

Staff Report

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Report To: Joint Committees

Date of Meeting: February 7, 2022 **Report Number:** PDS-008-22

Submitted By: Ryan Windle, Director of Planning and Development Services

Reviewed By: Andrew C. Allison, CAO **By-law Number:**

File Number: PLN 33.22 **Resolution#:** JC-021-22

Report Subject: Durham York Energy Centre Throughput Increase from 140,000 to 160,000 Tonnes per Year – Municipal Comments

Recommendations:

1. That Report PDS-008-22 be received;
2. That Report PDS-008-22, including the consolidated list of requests recommended in Attachment 4 of PDS-008-22, be adopted as the Municipality of Clarington's comments on the Durham York Energy Centre throughput Increase (from 140,000 to 160,000 tonnes per year) Environmental Screening Process;
3. That, prior to the February 14, 2022 Council meeting, the Region of Durham and Region of York (the Proponents) be requested to agree to a mutually acceptable time period to meet with Staff and the Municipality's Consultants to address the comments in Report PDS-008-22 for the purpose of resolving concerns; and
4. That Staff report back at the February 14, 2022 Council meeting on the status of the Municipality's request of the Proponents, and next steps.

Report Overview

The Regions of Durham and York are seeking environmental permissions to increase the processing capacity at the Durham York Energy Centre (DYEC) to its current maximum design potential. The Environmental Compliance Approval for the DYEC allows the facility to thermally treat up to 140,000 tonnes of waste per year. The Regions are proposing to increase this amount by 20,000 tonnes per year. As constructed, the DYEC can process up to 160,000 tonnes of waste per year without any modifications or additions to the existing infrastructure or equipment.

In accordance with the *Environmental Assessment Act*, the Regions have undertaken an Environmental Screening Process to assess the potential environmental, social and economic effects of the proposal. The results are documented in the *Durham York Energy Centre Environmental Screening Report* (December 2021), released on December 20, 2021 for a 60-day public review period. Following completion of the Environmental Screening Process, the Regions will make application to the Ministry of Environment, Conservation and Parks for the necessary amendment to the DYEC Environmental Compliance Approval.

The Environmental Screening Process identified air quality as having potential to be negatively affected by the proposal due to increased total air emissions from the facility. To assess the potential changes the waste capacity increase would have on air quality, the Regions completed an air quality impact assessment. The assessment concluded that the proposal will comply with the provincial regulated air quality standards and will not have a significant effect on local ambient air quality.

Staff, with support provided by air quality experts retained by the Municipality, have reviewed the Environmental Screening Report and supporting documents. Report PDS-008-22 presents Clarington staff's comments and recommendations on the Environmental Screening Process. It includes comments the Regions as part of the Environmental Screening Process, are to be given the opportunity to respond to. As well, some requests are applicable to the Environmental Compliance Approval Amendment process to follow.

In order to meet the requirements set out in the Environmental Screening Process, it is prudent that the Municipality seek agreement from the Regions to work towards addressing the Municipality's questions and comments, and establish a timeframe within which to do so before the conclusion of the public review period on February 18, 2022 at 4:30pm.

1. Introduction

- 1.1 In June 2019, the Regions of Durham and York (Regions) announced the initiation of an Environmental Screening Process (ESP) under the *Environmental Assessment (EA) Act* to increase the amount of waste processed each year (throughput) at the Durham York Energy Centre (DYEC) by 20,000 tonnes.

- 1.2 In accordance with the requirements for waste projects subject to an ESP, the Regions carried out consultation with the Ministry of Environment, Conservation and Parks (MECP), undertook a public and stakeholders consultation program, and assessed potential negative environmental, social and economic effects of the proposed throughput increase.
- 1.3 On December 20, 2021, the Municipality received Notice of Completion of the ESP (**Attachment 1**). The results of the review and consultation for the proposal are provided in the *Durham York Energy Centre Environmental Screening Report* (December 2021) (ESR) posted on the DYEC website (www.durham.ca/DYEC160K). The issuance of Notice of Completion by the Regions marked the start of a 60-day public review period, concluding on February 18, 2022.
- 1.4 Planning and Development Services staff have been involved in the ESP for the proposed throughput increase at the DYEC since issuance of the Notice of Commencement.
- 1.5 The purpose of this report is to provide an overview of the proposal and results of the Regions' ESP, and to provide Clarington's staff comments and recommendations. Staff's comments are supplemented by comments prepared on behalf of the Municipality by Dillon Consulting Limited, who's scope of review was specific to the air emissions / quality assessment components (**Attachment 2**). The comments and recommendations have considered concerns from the public outlined in the ESR's *Record of Consultation Summary Report* (December 20, 2021) and heard through discussions with staff.

2. Background

- 2.1 The DYEC, located within the Clarington Energy Business Park (Energy Park) and jointly owned by the Regions, has been in commercial operation since 2016. The Environmental Compliance Approval (ECA) for the DYEC currently allows the facility to process up to a maximum of 140,000 tonnes per year of post-diversion waste for disposal at the site. By 2018, the Regions had to begin by-passing some of the post-diversion waste received each year to other waste disposal sites, to ensure that the capacity limits set out in the ECA were not exceeded.
- 2.2 Despite robust waste diversion programming, the Regions have and expect to continue to see post-diversion waste generation that exceeds the current capacity limit of the DYEC. This is primarily due to population growth and according to the Regions is compounded by the on-going COVID-19 pandemic. As stated in the ESR, 15,409 tonnes of post-diversion waste was by-passed from the DYEC by the Regions in 2020.

- 2.3 In 2020, a temporary emergency ECA Amendment was issued to the Regions by the MECP, permitting the DYEC to process an additional 20,000 tonnes of waste until December 31, 2020. A second temporary emergency EA Amendment was issued in 2021, permitting the DYEC to process an additional 2,000 tonnes of waste until December 31, 2021. These additionally permitted throughput amounts were not fully utilized by the Regions.
- 2.4 To address the immediate need for additional waste disposal capacity for waste generated by the Regions, the Regions have initiated the environmental approvals process to increase the amount of material the facility is permitted to process annually, from 140,000 to 160,000 tonnes. The Regions state that the DYEC is capable of processing up to 160,000 tonnes of waste annually without any changes to the facility (i.e. modifications or additions to the infrastructure or equipment) being required.

3. Key Findings of the Assessment

- 3.1 The ESP requires that the proposal be evaluated by proponents against a list of screening criteria, to identify the potential for any negative effects on the environment. Potential environmental effects are grouped into the following categories:
 - Surface water and groundwater
 - Land
 - Air and noise
 - Natural environment
 - Resources
 - Socio-economic
 - Heritage and culture
 - Aboriginal
 - Other
- 3.2 For the proposed DYEC throughput increase, potential negative environmental effects identified by the Regions included effects on air quality due to facility emissions and the proximity of the DYEC to the future heliport location for the Bowmanville Hospital. For many of the screening criteria, the Regions determined that no potential negative environmental effect was predicted on the basis that the DYEC was already designed and built with the ability to thermally process 160,000 tonnes per year of waste. As indicated, no modifications or additions to the infrastructure or equipment at the DYEC are proposed.
- 3.3 To determine the potential impact of the increased air emissions at the DYEC, the Regions' consultants completed an *Air Quality Impact Assessment* (AQIA) (Golder

Associates, December 2021). The ESR indicates that the modelling methodology / input data were reviewed and approved by the MECP in advance of modelling. As stated in the ESR, “the modelling concluded that the DYEC increase in capacity to 160,000 tonnes per year will comply with the MECP regulated air quality standards and will not have a significant effect on local ambient air quality.” Impact management and monitoring set out in the ESR includes the continuation of the DYEC’s existing air pollution control and air emissions monitoring program. No changes to the existing air pollution control technology, continuous emissions monitoring, stack emissions source testing or ambient air monitoring are proposed.

