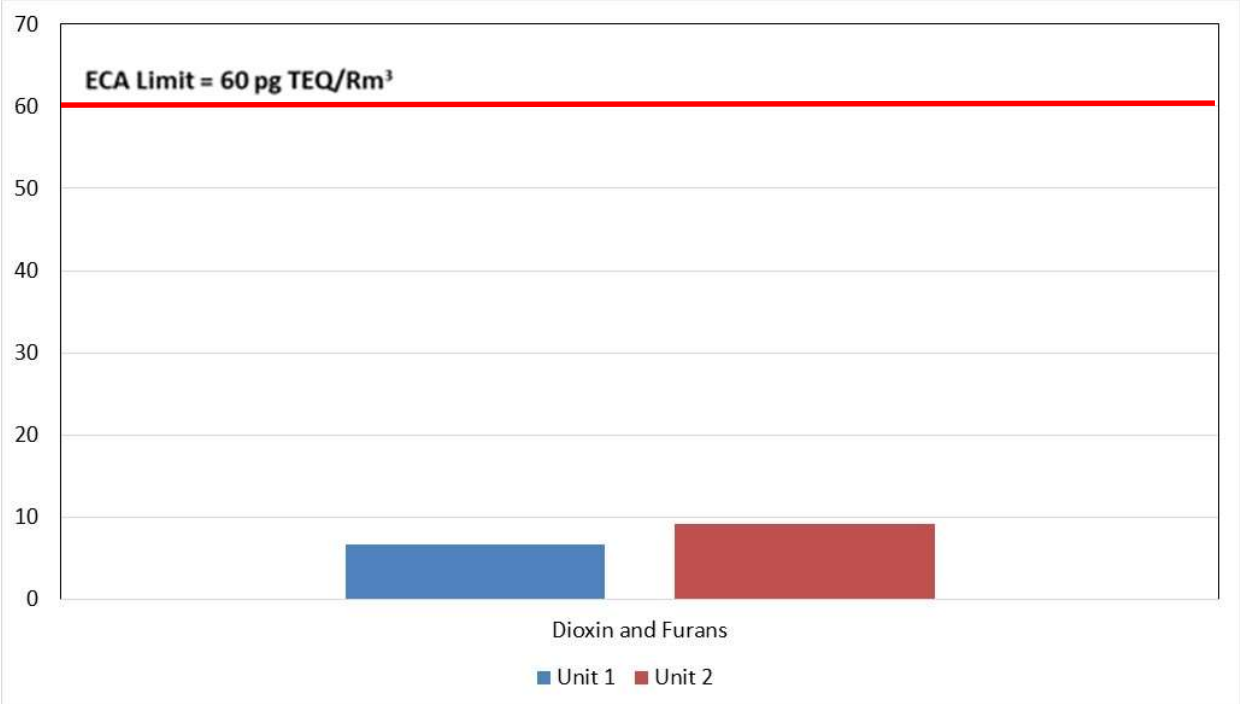


Figure 2 – Test Results for Dioxins and Furans



Conclusions and Recommendations

HDR has completed our review of the preliminary results of the air emissions testing performed during the DYEC Spring 2023 Voluntary Test. Representatives from HDR were present at the DYEC to observe the sampling procedures and facility operations throughout the majority of the testing period that occurred between April 24th through April 27th, 2023. HDR observed ORTECH following the approved stack sampling procedures and test methods. HDR also observed Covanta's plant personnel operating the DYEC under normal operating conditions and in accordance with acceptable industry operating standards. Based on the results summarized in ORTECH's final test report (dated July 25, 2023), the air emission results of the Spring 2023 Voluntary Test demonstrated that the DYEC operated below the ECA's Schedule "C" limits.

Attachments:

Attachment A – Tentative Stack Test Schedule and Summary of Testing Observed by HDR

Attachment B – Summary of Operating Data during Dioxins/Furans Tests

Attachment A: Tentative Stack Test Schedule & Summary of Testing Observed by HDR.

Summary of Testing Observed by HDR.

Day 1: Monday, April 24th

Unit	Test	Run 1		Run 2		Run 3	
		Start	Stop	Start	Stop	Start	Stop
Unit 1	Particulate/Metals	9:56	13:07	14:48	17:56		
Unit 1	Hydrogen Fluoride	9:57	10:57	11:39	12:39	13:42	14:42
Unit 2	PM10, PM2.5 Cond	9:56	11:57	13:05	15:05	16:04	18:04

Day 2: Tuesday, April 25th

Unit	Test	Run 1		Run 2		Run 3	
		Start	Stop	Start	Stop	Start	Stop
Unit 1	Particulate/Metals					15:14	18:21
Unit 1	PM10, PM2.5 Cond	8:06	10:09	10:53	12:56	13:37	15:40
Unit 2	Particulate/Metals*	~~7:55~~	~~11:04~~	12:01	15:09	16:54	20:04
Unit 2	Hydrogen Fluoride	7:56	8:56	10:28	11:28	11:55	12:55

* Particulate/Metals Run 1 Test Discontinued- When removing the filter trap from the probe, the glass filter broke and broken glass pieces ended up on the filter. As a result, the run was discounted and completed on Day 3.

Day 3: Wednesday, April 26th

Unit	Test	Run 1		Run 2		Run 3		Run 4	
		Start	Stop	Start	Stop	Start	Stop	Start	Stop
Unit 1	Dioxins/Furans	8:25	13:09	14:44	18:53				
Unit 2	Dioxins/Furans	8:50	13:13	14:09	18:19				
Unit 1	VOST	8:25	9:05	9:11	9:55	10:00	10:40	10:45	11:25
Unit 2	VOST	8:48	9:28	9:33	10:13	10:19	10:59	11:05	11:45
Unit 1	Aldehydes	11:48	12:48	12:53	13:53	13:58	14:58	-	-
Unit 2	Aldehydes	12:16	13:16	13:54	14:54	14:47	15:57	-	-
Unit 2	Particulate/Metals							8:47	12:48

Day 4: Thursday, April 27th

Unit	Test	Run 1		Run 2		Run 3	
		Start	Stop	Start	Stop	Start	Stop
Unit 1	Dioxins/Furans*					8:06	16:20
Unit 2	Dioxins/Furans					8:06	12:15

*The Unit 1 Run 3 Dioxins/Furans test was paused due to issues with the carbon feed system. The carbon feed system was partially emptied and taken offline for repairs. The issue was resolved, and the test was able to continue.

Attachment B: Summary of Operating Data during the Dioxins/Furans Tests

April 2023 Voluntary Dioxins Testing
Operations Data and Results

	Boiler 1			Boiler 2		
	Run 1	Run 2	Run 3	Run 1	Run 2	Run 3
Operating Parameter	26-Apr	26-Apr	27-Apr	26-Apr	26-Apr	27-Apr
MSW Combusted (tonnes/day)						
Steam (kg/hr)	33,542	33,258	33,497	33,490	33,527	33,481
Steam temp	507	503	507	510	510	510
Primary Air Flow	34,978	35,155	34,976	36,815	36,335	36,826
Overfire Air Flow	8,374	8,724	8,191	7,442	7,610	7,904
Tertiary Air (Fresh LN Air)	9,464	9,287	9,435	9,411	9,385	9,376
Tertiary air temperature °C	29.8	30.3	29.9	24.0	25.4	25.3
Lime Injection (kg/day)	164.9	164.9	164.8	164.7	164.7	164.7
Ammonia Injection Rate (liters/m)	0.5	0.5	0.5	0.4	0.6	0.7
Carbon Injection (kg/hr)	5.3	5.3	5.3	5.2	5.3	5.3
Combustion air preheat temp	101.9	95.3	112.7	106.3	99.9	96.9
Average Combustion Zone Temp °C	1,131	1,119	1,109	1,155	1,142	1,124
Superheater #3 Flue gas inlet Temp °C	538	535	537	544	547	543
Economizer Inlet Temp °C	320	320	319	341	341	341
Economize Outlet Temp °C	167	169	168	167	168	167
Quench Outlet Temp °C	152	152	152	151	150	151
Reactor Outlet (BH Inlet) Temp °C	143	143	144	143	143	143
Baghouse Outlet Temp °C	140	139	140	138	138	138
Tertiary Air Header Pressure mbar	60	60	60	60	60	60
Tertiary Air Left mbar	28	25	27	33	32	32
Tertiary air Right mbar	33	33	33	32	32	32
Baghouse Differential Pressure mbar	20	20	20	16	16	15
Oxygen (%) - Boiler Outlet	8.0	8.2	8.4	8.0	8.0	8.2
Oxygen (%) - Baghouse Outlet	9.0	8.8	8.9	9.3	8.7	9.2
CO -Boiler Outlet - mg/Rm3	11.9	8.1	8.5	16.3	16.2	11.2
CO - Baghouse Outlet - mg/Rm3	7.4	5.2	5.4	15.2	15.2	10.0
NOx - mg/Rm3	108.4	107.5	109.3	108.4	108.6	108.4
NH3 mg/Rm3	12.3	12.3	12.2	14.7	14.0	15.2
Flue gas moisture	20%	19%	19%	21%	21%	22%
Outlet/Stack Dioxin - NATO - (pg TEQ/Rm^3)	3.90	3.62	3.53	2.05	7.79	1.90

[1]Average Unit data for the periods corresponding to the test run times.

