

Authority to Negotiate and Enter into an Agreement with AECOM Canada Ltd. to Design, Build, Commission and Operate a New SSO Processing Facility at Disco Transfer Station

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| Date: | January 18, 2010 |
| To: | Public Works and Infrastructure Committee |
| From: | General Manager Solid Waste Management Services Director Purchasing and Materials Management Division |
| Wards: | All |
| Reference Number: | p:/2010/swms/Feb./007PW |

SUMMARY

The purpose of this report is to inform City Council of the current negotiations with AECOM Canada Ltd. and to request authority for the General Manager, Solid Waste Management Services, to finalize negotiations and enter into an agreement with AECOM Canada Ltd. to design, build, commission and operate a new facility to process up to 90,000 tonnes per year of the City's source separated organic material ("SSO") at the Disco Transfer Station.

RECOMMENDATIONS

The General Manager, Solid Waste Management Services and the Director, Purchasing and Materials Management, recommend that:

1. City Council authorize the General Manager, Solid Waste Management Services, to finalize negotiations and execute an agreement with AECOM Canada Ltd. to design, build and commission a new facility to process up to 90,000 tonnes per year of the City's SSO at the Disco Transfer Station site generally in accordance with the terms and conditions set out in Request for Proposals 3907-09-7053, the addenda issued for Request for Proposals 3907-09-7053, the base proposal

- submitted by AECOM Canada Ltd. dated August 19, 2009 in response to Request for Proposals 3907-09-7053, agreed upon changes to the scope of work set out in Appendix 1, and otherwise on terms and conditions satisfactory to the General Manager, Solid Waste Management Services, and in a form satisfactory to the City Solicitor;
2. Subject to adoption of Recommendation (1), and for further clarification, the authority for the General Manager, Solid Waste Management Services, to finalize negotiations as set out in Recommendation (1) include the General Manager's ability to negotiate on terms and conditions related to the items set out in Appendix 2 to this report;
 3. Subject to the adoption of Recommendation (1), the authority for the General Manager, Solid Waste Management Services, to execute an agreement with AECOM Canada Ltd., be contingent upon the total cost of the new SSO facility not exceeding \$77,500,000.00 net of GST and HST recoveries, as follows:
 - a. for the base scope of work including site remediation, which includes the excavation, removal and disposal of buried waste, the design and construction of the facility and ancillary facilities and improvements to the transfer station site, and the commissioning of the facility including processing of SSO during commissioning and the delivery of the digested solids material produced during commissioning to a facility identified by the General Manager, Solid Waste Management Services, an amount not to exceed \$70,153,000.00 net of GST and HST recoveries;
 - b. for provisional items, an amount not to exceed \$4,347,000.00 net of GST and HST recoveries; and
 - c. for contingencies an amount not to exceed \$3,000,000.00 net of GST and HST recoveries.
 4. City Council authorize the General Manager, Solid Waste Management Services, to finalize negotiations and execute an agreement with AECOM Canada Ltd. to operate the new facility at the Disco Transfer Station site to process up to 90,000 tonnes per year of the City's source separated organic material for a term of 3 operating years plus up to two additional one-year extensions generally in accordance with the terms and conditions set out in Request for Proposals 3907-09-7053, the addenda issued for Request for Proposals 3907-09-7053, the base proposal submitted by AECOM Canada Ltd. dated August 19, 2009 in response to Request for Proposals 3907-09-7053, the agreed upon changes to the scope of work set out in Appendix 1, and otherwise on terms and conditions satisfactory to the General Manager, Solid Waste Management Services, and in a form satisfactory to the City Solicitor;

5. Subject to the adoption of Recommendation (4), and for further clarification, the authority for the General Manager, Solid Waste Management Services, to conduct final negotiations for an operations agreement for the new SSO facility as set out in Recommendation (4) include the General Manager's ability to negotiate on terms and conditions related to the items set out in Appendix 2 to this report;
6. Subject to the adoption of Recommendation (4), the authority for the General Manager, Solid Waste Management Services, to execute an operations agreement with AECOM Canada Ltd. be contingent upon the total cost not exceeding \$38,249,650.00 for the contract term including all charges and applicable taxes, net of GST and HST recoveries, as follows:
 - a. for processing the first 55,000 tonnes, or portion thereof, the cost shall not exceed \$97.40 per tonne in the first operating year, adjusted annually thereafter to reflect the change in CPI year over year, inclusive of all charges and disbursements and net of GST and HST recoveries;
 - b. for processing up to a maximum of 35,000 additional tonnes, above 55,000, the cost shall not exceed \$42.23 per tonne in the first operating year, adjusted annually thereafter to reflect the change in CPI year over year, inclusive of all charges and disbursements and net of GST and HST recoveries;
 - c. for hauling digester solids resulting from processing SSO to a facility identified by the General Manager, Solid Waste Management Services, the cost shall not exceed \$0.1058 per tonne per kilometre in the first operating year, adjusted thereafter annually to reflect the change in CPI year over year, inclusive of all charges and disbursements and net of GST and HST recoveries; and
 - d. for costs resulting from greater amounts of contamination in the SSO processed at the facility, a provisional amount not to exceed \$0.73 per tonne per percent contamination, by weight, in the first operating year, adjusted annually thereafter to reflect the change in CPI year over year, inclusive of all charges and disbursements and net of GST and HST recoveries.
7. City Council authorize the General Manager, Solid Waste Management Services, to negotiate and execute any licence or sub-licence, if required for use of the technology employed in the SSO facility, with the appropriate party, on terms and conditions satisfactory to the General Manager, Solid Waste Management Services, and in a form satisfactory to the City Solicitor; and,
8. Subject to the adoption of Recommendation (7), and for further clarification, the authority for the General Manager, Solid Waste Management Services, to conduct negotiations for any licence or sub-licence as set out in Recommendation