- 3.4 No additional study can be undertaken at this time with respect to the future heliport location for the Bowmanville Hospital. The ESR notes that air ambulance service is currently suspended to the hospital. Prior to construction of the DYEC, the Regions had received aeronautical clearance from Navigation Canada, which currently remains valid. Staff will ensure that the Regions’ are aware of the Lease Agreement executed by the Municipality with Lakeridge Health for a temporary air ambulance heliport at 1150 Haines Street, just south of the Bowmanville Cemetery.
- 3.5 Benefits of the proposal cited in the ESR include:
 - Increased operating efficiency by allowing for full use of the equipment;
 - Annual net reduction of greenhouse gas emissions;
 - Cost savings from the reduction or elimination of waste by-passing; and
 - Increased revenue generation from additional power generation and materials recovery.

4. Municipal Comments on the Environmental Screening Report

- 4.1 Review of the ESR has been supported by Dillon Consulting Limited (Dillon). The Municipality retained Dillon in 2020 to assist Council and staff to understand and comment on the technical air quality components, regulatory requirements, and cumulative impact of the DYEC proposal to increase throughput, as well as St. Marys Cement’s 2020 ECA Amendment application for the expanded use of Low Carbon Alternative Fuels (previously completed).
- 4.2 The review completed by Dillon on the DYEC proposal is provided as **Attachment 2**. Dillon has provided recommendations which are intended to support further consultation with the Regions and MECP in the review of this proposal. The comments and recommendations outlined below consider the advice of the Municipality’s consultant, as well as public comments communicated directly to Clarington staff, prior to writing this report.

Air Quality and Cumulative Effects

4.3 In summary, Dillon's review of the AQIA finds that the Regions' assessment has generally followed good industry practice, is aligned with provincial guidance, and has generally taken a conservative approach.

4.4 Dillon provides several recommendations to confirm the appropriateness of specific modelling and data inputs used by the Regions, ensuring the modelling is appropriately characterized and conservative. These inputs include:

- The data selected to represent background conditions, confirming the approach to selecting background concentrations was sufficiently conservative;
- The identification of receptor locations for modelling, ensuring they sufficiently considered sensitive uses permitted by current zoning for the Energy Park;
- The assumptions relating to the stack flow and stack temperature increase; and
- The absence of an assessment of process upset conditions.

Recommendation:

That the Municipality request that the Regions and MECP review the agreed to modelling methodology / data inputs to confirm their appropriateness, taking into consideration Recommendation #1, #2, #3, #4 and #8 from Dillon, as described in **Attachment 2**.

4.5 The AQIA uses ambient monitoring data to represent background conditions. The data period used considered all available data up to and including 2019. The background air quality concentrations are carried forward to the cumulative air quality assessment. The data period selected does not account for the expanded use of Low Carbon Alternative Fuels at the nearby St. Marys Cement – Bowmanville Site.

Recommendation:

That the Municipality request that the Regions and MECP review the AQIA to confirm that all appropriate reasonably foreseeable future activities have been included (Dillon Recommendation #5).

4.6 The DYEC is situated in close proximity to multiple new development areas being planned by the Municipality. These include the Courtice Waterfront and Energy Park Secondary Plan and the Courtice Employment Lands and Major Transit Station Area (MTSA) Secondary Plan. Both Secondary Plan areas are envisioned to undergo significant transformation from their current predominantly agricultural use into thriving neighbourhoods with amenities, opportunities for recreation, and residential uses. In accordance with provincial and regional policy, this includes planning to achieve transit supportive densities and a diverse mix of uses in the Courtice GO MTSA. Policy

requires that the Municipality plan to accommodate a minimum overall density target of 150 people and jobs per gross hectare in the Courtice GO MTSA.

4.7 It is unclear in the ESR or AQIA whether the dispersion of indicator compounds that may be achieved by the proposed increase in throughput will potentially impact these developments and the Municipality's ability to meet provincial and regional land use policy requirements for transit-oriented development. It is noted that a Land Use Compatibility Study by the Courtice Waterfront Landowners is underway and will be subject to review and acceptance by the Region.

Recommendation:

That the Municipality request the Regions and MECP include the Courtice MTSA in the AQIA and assess whether the proposal may have potential negative effects on the future development of this area and the Municipality's ability to achieve provincial and regional land use policy requirements.

4.8 The ESR indicates that the MECP requires an updated Emissions Summary Dispersion Modelling (ESDM) report as supporting documentation for a future ECA Amendment application, demonstrating that the proposal will be compliant with Ontario Regulation 419/05: Air Pollution – Local Air Quality. Dillon's review notes that changes to the composition of the DYEC waste stream have the potential to affect the assumptions made within the AQIA, thereby potentially effecting its results.

4.9 The Region of Durham (Durham) is currently in the procurement process for the future establishment of a waste pre-sort and anaerobic digestion facility. Staff understand that commissioning of the facility is targeted for 2026. Pre-sorting post-diversion waste collected by Durham is intended to remove organic waste and non-diverted recyclables prior to final disposal at the DYEC. Durham reports that nearly 50% of post-diversion waste collected and destined for the DYEC is organics suitable for anaerobic digestion, while approximately 4% is blue box recyclables.

4.10 Council and staff appreciate the beneficial contribution of the pre-sort and anaerobic digestion facility to delay future expansions of the DYEC beyond 160,000 tonnes per year. Durham is the majority owner of the DYEC, contributing roughly 78% of the current approved annual capacity. Council may consider seeking clarity from the Region on the potential effect of waste composition change due to pre-sorting on the emissions from the DYEC or the potential effects to air quality.

Recommendation:

That the Municipality request the Regions and MECP review the AQIA to confirm that the future "pre-sorted" waste composition scenario has been appropriately considered (Dillon Recommendation #7).

4.11 The Host Community Agreement (HCA) for the DYEC sets out criteria and processes that are to be considered when expansions to the waste capacity occur. Durham committed that “at the time of any expansion, Durham will give consideration to improvements to the emission control system to meet the then current MACT standards...”. “MACT” stands for Maximum Achievable Control Technology. The commitments on air emission technology and the waste sources and composition as set out in the EA remain applicable. The current proposal for increased tonnage will not trigger other clauses about building expansion and site plan amendments, as the existing boiler units can address the increase in tonnage. Clarington, for its part committed, in the HCA, to not oppose the development or operation of the facility.

Recommendation:

That the Municipality request Durham confirm how it has addressed the applicable requirements of the Host Community Agreement.

4.12 As indicated in the ESR, the potential for the proposal to have environmental effects on air quality exists because of stack emissions. On multiple occasions, Staff and Council have heard concerns respecting the potential risk of bioaccumulation as a result of the emissions from the DYEC. A Site-Specific Human Health and Ecological Risk Assessment (HHERA) was completed for the facility as part of the 2009 EA and was peer reviewed by the Municipality’s consultants (SENES). The peer review concluded that the HHERA for the DYEC considering the 140,000 tonne per year scenario was comprehensive and conformed to risk assessment guidance. It was recommended that the HHERA be updated when the facility expands to 250,000 and 400,000 tonnes per year, as was envisioned at the time.

