

3

DONGARA CONTRACT RFP P-03-81

The Solid Waste Management Committee recommends the following:

- 1. The following additional recommendation be adopted:**
 - 5. Staff be authorized to negotiate additional rights of first refusal for additional capacity with Dongara Developments Inc.**
- 2. The recommendations contained in the following report, November 29, 2005, from the Commissioner of Transportation and Works be adopted:**

1. RECOMMENDATIONS

It is recommended that:

1. The Regional Solicitor, in consultation with the Commissioner of Transportation and Works, be authorized to prepare contract documents with Dongara Developments Inc. to receive 100,000 tonnes of residual waste per year and convert it to alternative fuels at an initial processing cost of \$51.50 per tonne (GST excluded) plus transportation costs to the end market, for a contract term of 20 years commencing January 1, 2008, in accordance with the terms set out in this report.
2. The Regional Chair and Clerk be authorized to execute the contracts, on behalf of the Region, with Dongara Developments Inc.
3. The Region request the Minister of the Environment to allow the use of Dongara's EnerPax+ product to be used in Ontario as an alternative fuel product.
4. The City of Vaughan be informed that it will be the primary municipality sending its curbside residual waste to the Dongara facility starting in January 2008.

2. PURPOSE

The purpose of this report is to present the status of the negotiations with Dongara Developments Inc. (Dongara) who were selected as the preferred respondent to Request for Proposal (RFP) P-03-81 to supply new and emerging waste management technology and services, and to request authorization to conclude and execute a contract for the work.

3. BACKGROUND

The Region's contract to landfill waste in the Onyx Landfill in Michigan ends on December 31, 2007. In September 2003, the Region issued RFP P-03-81 to secure competitive bids for an alternative to landfilling waste that would be operational before the end of the Onyx contract. In April 2004, Council selected Dongara as the successful proponent to the Request for Proposal (RFP) and staff were directed to enter into commercial negotiations and report the results back to Committee and Council.

On November 7, 2005 the Solid Waste Management Committee received a communication with the following resolution from the City of Vaughan:

"THAT the City of Vaughan requests that the Region give priority to the treatment of waste from any York Region municipality that is host to a waste management facility."

Since the issuance of RFP P-03-81 York Region has decided to undertake an individual Environmental Assessment (EA) for residual waste management in partnership with Durham Region. The Dongara proposal is consistent with the intent of the EA study in that it is a long-term solution to residual waste management. Overall the Dongara proposal reduces the total tonnage of waste that will be analyzed through the EA study.

4. ANALYSIS AND OPTIONS

Dongara is a consortium of Degasperis Muzzo, Borealis Infrastructure Management Inc. and Brampton Brick Ltd. Their project team also includes MCW Consultants Inc., Sentinel Power Corporation and Van Dyk Baler. Members of the team have significant experience in waste management and energy facilities and some were involved in the Region of Peel's energy from waste facility that was constructed in the early 1990's.

Dongara is proposing to receive curbside residual waste from the Region of York at their facility, remove ferrous and non-ferrous metals as well as recyclable plastics, grind the remaining waste and blend it with other high energy value waste, if needed, to prepare a fuel pellet that meets their customer's specifications. The fuel pellets have been trademarked as EnerPax+ (www.enerpax.com). The initial target customers for EnerPax+ are those burning coal as a fuel as EnerPax+ has an equivalent energy value and cleaner air emissions.

4.1 Site Approvals

Dongara has entered into an agreement with the City of Vaughan to construct the facility at the north east corner of Highways 407 and 27 on property that will be owned by the City. This property is in an industrial area south of Royal Plastics and west of Ontario Hydro One transformer station. A public meeting to discuss the project with the site's neighbours and interested parties was held on March 1, 2005.

Dongara submitted applications for the required Certificates of Approval for air and waste processing from the Ontario Ministry of the Environment (MOE) in the spring of this year. The MOE has stated that they will be issuing draft approvals by November 30, 2005.