Table 1: DYEC Source Test Emission Results 2019-2023

Parameter	Emission limit	Spring 2019 Voluntary		Fall 2019 Compliance		Spring 2020 Voluntary		Fall 2020 Compliance		Spring 2021 Voluntary		Fall 2021 Compliance		Spring 2022 Voluntary		Fall 2022 Compliance		Spring 2023 Voluntary	
		Boiler 1	Boiler 2	Boiler 1	Boiler 2	Boiler 1	Boiler 2	Boiler 1	Boiler 2	Boiler 1	Boiler 2	Boiler 1	Boiler 2	Boiler 1	Boiler 2	Boiler 1	Boiler 2	Boiler 1	Boiler 2
Cadmium	7 µg/Rm^3	0.1	0.08	0.18	0.08	0.056	0.11	0.075	0.056	0.068	0.045	0.064	0.02	0.023	0.39	0.063	0.03	0.12	0.08
Carbon Monoxide	40 mg/Rm^3	13.1	12.2	11.2	12.1	15.2	11.4	11.4	14.1	12.6	12.7	9.7	11.7	10.7	15.3	9.1	9.4	9.0	16.10
Dioxins and Furans	60 pgTEQ/Rm^3	4.55	4.58	1.51	3.24	1.82	2.53	28.7	7.26	4.10	7.35	14.7	2.56	7.28	4.10	3.68	3.91	6.61	9.18
Hydrogen Chloride	9 mg/Rm^3	1.9	4.2	3	5.1	4.5	5.1	3.8	3.2	3.1	2.9	2.2	1.8	1.0	3.6	0.4	3.8	0.8	3.1
Lead	50 µg/Rm^3	0.59	0.46	0.54	0.57	0.55	0.61	0.37	0.34	0.44	0.32	0.46	0.17	0.55	0.28	0.23	0.15	0.28	0.15
Mercury	15 µg/Rm^3	0.35	0.1	0.29	0.1	0.13	0.1	0.34	0.045	0.086	0.081	0.053	0.05	0.089	0.09	0.093	0.09	0.09	0.09
Nitrogen Oxides	121 mg/Rm^3	110	110	111	110	109	109	110	110	109	110	111	110	110	110	112	111	110	110
Organic Matter	50 ppmdv	1.8	0.5	0.8	0.3	0.2	1.7	0.5	1.1	1.0	0.4	0	0	0.7	1.5	0.1	0.3	0.03	0.4
Sulphur Dioxide	35 mg/Rm^3	0.03	0.02	0	0.01	0	0	0.1	0.1	0.3	0.7	0.3	0.2	0.02	0.9	0.5	0.6	0.02	0.13
Total Suspended Particulate Matter	9 mg/Rm^3	0.62	0.38	0.61	0.54	1.14	1.04	2.6	2	0.78	0.25	0.48	0.31	0.87	1.58	0.27	0.2	0.20	0.24

Attachment 5 to Report #2023-INFO-85

Table 2: Comparison Table: 2023 Voluntary Source Test Results Compared to ECA limits and Ontario A-7 Guideline

Parameter	Units	Boiler #1	Boiler #2	DYEC Average	DYEC ECA limit	% of ECA limit	Ontario A-7 Guideline
Nitrogen Oxides	mg/ Rm^3	110	110	110	**121**	90.9%	198
Total Suspended Particulate Matter	mg/ Rm^3	0.20	0.24	0.2	**9**	2.4%	14
Sulphur Dioxide	mg/ Rm^3	0.02	0.13	0.1	**35**	0.2%	56
Hydrogen Chloride	mg/ Rm^3	0.80	3.10	2.0	**9**	21.7%	27
Carbon Monoxide	mg/ Rm^3	9.0	16.10	12.6	**40**	31.4%	40
Mercury	µg/Rm^3	0.09	0.09	0.1	**15**	0.6%	20
Cadmium	µg/Rm^3	0.12	0.08	0.1	**7**	1.4%	7
Lead	µg/Rm^3	0.28	0.15	0.2	**50**	0.4%	60
Dioxin/Furans	pg TEQ/Rm^3	6.61	9.18	7.9	**60**	13.2%	80

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 6263

The Regional Municipality of Durham
Information Report

From:	Chief Administrative Officer
Report:	#2023-INFO-86
Date:	October 6, 2023

Subject:

Provincial energy sector activities and reports toward a long-term energy planning framework and Ontario's Plan for a Clean Energy Future

Recommendation:

Receive for information.

Report:

1. Purpose

1.1 To provide a summary of provincial energy sector activities and reports toward a long-term energy planning framework including Regional impacts associated with Ontario's Plan for a Clean Energy Future.

2. Background

2.1 Ontario's current long-term energy planning framework is set out under the *Electricity Act*, 1998. It includes requirements for the ministry to publish provincial long-term energy plans with specified objectives and sets procedural roles for the government, the IESO and the Ontario Energy Board (OEB). The Act also provides the Ministry of Energy with the ability to issue implementation directives to the IESO and the OEB to take steps to implement components of such plans.

2.2 On August 10, 2023, the federal government released draft net zero electricity regulations which call for a net zero power grid nationally by 2035. These regulations, once enacted, will help direct provincial electricity system planning in favour of decarbonized sources including nuclear, renewables, and fossil fuel power plants with carbon capture and storage.

3. Previous Reports and Decisions

3.1 The following Regional staff reports relating to Ontario's long-term energy planning framework and related initiatives have been approved by Regional Council:

a. Report #2021-COW-7, Regional Submission to the Review of Ontario's Long-Term Energy Planning Framework (ERO #019-3007)
b. Report #2016-COW-98, Regional Response to Planning Ontario's Energy Future (EBR # 012-8840);
c. Report #2015-J-21, Update on Energy Planning and Energy Sector Initiatives in Durham Region;
d. Report #2013-J-23, Update on Provincial Energy Planning Consultations, Regional Staff Participation and Opportunity for Regional Council Input to the Reviews of Ontario's Long-Term Energy Plan (EBR #011-9490) and Conservation and Demand Management Framework (EBR #011-9614).

4. Summary of Provincial Actions Toward a New Long-Term Energy Planning Framework

4.1 In 2020, Ontario removed the timing requirements for releasing the next long-term energy plan by revoking Ontario Regulation 355/17.

4.2 In 2021, Durham Region participated in information sessions which were part of the Ministry of Energy, Northern Development and Mines' (ENDM, now under Ministry of Energy) review of Ontario's long-term energy planning framework to implement a new, more transparent, predictable and reliable planning process. Several key themes were identified through the Ministry's consultation:

a. The need for clear, high-level government policy direction;
b. The importance of integrated, coordinated planning across energy sectors, especially between electricity and natural gas networks;
c. A focus on expert and independent, agency-led planning;
d. The importance of independent planning oversight, including an emphasis on the role of the OEB as an independent regulator; and
e. The need for enhanced stakeholder and public participation.

4.3 In response to this process, the Ministry:

a. Commissioned the IESO to undertake the Natural Gas Phase-Out Study (October 2021) to explore the impacts on power system cost and reliability in removing carbon emissions from the system in Ontario and the Pathways to Decarbonization (P2D) Report (December 2022) to outline an achievable way to decarbonize the electricity system (summaries provided below).
b. Established an Electrification and Energy Transition Panel to provide expertise and advice to the Minister on:

- How to improve long-term energy planning (e.g., electricity and fuels sectors);
- Improvements to governance (e.g., changes to mandates, regulatory frameworks and performance metrics);
- Reducing barriers to emerging technologies (e.g., low-carbon fuels, distributed energy resources and hybrid-heating solutions);
- Balancing environmental considerations and affordability; and
- Identifying opportunities to advance economic development (e.g., participation in green global supply chains, cross-sector collaboration in energy-intensive sectors).

c. Commissioned a Cost-Effective Energy Pathways Study to assess energy needs across all sectors. The Panel's report is expected to be presented to the Minister in late 2023.

d. Directed the OEB to consult and report back on options to modernize Ontario's regulatory framework to support the energy transition cost-effectively; implement clear guidance to LDCs to enable them to upgrade their distribution systems in preparation for electric vehicle and increased distributed energy resources (DER) adoption; and to report back on distribution sector resiliency, responsiveness, and cost efficiency.

5. IESO's Natural Gas Phase-Out Study Summary

5.1 More than 30 Ontario municipal councils, including the Town of Ajax, endorsed a resolution calling for either the reduction of gas-fired emissions or their complete elimination by 2030. This study is a high-level assessment of the impacts on cost and reliability if carbon emissions were removed from the system.

5.2 The study concludes that decarbonization of the electricity system by 2030 was not technically or economically feasible. Newer forms of supply, such as energy storage, are not ready to operate at the scale that would be needed to compensate for the loss of natural gas generation capacity; nor is there enough time or resources to build the necessary generation and transmission infrastructure to replace natural gas generation within an eight-year timeframe. The effect of removing gas by 2030 would add $100 to the monthly electricity bill of average homeowners, which represents a 60 per cent increase. The report indicates that even with the most optimistic assumptions, without natural gas generation (assuming phased-out by 2030), Ontario's electricity system would see frequent and sustained blackouts to manage energy shortfalls.

6. IESO's Pathways to Decarbonization (P2D) Report Summary

6.1 Two scenarios, namely, a moratorium on new natural gas generation facilities, and a pathway to a decarbonized grid, are presented in the report analyzing potential opportunities and challenges as electricity demand grows and Ontario's resource mix evolves. These assessments are not power system plans but provide insights into potential opportunities and challenges that Ontario faces in addressing future electricity system planning.

6.2 Moratorium on Natural Gas Generation

a. According to the report, a moratorium on new natural gas generation facilities is feasible beginning in 2027 provided that other forms of non-emitting supply can be added to the system in time to keep pace with demand growth.
b. Up to 1,500 megawatts (MW) of new natural gas generating capacity will be needed to meet demand in the mid-2020s.
c. By 2035, once the current nuclear refurbishments are complete and new non-emitting supply enters the system, the system could be less reliant on natural gas generation. Some natural gas generation will still be required post-2035 to address local needs (particularly in the Greater Toronto Area) and to provide the services necessary to reliably operate the broader system.

6.3 A Pathway to Decarbonization

a. This study suggests that attaining a decarbonized electricity sector by 2050 would require aggressive electrification and to more than double the size of the electricity system from 42,000 MW today to 88,000 MW in 2050.
b. This scenario includes a significant increase in transmission capability and contributions from new nuclear, conservation, demand response, renewables and storage including emerging low-carbon generation such as hydrogen and renewable natural gas (RNG).
c. In all, the bulk system expansion needed to enable decarbonization in this scenario would require an investment in the range of $375 to $425 billion.

6.4 The Pathway to Decarbonization Report identified several “no regret” actions that could be taken to help meet growing demand, address retirements of existing generation resources, and ensure a state of readiness to manage any future decarbonization policy:

a. Accelerating current efforts to acquire new non-emitting supply and incentivize energy efficiency, including the implementation of recent conservation and demand management (CDM) directives.
b. Beginning the planning, siting and environmental assessment work needed for new nuclear, long-duration storage and hydroelectric facilities, as well as transmission infrastructure, to allow for faster implementation.
c. Investing in emerging technologies like low-carbon fuels. Further work is needed to determine if they can replace at scale some of the flexibility that natural gas currently provides the system.
d. Galvanizing collaboration amongst stakeholders and Indigenous communities.
e. Ensuring that regulatory, approval and permitting processes are ready to manage future investment at scale.
f. Establishing an open, transparent and traceable process to measure progress and demonstrate the results of decisions and actions taken along the way.

