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### DURHAM YORK ENERGY FROM WASTE PROJECT UPDATE

The Environmental Services Committee recommends the adoption of the recommendations contained in the following report dated December 16, 2010, from the Commissioner of Environmental Services.

#### 1. RECOMMENDATIONS

It is recommended that:

1. The final *Notice of Approval to Proceed with the Undertaking* received from the Ministry of the Environment on November 19, 2010 be received for information.
2. The attached memorandum from York and Durham's joint consultant, HDR Inc., on potential cost impacts of the Environmental Assessment conditions of approval be received for information.

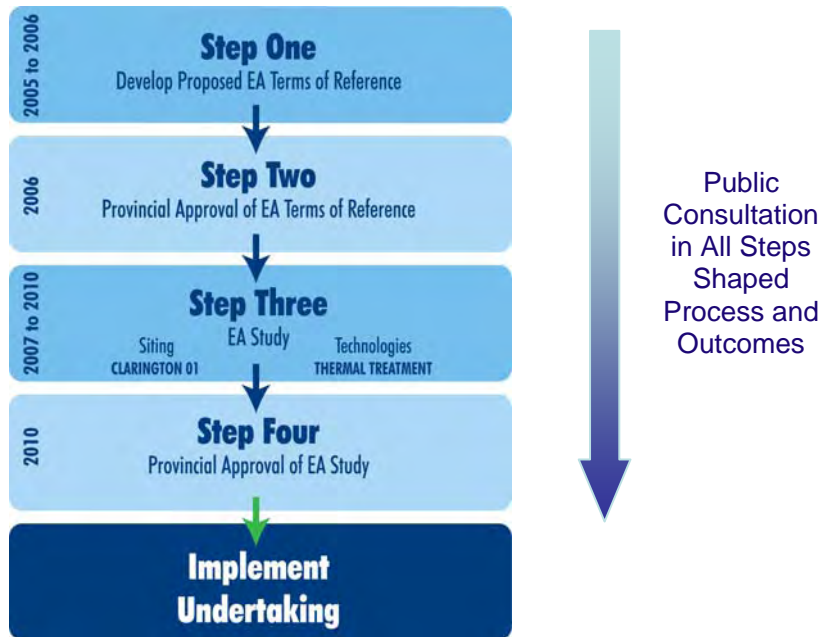
#### 2. PURPOSE

The purpose of this report is to advise Council of the Environmental Assessment Approval and related conditions received November 19, 2010 and the execution of the Project Agreement as authorized by Council on September 23, 2010.

#### 3. BACKGROUND

##### Overview of Project Background

In June 2005, York and Durham Regions established a partnership to seek local solutions to responsibly manage residual waste not captured by Regions' province-leading recycling and diversion programs. Over the past five and a half years, Durham and York have invested considerable time, money and resources to advance the project through technology selection, site selection, environmental assessment and impact studies, public consultation, and a competitive procurement process.



### **Environmental Assessment now approved by Province**

On November 19, 2010, York and Durham received approval from the Ministry of the Environment under the Environmental Assessment Act to proceed with design, permitting, construction, and operation of a state-of-the-art mass burn incinerator to be located near Osbourne Road and Highway 401 in the Municipality of Clarington, Region of Durham (see *Attachment 1*). The facility will process 140,000 tonnes of residual waste from York and Durham Regions, while recovering recyclable metals and energy in the form of electricity and steam.

Upon obtaining Environmental Assessment Approval, York and Durham executed the Project Agreement with the Design-Build-Operate contractor, Covanta Energy Limited (Covanta). Covanta has started the facility permitting process, and will complete facility construction and commissioning in 2014. Major project milestones are summarized on Table 1.

**Table 1**  
Project Timeline Estimate

<b>Milestones</b>	<b>Date</b>
<b>Completed</b>	
Province approves EA terms of reference	March 31, 2006
Energy from Waste selected as preferred method	June 22, 2006
Request for Qualification issued to thermal treatment vendors	July 12, 2007
Selection of preferred site	January 24, 2008
Request for Proposal issued to five pre-qualified vendors	August 22, 2008
Selection of preferred vendor	May 21, 2009
EA submitted to Ministry of the Environment	July 31, 2009
Revised EA submitted to Ministry of the Environment	November 27, 2009
Notification of EA approval from Ministry of the Environment	November 19, 2010
Execution of Project Agreement	November 25, 2010
<b>Pending</b>	
Execution of Co-Owners' & Power Purchase Agreements	January 2011
Receive EPA approvals	May 2011
Issue notice to proceed	May 2011
Complete detailed design	July 2012
Complete construction	December 2013
Facility commissioning	January to May 2014
Commercial operation	June 2014

**Durham-York Environmental Assessment identifies Energy from Waste project as the most sustainable solution for the Region's residual waste**

On June 23, 2005, Council agreed to partner with Durham Region to undertake an Environmental Assessment to study residual waste management options for the two Regions. Council established a Joint Waste Management Group with representation from both Regional Councils and citizens to serve as a steering committee for the initiative.

