The Regional Municipality of Durham
To: The Joint Works and Finance and Administration Committee
From: C. R. Curtis, Commissioner of Works
       R. J. Clapp, Commissioner of Finance
Date: February 21, 2013

SUBJECT:
Durham/York Energy from Waste Facility Construction Update Report

RECOMMENDATION:
THAT the Joint Works and Finance and Administration Committee recommend to Regional Council that:

1. This project update report be received for information;

2. Approval be granted to increase the upset limit for the engineering services agreement with HDR Corporation for design of infrastructure related to the Host Community Agreement and site servicing and necessary in order to accommodate Ontario Ministry of Natural Resources, Ministry of Environment and Canadian National Railway Company requirements by $136,000, from $384,307 to $520,307 (excluding applicable taxes);

3. Financing for the additional engineering services be provided from the existing project budget; and

4. The Commissioner of Finance be authorized to amend the existing HDR Corporation engineering services agreement.

REPORT:

1.0  OVERVIEW

This report provides a project update for the Durham - York Energy Centre, Energy from Waste facility.

Within the approved project budget, it is recommended that additional requirements be authorized to expand scope of work for the existing engineering services contract with HDR Corporation (HDR), as required to complete the design of infrastructure related to the Host Community Agreement (HCA) and site servicing due to additional regulatory and other (Canadian National Railway Company) requirements. Currently 40.5 per cent of Durham’s project budget has been expended ($87.0 million), with the majority of the Durham Region’s share of project expenditures ($214.7 million) to be incurred during 2013.
Host Community Agreement (HCA) site servicing construction activities currently surpass the 90 per cent design threshold and procurement activities necessary to complete the work are anticipated to commence in the spring of 2013, with construction occurring over the summer and fall.

2.3 Additional HCA/Site Servicing Engineering Requirements

Additional requirements from the Ontario Ministry of Natural Resources (MNR), Ministry of Environment (MOE) and Canadian National Railway Company (CN) will result in new requirements for investigations and test work necessary to proceed with the design. New requirements are estimated to result in an increase in the HDR Corporation engineering contract upset limit of $136,000, from $384,307 to $520,307. These new requirements result from site specific conditions that could not have been conceived in the initial scope of work, and/or that require additional work resulting from requirements for additional application processes from outside agencies.

In 2011, based on Request for proposals (RFP) 652-2011, HDR was retained and commenced provision of engineering services for the detailed design of infrastructure for the Clarington Energy Business Park in the Municipality of Clarington. While the new engineering requirements described below can be accommodated within the existing approved project budget, Council approval is required to amendment the consulting engagement to accommodate the expanded scope of work described as follows.

2.3.1 Species at Risk Permit Screening

The original scope of work was based on the availability of background habitat assessment information at the time the proposals were submitted in 2011. Following the consultant’s investigation and consultation with the MNR and Central Lake Ontario Conservation Authority (CLOCA) in February of 2012, additional research was requested by MNR, in part due to new species added (January 2012) to the Endangered Species Act and ‘Species at’ Risk list. The two species identified are the Barn Swallow and the Eastern Meadowlark. These additional investigations will add an estimated $11,400 (excluding taxes) to HDR’s engineering contract.

2.3.2 Permit to Take Water Application Investigation

The original consulting agreement included initial geotechnical soils and ground water investigation throughout the project area. In the event the initial findings indicated the potential need for a permit to take water application due to specifics identified in the detailed design process, the contract identified this as additional and not included in the original scope of work. The estimated additional cost for the required application is $4,100 (excluding taxes).
2.3.3 **CN Geotechnical Investigation**

The original terms of reference included standard geotechnical investigation work for various areas within the scope of the project including the area where a two metre diameter storm water culvert crosses the CN main rail line from north to south. Following completion of the initial design and geotechnical work an application was submitted to CN for approval for the culvert crossing. CN has responded by requesting additional geotechnical investigation work within the CN rail right of way in the track embankment. The cost to meet CN requirements is estimated at $23,000 (excluding taxes).

