THE REGIONAL MUNICIPALITY OF DURHAM
AND
THE REGIONAL MINICIPALITY OF YORK

REQUEST FOR PROPOSALS RFP-604-2008

TO DESIGN, BUILD, OPERATE AND MAINTAIN AN ENERGY FROM WASTE FACILITY

ADDENDUM #10 – OCTOBER 29, 2008

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This addendum will form a part of the Proposal Documents for the above-noted proposal and shall be read in conjunction therewith. This addendum will take precedence over all requirements of the original Proposal Documents and any addenda issued previously. Bidders shall acknowledge receipt of this addendum by signing and returning it with the completed Proposal submitted. If, in the opinion of the Regions, the addendum issued affects the price of the proposal and the addendum is not returned or acknowledged, then the proposal submitted will be deemed non-compliant and rejected. If, in the opinion of the Regions, the addendum does not affect the proposal price and it is not submitted with the proposal or acknowledged, the bidder will be allowed two working days to submit the missing signed addendum to the Region of Durham Purchasing Section.

Please note the following changes/clarifications:

**The purpose of this addendum is to provide additional clarification and specific revisions regarding the Regions' intentions and the requirements of the RFP pertaining to utilization of the Facility as an energy source for a potential district heating system within the future Clarington Energy Park.**

**Addendum 10, Revision 1**

**Remove**: RFP-604-2008, Section 4, Article 4.5.1.1

.5 An overview of the potential to recover thermal energy (e.g., steam, hot water) and potential impacts of thermal energy production on electricity output.

**Replace With:** .5 a) An overview of the potential to recover thermal energy (e.g., steam, hot water) and potential impacts of thermal energy production on electricity output; and,

b) An implementation plan for a future district heating system capable of supplying hot water to customers located within the future Clarington Energy Park and to Durham's adjacent Courtice Water Pollution Control Plant (WPCP)

**Addendum 10, Revision 2**

**Remove**: Appendix ‘1’ To Project Agreement – Technical Requirements, Section 2, Page 5, Paragraph 4

**Delete the following sentence**:

“Extraction temperatures and pressures for the steam source shall be sufficient to provide a hot water heat source for the Clarington Energy Park and a hot water heat exchanger.”

**Addendum 10, Revision 3**

**Add**: Appendix ‘1’ To Project Agreement – Technical Requirements, Section 6.2, Page 19

The DBO Contractor shall provide adequate space in their site design for the equipment required to implement the future district energy system. The space allotted for this purpose shall be clearly defined in the site layouts provided in the DBO Contractor’s response to this RFP.

**Addendum 10, Revision 4**

**Remove**: Appendix ‘1’ To Project Agreement – Technical Requirements, Article 8.18.1, Page 87, Paragraphs 1 and 2

**Delete the following paragraphs**:

“The DBO Contractor’s turbine design package shall account for the future extraction of steam or other methods to supply hot water to a future district energy system. The district energy system will supply hot water heating and cooling to the nearby Clarington Energy Park and Courtice WPCP. The DBO Contractor’s proposal shall describe the design features that will be implemented at the Facility to ensure the cost effective and efficient delivery of district energy via hot water with minimal impact to the electrical efficiency of the turbine-generator set. The potential energy needs of the future district energy system are provided below. This information below is an estimate of the future district energy customers needs and in no way constitutes the actual future energy requirements.

The Facility shall be capable of producing hot water to the Courtice WPCP via a steam to water heat exchanger or other method with the heat output and pressure of the hot water equal to the three existing boilers at the WPCP. Existing WPCP boiler characteristics are as follows:

- Boiler No's: 1471 kW, 1464 kW heat output, 861.87 KPa
- Boiler No 2: 2942.85 kW, 2928 kW heat output, 861.87 KPA
- Boiler No 3: 2942.85 kW, 2928 kW heat output, 861.87 KPA

In addition to hot water delivery to the Courtice WPCP, district energy in the form of hot water will also be needed to supply the future expansion of the Clarington energy park. It is estimated that the Clarington Energy Park will be comprised of 50 new industrial structures totalling 42,000 square meters. The total hot water heat output to the Clarington Energy Park shall be based on a peak hourly heating load of approximately 70 W/m2. The DBO Contractor shall provide hot water capable of producing the heat output necessary for both the WPCP and the Energy Park. It shall be noted that all heat outputs are based on the energy delivered at the end user, and that all transmission losses and boiler efficiencies need to be taken into account.