Extensive public consultation was undertaken at major steps and decision points in the process to ensure that the values and priorities of the public and stakeholders were reflected in the preferred alternative. Council approvals were obtained at major milestones such as technology selection, site selection, vendor selection, and submission of the Environmental Assessment study document. Based on a detailed evaluation of environmental, social, and economic considerations, the study identified the proposed mass burn incinerator as the most environmentally sustainable disposal option for residual waste generated in Durham and York Regions. The facility is to be constructed near Osbourne Road and Highway 401 in the Municipality of Clarington, Region of Durham.

York Region Council endorsed the Environmental Assessment on June 25, 2009, and authorized staff to make minor modifications to the document as necessary to facilitate the Ministry of the Environment's review process. The Ministry of the Environment approved the Environmental Assessment on November 19, 2010, with conditions.

### **Regional Chair and CAO authorized to execute Co-Owners' Agreement with Durham**

On June 25, 2009, York Council authorized staff to negotiate a detailed Co-Owners' Agreement with Durham Region based on the principles outlined in a Memorandum of Understanding that was negotiated between the two Regions. The purpose of the Co-Owners' Agreement is to establish a framework for the energy from waste project and principles of the relationship between the Regions during the design, build and operating phases.

On September 23, 2010, Regional staff reported to Council the status of Co-Owners' agreement negotiations. Council authorized the Regional Chair and CAO to execute the final Co-Owners' in general accordance with the following principles upon receipt of final Environmental Assessment approval.

1. York and Durham shall pay a proportionate share of the capital and operating costs based on their respective ownership of the 140,000 tonnes per year initial processing capacity (30,000 tonnes and 110,000 tonnes, respectively) and corresponding to their respective capital contributions of 21.4% and 78.6%.
2. Each Region will be responsible for its share of the annual operating fee regardless of the actual tonnage delivered.
3. Each Region may loan its unused capacity to the other Region.
4. Each Region will compensate the other for any lost revenue resulting from a failure to deliver its share of the annual facility throughput.
5. York Region has agreed to pay 50% of the cost to oversize certain items to accommodate future facility expansions to accept up to 250,000 tonnes per year.
6. If either party elects to proceed with an expansion of the facility, the other party may be required to contribute to the cost of the upgrades if the upgrades would have otherwise been required within a five year period.
7. The facility shall be governed by a joint Management Committee including representatives from both Regions.
8. The Management Committee will develop and implement a process to address any change orders that may arise during design, construction, and operation of the facility.
9. The Regions shall jointly employ a full-time, on-site representative during the operations phase of the project.

### **Host Community Agreement identifies Clarington as willing host for energy from waste facility**

On May 11, 2009, Clarington Council approved the Host Community Agreement with the Regions indicating that they would act as a willing host for the energy from waste facility. The Regions committed to protect human health and the environment by guaranteeing emission standards. In addition, the Host Community Agreement includes shared financial concessions now estimated in the order of \$16 million.

The executed Host Community Agreement acknowledges that, provided that there is public ownership of the energy from waste facility and the site by one or more municipalities, it will be considered a “public use” for the purposes of the Zoning By-law and consequently it is not necessary to amend the Clarington Official Plan or Zoning By-law.

The Host Community Agreement was endorsed by Regional Council on June 25, 2009 and subsequently executed by Durham Region. Implementation of this agreement is subject to approval of the Environmental Assessment, approval and execution of the Co-Owners Agreement, and the Project Agreement.

### **Power Purchase Agreement establishes terms for sale of electricity from the energy from waste facility**

On June 25, 2009, York Region Council adopted terms negotiated with Ontario Power Authority for the sale of electricity generated by the energy from waste facility to the Ontario power grid. A formal Power Purchase Agreement must be approved by Ontario Power Authority prior to execution. Finalizing the Power Purchase Agreement by the Regions was subject to approval of the Environmental Assessment and execution of the Co-Owners’ Agreement. As approved by Regional Council in September 2009, the Regional Chair and CAO will execute the Power Purchase Agreement in early 2011 after the final Co-Owners’ Agreement has been executed.