(7) include the General Manager's ability to negotiate on terms and conditions related to applicable items set out in Appendix 2 to this report.

Financial Impact

The total cost to design, construct and commission a new facility to process the City's SSO at the Disco Transfer Station site will not exceed \$77,500,000.00 including all charges and applicable taxes, net of GST and HST recoveries, to be funded from the Capital Budget of the Solid Waste Management Services as set out in the table below.

| | 2010 | 2011 | 2012 | Total |
|---|-----------------|-----------------|-----------------|-----------------|
| CSW012 Disco SSO Facility – excluding SSO processing during commissioning | \$1,562,000.00 | \$32,226,000.00 | \$20,523,000.00 | \$54,311,000.00 |
| CSW012 Disco SSO Facility - SSO processing during commissioning | \$0.00 | \$0.00 | \$3,128,500.00 | \$3,128,500.00 |
| CSW012 Site Remediation | \$12,040,000.00 | \$5,960,000.00 | \$0 | \$18,000,000.00 |
| Sub-total CSW012 | \$13,602,000.00 | \$38,186,000.00 | \$23,651,500.00 | \$75,439,500.00 |
| CSW357 Transfer Station Asset Management | \$2,060,500.00 | \$0.00 | \$0.00 | \$2,060,500.00 |
| Total Project Cash Flow | \$15,662,500.00 | \$38,186,000.00 | \$23,651,500.00 | \$77,500,000.00 |

Funding for the capital budget item Disco SSO Facility is included in the 2010 Solid Waste Management Services Capital Budget and 2011-2019 Capital Plan.

Costs assigned to CSW357 Transfer Station Asset Management are for necessary upgrades to the Disco Transfer Station site including construction of a new electrical substation, a new surface water management system including drains and a storage pond, construction of new roads and widening of existing roads and other paved surfaces, site restoration and landscaping, and for related planning and design work. These upgrades are included in the scope of work of the Disco SSO facility project in order to minimize their cost and management requirements.

Funding for the capital budget item Transfer Station Asset Management is included in the 2010 Solid Waste Management Services Capital Budget.

The total cost to operate the Disco facility to process up to 90,000 tonnes of source separated organic material per year, over the term of the agreement including extensions to the term, inclusive of the costs of related work including solid residue disposal and transportation of the digester solids material, will not exceed \$38,249,640.00, including all charges and applicable taxes, net of GST and HST recoveries.

The total cost for the first 12 months of post-acceptance operations, expected to coincide with the 2013 calendar year, are based on the unit costs stated in this report and the following quantities:

- 90,000 tonnes of source separated organic material processed;
- 30,200 tonnes of digester solids material hauled a distance of 120 kilometres; and,
- 45,000 tonnes of SSO with a proportion of contaminant materials 2 percent by weight in excess of the baseline proportion.

The total costs for the second and subsequent operating years are based on the unit costs stated in this report adjusted to reflect a 2 percent increase in CPI year over year and the quantities stated above.

The total cost to operate the Disco SSO facility for the term of the operating phase of the design, build and operate agreement, is to be funded from the Operating Budget of the Solid Waste Management Services as set out in the table below.

| | 2013 | 2014 | 2015 | 2016 | 2017 | Total |
|-------------------------------|----------------|----------------|----------------|----------------|----------------|-----------------|
| Maximum Tonnage SSO Processed | 90,000 | 90,000 | 90,000 | 90,000 | 90,000 | 450,000 |
| SSO Processing SW0476 | \$7,349,990.00 | \$7,496,990.00 | \$7,646,930.00 | \$7,799,870.00 | \$7,955,870.00 | \$38,249,650.00 |

Funding for the operation of the Disco SSO facility will be included in the Operating Budget Submission of the Solid Waste Management Services for 2013 and subsequent years.

