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HALTON ENERGY FROM WASTE PROJECT UPDATE

The Solid Waste Management Committee recommends the adoption of the recommendation contained in the following report, February 5, 2007, from the Commissioner of Transportation and Works:

1. RECOMMENDATION

It is recommended that the following report be received for information.

2. PURPOSE

The purpose of this report is to provide information on the Regional Municipality of Halton's (Halton) investigation into the siting of an energy from waste facility at the Halton Waste Management Site.

3. BACKGROUND

The Region of York, in partnership with Durham Region, is presently exploring the opportunity of completing an Environmental Assessment which may lead to the siting of an energy from waste facility in one of the two Regions. As part of the due diligence in this process, York staff is monitoring the progress of Halton in the siting of an energy from waste facility within its boundaries. If the development of such a facility was to proceed in Halton, it could provide an alternative to the York/Durham Residual Waste Study.

4. ANALYSIS AND OPTIONS

In 1989, Halton received approval through an Environmental Assessment Joint Board Decision to move forward on the development and operation of a waste management site located on Halton Regional Road 25, in the Town of Milton. Condition 2 of the Joint Board Decision stated that Halton would make all reasonable efforts to comply with the solid waste management strategy approved by Halton Regional Council in 1986, including implementing an energy from waste facility within eight years from the first receipt of waste at the site. Halton's landfill operations at the site commenced in 1992 and according to the Joint Board Decision, this meant that Halton would have had an energy from waste facility in operation by the year 2000. However, the Province of Ontario granted an amendment to Condition 2 in 2002, which removed the eight year timing decision for the implementation of an energy from waste facility.

4.1 Meeting with Minister of the Environment

Halton's Chairman met with the Minister of the Environment in March of 2006 and as a result received a letter back from the Minister's office on March 22, 2006 which confirmed the following:

- Halton does have approval under the Environmental Assessment Act to implement an energy from waste facility at the Halton Waste Management Site.

- Halton is allowed to proceed with the energy from waste project whenever it determined that an energy from waste facility was needed for the proper management of waste.

- All conditions of the existing Environmental Assessment Act approval would need to be met; however, no additional Environmental Assessment Act approvals would be required.

- Halton would need to undertake some form of public consultation.

It is important to note that neither Halton nor the Ministry of the Environment is sure, at this time, which areas in Ontario are included in the service area of the proposed Halton energy from waste facility. If the service area of the facility is only for waste originating in Halton, additional Environmental Assessment Act hearings could be required to expand the service area of the proposed facility to allow it to receive waste originating from outside of Halton.

4.2 Halton's Current Waste Management System

Halton currently provides waste disposal, at the Halton Waste Management Site, for 100% of the residential waste generated within its Region. Halton's current diversion rate of waste from disposal is 42.6%. On June 21, 2006, Halton Regional Council approved a 2006-2010 Solid Waste Management Strategy in order to achieve a 60% waste diversion rate by the year 2010 and thereby conserve the Region's valuable landfill capacity. With a planned diversion rate of 60% by 2010, the landfill capacity for Halton would be extended to 2030.

4.3 Rationale for an Energy from Waste Facility

Despite having landfill disposal capacity until 2030, Halton is looking beyond the year 2030 because it believes it could be vulnerable to any change in existing waste disposal conditions in the GTA. It believes that if the Michigan border was to be closed it might have to accommodate the Industrial, Commercial, and Institutional waste generated within its boundaries, that is currently transferred to the U.S. for disposal. In addition, it believes the Ontario government might order Halton to receive other GTA municipal waste at its Halton Waste Management Site during a waste disposal crisis.

The development of new waste disposal facilities in Ontario can be a time consuming and expensive process. Halton can attest to this, having experienced the demands of the process during the approval of its current Halton Waste Management Site. However, Halton also recognizes that by following the original conditions and intent of an Environmental Assessment approval for the Halton Waste Management Site, this means that it does not have to begin the Environmental Assessment process from the start. As a result, Halton believes that this could result in a time savings of many years in the approvals process and potentially several million dollars in approval cost savings. Halton views this as a unique opportunity to fast track the implementation of an energy from waste facility and potentially provide additional capacity for sale to other GTA Municipalities.