4.13 There were comments and suggestions for improvement in the HHERA modelling based on operational information. Also, given the age of the HHERA, updating of air emissions standards, changes to baseline conditions existing in the area and significant new development underway, the peer review comments continue to provide valuable guidance.

Recommendation:

That the Municipality reaffirm its previous request to the Region and MECP that the Site-Specific HHERA be comprehensively updated as part of the supporting studies for the EA to expand the DYEC to process 250,000 tonnes per year, including that the scope of the update consider the effect of DYEC upset conditions at this significantly increased capacity.

4.14 Dillon’s review of the ESR confirms that odour management practices currently in place at the DYEC reflect good industry practice. However, a concern is raised regarding whether sufficient justification is provided to confirm the conclusion that the proposed increased throughput will not contribute to odour concerns.

4.15 Potential odour emissions for current DYEC operations were originally assessed using modelling as part of the initial ECA Amendment application for the facility. Verification by means of on-site sampling was subsequently undertaken in 2015.

Recommendation:

That the Municipality request that the Regions and MECP undertake additional technical studies as a component of the ECA Amendment application to verify that the no increase in odours is expected from the proposal (Dillon Recommendation #6).

4.16 The results of the cumulative assessment completed as a component of the AQIA indicate that the maximum predicted concentrations of nitrogen dioxides would exceed the relevant air quality criteria during testing of the standby emergency diesel generator. This testing occurs for up to a one-hour period, once per week. The assessment approach was considered to be very conservative, using worst case meteorological conditions. The exceedance was relative to the more stringent Canadian Ambient Air Quality Standards (CAAQs) of 79 ug/m³ in comparison to the Ontario Ambient Air Quality Criteria (AAQC) of 400 ug/m³. Notwithstanding, no mitigation measures were proposed. While neither the CAAQs or Ontario AAQCs are regulatory compliance limits, minimizing or eliminating the risk of exposure where feasible is requested.

Recommendation:

That the Municipality request the Region identify and implement mitigation measures to prevent the risk of nitrogen dioxide exceedances identified in the AQIA, where practicable.

4.17 In addition to nitrogen dioxides, the AQIA cumulative assessment indicated that exceedances of air quality criteria were also predicted for benzo(a)pyrene. The concentration of benzo(a)pyrene was reported to already be in exceedance of the standards in background (i.e. before any additional contribution from DYEC operating at increased capacity is added). Multiple exceedances of benzo(a)pyrene and sulphur dioxide over the applicable Ontario AAQCs at both the Courtice and Rundle ambient air monitoring stations are noted in the ESR.

4.18 The ESR attributes already elevated background concentrations of benzo(a)pyrene and sulphur dioxide to other nearby sources, including transportation emissions from Highway 401 and other industrial sources. Members of Council and the public have raised questions and concerns with respect to the state of the local airshed, and the potential cumulative effect of the industrial operations along Clarington's waterfront and the adjacent 400-series transportation network on local airshed quality.

4.19 Based on the recommendation of the Municipality's consultant following their review of St. Marys Cement's ECA Amendment application to expand the use of Low Carbon Alternative Fuels at the Bowmanville Site, Council directed that staff work with MECP and industry (e.g. St. Marys Cement and DYEC) to set up a real-time air quality

monitoring network within the Municipality (Resolution #C-449-20). The conclusion of Dillon's review reaffirms their recommendation regarding the establishment of a real-time monitoring network in their review of the current DYEC proposal to increase throughput.

4.20 The regulation and monitoring of overall air quality in Ontario is the responsibility of the MECP. Council has previously been made aware of the air quality review completed by the MECP in July 2018 for the south Clarington area, which indicated that "analysis shows that air quality in Durham Region is similar to that of other urban settings in southern Ontario and the Greater Toronto Area." As an initial step in considering Council's request, MECP have agreed to update this summary. Additional monitoring with TAGA units in Clarington was conducted in the summer of 2021. Based on recent discussion with the MECP, staff anticipate that the updated air quality review will be provided within the first half of 2022. The Mayor and staff have also engaged local industry on Council's request. The updated air quality review will be informative for this on-going work and is valuable to share with the community.

Additional Public Consultation

4.21 Following the ESP, the Regions are required to apply for approval from the MECP to amend the existing ECA to permit the increase in annual processing capacity from 140,000 to 160,000 tonnes per year. While these applications are typically subject to requirements for posting for public comment on the Environmental Registry, there are limited opportunities for exemption where an equivalent public participant process has already been carried out for a proposal. It is not known at this time whether the consultation process carried out by the Regions as part of the ESP would warrant an exemption, or whether the Regions would seek the exemption. Further, the updated ESDM requested by the MECP has not yet been made publicly available.

Recommendation:

That the Municipality request the Region and MECP commit to public consultation as a component of the ECA Amendment process to provide the Municipality and the public opportunity to review and provide comment on the application, including all supporting technical studies and other documents.

Other Comments

4.22 Several of the public comments reported in the *ESR Record of Consultation Summary Report* (December 20, 2021) raised questions and concerns relating to the potential effect of the proposal on waste reduction and diversion. The ESR outlines long term waste management planning activities underway by the Regions, which seek to maintain a focus on reducing the quantity of waste requiring disposal at the DYEC. Durham Region Council approved the 2022 – 2040 Long-Term Waste Management Plan and its first five-year action plan on January 26, 2022. The focus of the new LTWMP is on maximizing the diversion of materials from waste and recovering waste as resources to optimize its existing and planned disposal and processing infrastructure and minimize the need for disposal.

4.23 Municipal staff were involved throughout the development of the Region's new Long-Term Waste Management Plan. A copy of staff's comments on the draft Plan is provided as **Attachment 3**. On-going consultation with Local Area Municipalities, municipal Councils, and specific Municipal Departments on the implementation of actions was requested. The comments also underlined Council's Strategic Plan 2019 – 2022 goal to "advance waste reduction initiatives by promoting the four Rs: Refuse, Reduce, Reuse and Recycle." The development of an updated Long-Term Waste Management Plan by the Region supports the commitment made by the Region in the DYEC Host Community Agreement to the continuous implementation of a comprehensive waste management strategy.

4.24 The ESR states that "industrial property values are anticipated to increase with the district heating potential and road infrastructure provided as part of the DYEC construction." One of the major advantages attributed to the DYEC in its EA and Host Community Agreement is its district energy potential. However, the necessary infrastructure beyond the east wall of the DYEC has not been implemented to encourage / promote and utilize the district heating and cooling potential of the DYEC.

4.25 In 2021, a collaboration between the Municipality and Durham was initiated to assess viable options to provide a District Energy System (DES) to serve the Clarington Waterfront, Energy Park and surrounding secondary plan areas. A pre-feasibility study assessing the economic and carbon emission reduction potential of DES options for the area is anticipated to be completed in the coming weeks, the results of which will be presented to Durham and Clarington Councils with a request for direction on whether to proceed with a complete feasibility study.

5. Environmental Screening Process

5.1 Ontario Regulation 101/07: Waste Management Projects enacted under the EA Act sets out EA requirements for waste management projects. Three categories of project types

are identified. In general, these include i) projects that are subject to an individual EA, ii) projects that are subject to a streamlined EA, and iii) projects that are exempted from the EA Act.

