

Clause 5 in Report No. 10 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on May 21, 2015.

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Emerald Energy-from-Waste Upset Limit Increase

Committee of the Whole recommends adoption of the following recommendation contained in the report dated April 29, 2015 from the Commissioner of Environmental Services:

1. Recommendation

It is recommended that:

1. Council authorize up to an additional 3,000 tonnes of waste annually to be delivered under the Region's contract with Emerald Energy from Waste Inc., and that the upset limit be increased from \$13,938,468 to \$17,058,468 to accommodate the extra tonnage until September 15, 2028.

2. Purpose

This report requests an increase to the upset limit under the Region's contract with Emerald Energy from Waste Inc. (Emerald EFW) to provide additional energy-from-waste capacity for processing residual waste. Use of this contingency capacity will be subject to availability and prior agreement by Emerald EFW. The guaranteed minimum and maximum tonnages under the existing contract will not be amended.

3. Background

Council approved contracts with Emerald EFW and Covanta Niagara in October 2013

In response to the closure of the Dongara Waste Pelletization Plant in September 2013, staff acted on previously delegated authority to negotiate new energy-from-

waste contracts with Emerald EFW (formerly Algonquin Power) and Covanta Niagara. Council authorized staff to negotiate up to 70,000 tonnes of combined annual capacity at the two facilities. The resulting contracts were approved by Council in October 2013.

Emerald EFW contract was created to take advantage of direct delivery from the curb

As reported to Council in October 2013, staff divided the 70,000 tonnes of approved annual capacity between Emerald EFW and Covanta Niagara based on the combined cost of the following three factors:

- Per-tonne loading fees at the Region's transfer stations
- Fees for transportation from the transfer stations to the processing facility
- Processing fees

Areas within the City of Vaughan are close enough to Emerald EFW to make direct delivery from the curb economically practical. By delivering directly from the curb, the Region avoids transfer and transportation fees. On this basis, a contract was awarded to Emerald EFW for 12,400 tonnes per year, which represents the maximum amount of material that could be delivered directly from the curb.

For material routed through the Region's transfer stations, Covanta Niagara was found to be the most cost effective alternative given transfer, transportation, and processing fees. On this basis, Covanta Niagara was awarded the remaining 57,600 tonnes of the 70,000 tonnes of annual capacity authorized by Council.

4. Analysis and Options

Canadian dollar devaluation and contractual cost escalation provisions increase unit price at Covanta Niagara

York Region's contract with Covanta Niagara includes provisions to share currency risk between the two parties. The contract is priced in Canadian dollars, which provides overall price stability for the Region. To mitigate Covanta Niagara's long-term currency risk, the contract includes a currency adjustment in the event that the average monthly value of the Canadian dollar as reported by the Bank of Canada decreases to less than \$0.90 U.S. dollars. The value of the Canadian dollar decreased to less than \$0.90 U.S. dollars in October 2014 and has remained below that threshold as of the date of this report. The resulting currency adjustments, in combination with annual cost escalation as specified in the contract, have increased Covanta's processing price since the contract was awarded in September 2013.

Transportation cost reduction to Emerald EFW closes gap to Covanta Niagara pricing

In May 2014, York Region awarded a contract to U-Pak Disposals for transportation of waste to the Durham York Energy Centre through Request for Tender #T-14-27. The contract includes transportation for up to 3,000 tonnes of waste per year to alternate destinations, such as Emerald EFW. The alternate destinations are intended to be used during regularly scheduled maintenance activities or service disruptions at the Durham York Energy Centre. U-Pak’s pricing for transportation to Emerald EFW is more favorable than pricing that was available in 2013, further reducing the total cost difference between Emerald EFW and Covanta Niagara for material hauled from the Region’s transfer stations.

Current Emerald EFW total unit cost lower than Covanta Niagara

As a result of currency adjustments, annual cost escalation, and reduced transportation rates, Emerald EFW is currently the Region’s least expensive alternative for processing of up to 3,000 per year of waste originating from the Region’s transfer stations as illustrated in Table 1. Emerald EFW is also the closest of York Region’s processing and disposal destinations, further reducing vehicle emissions during waste transportation.

Table 1
Summary of Average Transportation and Processing Cost per Tonne

Contract	Contract Type¹	Transportation and Processing Cost Per Tonne
Emerald EFW ²	EFW	\$67.79
Covanta Niagara ³	EFW	\$69.98
Durham York Energy Centre ⁴	EFW	\$72.00
Walker Environmental Group ⁵	Landfill	\$68.06

1. EFW = “Energy-from-waste”
2. Includes processing at Emerald EFW and up to 3,000 tonnes per year of transportation by U-Pak Disposals at current contract rates.
3. Actual year-to-date cost per tonne in Canadian dollars including currency adjustments and transportation by ECL Carriers as of March 31.
4. Budgetary estimated cost per tonne, net of electricity and metal recovery revenue, including transportation by U-Pak Disposals.
5. Formerly Niagara Waste Systems Limited. Current contract rate including transportation and disposal.