**Add**: Appendix ‘1’ To Project Agreement – Technical Requirements, Section 8.18.2,

**Add the following Article**:

“8.18.2 Future District Heating Capability

It is the Regions’ intent that the initial phase of the energy from waste Facility includes the essential design, construction, and equipment selection required to support a future local district heating system. To the greatest extent feasible, the DBO Contractor’s planning and concept development should minimize impacts on electrical energy output associated with anticipation of a future district heating system and cost–effectively defer capital investments until such time as the Regions may choose to implement district heating.

The DBO Contractor’s facility design package shall include the necessary provisions and space to incorporate the future equipment that may be required to supply hot water to the Courtice WPCP and a future district heating system. The future district heating system would potentially supply hot water heating to customers in the surrounding Clarington Energy Park and the adjacent Courtice WPCP.

The DBO Contractor’s proposal shall provide an overview of the Contractor’s proposed concept to recover thermal energy, including a description of features that will be incorporated into the Facility to ensure that the future delivery of district energy via hot water may be implemented in a cost-effective and efficient manner with minimal impact to the electrical efficiency of the turbine-generator set.

The DBO Contractor’s proposal must also provide an implementation plan describing the plant modifications and equipment that will be required for the future implementation of the district heating system. The following assumptions shall be used when developing the implementation plan:

- Supply hot water for:
  i. space heating of commercial buildings with the Energy Park totalling 50,000 $m^2$ with a seasonal peak heating requirement of 70 $W/m^2$; and,
  ii. process heating at the Courtice WPCP sufficient to provide a peak heating load (winter conditions) of 3.9 MW thermal;
- The Energy Park district heating customers will be located within a 2 km radius of the facility;
- The Courtice WPCP is adjacent to the proposed energy from waste Facility;
- The vendor’s plan must take into account seasonal fluctuations in heating demand as well as line losses in delivery;
- The vendor must plan to allow for sufficient back-up in the implementation plan to ensure 100% commercial delivery capability of heat to the district heating system customers; and,
- The timing for potential activation of the future district heating plan is not known.

Consistent with Article 8.19.3, the DBO Contractor’s overview and implementation plan must clearly describe and delineate:

a) all up-front design, equipment, and capital works elements that are essential for inclusion in the initial phase of the Facility to support future implementation of the district heating plan; versus,
b) remaining design, equipment, control and capital works elements which are required as part of the future activation of the district heating implementation plan.

DBO Contractor's price proposal must include all up-front costs associated with item a) above.

DBO Contractor's implementation plan must also describe any operational changes to the energy from waste Facility that would be anticipated as a result of activation of the district heating

Vendors will be evaluated on the energy delivery guarantees offered in association with future activation of the district heating implementation plan.

**Addendum 10, Revision 5**

**Add**: RFP-604-2008 – Appendix B Forms, Form 4 Performance Guarantees

**Add the following**:

DBO Contractor to provide a guaranteed maximum reduction in electrical output resulting from the implementation of the district heating loop. DBO Contractor's guarantee shall be at peak load conditions of 3.5 MW thermal to the new office buildings in the Energy Park and 3.9 MW thermal load to the Courtice WPCP.

| 4. | **Future District Heating System Energy Output Guarantee** | | |
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The information contained in this addendum is explicitly applicable to all articles and clauses noted in this addendum. In addition, this addendum is applicable to other related articles and clauses of the Request for Proposals not specifically noted herein, as may be required in order to interpret the Request for Proposals in a fashion which is internally consistent with all addenda issued in relation thereto.

I/we hereby acknowledge receipt of this addendum.

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Signed (Must be Signing Officer of Firm)

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Position

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Name of Firm