5.2 Individual EAs are required for large-scale, complex projects with the potential for significant environmental effects. They require MECP approval. Streamlined EAs are used for routine projects that have predictable and manageable environmental effects. Proponents of these types of projects follow a self-assessment and decision-making process. Approval by the MECP is not directly granted for each project.

5.3 In June 2019, the Regions commenced a streamlined EA, referred to as an Environmental Screening Process (ESP), in accordance with Ontario Regulation 101/07: Waste Management Projects as a first step in amending the ECA for the DYEC to increase the facility's waste processing capacity. In undertaking the ESP, the Regions are obligated to comply with a prescribed process for assessing the environmental effects of the proposal, including requirements for consultation with government agencies, and interested persons, and for documenting the results of the ESP in an Environmental Screening Report (ESR). Key dates in the Regions' ESP are outlined in Table 1.

Table 1: Key Dates – DYEC Throughput Increase Environmental Screening Process

| | |
|---------------------------------|---|
| July 3, 2019 | Notice of Commencement |
| August 21, 2019 | Public Information Centre #1 |
| October 23, 2019 | Public Information Centre #2 |
| December 2, 2019 | Public Information Centre #3 |
| December 20, 2021 | Notice of Completion |
| December 20 – February 18, 2022 | Public Review Period |
| February 18, 2022 | Deadline for Submission of Elevation Requests |
| To be determined | Statement of Completion |

5.4 Upon completion, public notice is provided and the ESR and related technical studies and other supporting information is made available for a review period of at least 60 days. During this period, those with concerns have an opportunity to ask questions and seek to resolve issues directly with Proponents. A Notice of Completion for the Regions' ESP and the *Durham York Energy Centre Environmental Screening Report* (December 2021) was released on December 20, 2021, for a 60 day review period, ending at 4:30pm on February 18, 2022 (**Attachment 1**).

5.5 Where concerns cannot be resolved during the review period provided or within an additional time period mutually agreed to by a concerned party and the Proponent, an Elevation Request may be submitted to the MECP that the project be subject to a higher level of study. If no elevation requests are received during the review period, the

Proponent files a final Statement of Completion and can proceed with the project, subject to any other required approvals.

5.6 Section 4 of this report provides multiple recommendations for seeking additional information and clarification from the Regions on the proposal. A consolidation of the recommendations is provided in **Attachment 4**. Considering the scope of the comments outlined herein and the limited time remaining in the 60-day review period, it is recommended that Staff immediately seek out a mutually agreeable time period during which the Municipality, our consultants, and the Regions can work towards addressing and resolving questions and concerns. Staff would bring forward an update at the February 14, 2022 Council meeting and seek direction on next steps.

6. Concurrence

Not Applicable.

7. Conclusion

7.1 The Regions have undertaken a streamlined EA process in accordance with the requirements for waste projects under the EA Act as a first step in undertaking to increase the amount of waste the DYEC is permitted to process annually by 20,000 tonnes, from 140,000 to 160,000 tonnes per year. Under the proposed 160,000 tonnes per year scenario, no modifications or expansions to the existing infrastructure or equipment would be required.

7.2 The original EA undertaken for the DYEC considered expansion scenarios of 250,000 and 400,000 tonnes per year and has provided much of the technical basis for the current assessment of potential negative impacts. As requested by the MECP, an AQIA has been completed and an updated stand-alone ESDM will be prepared as supporting documentation for the ECA Amendment application process that will follow.

7.3 Staff and the Municipality's Air Quality Advisor have reviewed the *Durham York Energy Centre Environmental Screening Report* (December 2021), released by the Regions for a 60-day public review period. Dillon's review has found that the AQIA has generally followed industry practice and provincial requirements. However, multiple recommendations have been provided requiring discussion with the Regions and MECP.

7.4 The ESP that the Regions proposal is subject to is a proponent-driven process. Concerns with the proposal are to be directly addressed with the Regions. The timelines set out for review of the ESR, addressing questions and concerns with the Regions, and potentially making a request to elevate unresolved concerns to the MECP is limited, ending on February 18, 2022.

7.5 It is respectfully recommended that Council authorize staff to immediately notify the Region and MECP of our interest to have the comments set out herein addressed, and that a mutually agreeable time period to try to resolve concerns be established and communicated to the Director of the MECP prior to the end of the public review period. In order to keep Council informed and to have an opportunity to seek further direction from Council, it is recommended that staff report back with an update at the February 14, 2022 Council meeting.

Staff Contact: Amy Burke, Senior Planner, 905-623-3379 ext. 2423 or aburke@clarington.net.

Attachments:

- Attachment 1 – Notice of Completion Public Notice dated December 20, 2021
- Attachment 2 – Briefing on Durham York Energy Centre proposal to increase throughput (Dillon Consulting Limited, January 27, 2022)
- Attachment 3 – Municipal Comments on the Region of Durham's 2021 – 2040 Long-term Waste Management Plan (Draft)
- Attachment 4 – Consolidation of Staff Recommendations on the Durham York Energy Centre Screening Report (December 2021)

Interested Parties:

The following interested parties will be notified of Council's decision:

Gioseph Anello, Director, Waste Management Services, Region of Durham
Andrew Evans, Project Manager, Waste Planning & Technical Services, Region of Durham
Celeste Dugas, Manager, York Durham District Office, MECP
Philip Dunn, Senior Environmental Officer, York Durham District Office, MECP
Jeff Butchart, Issues Project Coordinator (Acting), York Durham District Office, MECP
Wendy Bracken
Linda Gasser
Kerry Meydam
Clarington Clear c/o Karrie Lynn Dymond



Durham York Energy Centre Throughput Increase

(From 140,000 to 160,000 tonnes per year)



Notice of Completion

Works Department

December 20, 2021 (revised)

Public Notice

The Regional Municipality of Durham and The Regional Municipality of York have completed an Environmental Screening Process in accordance with the Waste Management Projects Regulation (Ontario Regulation 101/07) of the Environmental Assessment Act to amend the Environmental Compliance Approval for the Durham York Energy Centre (DYEC), located at 1835 Energy Drive, Courtice, Ontario. The Regions will submit an Environmental Screening Report to the Ministry of Environment, Conservation and Parks on December 20, 2021 for review and approval.

The Environmental Screening Report has been prepared to increase the annual processing capacity at the DYEC from 140,000 tonnes per year to 160,000 tonnes per year. This additional capacity is needed to accommodate population growth within the two Regions, allow the DYEC to operate more efficiently and produce more energy. This increase in capacity will not require any modifications to existing infrastructure.

The Screening process involved identifying and applying criteria for potential environmental effects, public/external agency and Indigenous consultation and the development of measures to mitigate any identified environmental effects. The proposed capacity increase is not expected to have any significant net effects on the environment. The results of the study were documented in an Environmental Screening Report, available for a 60-calendar day review period from December 20, 2021 to February 18, 2022. The report is available for public review at durhamyorkwaste.ca If you are unable to access the digital copy of the report posted on this website or require an alternative format, please contact 1-800-667-5671.