4.4 Hiring of Consultants to Prepare a Detailed Business Case

Currently, Halton staff has selected MacViro Consultants to prepare a detailed business case for the development of an energy from waste facility. A key task for the consultant will be to determine the service area of the energy from waste facility. The business case will look at a range of energy from waste facility sizes beginning with a facility which has an annual processing rate of 275,000 tonnes (the annual volume of waste currently produced by residents and the Industrial, Commercial, and Institutional sectors in Halton) and up to a facility processing 1.2 million tonnes per year. Halton believes by investing in a larger facility, it could realize significant potential benefits due to the economies resulting from the scale of the facility and the opportunity to generate additional revenue. Halton staff expects that it will be reporting to its Council, on the details of the business plan, in September of this year. York staff will monitor the Halton process and will report back to Committee and Council with a further update in the Fall of this year. This timing will be concurrent with York Council's discussion on finding a preferred site for the York Durham energy from waste plant, and if there is an opportunity to partner with Halton Region it will provide an option for consideration.

The preliminary financial model prepared by Halton indicates that a large scale energy from waste facility could generate over $40 million net revenue per year. It is estimated that a 1.2 million tonnes per year facility could generate 70-80 MW/H of energy; enough to provide sufficient power for approximately 60,000 households. Estimates also indicate that the capital costs of developing a large scale energy from waste facility would be in the range of $500 million, with the potential for another $200 million being required for further infrastructure that would be needed to handle waste from outside the Region.

The operating cost for the facility is estimated to be between $120 and $150 per tonne. Halton staff recognizes that this operating cost is higher than current landfill disposal rates; however, the belief is that landfill disposal costs could increase in the future when U.S. disposal options aren't available for Ontario waste. In addition, there is a strong belief that the security of having a disposal solution within your own municipal boundaries is worth the tradeoff of paying a higher operating cost per tonne for the management of that disposal solution.

4.5 Public Perception of Energy from Waste

As technology in energy from waste continues to improve, so does the public's perception of the energy from waste technology as a means for managing the safe disposal of municipal waste. Public opinion polls conducted in 2006 by Environics Research, on behalf of Halton, determined that 72% of respondents believed that investigating the thermal processing of garbage in modern energy from waste facilities should be explored by Halton before the year 2010.

4.6 Staying the Course for Waste Diversion

Halton has stated in all their communications that the energy from waste facility is not a replacement for recycling and composting. It suggests that the energy from waste facility should only be used for materials that have no higher end use than to be converted to energy and that the most effective use of energy from waste is in concert with other elements in an integrated waste management system.

4.7 Relationship to Vision 2026

The York Durham Residual Waste Environmental Assessment Study seeks to provide a long-term waste management solution consistent with the "Managing and Minimizing Waste" actions to meet the "Infrastructure for a Growing Region" goal in Vision 2026. In addition, developing an energy from waste solution will contribute to the goal of "Enhanced Environment, Heritage and Culture" by reducing air emissions resulting from the transportation and landfilling waste.

5. FINANCIAL IMPLICATIONS

Based on the preliminary cost estimates produced by Halton staff, it appears that the capital cost of a large scale (1.2 million tonnes per year) energy from waste facility will be in the range of $700 million and the total cost between $120 and $150 per tonne. The cost per tonne is consistent with the estimates in the York/Durham Residual Waste Study.

6. LOCAL MUNICIPAL IMPACT

There are no local municipal implications for this report.

7. CONCLUSION

Despite having landfill capacity within its own boundaries to manage waste until the year 2030, Halton is investigating the development of an energy from waste facility. It has selected MacViro Consultants to prepare a detailed business plan on the viability of energy from waste. Halton staff expect to report to its Council in September of this year, on the details of the business plan. As part of its due diligence process, in the participation of the joint York/Durham energy from waste project, York staff will

monitor the progress of the Halton process and report back to Committee and Council with a further update in the Fall of this year.

For more information on this report contact Angelos Bacopoulos, Senior Project Manager of the Solid Waste Management Branch at 905-806-5544 in the Transportation and Works Department.

The Senior Management Group has reviewed this report.