### **Regional Chairs executed the Project Agreement with Covanta Energy Limited in November 2010**

On September 23, 2010, Regional staff reported to Council on the status of Project Agreement negotiations. Council authorized the Regional Chair and CAO to finalize and execute the Project Agreement in general accordance with the principles outlined in that report and subject to receipt of final approval of the Environmental Assessment.

The Project Agreement was executed by both Regions on November 25, 2010.

#### 4. ANALYSIS AND OPTIONS

##### **Environmental Assessment conditions establish stringent air emissions criteria**

Air Emissions performance standards in the Project Agreement are more stringent than the Ministry of Environment Guideline A-7 standards in effect when the RFP was released. However, the Ministry of the Environment revised Guideline A-7 on October 27, 2010 and incorporated the new standards into the Environmental Assessment approval. As a result, margins that once existed between Covanta's performance guarantees and provincial regulatory standards have been reduced and standards for carbon monoxide, opacity and organic matter are now more stringent than the contract requirements.

The Owner's consultant HDR has completed a preliminary analysis of Environmental Assessment cost implications. HDR has indicated that the new requirements are achievable using existing technologies, however cost implications will depend on how Covanta proposes to mitigate risk and comply with the new standards. HDR's memo and a Fact Sheet on environmental and energy benefits of the project are attached for information (*see Attachments 2 and 3*). York Region's staff report in September of 2010 includes a \$2 million allowance to comply with Ministry of the Environment conditions.

##### **Requirement for early submission of monitoring plans to Ministry delays project schedule**

The Environmental Assessment approval requires submission of monitoring plans and protocols as summarized on Table 2.

**Table 2**  
Monitoring Plan Submission Dates

<b>Monitoring Plan</b>	<b>Submission Date</b>
Compliance Monitoring Program	60 days before construction
Complaint Protocol	60 days before construction
Ambient Air Monitoring and Reporting Plan	9 months before construction
Air Emissions Monitoring Plan	6 months before construction
Spill Contingency and Emergency Response Plan	60 days before receipt of waste
Odour Management Plan	6 months before construction
Noise Monitoring and Reporting Plan	90 days before construction
Groundwater and Surface Water Monitoring Plan	90 days before construction

The earliest submission deadline is for the Ambient Air Monitoring Plan, which must be submitted 9 months before the start of construction. York and Durham are required to establish a working group to provide input into the plan. At minimum, the Regions must invite the Ministry of the Environment, Health Canada, Durham Region Health

Department, York Region Public Health Services, one participant from the advisory committee, and any other relevant federal or provincial government agencies to participate in the working group. Assuming that the plan can be submitted by the end of January 2011, construction could start by November 2011 – a six month delay from the contractor's current estimated start of construction.

The submission deadlines may be revised if agreed to in writing by the Director, or in some cases, the Regional Director. To minimize delays to the construction process, Staff recommend petitioning the Directors with authority to amend the dates as soon as the plans are submitted.

### **Final Project Agreement establishes framework for facility design, construction, and operation**

Having received final Environmental Assessment approval on November 19, 2010, the Regional Chair and CAO executed the Project Agreement with Durham Region and Covanta as authorized by Council on September 23, 2010. The Project Agreement, which was signed on November 25, 2010, establishes the framework for facility design, construction, and operation. It covers such subjects as scope of work, technical specifications, performance standards, schedule, and compensation. The project agreement is consistent with Covanta's proposal, with the following noteworthy exceptions.

1. **Electricity Revenue Sharing:** Under the final Project Agreement, Covanta will receive 50% of the revenue for all electricity generation in excess of their contractual guarantees. Since the business case for the project has always assumed that Covanta will meet but not exceed the guarantees, this concession does not affect the Region's projected cost-revenue balance as previously reported. However, it does incentivize Covanta to conserve energy and exceed its guarantees, both of which could ultimately reduce costs for York and Durham.
2. **Notice to Proceed:** The RFP requires Covanta to hold its pricing for two years from the bid submission deadline (i.e. until April 20, 2011). Due to the lengthy delay by the Ministry of the Environment in issuing the Environmental Assessment approval, Covanta has been delayed to the point where its ability to start construction by April 2011 has been compromised. In exchange for agreeing to hold its pricing until December 31, 2011, York and Durham have revised the Project Agreement to allow Covanta to terminate the agreement after that date if Notice to Proceed with construction has not been issued, and receive compensation for the fair market value of work completed. Although this compromise is not ideal, York staff consider it preferable to reopening price negotiations in April 2011. Covanta is in the process of preparing its Environmental Protection Act approval application and staff anticipate that Notice to Proceed will be given in spring or early summer 2011.