If you have concerns or comments regarding this project, please contact The Regional Municipality of Durham (contact details below) to discuss. If concerns regarding this project cannot be resolved in discussion with The Regional Municipality of Durham or The Regional Municipality of York, a person or party may request that the Ministry of the Environment, Conservation and Parks make an order for the project to comply with Part II of the Environmental Assessment Act (referred to as a "elevation request"), which would elevate the project to an Individual Environmental Assessment. Requests for an "elevation request" must be submitted in writing to the Director, Environmental Assessment Branch and to the "Proponent" at the address listed below no later than 60-calendar days from the date of this Notice (December 20, 2021). Elevation request must be made in accordance with the provisions set out in Section B.3. of the "Guide to environmental assessment requirements for waste management projects". The requester must include the following information in a written "elevation request":



- the name of the project and proponent;
- the basis of the request;
- that the project be elevated to an individual environmental assessment;
- the nature of the specific environmental concerns that remain unresolved;
- the benefits of requiring the proponent to undertake an individual environmental assessment;
- information about any efforts to discuss/resolve these concerns/environmental effects with the proponent;
- details of any correspondence between the person and the proponent; and
- any other matters considered relevant by the requesting person.

Please submit the elevation request to each of the following two contacts. If submitting a hard copy request, please advise by phone or email as well due to COVID-19 circumstances.

If no elevation requests are received by 4:30 p.m. on February 18, 2022, The Regional Municipality of Durham and The Regional Municipality of York intend to proceed with the process as scheduled.

Director, Environmental Assessment Branch
Ministry of the Environment, Conservation and Parks
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Memo

To: Amy Burke, Senior Planner, Municipality of Clarington
From: Hamish Corbett-Hains, Associate, Senior Air Quality Engineer, Dillon Consulting Limited
cc: Ravi Mahabir, Partner, Dillon Consulting Limited
Date: January 27th, 2022
Subject: Briefing on Durham York Energy Centre proposal to increase throughput
Our File: 20-3534

Background

Dillon Consulting Limited (Dillon) was retained by the Municipality of Clarington (the Municipality) to provide support in commenting on the proposal by the Durham York Energy Centre (DYEC) to increase the site's throughput of post-diversion waste from 140,000 tonnes per year to 160,000 tonnes per year. Specifically, Dillon's review was focused on the assessment of air emissions related to the proposed increase in throughput at DYEC. Dillon's scope included a review of publicly available reporting in support of the DYEC capacity increase, and development of this briefing note that documents key findings. In addition, Dillon was requested to provide an opinion on the assessment of cumulative air quality effects resulting from operations at DYEC as well as the nearby St. Mary's Cement facility.

Dillon's scope does not include a compliance review of current facility operations or an assessment of previously approved reports (e.g. original Environmental Assessment or original Environmental Compliance Approval documents). It has been assumed that the MECP reviews ongoing DYEC reporting and DYEC is currently in compliance with applicable air quality regulations.

This briefing note is not a detailed peer review of the documents referenced to assess accuracy, rather it is a review of the approach and findings of the air quality studies presented to guide the Municipality in responding to the DYEC proposal. In conducting this review, Dillon therefore relied on the information provided by other consultants.

Review of the Studies

Dillon reviewed studies made publicly available by the Regional Municipalities of Durham and York (the Regions) in support of a streamlined Environmental Assessment. Included in Dillon's review were the Environmental Screening Report (ESR) authored by the Regions, dated December 2021, and Appendix D to the ESR titled *Air Quality Impact Assessment, Durham York Energy Centre*, prepared by Golder Associates Ltd. (Golder), also dated December 2021. The two reports are collectively referred to as "The Reports."

Dillon did not perform a peer review of the ESR or the Air Quality Impact Assessment (AQIA), which would involve independently confirming key technical aspects such as air dispersion modelling input parameters. In reviewing the reports Dillon notes that the methods followed appear to generally be

reasonable and in line with provincial guidance and industry standards. Specifically, the following were noted, with recommendations made as applicable:

- The AQIA quantified emission rates of indicator compounds using a combination of source testing, in-stack emission limits, and emission factors. This approach is in line with industry best practice.
- The Continuous Emissions Monitoring Systems (CEMS) at DYEC has confirmed that the facility is operating in compliance with the allowable in-stack emission limits with one exception in 2016. Therefore, the approach to quantifying emission rates is likely to be conservative.
 - Dillon clarified the approach to determining emission rates under the increased throughput scenario with Golder. The approach followed appears to conservatively over-predict emissions for the current operating scenario, while the methods used to predict emissions for the increased throughput scenario appear reasonable. The AQIA appears to appropriately represent the proposed operations, however, if emissions for the current scenario are over-predicted, the AQIA may minimize the difference between the two scenarios.
- The AQIA evaluated the emissions of indicator compounds from DYEC cumulatively with background concentrations, based on historical monitoring data from the nearby Courtice and Rundle monitoring stations. 90th percentile monitored ambient concentrations were selected to represent background concentrations which is considered to be a conservative approach following good practice. The information provided regarding the siting of the two stations demonstrates that both stations are in appropriate locations which have been approved by the MECP.
 - The Courtice monitoring station was selected to represent background concentrations where monitoring data was available. This was justified in the AQIA as the Courtice station was considered to be upwind of DYEC. The wind data presented within the AQIA shows that the Courtice station can be considered to be upwind of DYEC under approximately 20% of wind conditions. By excluding Rundle data from background concentrations, this approach may not be sufficiently conservative.

Recommendation #1: The Municipality should request that the Regions and MECP review the data selected to represent background conditions to confirm the assessment is appropriately conservative.

- The AQIA states that the Rundle station is downwind of DYEC and therefore impacted by emissions from DYEC. The wind data presented within the AQIA shows that the Rundle station can be considered to be downwind of DYEC under approximately 20% of wind conditions. The monitoring data at Rundle includes concentrations of some indicator compounds which are more than double the Courtice station, including benzo[a]pyrene. The AQIA attributes the increased concentrations to the influence of local sources such as Highway 401.

Recommendation #2: The Municipality should request that the Regions and MECP review and confirm that elevated concentrations at the Rundle monitoring station have been appropriately attributed and that potential impacts from DYEC have been considered.

- The AQIA used the US EPA's CALMET/CALPUFF modelling system, including meteorological data generated with the predictive Weather Research and Forecasting model (WRF), to predict the dispersion of indicator compounds emitted from DYEC. The use of these models is considered good practice by regulators in Ontario. The modelling input files for both the meteorological model (CALMET) and the air dispersion model (CALPUFF) were provided to the MECP for review and approval prior to model execution.
- The AQIA selected receptor locations for the air dispersion modelling assessment which are in line with MECP guidance. A nested grid of receptors was modelled to represent the area surrounding DYEC. Additionally, individual discrete receptors were placed at “locations of interest”, including: hospitals, nursing homes, schools, daycares, senior citizen centres, residential receptors, water bodies, and parks.
 - There are lands zoned to allow uses considered “locations of interest” within the AQIA at elevations above ground level. No elevated receptors were used in the AQIA.

Recommendation #3: The Municipality should work with the Regions and MECP to request that all “locations of interest” allowable under current zoning by-laws be included in the AQIA and all subsequent studies as appropriate.