4.2 Facility Operations

The Region's Request for Proposal was to process 70,000 tonnes per year of residential waste. Dongara has now determined that they need to construct a plant capable of processing 200,000 tonnes per year of waste to make the project financially viable. As a result they have requested that the Region contract for 100,000 tonnes per year of capacity instead of 70,000 tonnes per year. Dongara will be selling the balance of the plant capacity to other customers. The curbside waste will be processed into EnerPax+ and stored in silos on site. EnerPax+ is then loaded onto trailers and shipped to its customers.

The proposed agreement with Dongara is therefore to process up to 100,000 tonnes of curbside residential waste per year. This quantity of waste is currently equal to the waste landfilled in the Onyx landfill in Michigan.

Initially all curbside garbage trucks from Vaughan, King Township and Richmond Hill will be sent to Dongara's facility. The travel distance to this facility will be less than the distance to the Region's contracted transfer station in Markham and should therefore make the curbside collection systems more efficient. Dongara has also agreed to act as a transfer station for recyclable materials if any of the municipalities use split collection vehicles.

The City of Vaughan has asked that they be given priority for their waste going into the Dongara facility. Given that the plant has the capacity to process 100% of Vaughan's waste and that the time and costs to haul the waste to the transfer station in Markham is more than if the material is hauled to Dongara, the Region can ensure the City will be the primary customer in the facility.

The Region required as part of the negotiations that Dongara have sufficient customers to ensure that the Region's waste material is diverted from landfill and used for its intended use as an energy product. Dongara proposed that the product be used as an alternative energy product in Lafarge's Bath cement kiln in eastern Ontario. This is now not an option as the Ministry of the Environment has informed Dongara that it will not allow the product to be used in Ontario. Therefore Dongara has had to seek customers in the United States as there is a favourable attitude towards alternative fuel products that reduce air quality problems associated with coal fired facilities. As shipping to Michigan is a more expensive option due to transportation costs it is proposed that the Region require Dongara to use best commercial efforts to find markets in Ontario. It is further proposed that the Region request the Minister of the Environment to review its decision and allow Dongara to sell its alternative fuel product for use in Ontario facilities.

Dongara has contracted with Lafarge North America to use EnerPax+ as a replacement for coal at its Alpena Cement Plant in Alpena Michigan. Lafarge recently started using waste as an alternative fuel at one of its plants in Germany and is excited about the economic and environmental benefits of using a similar fuel in North America. Lafarge has been working with the Michigan Department of Environmental Quality and Energy office to ensure that the use of EnerPax+ reduces its current emissions from burning coal and coke, to produce cement and steam for electricity generation. As a result of the change in location for the end use of EnerPax+ the transportation costs stated by Dongara in its RFP submission are no longer valid. Alpena is located in northern Michigan and the product will need to be shipped there using trucks and rail cars. The cost to do this is much higher than shipping to Bath in Ontario.

Dongara is continuing to source additional customers for EnerPax+ as it has approvals from the MOE to produce 200,000 tonnes per year of the alternative fuel.

4.3 Contract Negotiations

Staff have concluded discussions with Dongara and are recommending that Council consider a contract with the following terms:

- Commencement date of January 1, 2008.
- A term of 20 years with the option for the Region to extend the contract for an additional five years.
- A tipping fee of \$56.75 per tonne for 100,000 tonnes per year plus GST for pellets sent to customers that are a shorter travel distance than to Bath, Ontario with a total processing and transportation fee of \$73.50.
- A discounted tipping fee of \$51.50 per tonne for 100,000 tonnes per year plus GST for pellets sent to customers that are a longer travel distance than to Bath, Ontario which was the original location in Dongara's proposal. Dongara has only offered this discounted price when the pellets have to be shipped to customers further than Bath, Ontario. It is their expectation that there will be customers in southwestern Ontario and that the price then be \$73.50 (transportation included) as originally submitted in their proposal.
- That Dongara use best commercial efforts to find markets in Ontario for its EnerPax+ product.
- Transportation costs from Dongara's plant in Vaughan to the customer(s) will be invoiced to the Region "at cost" without any price mark-up by Dongara. The initial upset estimate of the transportation costs to Lafarge's plant in Alpena Michigan is \$48.50 per tonne for a total processing and transportation fee of \$100.00 per tonne.
- The price will be escalated by the Consumer Price Index on an annual basis.
- An option to increase the quantity above 100,000 tonnes per year in 6,000 tonne increments.
- Insurance as required by Regional policy.
- Performance bonding equal to 60% of the annual contract value.
- Dongara to operate the facility to meet all local and provincial regulations including the control of fugitive odour emissions.