The annual estimated cost of operating the Disco facility on a per-tonne of material processed basis is \$84.99 over the term of the agreement including extensions. In addition to this cost, processing the digester solids material produced by the facility under a separate contract is expected to cost an additional \$17.46 per tonne of SSO processed on average over the term of the agreement and extensions. The expected average per-tonne cost of SSO processing at existing private facilities over the term of the agreement and extensions is approximately \$143.59 per tonne. As a result, over the term of the agreement and extensions, the operation of the Disco facility will achieve a net savings to the Operating Budget of the Solid Waste Management Services of approximately \$18,506,410.00:

| | Average Cost per Tonne (base on 90,000 tonnes processed per year) | Total Cost (\$000s) |
|----------------------------|---|------------------------|
| Contracted | \$143.59 | \$64,614,060.00 |
| Disco SSO Facility | \$84.99 | \$38,249,650.00 |
| Digester Solids Processing | \$17.46 | \$7,858,000.00 |
| Net Savings | \$41.14 | \$18,506,410.00 |

The total potential cost to the City to design, construction, commission and operate the new Disco SSO Facility is \$115,749,650.00 Net of GST and HST Recoveries.

The Deputy City Manager and Chief Financial Officer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

City Council on November 30, December 1, 2, 4 and 7, 2009 considered Report PW28.13 “Design, Build and Operate a New Source Separated Organic Material Processing Facility at the Disco Road Transfer Station on a Sole Source Basis” of the Public Works and Infrastructure Committee and adopted the following motions:

1. City Council authorize and direct the General Manager, Solid Waste Management Services, to enter into sole source negotiations with AECOM Canada Ltd. for a contract to design, build and operate a new facility to process the City’s source separated organic material at the Disco Transfer Station site.
2. City Council request the General Manager, Solid Waste Management Services, to report back to City Council on the results of the negotiations.

City Council Decision Document can be viewed at:

<http://www.toronto.ca/legdocs/mmis/2009/cc/decisions/2009-11-30-cc42-dd.htm>

Report can be viewed at:

<http://www.toronto.ca/legdocs/mmis/2009/pw/bgrd/backgroundfile-24368.pdf>

City Council on November 30, December 1, 2, 4 and 7, 2009 considered report PW28.14 “Utilization of the Biogas from the New Source Separated Organic Material Processing Facilities and Landfill Gas from the Green Lane Landfill” of the Public Works and Infrastructure Committee and adopted the following:

1. City Council authorize and direct the General Manager, Solid Waste Management Services, to enter into sole source negotiations with Toronto Hydro Energy Services Inc. and Ontario Plants Propagation Ltd., in partnership, for a contract to design, build, own and operate a new cogeneration system to utilize the landfill gas from the Green Lane Landfill.
2. City Council request the General Manager, Solid Waste Management Services, to report back to City Council on the results of the negotiations.
3. City Council authorize and direct the General Manager, Solid Waste Management Services, to enter into discussions with Enbridge Gas Distribution Inc. regarding the development of biogas refining systems at the new SSO Facilities and to report back on a recommended course of action for the procurement of a contract to design, build, own and operate biogas refining systems at the SSO Facilities.

4. Subject to the execution of an agreement for the design, construction and operation of the new SSO processing facility at the Disco Transfer Station site, City Council direct the General Manager, Solid Waste Management Services, and the Deputy City Manager and Chief Financial Officer to investigate options for funding the cost of biogas refining through cost savings resulting from displacing natural gas with refined biogas or some other means.

<http://www.toronto.ca/legdocs/mmis/2009/cc/decisions/2009-11-30-cc42-dd.htm>

<http://www.toronto.ca/legdocs/mmis/2009/pw/bgrd/backgroundfile-24372.pdf>

Attachment – Table 1 can be viewed at:

<http://www.toronto.ca/legdocs/mmis/2009/pw/bgrd/backgroundfile-24373.pdf>

Attachment – Table 2 can be viewed at:

<http://www.toronto.ca/legdocs/mmis/2009/pw/bgrd/backgroundfile-24374.pdf>

ISSUE BACKGROUND

Solid Waste Management Services (SWMS) through the Purchasing and Materials Management Division (PMMD) issued Request for Proposal (RFP) 3907-09-7053 to Design, Build and Operate a New Source Separated Organic Material Processing Facility at the Disco Road Transfer Station.

Two (2) Proponents responded to the RFP: Integrated Municipal Services Inc. and AECOM Canada Ltd. (AECOM). Evaluation of the two (2) proposals determined that AECOM had the highest technical score and the lowest cost and therefore also had the highest total score and was ranked first. However, the cost of service proposals for both Proponents exceeded the approved capital budget allocated for this project. As a result, staff cancelled the RFP.