- The AQIA established project criteria concentrations based on the lower of the Ontario Ambient Air Quality Criteria (AAQC), Canadian Ambient Air Quality Standards (CAAQS), and the MECP's Ontario Regulation 419/05 Point of Impingement limits. The project criteria used are reasonable and appropriate.
- The AQIA predicted concentrations of indicator compounds at each receptor location within the study area based on four emission scenarios at DYEC. The scenarios assessed include existing operations with only emissions from the main stack, existing operations with emissions from the main stack and ancillary sources, proposed operations with main stack only, and proposed operations with main stack and ancillary sources. The maximum concentrations were presented independently as well as cumulatively with background concentrations. The AQIA separated the main process stack from the ancillary sources as no change to any of the ancillary sources is included in the proposed changes at DYEC.
 - When considering DYEC emissions from the main process stack under proposed scenario independent of background concentrations, the AQIA predicted that all indicator compounds were below the relevant criteria.
 - When considering DYEC emissions from the main process stack and ancillary sources under proposed operations independent of background concentrations, nitrogen dioxide is predicted to exceed the relevant criteria during emergency generator testing. The remaining indicator compounds are below the relevant criteria. Nitrogen dioxide is predicted to exceed the relevant criteria under the existing scenario during generator testing and no change in the predicted nitrogen dioxide concentrations is expected as a result of increased throughput at DYEC.
 - When considering cumulative concentrations (background concentrations as well as DYEC emissions) under both the existing and proposed scenarios, two additional criteria are exceeded: benzo[a]pyrene on both a 24-hour and annual basis. For both exceedances, DYEC accounts for less than 1% of the criteria. Additionally, the maximum predicted concentration of benzo[a]pyrene is not predicted to change as a result of the increase in throughput at DYEC.

- The air dispersion modelling assessment included within the AQIA demonstrates that no significant change to air quality is expected when comparing to the relevant air criteria as a result of the increased throughput from 140,000 tonnes per year to 160,000 tonnes per year. This is due to the large influence of background concentrations when comparing to the relevant criteria, as well as the relatively small increase in emissions expected as a result of the increase in throughput.
- The AQIA did not consider the increase in truck traffic to the site. The justification for this exclusion is that the proposed increase is expected to result in an additional 4 trucks per day, from 23 to 27, and that this represents a negligible change. This assumption appears to be reasonable.
- The AQIA concludes that a small decrease in offsite concentrations is expected due to the proposed increase in throughput as a result of increased stack temperature and flow rate resulting in improved dispersion of indicator compounds. Increases in both flow rate and temperature will cause the initial plume to travel higher into the atmosphere which result in a greater level of dilution and can result in lower ground-level concentrations at downwind locations.
 - Dillon clarified the approach to determining stack parameters with Golder. The assertion that stack flow rate will increase appears reasonable, however, the magnitude of the increase is not clearly explained in the AQIA. Similarly, the conclusion that stack temperature will increase due to the increase in throughput requires further explanation. Accordingly, the conclusion that no increase in offsite concentrations is predicted may require revision.

Recommendation #4: The Municipality should request that the Regions and MECP review the justification for an increased stack temperatures and request adjustments to the air dispersion modelling accordingly.

- The AQIA uses ambient monitoring data to represent background data. Under Ontario's Environmental Assessment framework, best practice is to consider the cumulative impacts of the project (i.e. DYEC), ambient data, and reasonably foreseeable future activities where possible. In this case, the use of Alternate Low Carbon Fuel (ALCF) at St. Mary's Cement (SMC) has been approved and is underway, which has the potential to have overlapping impacts with DYEC.

Recommendation #5: The Municipality should request that the Regions and MECP review the AQIA to confirm that all appropriate reasonably foreseeable future activities have been included.

- The ESR concludes that, per tonne of additional waste processed, DYEC will release fewer greenhouse gasses – measured in carbon dioxide equivalents – than the alternate approach of landfilling the waste at a remote site. The ESR considered the reduction in transportation-related greenhouse gasses as a result of landfill diversion as well as the net benefit of carbon dioxide emissions resulting from incineration when compared to methane – a more potent greenhouse gas – emissions resulting from landfilling. The approach outlined in the ESR appears to reasonably compare the two options.
- The ESR describes the odour management approaches used at DYEC which appear to be in line with good industry practice. The ESR states that odour investigations have been conducted in conjunction with the MECP which have concluded that reported odour complaints in the area

have not been attributable to DYEC. The ESR concludes that there is not expected to be an increase in odour due to the increase in capacity, however this conclusion has not been justified within the ESR.

Recommendation #6: the Municipality should consider requesting that the Regions and MECP require additional technical studies be completed to verify the conclusion that no increase in odours is expected from the capacity increase at DYEC.

- The ESR describes the proposed change at DYEC as an increase in the total volume of waste processed. No information is provided about the composition of the waste stream. Some key assumptions within the AQIA are based on current operations at DYEC. Should the waste stream composition change, these assumptions may no longer remain appropriate.

Recommendation #7: the Municipality should confirm with the Region that no change in the waste stream composition is expected.

- The ESR describes the methods followed in the 2009 Environmental Assessment to evaluate air quality during process upset conditions including start-up, shut-down, and equipment malfunction, which result in elevated emission rates. No assessment of process upset conditions has been included in the AQIA.

Recommendation #8: the Municipality should request that the Regions and MECP require an assessment of all potential operating conditions, including process upset conditions.

Conclusions

Dillon was retained by the Municipality to provide support in commenting on the proposal by Durham Region and York Region to increase the throughput of waste at the Durham York Energy Centre. Dillon's scope included a review of publicly available reports supporting the increase in throughput.

The findings of the review are as follows:

- Studies completed by DYEC show that the increase in waste throughput would lead to a small increase in emissions and a reduction in at-receptor concentrations of indicator compounds. The studies generally follow industry best practice, however, Dillon has provided recommendations to the Municipality which are intended to support the Municipality's consultation with the Regions and MECP in the review of this proposal.
- When considering the public interest in this project and other projects in the local area, it is recommended that the Municipality work with the MECP and industry (e.g. SMC, DYEC) to set up a real-time air quality monitoring network within the Municipality. This monitoring network would measure and report on a range of key air quality indicators. The intent of the network would not be to evaluate industrial compliance, but rather to enhance the public's understanding of air quality within the Municipality with a high-degree of transparency. The network would also be useful in establishing long-term trends in air quality within the Municipality and evaluating the impacts of any air-quality related initiatives.

Clarington

October 29, 2021

Angela Porteous
Supervisor of Waste Services
Works Department – Waste Management
Regional Municipality of Durham
605 Rossland Road East
Whitby, ON L1N 6A3

Email: WastePlan@Durham.ca

Dear Ms. Porteous:

**Re: 2021-2040 Long-term Waste Management Plan
Phase Two Consultation
File: PLN 33.23**

The Region of Durham's Long-Term Waste Management Plan – Draft (September 9, 2021) has been reviewed by the Municipality and we offer the following comments in conjunction with our previous comments provided during the Local Area Municipalities Consultation Session held on May 28, 2020 and May 19, 2021.

Background

The Region of Durham (Region) is developing a new Long-Term Waste Management Plan (LTWMP) to guide Regional waste management services over the next 20 years. The objectives of the previous Region of Durham Long Term Waste Management Strategy Plan: 2000 to 2020 (December 1999) have largely been met. A significant component of implementation of the previous LTWMP was the establishment of the Durham York Energy Centre (DYEC) in Clarington's Energy Park. The new LTWMP seeks to respond to a range of current issues which influence planning and provision of municipal waste management services, including a rapidly growing and increasingly diverse population, regulatory changes, and climate change.

The focus of the new LTWMP is on maximizing the diversion of materials from waste and recovering waste as resources to optimize its existing and planned disposal and processing infrastructure and minimize the need for disposal. Regional Council endorsed the guiding principles, vision, and objectives for the LTWMP on January 27, 2021. Public consultation on the draft actions and targets proposed in the LTWMP was held from September 21 to October 25, 2021.