2.3.4 **Species at Risk Permit: Environmental Site Assessment (ESA) Permitting**

Following the submission to the MNR on September 14, 2012, the agency has concluded that the two bird species identified require a more detailed stage 2 permit package. This work was outside the scope of the original consulting assignment, as these two species were not included in the 2011 species at risk list when the work was procured. The estimated cost to complete the application process is $52,500 (excluding taxes).

2.3.5 **Environmental Screening Compensation**

Assuming there will be some level of compensation required as a result of the ESA process identified in section 2.3.4 above, an estimated cost of $35,000 (excluding taxes and including a contingency amount) is requested to cover any future compensation required.

The remaining increase recommended in the HDR Corporation upset limit ($10,000) is required for additional storm water management facility design; preparation of an advance tree clearing contract to expedite the project to avoid tree clearing restrictions subject to migratory bird timing window (May 1st to July 31st); and, design modification required for removal of an earth berm as the result of recent discussions with the Municipality of Clarington.
2.4 Project Budget, Actuals and Projected

The following represents the Durham- York Energy Centre project construction cost components:

<table>
<thead>
<tr>
<th>Project Budget</th>
<th>Actual To Date</th>
<th>Projected Actual</th>
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<tbody>
<tr>
<td>($millions)</td>
<td>($millions)</td>
<td>($millions)</td>
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</tbody>
</table>

**CONSTRUCTION PROJECT**

**Contractor Costs**
- Covanta Energy Corporation: 235.76
- Escalation cost (fixed at Notice to Proceed): 8.15
- Architectural Enhancements: 9.00

Sub-total Construction Costs: 252.91

**Other Project Costs**
- Technical Expertise & Project Management Services: 5.60
- HCA and Other Site Servicing Costs (including land): 13.08
- Natural Gas and Hydro One Connections: 0.90
- Net HST: -

Sub-total Other Project Costs: 19.58

**TOTAL CONSTRUCTION COSTS INCLUDING APPLICABLE TAXES**

- 272.49
- 113.39
- 284.29

**DURHAM SHARE OF CONSTRUCTION COSTS**

- 214.73
- 87.03
- 214.73

**FINANCING (DURHAM SHARE OF CONSTRUCTION)**

- Federal Gas Tax: 100.00
- Debentures: 113.10
- Other revenue: 1.63

**TOTAL CONSTRUCTION FINANCING**

- 214.73
- 87.03
- 214.73

Notes:
1. HDR Corporation is technical advisor and owner’s consultant.
2. Financing approvals (2009-COW-03) excluded applicable taxes.
3. Financing approvals include application of Federal Gas tax revenues estimated at $17.2 million per year to retire the debt related to Durham’s share of the project cost.

3.0 FINANCIAL IMPLICATIONS

3.1 Increased Engineering Requirements

It is recommended that Durham’s share of the cost for engineering services for design of infrastructure related to the Host Community Agreement/site servicing as necessary to accommodate MNR, MOE and CN requirements noted above be funded from the existing approved project budget. Approval is recommended to increase the upset limit by $136,000 from the original limit of $384,307 to a new limit of $520,307. Funding for these engineering services costs are to be cost shared with York Region on a 50/50 basis.
3.2 Project Budget Status

Durham's approved Durham – York Energy Centre project capital budget of $214.7 million, as approved in 2009, is sufficient to accommodate currently known and projected costs for both the Covanta facility and other project costs, including utility connections and commitments made under the HCA with the Municipality of Clarington.

While higher capital escalation ($2.65 million), land costs ($0.65 million) and natural gas connection costs ($3.59 million) have been reported and incurred, additional revenues from York Region offset these higher expenditures, resulting in current projections for a balanced project budget. Specifically York Region has agreed based upon the executed co-owner's agreement, to fund certain oversized items and HCA components at 50 per cent, as opposed to the 21.4 per cent shares conservatively assumed within Durham's project approvals report in 2009 (2009-COW-03). Further, in early 2013 York Region will purchase 50 per cent of the site lands as project co-owner under the terms of the approved and executed co-owner's agreement.