7. Powering Ontario's Growth, Ontario's Plan for a Clean Energy Future Summary

7.1 Ontario's Plan for a Clean Energy Future (July 2023) follows the IESO's Pathways to Decarbonization (P2D) Report and registry consultation. It likewise identifies ten "no regret actions" to meet energy demand through 2050. The actions are listed below along with related press releases, notices and directives:

"No-Regret Action"	Related press releases, notices and directives
New Nuclear at Bruce: Starting pre-development work to site the first large-scale nuclear build since 1993 at the Bruce nuclear site.	The province announced that it is starting pre-development work to site a large-scale nuclear build of up to 4,800 MW at the Bruce nuclear site.
New Nuclear at Darlington: Moving ahead with three additional small modular reactors (SMRs)at the Darlington nuclear site.	The province announced that it will be constructing three additional SMRs (four total) producing 1,200 MW at the Darlington nuclear site, pending regulatory approval.
Building New Transmission: Three new transmission lines to power the conversion from coal to power the Electric Arc Furnaces at Algoma Steel as well as growth in Northeastern Ontario. One new transmission line to power growth in the Ottawa region and across eastern Ontario.	The province launched a consultation to propose an Order-in-Council to make three new transmission lines provincial priorities including a new transmission line between Peterborough and Durham Region by 2029 (either the Cherrywood TS in Pickering or Clarington TS in Oshawa). A fourth new transmission line, the Wawa to Porcupine Line, was recommended by the IESO. The ministry is not currently proposing to prioritize or designate a specific transmitter for this line.
Pumped Hydroelectric Storage: Advancing the Ontario Pumped Storage Project and Marmora Pumped Storage Project to Ontario's first Long-Duration Storage Assessment.	The Minister issued a directive to the IESO to conduct a cost-benefit analysis for the Ontario Pumped Storage Project (TC Energy and Saugeen Ojibway Nation), the Marmora Pumped Storage Project (OPG and Northland Power), and to assess future long-duration storage projects and make a recommendation on whether the Unsolicited Proposals Process is still necessary.

“No-Regret Action”	**Related press releases, notices and directives**
Hydroelectric Power: Optimizing Ontario Power Generation’s hydroelectric fleet to increase generation	In 2022, the province requested that OPG examine opportunities for new hydroelectric development in northern Ontario. The Ministry of Energy asked the IESO to continue engaging with stakeholders on a program to re-contract the province’s small hydroelectric facilities.
Energy Efficiency: Planning for the future of energy efficiency programs in Ontario	In May 2023, the province launched new and expanded Save on Energy programs: Peak Perks residential incentives, greenhouse retrofit incentives, and revised retrofit incentives for businesses and specific regions experiencing grid congestion. The Ministry of Energy began engagement in July 2023 on scoping future energy efficiency and conservation frameworks to replace the current Conservation Demand Management (CDM) Framework.
Next Competitive Electricity Procurement: Starting planning for Ontario’s next competitive electricity procurement focused on new clean resources including wind, solar, hydroelectric, batteries and biogas.	The Minister issued a directive to the IESO to assess the role of new non-emitting electricity resources including wind, solar, hydroelectric, storage and bioenergy and to assess the implications of a requirement in such procurement initiatives that all new electricity generation and storage resources procured would be required to obtain supportive municipal council resolutions before construction as well as a restriction on prime agricultural land. The province announced a trade agreement with Quebec to optimize existing capacity in both provinces.
Integrated Energy Planning: Advancing foundational work toward Ontario’s first long-term integrated energy plan through the Electrification and Energy Transition Panel.	Ontario’s long-term energy plan remains under development. The Electrification and Energy Transition Panel report is expected to serve as the basis for the plan.
Keeping Costs Down: Ontario is cementing its commitment to maintain an	In the report, the province indicates that hydroelectricity and nuclear currently provide the lowest-cost power to Ontario’s grid. While low-carbon fuels and distributed energy resources are

"No-Regret Action"	Related press releases, notices and directives
affordable electricity system to support electrification across our economy.	highlighted as opportunities, the plan frames these as higher-cost options.

8. Regional Impacts

8.1 The environmental, public health and economic costs of climate change are borne by local communities. Durham Region has declared a climate emergency and set greenhouse gas (GHG) emission reduction targets which reflect a strong desire to decarbonize across corporate operations and the community at large.

8.2 The Powering Ontario's Growth report sets no carbon reduction requirements or timelines. Municipal decarbonization strategies depend largely on the investments and initiatives taken by the IESO. With the recently released draft federal Clean Electricity Regulations (CER) to support a net-zero electricity grid by 2035, Ontario's report creates significant uncertainty for the Region in terms of our ability to meet our corporate and community-wide GHG emissions targets by our specified timelines. As the province has noted, it will rely on natural gas generation to maintain system reliability until nuclear refurbishments have concluded and new non-emitting technologies (including large-scale storage) mature and can demonstrate their capability, this may come into conflict with the ambitions of the draft federal Clean Electricity Regulations.

8.3 The Plan remains highly focused on the electricity sector and does not consider the potential of integrated energy systems to support the goals of affordability, resilience and sustainability. As a result, the province is focused on large-scale centralized energy generation including nuclear and hydro. Successful local decarbonization strategies, such as district thermal energy, behind-the-meter renewables (e.g., rooftop solar), microgrids and active transportation can moderate growth in grid-drawn electricity consumption and spark local economic development and energy system resilience. The Region will continue to champion local-level solutions to complement provincial investments.

8.4 The expansion of nuclear generation is recognized as a vital step on the path to achieving a net-zero carbon economy. As a premier centre of nuclear industry, academic research and innovation, Durham Region is positioned to be Canada's centre of excellence for nuclear generation and supply chain, research and development, and deployment of innovative nuclear technology, nuclear waste minimization and fuel recycling. Ontario's plan includes:

a. Potential Refurbishment at Pickering Nuclear Generating Station

- The provincial government is supporting OPG's plan to continue the safe operation of the Pickering Nuclear Generating Station. In June 2023, OPG submitted their official application to the Canadian Nuclear Safety

Commission (CNSC) to amend the power reactor operating license to operate Pickering B through September 2026. Operating Pickering B (Units 5 through 8) beyond 2026 would require a refurbishment. The Ontario government has asked OPG to update its feasibility assessment for refurbishing Pickering B units, which the province expects to receive later this year. If feasible, Pickering B refurbishment could provide more than 2,000 MW of electricity for at least another thirty years. OPG is expected to complete its feasibility assessment and report on the results to the Ministry later this year. Pickering A (Units 1 and 4) is expected to reach the end of life in 2024 and cease operations.

b. Additional Small Modular Reactor (SMR) Units at Darlington

- The Darlington New Nuclear Project is the first grid-scale SMR project in North America. Building four BWRX-300 SMRs at Darlington would provide a total of 1,200 MW of electricity generation capacity, providing enough electricity to power about 1.2 million homes. Moving to a "fleet approach" for SMRs in Ontario (i.e., building multiple units of the same technology) will allow for shared infrastructure (e.g., cooling water intake) and the application of learnings from construction to subsequent units to reduce costs. Construction of the first unit is scheduled to be completed by 2028.

c. The Minister also issued a directive to the IESO to work with OPG and Bruce Power to develop a feasibility study and business case for potential future nuclear generation facilities in Ontario by December 2024.

9. Relationship to Strategic Plan

9.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:

a. Goal 1: Environmental sustainability – Objective 1.1, Accelerate the adoption of green technologies and clean energy solutions through strategic partnerships and investment.
b. Goal 1: Environmental sustainability – Objective 1.4, Demonstrate leadership in sustainability and addressing climate change.

9.2 This report also aligns with the Region's declaration of a climate emergency on January 29, 2020, the Durham Community Energy Plan (DCEP), the Corporate Climate Change Action Plan, and Corporate Energy Conservation and Demand Management Plan.

10. Conclusion

10.1 The Electrification and Energy Transition Panel report is expected to be presented to the Minister in late 2023. Ontario's updated long-term energy plan(s) is expected to follow. After releasing the updated plan(s), the Minister may issue additional directives to the IESO and the OEB. The agencies submit their implementation

plans to the Minister for approval within the timeframe specified by the directive. Once implementation plans are approved by the Minister, the IESO and the OEB move forward with their initiatives as outlined in the implementation plans.

10.2 Regional staff continue to work towards decarbonizing Regional operations and our communities through efforts to support the development and deployment of decentralized systems as well as continued advocacy towards the establishment of additional renewable and low carbon generation capacity.

10.3 Regional staff will continue to monitor for changes to Ontario's long-term energy planning framework and report to Council as required.

Prepared by: Caitlin Rochon, Manager, Corporate Initiatives, at 905-668-7711 extension 6263 with input from the CAO's Office, Planning and Economic Development, Finance and Works Departments.

Approved by: Sandra Austin, Executive Director, Strategic Initiatives at 905-668-7711 extension 2449.

Respectfully submitted,

"original signed by"

Elaine C. Baxter-Trahair
Chief Administrative Officer

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 2564

The Regional Municipality of Durham
Information Report

From:	Commissioner of Planning and Economic Development
Report:	#2023-INFO-87
Date:	October 6, 2023

Subject:

Durham Agricultural Advisory Committee 2023 Farm Tour, File: A01-38-02

Recommendation:

Receive for Information

Report:

1. Purpose

1.1 The purpose of this report is to provide a summary of the 21st annual Durham Agricultural Advisory Committee (DAAC) Farm Tour event which was held at Carncroft Farms and Swain Beef in Blackstock, Scugog on September 21, 2023.

2. Background

2.1 Since its inaugural tour in 2003, DAAC has showcased more than 40 farms and other agricultural facilities across Durham Region to more than 1,600 participants.

3. Event Overview

3.1 Over 100 participants representing municipal and provincial governments, public agencies including conservation authorities, school boards, post-secondary institutions; municipal advisory and economic development committees, the financial and insurance industry, the agricultural community and media attended the event. The tour highlighted the importance of Durham's agricultural sector, Durham's agricultural heritage as well as some of the issues and challenges faced by the industry.

3.2 The theme for this year's tour was "Livestock Farming in Durham Region". A variety of topics were covered including:

- Raising livestock;
- Growing crops for animal feed;
- The challenges and opportunities of operating a farm;
- The importance of family farms; and
- Best management practices.

3.3 At the event, there were several displays for attendees to gain information from, staffed by several organizations, including:

- Durham Farm Fresh;
- Ontario Soil and Crop;
- Durham East 4-H;
- Kawartha Conservation Authority;
- Durham Farm Connections;
- Invest Durham;
- Durham Region Federation of Agriculture;
- Ontario Ministry of Agriculture, Food, and Rural Affairs;
- Durham College Galen Weston Centre for Food and Barrett Centre;
- District 7 Sheep Producers;
- Durham Workforce Authority;
- Meat and Poultry Ontario; and
- Greenbelt Foundation.

3.4 Prior to lunch, the DAAC Chair, Zac Cahoon welcomed attendees to the event, presented history on the Committee and introduced the host farm family. Mr. Cahoon spoke about:

- The importance of the agricultural industry;
- Farmers being the foundation of the Region;
- The opportunities and challenges facing agriculture in Durham Region

3.5 Regional Chair and CEO John Henry then spoke about:

- The important contributions of farming and agriculture in Durham;
- Opportunities for agriculture in Durham Region;
- Progressive and innovative farms in the Region who contribute to their local communities and the economy.