The draft LTWMP contains measurable targets and accompanying actions for the short term (2021-2026), mid-term (2027-2033) and the long term (2034-2040), and has been designed to be reviewed and updated every five years to ensure alignment with corporate direction and associated legislation. Implementation of the LTWMP is anticipated to begin in 2022, subject to Regional Council approval.

Draft Targets and Actions

The LTWMP proposes 11 targets coupled with 53 actions to meet these targets. In general, the Municipality strongly supports the LTWMPs emphasis on waste minimization and diversion from disposal, fostering increased understanding and awareness of and access to waste diversion programs, and enhanced environmental protection. This focus is in alignment with Clarington Council's Strategic Plan 2019 – 2022 goal to "advance waste reduction initiatives by promoting the four Rs: Refuse, Reduce, Reuse and Recycle." As the host community for the Durham York Energy Centre (DYEC), Clarington is directly affected by the performance of the facility and the potential impacts of future expansion. Within five years of commencing commercial operations and 10 years ahead of original forecasts, the Region is seeking approval to increase processing capacity at the DYEC. With strong growth forecasted to continue in Durham Region, strong action and a commitment by the Region to avoid for as long as possible the next, more significant, DYEC expansion is needed. The development of an updated LTWMP by the Region supports the commitment made by the Region in the DYEC Host Community Agreement to the continuous implementation of a comprehensive waste management strategy.

With respect to the draft targets and actions proposed in the LTWMP, we offer the following comments:

Target 1A, to increase public engagement on the 5Rs through partnerships, increased accessibility, and different media, is supported by the Municipality. To achieve this target, understanding of the common inquiries Local Area Municipalities hear from the public is important. Common inquiries received by the Municipality relate to the following:

- Special pick up for mattresses, appliances, and other large household items that don't fit in the garbage;
- How to purchase blue and green bins;
- How to dispose of yard waste, trees that have been cut down, used fill, batteries and more;
- Complaints about recycling not being picked up, garbage accumulated at local bus shelters, and residents using public garbage receptacles for their own household waste;
- Who is responsible for waste collection in the Municipality (multiple calls daily);
- Locations of waste drop-off facility locations.

The Municipality also commonly receives calls from residents who first reached out to the Region but did not find the wait times acceptable or were awaiting a reply and were contacting the Municipality for assistance in the meantime.

The Municipality would like to discuss the establishment of a shared database with Durham Region to access their messaging and infographics regarding waste management services for consistency of messaging. Enhanced communications and awareness of responsibilities for waste management services will be increasingly

important as Durham Region transitions to an Extended Producer Responsibility (EPR) System for blue box collection. Local Area Municipalities request to be engaged and consulted with as part of communication planning for this transition. To this end, a separate **Action 3C2** focused on public engagement and education for planned and future EPR program transitions is set out in the draft LTWMP. It is anticipated that having some waste management services provided by the Region while others are provided by Producers will be confusing for many. The Municipality is fully supportive of this action.

More specifically relating to **Action 1A6** and **Action 1A7**, content should ideally be “ready to serve” and easily sharable. This information should be differentiated and geared for children/families and adults so it can be used with the appropriate target audience. It is recommended that the Region develop video and social media that community groups can share on the Region’s behalf. Offer opportunity for focus groups or scheduled events for more affected organizations, identifying groups who may have education and/or environmental initiatives as part of their mandate. For example:

- Public libraries, who may be able to host an event such as a virtual tour;
- Cadets or Navy League;
- Horticultural and Garden Clubs, 4H, Agricultural Societies;
- Girl Guides and Boy Scouts;
- Clarington 55+ Active Adults and Bowmanville Older Adults Association; and
- Local Hall Boards.

It is recommended that materials be shared with Clarington’s Diversity Advisory Committee for input on ways to reach various communities or additional considerations to ensure efforts have the greatest reach/engagement. In addition, it is recommended that public education campaigns be coordinated around related recognition events (e.g. Earth Day, community clean-up days) so the public and our community partners (who are sharing communications on our behalf) can make the connection.

Action 2B1 proposes that annual generation rates of garbage be measured to track progress in reducing garbage disposed. However, it is not clear whether this information will be made publicly available each year. Annual public reporting for this action is strongly encouraged.

Action 2B4 proposes collaboration with the Local Area Municipalities on common messaging and an approach to textile diversion and the reduction of single-use plastics/items. The following past actions by the Municipality on these items should be noted:

- Over the years, the Municipality has faced challenges with the proliferation of clothing and small household item donation bins throughout Clarington. Donation bins have commonly been used as de facto dumping grounds by the public leading to property standards concerns and enforcement costs. In addition, concerns regarding safety and aesthetics have also been raised. These challenges have resulted in the clean-up and removal of donation bins

throughout Clarington, except for those located on properties which contain a permitted and operating collection/sorting/retail facility (i.e. Salvation Army store). Presently, neither of Clarington's two zoning by-laws identify donation bins as a permitted use within any zone. Other Municipal by-law also impose restrictions on the placement of donation bins on both private and Municipal property. Local Municipalities should support and promote clothing and household donations to the thrift store retailers operating in their area. This not only addresses the priority of waste diversion but has the added benefit of creating local jobs and markets for these affordable items. More rural parts of our Municipalities can continue to be supported by those charities that offer on-call collection from their door step.

- On October 7, 2019, Clarington Council banned the use of all single-use plastics in Clarington's Municipal Administrative Centre, effective November 30, 2021. In accordance with Council's direction staff has also continued to work on the development of programs to effectively eliminate the use of single-use plastics in other Municipal facilities, where there exists an environmentally responsible alternative, and is moving forward with other forms of waste reduction for municipal buildings that are in line with Council's Strategic Priority for Environmental Sustainability. In August 2021, a fully accessible 4Rs pilot project was launched at two Municipal recreation facilities. A three-stream waste system, including bins with educational signage and tactile mats in front of each bin for accessibility now provides for the separation of garbage, blue box recyclables and organic waste. The colour-coded signage provides a QR Code link to the Region's Know Before You Throw webpage to assist users. All Municipal buildings are the responsibility of our Community Services Department, who should be engaged in any future discussions on establishing common approaches and consistent waste programming for Municipal facilities.

Action 3A1 captures the initiative already underway by the Region to develop a mixed waste pre-sort and anaerobic digestion facility. While Clarington Council supports the related objective to increase diversion of waste from disposal and support the circular economy, Clarington Council has declared itself as an unwilling host for the facility (Clarington Resolution #GG-244-20, approved July 6-7, 2020).

Action 3A5 and **Action 3B3** both relate to increasing diversion and improving servicing for denser forms of development, which we appreciate are becoming increasingly complex. It is not clear whether Action 3B3 is referring to both existing and new medium and higher density developments. We recommend action focused on addressing existing challenges with medium and high density housing forms that do not receive Regional waste collection services currently, to transition these built forms to full waste servicing. Specifically relating to new developments, we recommend Action 3A5 be broadened to capture other forms of more complex and dense developments / built forms, including mixed-use and other medium and high density housing forms.

To this end, the Municipality is prepared to:

- Promote the reduction, reuse and recycling of waste, with particular attention to medium and higher density housing forms, which meets applicable provincial standards and has given consideration to the Region's waste collection design and servicing requirements; and
- Enhance municipal policies to further support waste diversion and servicing for new developments.

