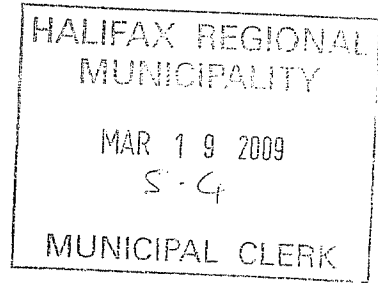




Solid Waste Resources
PO Box 1749
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MEMORANDUM

TO: Bill Karsten, Chairman and
Members of Solid Waste Resource Advisory Committee

CC: Mike Labrecque, P.Eng., Director, TPW
Anne Feist, Operations Manager, Procurement

FROM: Jim Bauld, Manager, Solid Waste Resources

DATE: March 17, 2009

SUBJECT: Enerkem Technologies Ltd. - Presentation at March 26th SWRAC

In early 2008, an unsolicited proposal was received from Enerkem Technologies, Montreal, to partner with HRM for the establishment of a biofuel facility at Otter Lake. Enerkem's technology is a thermo-chemical advanced gas purification process where carbon rich waste material, such as soiled paper, plastic (bags) and textile/clothing, is shredded and processed to produce ethanol and methanol, which has commercial value. Both the Federal and Provincial governments have endorsed a 5% increase in the use of ethanol and methanol as a substitute for gasoline by 2012.

Enerkem's proposal has the potential to substantially reduce the mixed waste coming out of the Front End Processor (FEP) and Waste Stabilization Facility (WSF) disposed in each cell at the Otter Lake facility, from approximately 100,000 tonnes to 15,000 tonnes annually. A reduction of waste of this magnitude has the potential to extend the life of future cells 6, 7, 8 and 9 by a minimum of twelve years, from 2024/25 to 2036/37. Total disposed annually in each cell were an Enerkem facility be established, would be in the range of 55,000 Tonnes, compared to the current approximate 150,000 Tonnes (a 60% reduction).

In June 2008, the City of Edmonton executed a 25-year contract with Enerkem for a similar undertaking as proposed for HRM. The Enerkem facility in Edmonton, which is scheduled to go into production in 2010, will process mixed waste and de-watered sewage sludge from the Edmonton co-composting facility. In January 2009, the first commercial-scale biofuels facility in Westbury, Quebec (south shore of Montreal), came on line. The Westbury facility utilizes wood waste bio mass (i.e. utility poles) to produce ethanol and methanol.

*Each landfill cell costs \$15 million and is full in three years.
Help extend the life of each cell by recycling and composting.*

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Attached are the Press/News Releases for the Enekerm facility in Westbury and Edmonton. Also attached is a document provided by Enerkem entitled "Second-generation bio-fuels" which describes the thermo-chemical technology and claimed attributable benefits.

The proposal from Enerkem has been reviewed by SWR, TPW, Finance and Legal Services staff. Enerkem has been advised that the HRM may decide to issue an Expression of Interest to test other proposals for utilizing mixed waste from the FEP/WSF. Enerkem has advised that they are prepared to respond to an EOI should HRM issue one.

For the Enerkem proposal to be seriously considered, agreement is required by MIRROR NS relating to warrants and guarantees in the 1997 Contract Agreement for the Design, Construction and Operation of the Otter Lake facility, as well as agreement by the local community. Both MIRROR NS and the Community Monitoring Committee are aware of the proposal from Enerkem and have toured the facility in Westbury, Quebec.


Mr. Dino Mili, Vice President, Business Development, has offered to visit HRM again (he toured the Otter Lake facility in 2008 and observed the high carbon content of the mixed waste residue in the FEP/WSF) to present the Enerkem proposal to members of SWRAC at the March 26, 2009 meeting.

The purpose of the presentation by Mr. Mili to all members of SWRAC (and other members of Regional Council who are interested to learn of this potential opportunity) is to provide staff direction. The following options available are:

1. decline the proposal - no interest at this time;
2. for staff to issue an EOI and to test the market for other potential companies that may be interested; or
3. for staff in 2009/10, in partnership with MIRROR NS and the Community Monitoring Committee, to investigate by visiting and speaking to officials in Edmonton and Westbury, i.e. conduct due diligence, and report back to SWRAC on the findings in early 2010 (Recommended). (This does not preclude option #1 or #2 in the future.)

The investigation of a new waste diversion initiative is consistent with the Regional Plan Policy # SU-22 (attached). The extension of the life of each new landfill cell beyond the current 3 years, has the benefit of reducing the annual capital budget funding contribution to SWR Reserves Q120 and Q123.

Should option #3 be endorsed, upon the gathering of additional information, a detailed business case will be prepared for presentation to SWRAC for consideration of referral to Regional Council.



Attachments (4)

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TRANSPORTATION & PUBLIC WORKS, Solid Waste Resources

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