3.6 Franco Naccarato, Executive Director of Meat and Poultry Ontario provided the keynote address.

3.7 Participants attended presentation stations highlighting the following topics:

a. **Carncroft Farms:** Jenny and Luke Carnaghan and their children took participants through the lamb barn and crop storage area and described:

- The history of their family farm;
- How their farm operates on a daily basis;
- The economics of the livestock industry in Durham;
- How lambs are fed and cared for;
- The technology related to farming;
- The processing and selling of lambs;
- How the feed is grown on the farm; and
- The nutritional requirements of lambs and how they change over time;

b. **Swain Beef**: Nicole and Scott Swain and their children, took participants to the field and through their cattle yards to discuss:

- The history of the family farm;
- Crops grown on the farm, including corn, soybeans, wheat, alfalfa and cover crops;
- General farm operations and how their cattle are raised and cared for;
- Environmental stewardship and management practices;
- Mutually beneficial business relationships with farming neighbours;
- Equipment used to run the farming operation; and
- Roles of the family members and employees on the farm.

4. Event Feedback

4.1 Each year, participants are asked to complete a survey that is used by DAAC to evaluate the success of the tour and to help plan for future events. This year, an electronic survey was distributed following to attendees along with paper surveys available at the tour. From the responses received, almost all agreed that the tour met or exceeded their expectations. Some general comments were:

- It was beyond my expectations! The venue was well organized, the food was exceptional, the hosts were very welcoming;

- The setting, the small touches, the food, the tractor ride, the information, the speaker, all of it! spectacular;
- It was well organized and the information presented invaluable and insightful; and
- It actually exceeded expectations. I appreciate how the entire family was involved, generations, youth, husband and wife teams.

4.2 Participants were asked what the “Take Home” message was for them. Responses included:

- Farms are the heart of the community and should be celebrated and supported;
- We cannot undervalue the importance of agriculture as an economic driver;
- There is a need for increased focus and appreciation of the agri-food industry. They are the stewards of the land and the suppliers of food for the world; and
- You can't learn and appreciate the farming and agriculture industry by reading about it. Being immersed for a day into the pride and joy of these amazing farmers extends an entirely new appreciation for the industry.

5. Previous Reports and Decisions

5.1 In June 2023 Council considered DAAC’s 2023 Workplan through Commissioner’s Report #2023-P-16. The Farm Tour is a major component of the DAAC Workplan.

5.2 In October 2022 #2022-INFO-83 was released, summarizing the 2022 DAAC Farm Tour.

6. Relationship to the Strategic Plan

6.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:

a. Environmental Sustainability - Protect, preserve and restore the natural environment, including greenspaces, waterways, parks, trails, and farmlands.
b. Economic Prosperity - Provide a supportive environment for agriculture and agri-food industries.

7. Conclusion

7.1 DAAC is once again commended for its continued efforts in advancing the knowledge of the agricultural industry in Durham. The annual farm tour continues to be a valuable element of the Council approved work plan for the Committee.

7.2 A copy of this report will be forwarded to the Area Municipalities, the Durham Federation of Agriculture, Durham Farm Fresh, the Golden Horseshoe Food and Farming Alliance and DAAC.

Respectfully submitted,

Original signed by

Brian Bridgeman, MCIP, RPP, PLE
Commissioner of Planning and
Economic Development

Memorandum

Date: October 6, 2023

To: Regional Chair Henry and Members of Regional Council

From: Ramesh Jagannathan, M.B.A, P.Eng.
Acting Commissioner of Works

Copy: Elaine Baxter-Trahair, Chief Administrative Officer
Andrew Evans, M.A.Sc., P.Eng., Director, Waste Management Services

Subject: Durham York Energy Centre
Quarterly (Q2 - 2023) Long-Term Sampling System Report

The attached report for the second quarter (Q2) of 2023 provides details with respect to data related to the Long-Term Sampling System (LTSS) at the Durham York Energy Centre (DYEC), referred to as the AMESA system.

This report includes AMESA data collected from April 13, 2023, to July 17, 2023, and is structured as follows:

1. Sections 1 and 2 provide background,
2. Sections 3 to 8 provide specific quarterly AMESA data,
3. Section 9 provides ambient air data for the same period, and
4. Section 10 provides responses to inquiries received during the quarter.

End of Memo

Attachment: DYEC LTSS Quarterly (Q2 - 2023) Report
(April 13 to July 17, 2023)

The Regional Municipality of Durham
Works Department

Durham York Energy Centre

Long-Term Sampling System

Quarterly (Q2) Report

April 2023 to July 2023

Prepared by

The Regional Municipality of Durham

Table of Contents

1. Introduction

This report provides additional details with respect to the reporting of operational data related to the AMESA Long-Term Sampling System (LTSS) for Dioxin and Furans at the Durham York Energy Centre (DYEC).

This report covers the second quarter (Q2) of 2023 and includes AMESA data collected from April 13, 2023 to July 17, 2023.

2. Background

To meet the requirements of Environmental Compliance Approval (ECA) Condition 7(3), a continuous sampling system (the Adsorption Method for Sampling Dioxins and Furans (AMESA) LTSS), is installed on each of the two boiler units at the DYEC to sample Dioxins and Furans.

The operation of the AMESA system was initiated in 2015 and has been maintained in accordance with current guidance from the AMESA manufacturer, the North American vendor ENVEA, and the AMESA Technical Manual.

The AMESA system is used only for the purpose stated in ECA Condition 7(3), which relates to Dioxins and Furans emissions trend analysis and evaluation of Air Pollution Control equipment performance. The AMESA results themselves do not constitute a compliance point for the facility operations.

ECA Condition 7(3), Testing, Monitoring and Auditing Long-Term Sampling for Dioxins and Furans, states:

a) The Owner shall develop, install, maintain, and update as necessary a long-term sampling system, with a minimum monthly sampling frequency, to measure the concentration of Dioxins and Furans in the Undiluted Gases leaving the Air Pollution Control (APC) Equipment associated with each Boiler.

b) The Owner shall evaluate the performance of the long-term sampling system in determining Dioxins and Furans emission trends and/or fluctuations as well as demonstrating the ongoing performance of the APC Equipment associated with the Boilers.

AMESA results are available at the site when requested by the Ministry of Environment, Conservation and Parks (MECP) and reported to the MECP as part of the Annual Report required by ECA Approval Condition 15 and posted to the DYEC website.

As the results of the LTSS AMESA sampling are reported annually as a 12-month rolling average to the MECP and contained in the Annual Report. Council provided direction in 2021 to provide more frequent updates. Quarterly reports containing validated, calculated results for each AMESA sampling run for both boiler units are prepared for Council and subsequently posted to the website.

3. Cartridge Replacement Schedule

The AMESA sampling cartridge duration is approximately 30 days before it is removed and sent to the laboratory for analysis. As each boiler unit is independent, the duration may differ due such things as alternating maintenance activities.

Table 1: AMESA Cartridge Replacement Schedule

Unit #	Run #	Start Date	End Date	Duration
1	83	13-Apr-23	9-May-23	27
2	83	13-Apr-23	10-May-23	24
1	84	10-May-23	14-Jun-23	27
2	84	10-May-23	14-Jun-23	21
1	85	14-Jun-23	17-Jul-23	30
2	85	14-Jun-23	17-Jul-23	31

Note 1:The cartridge duration times may differ even though the start and end dates are the same for both boiler units.

4. Laboratory Analysis

There were no issues identified with the AMESA sample cartridges or the analysis at the laboratory; however, the laboratory continues to experience delays in analysis and reporting.

5. Durham and York Regions and Covanta Monthly Data and Operations Review

Regional staff meet with Covanta both weekly and monthly on an established schedule to discuss facility operations, and to review environmental monitoring results, trends and calculations where required for all monitoring programs, and the available AMESA results.

6. Oversight of AMESA Results

The Regional Municipality of Durham and the Regional Municipality of York Region staff and Covanta meet with the MECP on a quarterly basis to discuss all items pertinent to the ECA and the Environmental Monitoring Programs and facility operations. Any concerns which are not determined to be reportable incidents in accordance with the ECA are discussed along with day-to-day operations and monitoring.

Any events which the ECA deems reportable are done in accordance with the appropriate ECA condition.

Results of the AMESA LTSS are reported to the MECP in the DYEC Annual Reports and posted to the DYEC website. AMESA trends of validated data are presented as a 12-month rolling average together with an analysis to demonstrate the ongoing performance of the APC Equipment. The MECP had no concerns with the AMESA results detailed in the 2021 Annual Report as posted via this link: MECP Review of the DYEC 2021 Annual Report. The 2022 Annual Report has been posted to the website.

7. AMESA Performance

The measured concentrations for each of the 17 dioxin and furan congeners identified in the laboratory certificate of analysis are applied to established calculations to obtain a Calculated Result. These calculations quantify the Dioxins and Furans per cubic metre of gas at reference conditions. Additionally, standard temperature, pressure and oxygen correction factors are also applied to the measured concentration to obtain a value for regulatory comparison. Finally, each of the 17 dioxin and furan congeners are multiplied by their respective toxic equivalency factor (TEF) and added together to obtain a total dioxin and furan total toxic equivalence (TEQ). The ECA for the DYEC specifies the use of the NATO classification scheme for Dioxins and Furans and therefore the NATO TEF factors are applied to obtain the TEQ calculation. The Table below shows each of the AMESA sampling Runs, the start and end time the cartridge was in-situ for each boiler unit, and the calculated result.