## **York and Durham staff agree on Co-Owners' Agreement principles**

Durham staff have agreed to support the following Co-Owners' Agreement principles in a report to Durham Council in February 2011. Upon Durham Council approval, York's Regional Chair and Chief Administrative Officer will execute the final Co-Owners' Agreement as authorized by Council on September 23, 2010.

1. **Land Ownership:** Durham has agreed to sell York a fifty percent interest in the facility property, and land required for site servicing and Host Community agreement commitments at a price of \$110,000 dollars per acre.
2. **Oversizing:** York has agreed to share equally with Durham the cost of the following project components to facilitate a potential future expansion by York.
  - Roadways
  - Fire protection equipment
  - On-site and off-site utilities and utility connections, and electrical substation
  - Stormwater management works
  - Waste tipping floor, storage pit, and crane
  - Ash building and ash processing equipment
  - Stack
3. **Waste Delivery:** Durham and York's respective shares of the daily, weekly, monthly, and yearly tonnage limits as per the Project Agreement shall be in proportion to their ownership interest. Each Region will be responsible for delivering its proportionate share of the minimum annual tonnage on a put or pay basis. In addition, the Regions will compensate each other for any lost electricity and other revenue that would have been payable if both Regions had met their tonnage obligations.
4. **Governance:** Under the Electricity Act, new municipal entities selling electricity to the grid must be structured as public utilities, with certain exceptions. Legal counsel for York and Durham are currently investigating whether any exemptions could apply to the energy from waste facility. In the absence of any regulatory requirement, York and Durham staff prefer not to form a public utility since this structure is most beneficial for projects that generate net revenue from their operation. Electricity revenue from the energy from waste facility only partially offsets operating costs, such that no net revenue is generated to be distributed to shareholders. A public utility would nevertheless be subject to tax reporting requirements. If the energy from waste project is exempt from the requirement to form a public utility, York and Durham staff have agreed to form a Management Committee with equal representation by both Regions. The Management Committee will be empowered to make recommendations regarding future changes to governance structure, including whether or not to form a public utility.



York staff expect that the costs outlined above can be managed within the existing total project budget authority of \$68.3 million as approved by Council in September 2010.

## **5. FINANCIAL IMPLICATIONS**

York and Durham's joint consultant HDR has provided the attached memorandum which includes a preliminary cost estimate on the order of \$400,000 per year for complying with Environmental Assessment approval conditions (*see Attachment 2*). These estimates will be refined when facility permits are issued and the scope of annual monitoring activities is finalized.

In addition to ongoing annual operating costs described in HDR's memorandum, York Region will incur start-up costs related to preparing and submitting plans that define the scope of future monitoring, reporting, and community liaison activities. These start-up costs are within the \$2 million allowance for complying with Ministry of the Environment conditions authorized by Council on September 23, 2010.

## **6. LOCAL MUNICIPAL IMPACT**

As required by the Environmental Assessment approval, one representative from each lower tier municipality in Durham and York will be invited to participate on the facility advisory committee. This requirement will help ensure that each municipality's interests continue to be fairly represented. Development of the Durham-York energy from waste facility will provide viable, diversified and sustainable options for the long term management of York Region's residual waste. York Region will continue to partner with its local municipalities to increase waste diversion and to control long term waste management costs in accordance with the Region's Sustainability Strategy.

## **7. CONCLUSION**

York and Durham received final approval for the energy from waste project under the Environmental Assessment Act on November 19, 2010. After five years of successful collaboration, approval to develop the energy from waste facility reinforces both Region's commitment to diversion and will strengthen our long-term waste management strategy.

As authorized by Council in September 2010, the Regional Chair and CAO have started the design and construction process by executing the Project Agreement with Covanta. Regional staff have also reached an agreement on the principles of the Co-Owners' Agreement with Durham.

The energy from waste project represents a sustainable capital investment that enhances security, diversification and stability of York Region's long range waste management program. The terms of the Project Agreement and Environmental Assessment approval both ensure that the energy from waste facility will achieve these objectives while maintaining the highest achievable level of environmental protection.

For more information on this report, please contact Laura McDowell, Director of Environmental Promotion and Protection at (905)830-4444 at Ext. 5077.

The Senior Management Group has reviewed this report.

*(The three attachments referred to in this clause are attached to this report.)*