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DURHAM YORK ENERGY FROM WASTE PROJECT POWER PURCHASE AGREEMENT

The Solid Waste Management Committee recommends the adoption of the recommendations contained in the following report dated June 12, 2009, from the Commissioner of Environmental Services.

1. RECOMMENDATIONS

It is recommended that:

1. Council authorize the Regional Chair and Regional Clerk to execute the power purchase agreement with the Ontario Power Authority subject to:
   a) Prior approval of the Durham York Residual Waste Environmental Assessment by the Minister of the Environment;
   b) Council's approval and execution of a co-owner's agreement with Durham for the Durham York energy from waste facility; and,
   c) Council's approval and joint execution with Durham Region of the Design, Build Operation and Maintenance Agreement with Covanta Energy Corporation.

2. Council authorize the Commissioner of Finance to obtain and provide contract security as required by the Ontario Power Authority for execution of the power purchase agreement.

2. PURPOSE

This report describes the power purchase agreement required for sale of electricity to be generated from the proposed Durham York energy from waste facility and requests authority to enter into the power purchase agreement, subject to the necessary project approvals and other project related agreements being in-place.

3. BACKGROUND

In June 2005, York and Durham Regions established a partnership to seek local solutions to responsibly manage residual waste. Through this partnership, a comprehensive Individual Environmental Assessment (IEA) has been conducted identifying implementation of an energy from waste facility at the Clarington 01 site in Durham as the preferred residual waste treatment option. Durham and York are entering the final stages of completing the documentation and application for Ministry approval of the Individual Environmental Assessment.

An extensive site selection process was conducted and identified a site in Clarington, located near Osbourne Road and Highway 401 in Durham Region, as the preferred location for a proposed energy from waste facility. The preferred site was endorsed by both Councils.

A competitive procurement process for vendor selection and Environmental Assessment proceeded on parallel tracks to expedite delivery of this critical project. A fairness consultant provided oversight throughout the process to ensure fairness and consistency and to ensure the evaluation process adhered to the pre-determined evaluation criteria.

Five vendors were prequalified through a Request for Qualification process and we have proceeded to the Request for Proposal stage to select a contractor to design, build, operate and maintain the energy from waste facility. Four proponents responded including: Covanta Energy Corporation, Green Conversions Systems LLC, Wheelabrator Technologies Inc., and Urbaser SA. A multi-disciplinary team evaluated the four proposals and unanimously concluded that Covanta achieved the highest aggregate score and also achieved the highest score in each individual assessment category; technical, project delivery, and cost and commercial elements of the Request for Proposal.

On May 21, 2009, Council approved the selection of Covanta Energy Corporation as the preferred vendor for design, build and operation of the energy from waste facility.

4. ANALYSIS AND OPTIONS

Using residual waste as a resource to power Ontario

One of the attributes for the proposed Durham York energy from waste facility is the ability to generate electricity which can be sold back into the provincial energy distribution grid. This provides a revenue stream from the energy from waste facility offsetting, to an extent, the capital and operating costs. In addition, this provides the ability to generate much needed base-load electricity for Ontario. Making use of waste as an energy resource contributes to Ontario's long-term objective of reducing its reliance on coal and other fossil fuels.

In response to discussions with Regional representatives regarding the Durham York energy from waste project and the importance of considering residual waste as a useful energy resource, on December 19, 2008, Minister Smitherman, signed a Directive to the Ontario Power Authority to enter into negotiations with the Regions for the purchase of electricity generated by the proposed energy from waste facility at the rate of eight cents per kilowatt/hour ($0.08/kw/hr).

Subsequent to the issuance of the Minster's Directive, Regional staff and consultants have been negotiating the terms of a power purchase agreement with the Ontario Power Authority for the energy from waste facility. These negotiations have recently resulted in establishment of preliminary terms of a long-term power purchase agreement for the energy from waste facility. A formal power purchase agreement must be approved by the Board of Directors for the Ontario Power Authority prior to execution. Approval and execution of the power purchase agreement by the Regions is subject to approval of the Durham York Residual Waste Study Environmental Assessment.

Key terms of the proposed power purchase agreement with the Ontario Power Authority are as follows:

General Terms:

- Energy from waste facility is to be owned only by Regions of York and Durham and/or any wholly owned municipal utility or municipal business corporation.

- Energy from waste facility will only be located at Clarington Site 01 in the Municipality of Clarington.

- No change to the generation facility (as that term is defined in the agreement) may be made without notification and approval of Ontario Power Authority.

- Ontario Power Authority must consent to any change of the electricity output of the energy from waste facility resulting in generation capacity of the facility being less than 10 MW or in excess of 45 MW, which consent may be unreasonably withheld.

- The Ontario Power Authority must be notified and consulted prior to any material change to the energy from waste Design, Build, Operation and Maintenance agreement, the Operator or any event or circumstance that could reasonably be expected to have a material effect on the Project Agreement.