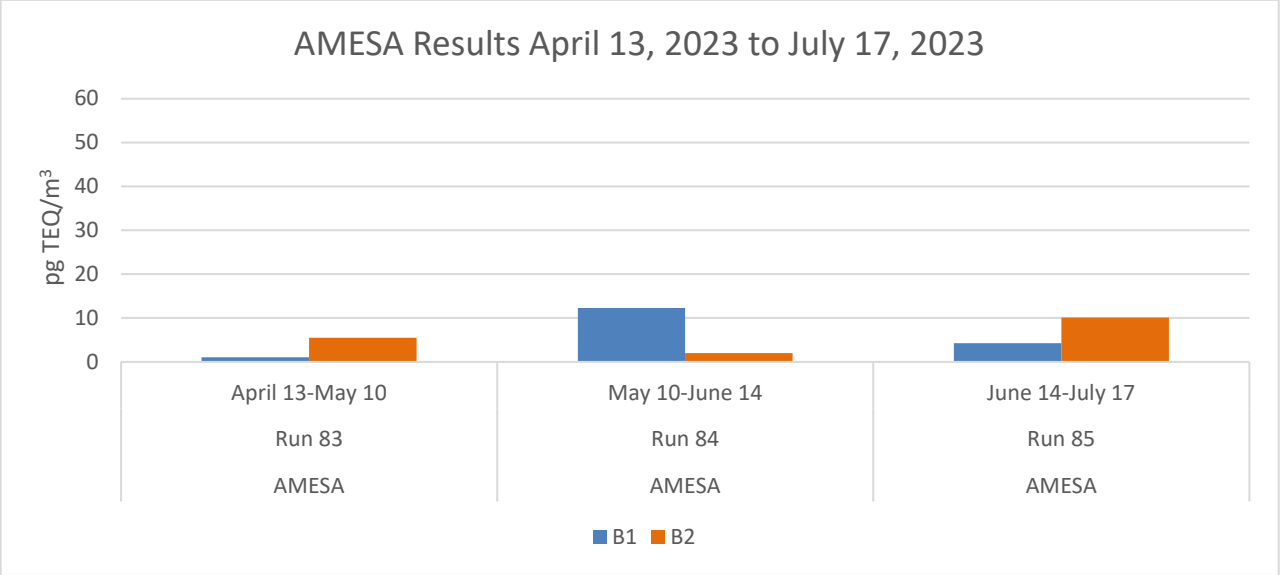
Table 2: AMESA Calculated Results

Unit #	Run #	Start Date	End Date	Calculated Result (pg TEQ/Rm^3)
1	83	13-Apr-23	9-May-23	1.092
2	83	13-Apr-23	10-May-23	5.542

Unit #	Run #	Start Date	End Date	Calculated Result (pg TEQ/Rm^3)
1	84	10-May-23	14-Jun-23	12.326
2	84	10-May-23	14-Jun-23	2.028
1	85	14-Jun-23	17-Jul-23	4.239
2	85	14-Jun-23	17-Jul-23	10.138

While AMESA has no regulatory limit associated for compliance as it is used to supplement source testing, the ECA directs that, "The Owner shall evaluate the performance of the long-term sampling system in determining Dioxins and Furans emission trends and/or fluctuations as well as demonstrating the ongoing performance of the APC Equipment associated with the Boilers." The Regions, their Engineering and Air Emissions oversight consultants and Covanta will continue to monitor DYEC performance as it relates to AMESA results and trends. The Table below displays the results of the AMESA sampling runs conducted in the second quarter (Q2) of 2023.

Figure 1: AMESA Results April 13, 2023 – July 17, 2023



7.1 Investigation

There were no results which triggered the AMESA Investigation Checklist during the second quarter (Q2) of 2023.

7.2 Corrective Action

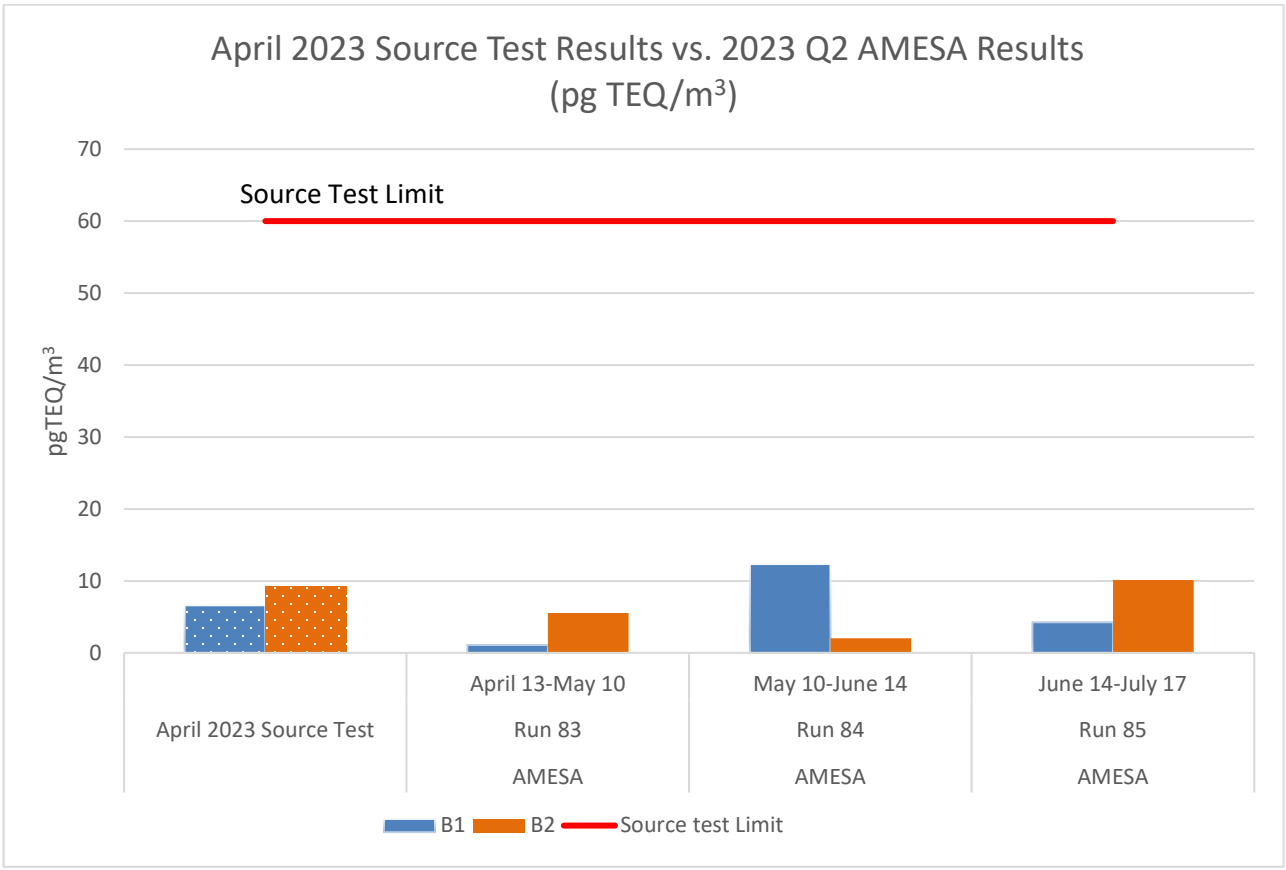
There were no investigations undertaken which required corrective action during the second quarter (Q2) of 2023.

8. AMESA relative to most current Source Testing Dioxin and Furan Results

AMESA is not used to assess compliance and should not be evaluated against Ministry standards, such as the Dioxin and Furan Source testing limit. The testing methodology for AMESA and Source testing sampling and analysis are different and are set out within their prescribed sampling method and manufacturer guidelines.

The AMESA results are presented in Figure 2 to show how the Q2 calculated values compare to the most current source testing results. The source test compliance limit for Dioxins and Furans is 60 pgTEQ/m3. The chart below shows the AMESA Q2, 2023 results as compared to the 2023 April source test results. Results from the April source test also indicated the Dioxins and Furans result is below the regulatory compliance limit.

Figure 2: April 2023 Source Test Results vs. 2023 Q2 AMESA Results (pg TEQ/m^3)



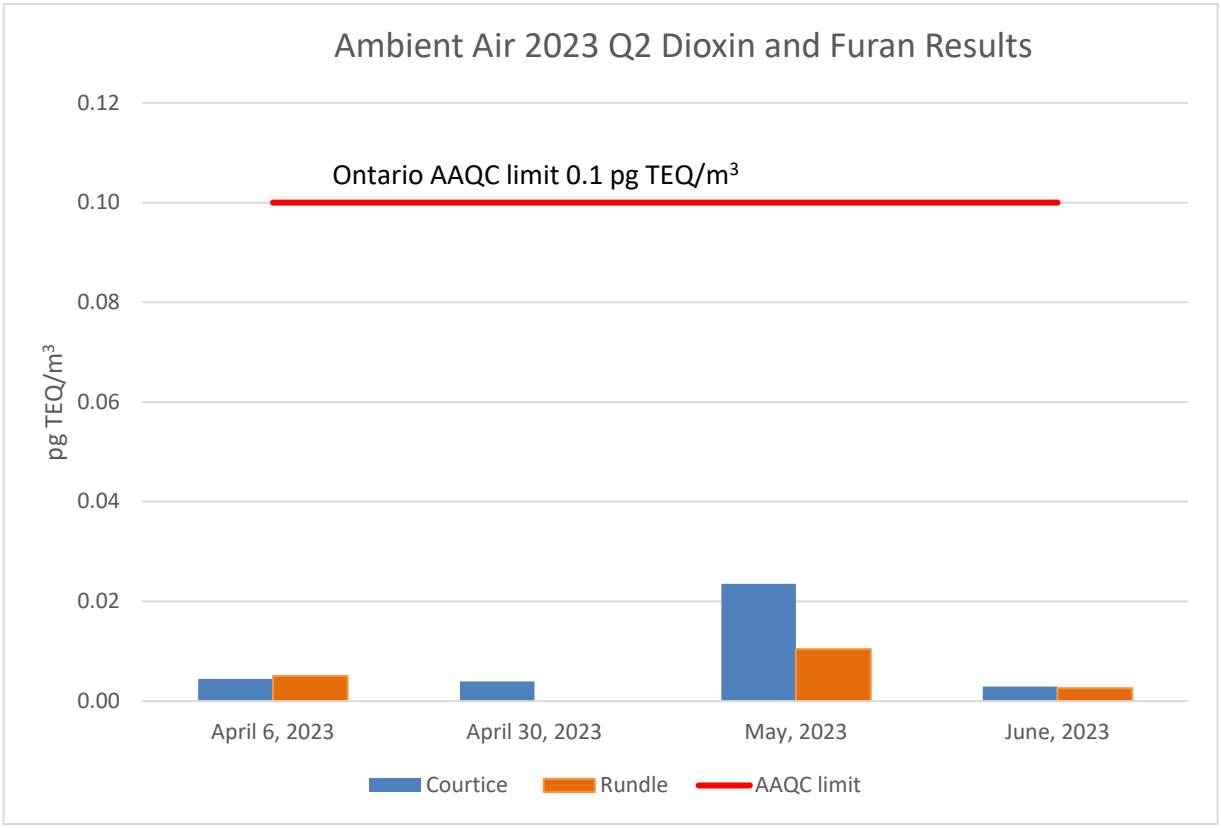
9. Ambient Air Dioxin and Furan Results – Second Quarter (Q2) 2023

The Ambient Air Monitoring Program samples for dioxins and furans. The sampling methodology, units of measurement and the reporting limits are prescribed differently and cannot be compared directly to the source testing or AMESA results. The Ambient Air monitoring program does not measure point source emissions, but it does provide an indication of local air quality. The monitoring equipment samples air, which captures ambient air emissions from a variety of emissions sources in the area. The results of ambient air monitoring assist in informing on local air quality and may suggest contributing factors based on meteorological conditions such as wind speed and direction.