The approved 2013 operating budget ($304,000) includes funding for the facilitation of the liaison committees related to the project, as well as ground, surface and soil monitoring costs and approved third party audit costs. Durham's share of operating costs are $258,000 in 2013 (York's share $46,000).

**EFW Operating Costs – Approved Solid Waste Management Budget**

<table>
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<th>2012 Budget ($000's)</th>
<th>2013 Budget ($000's)</th>
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<td>Recovery from York</td>
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<tr>
<td>Net Cost to Durham</td>
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<td>258</td>
</tr>
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3.3 Durham – York Energy Centre Project Risks and Uncertainties

3.3.1 Land Expropriation

Although the project currently remains on budget, land expropriation costs, currently $0.65 million higher than anticipated in 2009, should continue to be considered a significant project cost risk. The final determination of value and award of costs will be determined by the Ontario Municipal Board, and it is expected that the compensation hearing will be scheduled sometime in 2013 or early 2014, when the final land and related costs of expropriation will be determined.
The Ontario Ministry of Transportation (MTO) had previously identified portions of the expropriated lands as requirements for the construction of the 407 East Link, and in December 2013 expropriated their requirements from the Region. Compensation determined at the Ontario Municipal Board with respect to the Region’s expropriation is expected to set the value for the lands expropriated from the Region by MTO.

Of the total 64.5 acres (26.0 hectares) expropriated by the Region to fulfill its obligations under the Host Community Agreement, MTO has expropriated 19.3 acres (7.8 hectares) as reflected in Attachment 1. There are approximately 14.1 acres (5.7 hectares) of hazard lands contained within the lands retained by the Region, leaving approximately 31.2 acres (12.5 hectares) of developable land. The area available for resale or development will be further reduced by the requirements of Energy Park Drive and the easement required for the construction of the Courtice Trunk Sewer.

3.3.2 Additional Monitoring

Based upon Council direction, Regional staff are also investigating additional options and associated costs for added monitoring. A report will be submitted to Works Committee and Regional Council early in 2013, including analysis and recommendations. Additional cost impacts beyond the existing budget should be anticipated should future decisions result in increased monitoring and environmental surveillance beyond existing plans which exceed provincial guidelines. Cost impacts will have implications for both the project capital budget and future operations costs.

Additional monitoring costs anticipated during the operations phase of the project as a result of the EA and Certificate of Approvals were already noted within cost updates provided within Durham’s Five-year Economic and Financial Forecast Report in October 2012, and within the 2013 Solid Waste Servicing and Financing Study in January 2013.

Should cost projections exceed existing budget approvals based upon these known risks or other factors that become apparent as we move forward, new funding will be required and a report with recommendations will be provided to Joint Committee and Regional Council, based upon existing Regional financial management policies and procedures.

4.0 CONCLUSION

In accordance with the Project Agreement, full commercial operation is to be achieved by December 14, 2014 (a total construction period of 1,215 days). It is currently anticipated that the Durham - York Energy Centre will be slightly ahead of schedule with completion in the summer or fall of 2014.

Start-up, acceptance testing, and certification is anticipated in 2014. On-site project oversight, including Regional staff, HDR technical consultants, third-party audit and health and safety inspectors, is diligent and ongoing and will continue to the end of the construction period and beyond.
At this time, the EFW project remains within the approved project budget and construction activities, including on-site and off-site works, are currently on schedule. As noted herein and within previous project updates, known cost risks are identified associated with land expropriation proceedings, HCA/site servicing construction costs, finalization of utility connections, and any additional requirements which may be directed by regulatory bodies and/or Regional Council in the future. Regional Council will be advised of any cost impacts as required, based upon existing financial and budget management policies.

The next project update is anticipated in September, 2013.

C.R. Curtis, P.Eng., MBA
Commissioner of Works

R.J. Clapp, CA
Commissioner of Finance

Recommended for Presentation to Committee

G.H. Cubitt, MSW
Chief Administrative Officer

Attachment #1: Expropriated Land – Energy Park
Expropriated Land Energy Park

2010 Orthophotography provided by © First Base Solutions Inc
GIS Data: Produced by Durham Region GIS Services, 2012.

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