- Any environmental attributes allocated or credited to the generation facility of the energy from waste facility shall be qualified and registered by the Regions at their cost and shall be the entitlement of the Ontario Power Authority.

- A detailed list of events of default which entitle the Ontario Power Authority to exercise a variety of remedies up to, and including termination of the power purchase agreement.

- Regions each indemnify and hold the Ontario Power Authority, Province of Ontario from any liability and/or costs or expenses arising out of the operation of the energy from waste facility.

Operational Terms:

- Regions commit to attain commercial operation of the generation facility within five years of the date of execution of the power purchase agreement.

- The Regions are permitted to generate and sell between 10 and 45 MW of electricity to the Ontario Power Authority under this power purchase agreement.

- Permissible fuel use for the energy from waste facility is restricted to the scope of permissible waste set out in the Durham York Residual Waste Study Environmental Assessment, provided that natural gas may be used during start-up or shut-down for the energy from waste facility and when required to maintain furnace stability and temperature.

Financial Terms:

- The Regions shall be paid the sum of eight cents ($0.08) per kW•hr for net electricity generated by the energy from waste facility (the “Contract Price”).

- 35% of the Contract Price shall be indexed to the percentage increase or decrease of the Consumer Price Index. The Contract Price for any given year shall be the sum of the indexed portion and the un-indexed portion of the Contract Price.

- Any financial incentive received from any program from any federal or provincial governmental authority which provides a payment directly related to the production of electricity will be shared equally with the Ontario Power Authority.

- Prior to execution of the power purchase agreement the Regions must post commercial operation Completion and Performance Security in the amount of $660,000. Following successful attainment of commercial operation, posted security can be reduced to the amount of $500,000. Security must be provided in the form of an irrevocable letter of credit or other financial instrument acceptable to the Ontario Power Authority.

- Failure to attain commercial operation within five years of the date of execution of the power purchase agreement will result in the Regions being liable for liquidated damages in the nominal amount of $1,300 per day until commercial operation is achieved. Liquidated damages are capped at the maximum amount of $660,000.

Over the next several months, staff from York and Durham will negotiate a co-owner’s agreement to establish terms and conditions governing the relationship between York and Durham in jointly owning and operating the energy from waste facility. The co-owner’s agreement will address matters such as the sharing of rights and obligations of York and

Durham under agreements necessary to proceed with the project, such as the power purchase agreement.

Staff are satisfied that the substantive terms of the power purchase agreement described above meet the requirements of the Minister's Directive and represents a valuable and beneficial component of the proposed Durham York energy from waste project.

5. FINANCIAL IMPLICATIONS

Using power to fund residual waste management

Establishment of a power purchase agreement with the Ontario Power Authority provides the proposed Durham York energy from waste facility with a long-term stable revenue stream to defray some of the costs of the facility.

The following table, re-printed from the previous report "*Recommendation of Preferred Vendor for Durham York Energy from Waste Facility*", adopted by Council on May 21, 2009, illustrates the significance of the Ontario Power Authority's $0.08 per kW•hr electricity payment offsetting more than half of the gross annual operating cost of the energy from waste facility.

Table 1
Business Case Assumptions

Category	Value	Comment
Electricity Rate	$80.00 / MWh	Pending Power Purchase Agreement
Net Electrical Generation	767 kWh/tonne	Guaranteed
Inflation Rate	2%	
Interest Rate	5%	
Capital Cost of EFW	$235,759,000	Capital Cost exclusive of GST
Architectural Enhancements	$9,000,000	Includes design in early works phase
Gross Annual Operating Cost	$14,665,000	April 2009 dollars
Net Electricity Revenue	($8,590,400)	Assuming 140,000 tonnes/year
Recovered Metal Revenue	($258,825)	April 2009 prices
Net Annual Operating Cost	$5,815,775	April 2009 prices
Net Operating Cost per tonne	$41.54	April 2009 dollars
	$58.63	2014 dollars

Note: operating cost per tonne does not include capital debt repayment.

The business case assumptions conservatively underestimated overall electricity revenue by assuming no future power pricing escalation. The terms negotiated for the power purchase agreement improve the future electricity revenue stream by indexing 35% of the electricity price to the Consumer Price Index.

6. LOCAL MUNICIPAL IMPACT

A power purchase agreement with Ontario Power Authority is an important element in proceeding with the Durham York energy from waste facility allowing York Region to provide a localized solution for residual wastes generated in our nine local municipalities. York will continue to partner with the local municipalities to increase waste diversion and to reduce waste management costs consistent with York's Sustainability Strategy.

7. CONCLUSION

The Durham York energy from waste project represents an approach to management of York Region's residual waste that enhances security, diversification and stability in the long-term. Establishment of a power purchase agreement with the Ontario Power Authority provides a long-term stable revenue stream to help defray some of the costs of residual waste management. The use of residual waste that remains after diversion as an energy resource represents an important step towards more sustainable waste management.

For more information on this report, please contact Laura McDowell, Director of Environmental Promotion and Protection at Ext. 5077.

The Senior Management Group has reviewed this report.