As can be seen in the graph below, the dioxin and furan results measured from both ambient air stations monitored as part of the DYEC ambient air monitoring program are below the Ontario Ambient Air Quality Criteria of 0.1 picogram Toxic Equivalency per cubic metre (pgTEQ/m^3) during the second quarter (Q2) of 2023.

Of additional note, the Ontario Ambient Air Quality Criteria is 10 times lower than the Ontario Regulation 419 Upper Risk Threshold of 1 pgTEQ/m^3 for dioxins and furans.

Figure 3: Ambient Air 2023 Q2 Dioxin and Furan Results



10. Durham York Energy Centre Inquiries

There are no outstanding inquires related to the AMESA Long-Term Sampling System (LTSS) for Dioxin and Furans at the Durham York Energy Centre (DYEC).

End of Report

OFFICE OF THE MAYOR
CITY OF HAMILTON

VIA: Mail

The Right Honourable Justin Trudeau, P.C., M.P.
Prime Minister of Canada
Office of the Prime Minister
80 Wellington Street
Ottawa, ON
K1A 0A2

The Hon. Doug Ford
Premier of Ontario
Office of the Premier
Queen's Park, Legislative Building,
Toronto, ON M7A 1A1

September 19, 2023

Dear Prime Minister and Premier,

At the City of Hamilton Council meeting of September 13, the following motion was approved:

7.2 Municipal Resolution in Support of Basic Income for the City of Hamilton

WHEREAS, The City of Hamilton recognizes the social and economic challenges faced by its residents that have a detrimental impact on the determinants of health including income inequality, poverty, inadequate housing and precarious employment;

WHEREAS, it is the responsibility of the City of Hamilton to strive for the well-being and prosperity of all its residents, which includes ensuring access to basic needs and opportunities to improve health;
WHEREAS, through addressing poverty and improving access to healthcare, a Guaranteed Livable Basic Income can potentially reduce healthcare costs enabling people to afford preventive care and timely treatments while preventing more costly healthcare interventions, leading to better overall population health,

WHEREAS, a Basic Income program was tested in Hamilton during the Ontario Basic Income Pilot project between 2017 and 2019 and more than 1,000 local residents reported positive outcomes including the alleviation of food and housing insecurity, improved physical and mental health, financial stability, social equity and greater connection to the labour market;

71 MAIN STREET WEST, 2ND FLOOR, HAMILTON, ONTARIO L8P 4Y5 PHONE 905.546.4200 FAX: 905.546.2340

WHEREAS, the Federal Budget Office upon reviewing the concept of a national Guaranteed Basic Income program determined it could, if properly set out, be a major economic driver to the Canadian economy; and

WHEREAS, a Basic Income program can complement and enhance existing social support systems, ensuring a comprehensive and inclusive approach to addressing the needs of Hamilton residents including persons with disabilities and aligns and complements the City of Hamilton's Community Safety and Wellbeing Plan.

THEREFORE, BE IT RESOLVED:

(a) That the City of Hamilton supports the concept of a Guaranteed Livable Basic Income to combat poverty, income inequality, and economic insecurity within our community; and supports the continuing advocacy of the Basic Income Hamilton Working Group (under the auspices of the Hamilton Roundtable for Poverty Reduction) to share research and the unique experiences of local residents who participated in the Ontario Basic Income Pilot project;

(b) That the City of Hamilton calls upon the provincial and federal governments to collaborate to implement a national Guaranteed Livable Basic Income program;

(c) That Hamilton City Council directs the Office of the Mayor to write a letter to the Prime Minister, local Members of Parliament and the Senate, the Premier of Ontario, local Members of the Legislative Assembly of Ontario, calling on these orders of government to work collaboratively towards implementing a National Guaranteed Livable Basic Income to eradicate poverty and homelessness, and ensure everyone has sufficient income to meet their basic needs; and

(d) That the City of Hamilton encourages other municipalities across the province and the country to join in advocating for a Guaranteed Livable Basic Income as a key policy tool in the fight against poverty and inequality and to this end, Hamilton City Council will advocate through its representatives at the Association of Municipalities of Ontario and the Canadian Federation of Municipalities for Guaranteed Livable Basic Income resolutions at meetings of those organizations.

Thank you for your consideration of this matter.

Yours Truly,

Mayor Andrea Horwath
City of Hamilton

cc: Hamilton Area Members of Parliament
Hamilton Area Members of Provincial Parliament
All Municipalities of Ontario

From:	Kolar, Loren
To:	justin.trudeau@parl.gc.ca
Subject:	City of Hamilton (Ontario) Correspondence respecting Support for Basic Income
Date:	Wednesday, September 27, 2023 3:02:00 PM
Attachments:	Correspondence City of Hamilton re Basic Income.pdf

Prime Minister,

Hamilton (Ontario) City Council approved the following as part of a greater resolution respecting Support for Basic Income:

(c) That Hamilton City Council directs the Office of the Mayor to write a letter to the Prime Minister, local Members of Parliament and the Senate, the Premier of Ontario, local Members of the Legislative Assembly of Ontario, calling on these orders of government to work collaboratively towards implementing a National Guaranteed Livable Basic Income to eradicate poverty and homelessness, and ensure everyone has sufficient income to meet their basic needs; and

Please see the attached correspondence respecting Support for Basic Income, for your consideration.

Yours sincerely,

Loren Kolar
Legislative Coordinator
Office of the City Clerk
(905) 546-2424 Ext.2604

Hamilton
City of Hamilton
71 Main Street West, 1st Floor
Hamilton, ON L8P 4Y5

Vision: The Legislative Division is Dedicated to Excellence in the Provision of Service to the Community, Corporation & Council with Integrity, Accuracy and Transparency.

Mission: The Legislative Division aims to strengthen and promote local government by facilitating the proceedings of City Council and its Committees, fulfilling the requirements of various Provincial statutes and educating the public to make it understandable and accessible.

From:	Kolar, Loren
To:	premier@ontario.ca; Donna Skelly Flambourough Glanbrook; M Taylor Hamilton Mountain; N. Lumsden Hamilton East Stoney Creek; S Shaw Hamilton West Ancaster Dundas; Sarah Jama, Hamilton Centre
Subject:	City of Hamilton (Ontario) Correspondence respecting Support for Basic Income
Date:	Wednesday, September 27, 2023 3:04:00 PM
Attachments:	Correspondence City of Hamilton re Basic Income.pdf

Premier,

Hamilton (Ontario) City Council approved the following as part of a greater resolution respecting Support for Basic Income:

(c) That Hamilton City Council directs the Office of the Mayor to write a letter to the Prime Minister, local Members of Parliament and the Senate, the Premier of Ontario, local Members of the Legislative Assembly of Ontario, calling on these orders of government to work collaboratively towards implementing a National Guaranteed Livable Basic Income to eradicate poverty and homelessness, and ensure everyone has sufficient income to meet their basic needs; and

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From:	Kolar, Loren
To:	"C Collins MP Hamilton East Stoney Creek"; "D Muys MP Flamborough Glanbrook"; F Tassi, Hon. MP Hamilton West—Ancaster—Dundas; "L Hepfner Hamilton Mountain"; "M Green MP Hamilton Centre"
Subject:	City of Hamilton (Ontario) Correspondence respecting Support for Basic Income
Date:	Wednesday, September 27, 2023 3:05:00 PM
Attachments:	Correspondence City of Hamilton re Basic Income.pdf

Members of Parliament,

Hamilton (Ontario) City Council approved the following as part of a greater resolution respecting Support for Basic Income:

(c) That Hamilton City Council directs the Office of the Mayor to write a letter to the Prime Minister, local Members of Parliament and the Senate, the Premier of Ontario, local Members of the Legislative Assembly of Ontario, calling on these orders of government to work collaboratively towards implementing a National Guaranteed Livable Basic Income to eradicate poverty and homelessness, and ensure everyone has sufficient income to meet their basic needs; and

Please see the attached correspondence respecting Support for Basic Income, for your consideration.

Yours sincerely,

Loren Kolar
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THE TOWNSHIP OF MONTAGUE
COUNTRY LIVING AT ITS BEST

Regular Meeting of Council

MOVED BY: Councillor Abbass RESOLUTION:201-2023

SECONDED BY: Councillor Crabtree DATE: September 19, 2023

"WHEREAS the Municipal Freedom of Information and Protection of Privacy Act, R.S.O. 1990 (MFIPPA) came into force and effect on January 1, 1991;
AND WHEREAS municipalities, including the Town of Bracebridge, practice and continue to promote open and transparent government operations, actively disseminate information and routinely disclose public documents upon request outside of the MFIPPA process;
AND WHEREAS government operations, public expectations, technologies, and legislation surrounding accountability and transparency have dramatically changed and MFIPPA has not advanced in line with these changes;
AND WHEREAS the creation, storage and utilization of records has changed significantly, and the Clerk of the Municipality is responsible for records and information management programs as prescribed by the Municipal Act, 2001;
AND WHEREAS regulation 823 under MFIPPA continues to reference antiquated technology and does not adequately provide for cost recovery, and these financial shortfalls are borne by the municipal taxpayer;
AND WHEREAS the threshold to establish frivolous and/or vexatious requests is unreasonably high and allows for harassment of staff and members of municipal councils, and unreasonably affects the operations of the municipality;
AND WHEREAS the MFIPPA fails to recognize how multiple requests from an individual, shortage of staff resources or the expense of producing a record due to its size, number, or physical location does not allow for time extensions to deliver requests and unreasonably affects the operations of the municipality;
AND WHEREAS the name of the requestor is not permitted to be disclosed to anyone other than the person processing the access request, and this anonymity is used by requesters to abuse the MFIPPA process and does not align with the spirit of openness and transparency embraced by municipalities;
AND WHEREAS legal professionals use MFIPPA to gain access to information to launch litigation against institutions, where other remedies exist;
AND WHEREAS there are limited resources to assist administrators or requestors to navigate the legislative process;
AND WHEREAS reform is needed to address societal and technological changes in addition to global privacy concerns and consistency across provincial legislation;
NOW THEREFORE BE IT RESOLVED THAT the Ministry of Public and Business Service Delivery be requested to review MFIPPA, and consider recommendations as follows:
1. That MFIPPA assign the Municipal Clerk, or their designate to be the Head under the Act;

2. That MFIPPA be updated to address current and emerging technologies;
3. That MFIPPA regulate the need for consistent routine disclosure practices across institutions;
4. That the threshold for frivolous and/or vexatious actions be reviewed, and take into consideration the community and available resources in which it is applied;
5. That the threshold for frivolous and/or vexatious also consider the anonymity of requesters, their abusive nature and language in requests to ensure protection from harassment as provided for in the Occupational Health and Safety Act;
6. That the application and scalability of fees be designed to ensure taxpayers are protected from persons abusing the access to information process;
7. That administrative practices implied or required under MFIPPA, including those of the Information and Privacy Commissioner (IPC), be reviewed and modernized;
8. That the integrity of MFIPPA be maintained to protect personal privacy and transparent governments; and
9. And that this resolution be sent to the Premier of Ontario; Minister of Municipal Affairs and Housing; Minister of Public and Business Service Delivery; and Member of Provincial Parliament for Lanark, Frontenac, Kingston; and all Ontario Municipalities."