- Dongara will provide transfer facilities for recyclable materials if the local municipalities decide to co-collect such materials with residual waste in trucks with separate compartments. The price will be equal to the then current price that the Region is paying its other transfer station operator(s) where the material is being diverted from.

The terms of the contract provide value for the Region and reduce its dependency on landfilling waste.

Staff propose that authority be given to conclude an agreement with Dongara consistent with the above terms to the satisfaction of the Regional Solicitor and Commissioner of Transportation and Works. In addition, it is recommended that the Regional Chair and Clerk be authorized to execute the agreement.

5. FINANCIAL IMPLICATIONS

Table 1 presents the cost options for the Dongara proposal compared to landfill. In addition the Region will have increased transfer costs of \$3.23 per tonne at the Miller Waste Southern Transfer Station in Markham as there is a variable tipping fee schedule as part of that contract. This increase in transfer fees is equivalent to a \$4.36 per tonne budget impact as a result of the Dongara project.

Our current contract cost to ship and dispose of waste at the Onyx Landfill in Michigan is \$69 per tonne. The original Dongara proposal at \$73.50 per tonne represented a 6.5% increase in operational costs or \$450,000 per year in 2005 dollar terms compared to landfill if the EnerPax+ product can be used in Ontario. With the increased transfer station costs the total budget impact of the proposal is an increase of \$0.9 million or 12.8%.

If the material is shipped to Alpena in Michigan the processing and transportation cost is \$100 per tonne representing a 45% cost increase of \$3.1 million per year. With the increased transfer station costs the total budget impact of this proposal is an increase of \$3.5 million or 51%.

As a diversion from landfill program the costs are significantly lower than the source separated organics program (\$154 per tonne) and less than the estimated cost of \$120 to \$150 per tonne for an energy-from-waste plant.

Table 1
Cost Proposal

Option	Dongara 2005 Cost per Tonne	Total Budget Including Impact on Other Transfer Fees	Budget for 100,000 Tonnes per Year	Budget Increase
1. Landfill in Michigan	\$ 69.00	\$69.00	\$6.9 million	0
2. Dongara EnerPax+ delivered to Ontario Markets	73.50	77.86	7.8 million	12.8%
3. Dongara EnerPax+ delivered to Michigan Markets	100.00	104.36	10.4 million	51%

6. LOCAL MUNICIPAL IMPACT

The local municipalities that use the Dongara facility should be able to have a more efficient collection program as the collection trucks will have a shorter travel distance to the facility versus the transfer station in Markham.

The City of Vaughan is a major stakeholder in the project and is leasing the land to Dongara. Dongara will need to ensure that it is operating within the expectations of the City.

7. CONCLUSION

The Region's current contract to dispose of waste at the Onyx Landfill site in Michigan ends at the end of 2007. The Dongara proposal to make EnerPax+ from our curbside residual waste reduces the Region's long-term landfill needs. In addition, the conversion of the waste to an energy product reduces Dongara's customers dependency on fossil fuels and reduces their air emissions. Given the inability to source landfill capacity in Ontario, the long-term uncertainty of shipping waste to the United States and the cost of other waste diversion programs, acceptance of the Dongara proposal by Council is recommended.

The Senior Management Group has reviewed this report.