SWMS and PMMD reported to City Council on the results of the RFP and requested the authority to enter into negotiations with AECOM for the design, build, commissioning and operation of a new SSO facility, as AECOM scored the highest total score and was closer to the approved capital budget.

COMMENTS

Negotiations with AECOM Canada Ltd. began in December 2009.

At the outset it was mutually agreed that the focus of the negotiations between AECOM and the City would be to reduce the total cost of designing, building and commissioning the SSO facility without reducing its capacity to process SSO, and that the scope of the negotiations would be limited to the terms and conditions of RFP 3907-09-7053, including addenda, and to the base proposal, including the technical and cost of services

proposals, submitted in response to the RFP by AECOM Canada Ltd. dated August 19, 2009.

It was also mutually agreed that any agreements resulting from the negotiation and subsequent approval by City Council would be based on and include the terms and conditions stated in the RFP 3907-09-7053, including addenda, and the base proposal, including the technical and cost of services proposals, submitted in response to the RFP by AECOM Canada Ltd. and dated August 19 2009, except for the specific amendments resulting from the negotiation.

It was determined that a number of design changes would achieve a significant cost reduction without reducing the Facility's capacity to process SSO or ability to meet other important performance requirements. These design changes reduce the size of the structure, and causes corresponding reductions in the scale of building systems (electrical, mechanical, HVAC etc.), but do not affect the systems to process SSO and the processing capacity of the original design is maintained.

RFP 3907-09-7053 required that the design of the SSO processing system include a minimum of two independent processing lines to process the base tonnage of 55,000 tonnes per year and also an additional independent processing line, as contingency capacity, capable of processing an additional SSO tonnage of 20,000 tonnes per year, for a total of 75,000 tonnes per year with all processing lines in operation. The processing capacity was to be based on a normal operating schedule of two 8-hour shifts per day, 5 days per week.

The design of the SSO processing system proposed by AECOM Canada Ltd. includes three independent processing lines using the same processing technology as is used in the existing Dufferin organics processing facility. Based on the operating experience of the Dufferin organics processing facility, which processes approximately 30,000 tonnes per year with one processing line on a normal operating schedule, it was agreed that the maximum rate at which the new SSO facility will be able to process SSO will be increased from 75,000 tonnes per year, including base and additional SSO tonnage, to 90,000 tonnes per year; 55,000 tonnes per year base tonnage and 35,000 tonnes per year additional tonnage.

The experience gained by operating the existing Dufferin organics processing facility will also allow a reduction in the commissioning period of the new SSO facility and a corresponding reduction in the tonnes of SSO required to be processed in order to satisfy the commissioning requirements of the work.

The design, commissioning and operational changes are listed in Appendix 1.

The City's goal to increase the City-owned SSO processing capacity to 110,000 tonnes per year is satisfied by the construction of the new facility at the Disco site, which will process up to 90,000 tonnes per year, and future upgrades to the existing Dufferin

organics processing facility to maintain its capacity to process up to 30,000 tonnes per year of SSO, for a total City-owned capacity of up to 120,000 tonnes per year.

Referring to the second item in Decision History above; City Council has directed that the biogas resulting from the anaerobic digestion of SSO at the new Disco and existing Dufferin SSO processing facilities will be refined to pipeline grade quality and used to fuel the solid waste collection vehicle fleet, which is to be transitioned from diesel to compressed natural gas fuel. The biogas refining project and solid waste collection vehicle fleet transition are to be undertaken as separate projects independent of the project to design, build and operate the new Disco SSO facility.

Solid Waste Management will petition relevant provincial and federal incentive programs, including the Federation of Canadian Municipalities' Green Municipal Enabling Fund, for financial support for this project.

The Fair Wage Office has reported that the recommended firm has indicated that it has reviewed and understands the Fair Wage Policy and Labour Trades requirements and has agreed to comply fully.

CONTACT

Brian Van Opstal, Manager, Operational Planning, New Infrastructure Development & Contracted Services, Solid Waste Management Services, Telephone: 416-397-0143, Fax: 416-392-4754, E-mail: bvanops@toronto.ca

Victor Tryl, Manager, Professional Services, Purchasing & Materials Management Division, Telephone: 416-397-4801, Fax: 397-7779, E-mail: vtryl@toronto.ca

SIGNATURE

Geoff Rathbone
General Manager
Solid Waste Management Services

Lou Pagano
Director
Purchasing & Materials Management
Division

ATTACHMENTS

Appendix 1 – Agreed Upon Changes to the Scope of Work
Appendix 2 – Additional Negotiable Terms and Conditions