☑ CARRIED ☐ DEFEATED

DEPUTY REEVE

Corporate Services Department **Legislative Services Division**	
Date & Time Received:	October 03, 2023 9:11 am
Original To:	CIP
Copies To:	
Take Appropriate Action ☐	File ☐
Notes/Comments:	

Legislative Services
Michael de Rond
905-726-4771
clerks@aurora.ca

Town of Aurora
100 John West Way, Box 1000
Aurora, ON L4G 6J1

September 28, 2023

The Honourable Doug Ford, Premier of Ontario
Premier's Office, Room 281
Legislative Building, Queen's Park
Toronto, ON M7A 1A1

Delivered by email
premier@ontario.ca

Dear Premier:

Re: Town of Aurora Council Resolution of September 26, 2023
Motion 10.4 - Councillor Weese; Re: Aurora Council Opposition to Strong Mayor Powers in Aurora

Please be advised that this matter was considered by Council at its meeting held on September 26, 2023, and in this regard, Council adopted the following resolution:

Whereas the Head of Council is required to confirm in writing his commitment to meet a municipal housing target by October 15, 2023, in order to receive Strong Mayor Powers; and

Whereas the municipality is required to submit a formal housing pledge which will outline how the municipality plans to meet the housing target by December 15, 2023; and

Whereas Strong Mayor Powers will result in the Head of Council being granted powers such as:

- **Choosing to appoint the municipality's chief administrative officer;**
- **Hiring certain municipal department heads and establishing and re-organizing departments;**
- **Creating committees of council, assigning their functions, and appointing the chairs and vice-chairs of committees of council;**
- **Proposing the municipal budget, which would be subject to council amendments and a separate head of council veto and council override process;**
- **Vetoing certain by-laws if the head of council is of the opinion that all or part of the by-law could potentially interfere with a provincial priority;**

- **Bringing forward matters for council consideration if the head of council is of the opinion that considering the matter could potentially advance a provincial priority; and**

Whereas these Strong Mayor Powers undermine democratic processes executed through municipal elections; and

Whereas Strong Mayor Powers may also violate by-laws established in Aurora that provides accepted and legal procedures for governance; and

Whereas Aurora Town Council recognizes the important role each Councillor provides the residents in their Ward and the community-at-large;

1. **Now Therefore Be it Hereby Resolved That the Aurora Town Council opposes Strong Mayor Powers provided to the Head of Council; and**
2. **Be It Further Resolved That this approved Motion is to be sent to the Premier of Ontario, the Honourable Doug Ford; the Minister of Municipal Affairs and Housing, the Honourable Paul Calandra; the Regional Municipality of York; and each of the Municipalities in Ontario.**

The above is for your consideration and any attention deemed necessary.

Yours sincerely,

Michael de Rond
Town Clerk
The Corporation of the Town of Aurora

MdR/lb

Attachment (Council meeting extract)

Copy: Hon. Paul Calandra, Minister of Municipal Affairs and Housing
Christopher Raynor, Regional Clerk, The Regional Municipality of York
All Ontario Municipalities

10. Motions

10.4 Councillor Weese; Re: Aurora Council Opposition to Strong Mayor Powers in Aurora

Moved by Councillor Weese
Seconded by Councillor Gaertner

Whereas the Head of Council is required to confirm in writing his commitment to meet a municipal housing target by October 15, 2023, in order to receive Strong Mayor Powers; and

Whereas the municipality is required to submit a formal housing pledge which will outline how the municipality plans to meet the housing target by December 15, 2023; and

Whereas Strong Mayor Powers will result in the Head of Council being granted powers such as:

- Choosing to appoint the municipality's chief administrative officer;
- Hiring certain municipal department heads and establishing and re-organizing departments;
- Creating committees of council, assigning their functions, and appointing the chairs and vice-chairs of committees of council;
- Proposing the municipal budget, which would be subject to council amendments and a separate head of council veto and council override process;
- Vetoing certain by-laws if the head of council is of the opinion that all or part of the by-law could potentially interfere with a provincial priority;
- Bringing forward matters for council consideration if the head of council is of the opinion that considering the matter could potentially advance a provincial priority; and

Whereas these Strong Mayor Powers undermine democratic processes executed through municipal elections; and

Whereas Strong Mayor Powers may also violate by-laws established in Aurora that provides accepted and legal procedures for governance; and

Whereas Aurora Town Council recognizes the important role each Councillor provides the residents in their Ward and the community-at-large;

1. Now Therefore Be it Hereby Resolved That the Aurora Town Council opposes Strong Mayor Powers provided to the Head of Council; and
2. Be It Further Resolved That this approved Motion is to be sent to the Premier of Ontario, the Honourable Doug Ford; the Minister of Municipal Affairs and Housing, the Honourable Paul Calandra; the Regional Municipality of York; and each of the Municipalities in Ontario.

Yeas (4): Councillor Weese, Councillor Gilliland, Councillor Gaertner, and Councillor Gallo

Nays (3): Mayor Mrakas, Councillor Thompson, and Councillor Kim

Carried (4 to 3)

Legislative Services
Michael de Rond
905-726-4771
clerks@aurora.ca

Town of Aurora
100 John West Way, Box 1000
Aurora, ON L4G 6J1

September 28, 2023

The Honourable Doug Ford, Premier of Ontario
Premier's Office, Room 281
Legislative Building, Queen's Park
Toronto, ON M7A 1A1

Delivered by email
premier@ontario.ca

Dear Premier:

Re: Town of Aurora Council Resolution of September 26, 2023
Motion 10.2 - Mayor Mrakas; Re: Gender-Based and Intimate Partner Violence Epidemic

Please be advised that this matter was considered by Council at its meeting held on September 26, 2023, and in this regard, Council adopted the following resolution:

Whereas 42 municipalities and regions including OBCM (Ontario Big City Mayors) and MARCO (Mayors and Regional Chairs of Ontario) members Ajax, Brampton, Burlington, Clarington, Hamilton, London, Oakville, Ottawa, Pickering, Whitby, Toronto, and Windsor, along with Peel, Durham and Halton Regions as well as Lanark County, Essex County and Renfrew County across Ontario have declared a gender-based violence and/or intimate partner violence epidemic (as of August 18, 2023); and

Whereas on August 16, 2023, Justice Minister Arif Virani described gender-based violence as "an epidemic" in the federal government's formal response to a coroner's inquest, also stating that his government is committed to ending the gender-based violence epidemic "in all its forms, and is working to address any gaps in the Criminal Code to ensure a robust justice system response"; and

Whereas by declaring gender-based violence and intimate partner violence an epidemic, the Town of Aurora can join the growing number of municipalities and regions in demanding action from all levels of government to address this growing epidemic; and

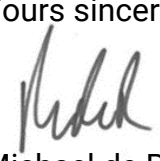
Whereas the incidences of gender-based violence and intimate partner violence increased exponentially throughout the COVID-19 pandemic and has not decreased, while funding to provide the growing demand of services and support

for victims and survivors of intimate partner and gender-based violence has not kept pace;

1. **Now Therefore Be It Hereby Resolved That the Town of Aurora declare gender-based violence and intimate partner violence an epidemic; and**
2. **Be It Further Resolved That the Town of Aurora recommend that gender-based violence and intimate partner violence be declared an epidemic in the Province of Ontario; and**
3. **Be It Further Resolved That the Town of Aurora Requests That the Federation of Canadian Municipalities (FCM), the Association of Municipalities of Ontario (AMO), and all municipalities and regions in Ontario declare a gender-based and intimate partner violence epidemic across the country; and**
4. **Be It Further Resolved That the Town of Aurora Requests That the provincial and federal governments enact the additional 85 recommendations from the inquest into the 2015 murders of Carol Culleton, Anastasia Kuzyk, and Nathalie Warmerdam in Renfrew County, Ontario, which provide a roadmap to preventing intimate partner violence from escalating to femicide; and**
5. **Be It Further Resolved That the Town of Aurora Requests That the federal government starts this enactment by adding the word Femicide as a term to the Criminal Code of Canada; and**
6. **Be It Further Resolved That the Town of Aurora Requests That the provincial and federal governments provide the necessary support to municipalities, regions, and their emergency and social services to meaningfully address the gender-based violence and intimate partner violence epidemic.**

The above is for your consideration and any attention deemed necessary.

Yours sincerely,



Michael de Rond
Town Clerk
The Corporation of the Town of Aurora

MdR/lb

Attachment (Council meeting extract)

Copy: Rt. Hon. Justin Trudeau, Prime Minister of Canada
Leah Taylor Roy, MP Aurora—Oak Ridges—Richmond Hill
Tony Van Bynen, MP Newmarket—Aurora
Hon. Michael Parsa, MPP Aurora—Oak Ridges—Richmond Hill
Dawn Gallagher Murphy, MPP Newmarket—Aurora
Federation of Canadian Municipalities (FCM)
Association of Municipalities of Ontario (AMO)
All Ontario Municipalities

10. Motions

10.2 Mayor Mrakas; Re: Gender-Based and Intimate Partner Violence Epidemic

Moved by Councillor Gilliland
Seconded by Councillor Gallo

Whereas 42 municipalities and regions including OBCM (Ontario Big City Mayors) and MARCO (Mayors and Regional Chairs of Ontario) members Ajax, Brampton, Burlington, Clarington, Hamilton, London, Oakville, Ottawa, Pickering, Whitby, Toronto, and Windsor, along with Peel, Durham and Halton Regions as well as Lanark County, Essex County and Renfrew County across Ontario have declared a gender-based violence and/or intimate partner violence epidemic (as of August 18, 2023); and

Whereas on August 16, 2023, Justice Minister Arif Virani described gender-based violence as “an epidemic” in the federal government’s formal response to a coroner’s inquest, also stating that his government is committed to ending the gender-based violence epidemic “in all its forms, and is working to address any gaps in the Criminal Code to ensure a robust justice system response”; and

Whereas by declaring gender-based violence and intimate partner violence an epidemic, the Town of Aurora can join the growing number of municipalities and regions in demanding action from all levels of government to address this growing epidemic; and

Whereas the incidences of gender-based violence and intimate partner violence increased exponentially throughout the COVID-19 pandemic and has not decreased, while funding to provide the growing demand of services and support for victims and survivors of intimate partner and gender-based violence has not kept pace;

1. Now Therefore Be It Hereby Resolved That the Town of Aurora declare gender-based violence and intimate partner violence an epidemic; and
2. Be It Further Resolved That the Town of Aurora recommend that gender-based violence and intimate partner violence be declared an epidemic in the Province of Ontario; and

3. Be It Further Resolved That the Town of Aurora Requests That the Federation of Canadian Municipalities (FCM), the Association of Municipalities of Ontario (AMO), and all municipalities and regions in Ontario declare a gender-based and intimate partner violence epidemic across the country; and

4. Be It Further Resolved That the Town of Aurora Requests That the provincial and federal governments enact the additional 85 recommendations from the inquest into the 2015 murders of Carol Culleton, Anastasia Kuzyk, and Nathalie Warmerdam in Renfrew County, Ontario, which provide a roadmap to preventing intimate partner violence from escalating to femicide; and

5. Be It Further Resolved That the Town of Aurora Requests That the federal government starts this enactment by adding the word Femicide as a term to the Criminal Code of Canada; and

6. Be It Further Resolved That the Town of Aurora Requests That the provincial and federal governments provide the necessary support to municipalities, regions, and their emergency and social services to meaningfully address the gender-based violence and intimate partner violence epidemic.