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Increase to Emerald EFW upset limit provides potential increase to energy-from-waste capacity with no additional tonnage commitment

Staff recommends that the upset limit for the Emerald EFW contract be increased from \$13,938,468 to \$17,058,468 to accommodate up to 3,000 additional tonnes per year from the Region's transfer stations through the end of the contract on September 15, 2028. Use of this additional capacity would be subject to availability and agreement by Emerald EFW and would not count against the guaranteed minimum or maximum limits for material delivered from the curb as specified in the contract. York Region's existing residual waste contracts and the requested upset limit increase are summarized in Table 2.

Maintaining multiple energy-from-waste contracts helps maximize diversion from landfill by providing alternate processing during service disruptions. It also provides the flexibility to respond to changing market conditions, such as continued currency pressure on processing prices at Covanta Niagara.

Increasing the upset limit at Emerald EFW provides another potential energy-from-waste alternative with no additional minimum commitment. It allows the Region to use additional capacity, if available, without creating an obligation to provide additional tonnage. York Region retains its ability to manage material using its other contracts as required.

Table 2
York Region Residual Waste Contract Summary¹

Contract	Contract Type²	Current Minimum Annual Tonnage	Current Maximum Annual Tonnage	Including Additional Emerald EFW Tonnage³
Emerald EFW	EFW	10,000	12,400	15,400
Covanta Niagara	EFW	45,000	57,600	57,600
Durham York Energy Centre	EFW	30,000	30,000	30,000
Walker Environmental Group	Landfill	10,000	40,000	40,000
Total		95,000	140,000	143,000
Projected 2015 Residual Waste Generation⁴			132,608	132,608

1. Excludes up to 80,000 tonnes per year of contingency disposal at Green Lane Landfill.

2. EFW = "Energy-from-waste"

3. Additional tonnage subject to availability and prior agreement by Emerald EFW with no impact on contractual limits for waste delivered from the curb.

4. Projected 2015 residual waste generation as per the SM4RT Living Plan.

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As shown in Table 2, York Region has sufficient available tonnage to satisfy its minimum tonnage commitments. This provides the flexibility to redistribute tonnage among the various contracts as required.

5. Link to key Council-approved plans

Council has endorsed the 4th “R” (energy recovery) as the preferred method for managing non-recyclable waste. The Regional Official Plan establishes a goal of 90 per cent diversion from landfill by 2016 and 100 per cent diversion from landfill by 2020. Energy recovery from waste is also identified as an important objective in the York Region Sustainability Strategy, the 2015 to 2019 Strategic Plan, and Vision 2051. Increasing the upset limit of the Emerald EFW contract provides an additional processing alternative to help support these goals.

6. Financial Implications

Increase to Emerald EFW upset limit provides an additional energy-from-waste alternative at no additional cost

As noted in Table 1, the Emerald EFW contract is currently York Region’s lowest-cost alternative for managing residual waste. Increasing the contractual upset limit provides the flexibility to make further use of this facility at no additional cost relative to other processing options. At current rates, York Region could potentially realize savings of approximately \$6,000 per year if the full 3,000 tonne increase was used. More importantly, making this option available could reduce the likelihood that York Region would need to landfill waste that could otherwise be processed in the event of a service disruption at Covanta Niagara or Durham York Energy Centre.

The requested upset limit increase of \$3,120,000 would allow for processing of up to 3,000 additional tonnes per year at Emerald EFW through the end of the contract on September 15, 2028 at the current contract unit price, plus an estimated annual inflation adjustment of two per cent per year. The value of the requested increase is equivalent to \$229,400 per year on average.

7. Local Municipal Impact

York Region is committed to waste diversion and provision of sustainable, long-term waste management programs. York Region continues to partner with local municipalities on current waste diversion programs and future waste management program direction through the Integrated Waste Management

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Master Plan. Together with our local municipalities, we have achieved number one ranking by WDO for 2013 in addition to driving forward waste diversion, as well as a new focus on waste reduction. York Region's energy-from-waste contracts contribute to the provision of sustainable, long-term residual waste management services to all local municipalities.

8. Conclusion

Increasing the upset limit of the Region's contract with Emerald Energy from Waste Inc. provides an additional alternative that may be used to process 3,000 tonnes of residual waste when other contracts are unavailable. This additional alternative could potentially reduce the amount of waste that would need to be landfilled at no additional cost to the Region.

For more information on this report, please contact Laura McDowell, Director, Environmental Promotion and Protection, Environmental Services at ext. 75077.

The Senior Management Group has reviewed this report.

April 29, 2015

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Accessible formats or communication supports are available upon request