While **Action 3B1** and **Action 3B2** speak to updates that will be needed to the Region's waste by-law, it should also be noted that any consideration of local by-laws to support waste reduction and diversion, local by-law enforcement, and/or proposals for the municipal assumption of responsibility of program and/or services requires full consultation with Local Area Municipalities and the concurrence of municipal Councils.

Action 3C4 involves the Region exploring additional opportunities to reuse or recycle materials not covered under the regulations for Hazardous and Special Products. The Municipality requests that Clarington Emergency and Fire Services be consulted on any proposed changes to household hazardous wastes accepted at the Clarington Household Special Waste Depot in order to ensure that appropriate fire safety measures are in place and EFS staff are adequately trained to respond in the event of an emergency.

Action 3C7 relates to the evaluation of continued blue box services to small businesses (i.e. BIAs) deemed ineligible for servicing under the new EPR program. Staff understand that a report on potential options will be before Regional Council in November 2021. The Municipality requests that the Region notify our local BIAs and other small businesses currently receiving blue box collection services of this pending options report and consult with them on the options being considered. The Municipality can provide appropriate contacts for our local BIAs, if needed.

Target 4A is intended to implement the LTWMP objective to support the Region's greenhouse gas (GHG) reduction and climate change mitigation efforts. The Municipality provides the following comments with respect to the proposed development of initiatives to offset or reduce GHG emissions from solid waste that contribute to the Region's Corporate GHG emissions:

- A strategy to sequester and/or offset carbon emissions should be included in this plan as a solution to the GHGs emitted from the DYEC;
- A portion of the waste burned at the DYEC originates from outside Durham Region. Only Durham Region's waste is included in Regional Corporate GHG emissions calculations. This assumes that all other municipalities are taking responsibility for the GHG emissions associated with their waste. The Region should include all GHG emissions from the DYEC as corporate GHG emissions calculations to take responsibility for the impact of the facility, which is under its control.

- Currently, scope 3 emissions are not included in the Region's corporate annual GHG inventory reporting. The Region has influence over key Scope 3 emissions categories including contracted waste haulage services. The Region should include this in their GHG emissions reporting.
- While the Region is not required to calculate GHG emissions from historical landfills, the Region could take actions to track and reduce GHG emissions and pollution associated with historical landfills.
- Within **Action 4A1** and **Action 4A8**, it is unclear what is meant by 'alternative fuels'. If the reference is to low-carbon fuel sources, it is suggested that this term be used for added clarity and demonstration of the objective of GHG reduction.
- **Action 4A4**, exploring the possibility of using waste heat generated at DYEC and surrounding facilities for district heating should be expanded to include all potential sites of waste heat production and consumption in the areas in and around the Energy Park.
- Regarding **Action 4A5**, any carbon emissions management plan should include all carbon emissions associated with Regional waste facilities and operations that are under the Region's control, including scope 3 emissions from waste haulage, waste transportation, and staff's transportation.
- It is unclear whether the measurement proposed for **Target 4A** includes annual reporting of waste facility and waste haulage/ transportation related GHG emissions. It is encouraged that this value form part of reporting on the LTWMP.

Objective 5 sets out 2 targets and 7 actions to protect or improve water, land and air quality in Durham Region. While **Target 5A** speaks in general terms to the Region's waste management facilities, there is no direct mention or actions focused on the DYEC. The Host Community Agreement between the Region and the Municipality for the DYEC (item 3) commits the Region to ensuring that the DYEC incorporates and utilizes modern, state of the art, emissions control technologies; uses maximum achievable control technology for emissions control and monitoring systems; and that 24/7 monitoring systems for appropriate parameters are used, where technically possible. In support of this commitment, the Municipality requests that an additional on-going action be added to the LTWMP to review emissions control and monitoring systems at the DYEC and other existing and future Regional waste processing facilities, and to identify, evaluate and implement where feasible and practicable opportunities for improvement based on operational experience, emerging best practices and technological advancements.

On November 2-3, 2020, Clarington Council approved Resolution #C-449-20, which included *that Municipal Staff be requested to work with MECP and industry (e.g. [St. Marys Cement], DYEC) to set up a real-time air quality monitoring network within the Municipality*. In collaboration with the Ministry of Environment, Conservation and Parks, work is underway to update past reporting on the air quality for Clarington and in particular the south Courtice area. We appreciate the support the Region has provided to share information and data and would like to continue to collaborate with the Region,

MECP, and other local industries to review and share information about local airshed matters. We request the Region add a further action under Objective 5 committing to collaborate with the Municipality and other local stakeholders on the implementation of a real-term monitoring network in the short-term and to contribute to the monitoring, improvement and reporting on the cumulative impact of the DYEC and other industrial emitters in proximity to the DYEC on an on-going basis.

It is not clear how **Target 5B** to increase accessibility of waste management programs and services, directly contributes to the overarching objective to protect or improve water, land and air quality in Durham Region.

In closing,

We appreciate the opportunity to be engaged throughout the development of an updated LTWMP for Durham Region and for the consideration of our feedback. If you have any questions on the comments provided herein, please contact Faye Langmaid, Manager of Special Projects (905-623-3379 ext. 2407 or flangmaid@clarington.net) or Amy Burke, Senior Planner (905-623-3379 ext. 2423 or aburke@clarington.net).

Sincerely,



Ryan Windle, Director
Planning and Development Services
Municipality of Clarington

cc: Mayor and Members of Council
Andy Allison, CAO
Department Heads
Faye Langmaid, Manager of Special Projects
Amy Burke, Senior Planner

PDS-008-22 Attachment 4: Consolidation of Staff Recommendations on the Durham York Energy Centre Screening Report (December 2021)

Recommendation:

That the Municipality request that the Regions and MECP review the agreed to modelling methodology / data inputs to confirm their appropriateness, taking into consideration Recommendation #1, #2, #3, #4 and #8 from Dillon, as described in **Attachment 2**.

Recommendation:

That the Municipality request that the Regions and MECP review the AQIA to confirm that all appropriate reasonably foreseeable future activities have been included (Dillon Recommendation #5).

Recommendation:

That the Municipality request the Regions and MECP include the Courtice MTSA in the AQIA and assess whether the proposal may have potential negative effects on the future development of this area and the Municipality's ability to achieve provincial and regional land use policy requirements.

Recommendation:

That the Municipality request the Regions and MECP consider the current waste composition scenario and the future "pre-sorted" waste composition scenario as part of the demonstration of compliance with air quality limits that the Regions are required to undertake to support their ECA Amendment application for the proposed throughput increase.

Recommendation:

That the Municipality request Durham confirm how it has addressed the applicable requirements of the Host Community Agreement.

Recommendation:

That the Municipality reaffirm its previous request to the Region and MECP that the Site-Specific HHERA be comprehensively updated as part of the supporting studies for the EA to expand the DYEC to process 250,000 tonnes per year, including that the scope of the update consider the effect of DYEC upset conditions at this significantly increased capacity.

Recommendation:

That the Municipality request that the Regions and MECP undertake additional technical studies as a component of the ECA Amendment application to verify that the no increase in odours is expected from the proposal (Dillon Recommendation #6).

Recommendation:

That the Municipality request the Region identify and implement mitigation measures to prevent the risk of nitrogen dioxide exceedances identified in the AQIA, where practicable.

Recommendation:

That the Municipality request the Region and MECP commit to public consultation as a component of the ECA Amendment process to provide the Municipality and the Public opportunity to review and provide comment on the application, including all supporting technical studies and other documents.