Yeas (7): Mayor Mrakas, Councillor Weese, Councillor Gilliland, Councillor Gaertner, Councillor Thompson, Councillor Gallo, and Councillor Kim

Carried (7 to 0)

September 27, 2023

to Whom it May Concern

Re: Support for Motion RE: Guaranteed Livable Income

At the meeting of September 26, 2023, the Council of the County of Brant adopted the following resolution in support of the September 5th resolution passed by the Town of Grimsby on Guaranteed Livable Income :

> "Whereas the Canadian livable wage for the Brant—Niagara—Haldimand—Norfolk Region, two years ago was determined to be $19.80. This was $6000 above the annual income of a minimum wage employee; and
>
> Whereas County of Brant residents on programs such as Ontario Works, receive targeted fixed monthly incomes of $733, and ODSP recipients receive $1376; and
>
> Whereas at the current Ontario minimum wage rate, a person working 37.5 hours per week will earn approximately $2,500 monthly (before tax); and
>
> Whereas the median rent for one bedroom in the County of Brant as of 2022 was $1143.90 a month, and the County of Brant does not have current AMR for September 2023; and
>
> Whereas rent is considered affordable, when it is less than 30% of income. In the County of Brant, rent is approximately 156% of Ontario Works, 83.13% of Ontario Disability Support Services, 45% of minimum wage full-time (before tax), and 90% of minimum wage part time; and
>
> Whereas an annual 2.5% allowable rent increase can be combined with an additional 3-6.5% capital investment increase, raising the cost of rental housing another minimum of $110 monthly; and
>
> Whereas the recent report by the County of Brant Policy Planning and Corporate Strategy departments determined that the County of Brant has serious shortfalls in both affordable and attainable housing supply;

County of Brant
26 Park Avenue P.O Box 160
Burford, ON N0E 1A0

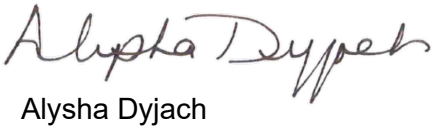
T: 519.449.2451
TF: 1.888.250.2295
F: 519.449.2454

Therefore be it resolved the County of Brant supports the resolution shared by the Town of Grimsby; and

Be it further resolved that The County of Brant circulate correspondence to Ontario municipalities encouraging them not only to collect data of their housing and poverty statistics, but also to examine their pending economic vulnerability as a result; and

Be it further resolved that The County of Brant encourage these same municipalities to join the County of Brant in advocating on behalf of our communities with this data, and by writing a letter to the Prime Minister, Premier, and local politicians calling for a united effort in establishing a Guaranteed Livable Income program."

Respectfully,



Alysha Dyjach
Director of Council Services, Clerk
County of Brant

Greater Napanee
GREATER FOR MANY REASONS

Executive Services
99-A Advance Avenue, Napanee, ON K7R 3Y5 www.greaternapanee.com

September 27, 2023

The Honourable Doug Ford
Premier of Ontario
Premier's Office, Room 281
Legislative Building
Queen's Park, Toronto, ON M7A 1A1

Re: Chronic Pain Treatments

Dear Premier Ford:

Please be advised that the Council of the Town of Greater Napanee passed the following resolution at its regular session meeting of September 26, 2023:

RESOLUTION #487/23: Hicks, Pinnell Jr.

That Council support the resolution from the Municipality of Wawa requesting that the Government of Ontario maintain OHIP coverage for chronic pain treatments and continue to provide much needed care for the people of Ontario;
And further, that Council direct that a copy of this resolution be sent to the Premier of Ontario, MP Kramp-Neuman, MPP Bresee, and all Ontario municipalities.

CARRIED

Please do not hesitate to contact jwalters@greaternapanee.com if you require any further information with respect to this resolution.

Sincerely,

Jessica Walters
Clerk

cc. Hon. Shelby Kramp-Neuman, MP, Hastings-Lennox & Addington
Hon. Ric Breese, MPP, Hastings-Lennox & Addington
All Ontario municipalities
Elias Diamantopoulos of GTA Strategies
info@nationalchronicpainsociety.org

Greater Napanee
GREATER FOR MANY REASONS

Executive Services
99-A Advance Avenue, Napanee, ON K7R 3Y5 www.greaternapanee.com

September 27, 2023

The Honourable Doug Ford
Premier of Ontario
Premier's Office, Room 281
Legislative Building
Queen's Park, Toronto, ON M7A 1A1

Re: Establishing a Guaranteed Livable Income

Dear Premier Ford:

Please be advised that the Council of the Town of Greater Napanee passed the following resolution at its regular session meeting of September 26, 2023:

RESOLUTION #486/23: Hicks, Martin

That Council receive the correspondence from the Town of Grimsby respecting establishing a guaranteed livable income;
And further, that Council direct staff to send a letter of support for the resolution passed by the Town of Grimsby to the Premier of Ontario, MP Kramp-Neuman, MPP Bresee, and all Ontario municipalities.

CARRIED

Please do not hesitate to contact jwalters@greaternapanee.com if you require any further information with respect to this resolution.

Sincerely,

Jessica Walters
Clerk

cc. Hon. Shelby Kramp-Neuman, MP, Hastings-Lennox & Addington
Hon. Ric Breese, MPP, Hastings-Lennox & Addington
All Ontario municipalities

Corporate Services Department **Legislative Services Division**	
Date & Time Received:	October 04, 2023 8:18 am
Original To:	CIP
Copies To:	
Take Appropriate Action ☐	File ☐
Notes/Comments:	

From: Rouge National Urban Park Study (IAAC/AEIC) <parkstudy-etudeparc@iaac-aeic.gc.ca>
Sent: September 26, 2023 9:40 AM
Subject: Notification of suspension of the Rouge National Urban Park Study / Avis de suspension de l'étude sur le parc urbain national de la Rouge

Good morning,

For your information, the Honorable Steven Guilbeault, Minister of Environment and Climate Change issued a statement announcing the suspension of the Rouge National Urban Park Study in response to the Government of Ontario's decision to return all lands removed from the Greenbelt in 2022 and restore Greenbelt development protections. The study had been launched the study to assess the environmental effects of development adjacent to the Park due to the widespread concerns expressed by Indigenous Peoples and the general public.

The Government of Canada is expecting more details regarding the reinstatement of all protections of former Greenbelt lands by the Government of Ontario and next steps in the process.

The Government of Canada remains committed to protecting the Park's biodiversity, natural resources and natural processes, while maintaining important working relationships with Indigenous communities and supporting a vibrant farming community around the Park.

The full statement can be viewed here: https://iaac-aeic.gc.ca/050/evaluations/document/153083?culture=en-CA.

Please note that, with the suspension of the Rouge National Urban Park Study, the Impact Assessment Agency of Canada is no longer accepting funding applications for the conduct of the study at this time.

Sincerely,

Véronique Boucher Lalonde
Agence d'évaluation d'impact du Canada
Impact Assessment Agency of Canada

613-292-8964
Veronique.boucherlalonde@iaac-aeic.gc.ca

The Regional Municipality of Durham

Minutes

Energy From Waste – Waste Management Advisory Committee

Tuesday, September 26, 2023

A meeting of the Energy From Waste – Waste Management Advisory Committee was held on Tuesday, September 26, 2023 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
M. Cannon, Oshawa
T. Shomar, Clarington
J. Vinson, Clarington
***all members of the Committee participated electronically**

Absent: G. Best, Whitby
R. Fleming, Pickering
P. Haylock, Clarington, Vice-Chair
K. Palinka, Oshawa

Non-Voting Members
Present: N. Ratnasingam, Climate Action Response Coordinator, Municipality of Clarington
***all non-voting members of the Committee participated electronically**

Staff
Present: A. Chung, Systems Support Specialist – Information Technology
S. Ciani, Committee Clerk, Corporate Services – Legislative Services
K. Dykman, Supervisor, Waste Services
A. Evans, Director, Waste Management Services
R. Jagannathan, Acting Commissioner of Works
L. Ritchey, Systems Support Specialist – Information Technology
L. Saha, Project Manager, Waste Management
D. San Juan, Environmental Health Specialist, Health Department, Durham Region
***all staff members participated electronically**

At 7:30 PM there was no quorum. As per Section 9.2 A) of the Procedural By-law, quorum was not present within thirty minutes and the meeting stood adjourned.

2. Declarations of Interest

This item was not considered due to a lack of quorum.

3. Adoption of Minutes

This item was not considered due to a lack of quorum.

4. Presentations

There were no presentations heard.

5. Delegations

There were no delegations heard.

6. Correspondence

There were no correspondence items to be considered.

7. Administrative Matters

A) EFW-WMAC Work Plan (2023-2024) – Working Group Updates

This item was not considered due to a lack of quorum.

8. Other Business

A) Update by Andrew Evans, Director, Waste Management Services, the Regional Municipality of Durham, regarding Community and Outreach Activities

This item was not considered due to a lack of quorum.

B) Update by Andrew Evans, Director, Waste Management Services, the Regional Municipality of Durham, regarding Durham York Energy Centre

This item was not considered due to a lack of quorum.

9. Next Meeting

The next regularly scheduled meeting of the EFW-WMAC will be held on Thursday, November 28, 2023 in Council Chambers, at 7:00 PM, Regional Headquarters, 605 Rossland Road East, Whitby.

10. Adjournment

The meeting adjourned at 7:30 PM.

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

S. Ciani, Committee Clerk