



ADMINISTRATIVE REPORT

Report Date: March 6, 2014
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Meeting Date: April 2, 2014

TO: Standing Committee on Planning, Transportation and Environment
FROM: General Manager of Engineering Services and Chief Purchasing Official
SUBJECT: Contract Award for the Supply and Delivery of Automated Side Loading Refuse Trucks

RECOMMENDATION

- A. THAT Council authorize City staff to negotiate to the satisfaction of the City's General Manager of Engineering Services, the City's Director of Legal Services, and the City's Chief Purchasing Official, and enter into a contract with Rollins Machinery Ltd. for the supply and delivery of 29 compressed natural gas (CNG) automated side loading refuse trucks, at an approximate cost of \$8,215,555 (plus applicable taxes) for a contract term of three years (plus the option to extend the contract for 2 additional one year terms). The City has the option to purchase 11 additional units for an estimated value of \$3,116,245, (plus applicable taxes) during the contract and extension terms.

Source of funding for the \$8,215,555 (29 units) to be as follows:

- 2013-2014 Truck and Equipment Replacement Program \$7,642,648
- Fortis Truck Incentives \$ 572,907

- B. FURTHER THAT the Director of Legal Services be authorized to execute on behalf of the City the contract contemplated by Recommendation A;
- C. AND FURTHER THAT no legal rights or obligations will be created by Council's adoption of Recommendations A and B above unless and until such contract is executed by the Director of Legal Services.

REPORT SUMMARY

The City issued a Request for Proposal ("RFP") PS20130405 in August 2013, for the supply and delivery of Automated Side Loading Refuse Trucks as required for on-going City sanitation operations. The Engineering Waste Management Department, Equipment Services Branch and Supply Chain Management Department performed a review to assess the need to replace and update the current fleet along with the future operational requirements, the availability of improved technology and options available and an assessment of the current market for refuse trucks.

As part of the process, the City assessed the different fueling technologies which are currently available in the marketplace and determined that Compressed Natural Gas (CNG) would be the preferred fueling technology for the new fleet. The City did, however, request optional proposals for diesel as well as other alternative technologies to ensure that the optimum solution was selected. The fueling technology would not have an impact on the supplier recommendation put forward as all suppliers were able to supply CNG, diesel and hydraulic hybrid options.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

The City's Procurement Policy requires that contracts with values over \$2 million must be approved by Council following review and recommendation by the Bid Committee. Bid Committee has considered and approved Rollins Machinery Ltd. as the successful proponent.

REPORT

Background/Context

The 29 Automated Refuse Trucks up for replacement represent the entire City Automated Refuse Truck fleet. These units are managed through the City's fleet management system. They are responsible for collecting household refuse and green waste throughout the entirety of the City and are required to maneuver through tight lanes and alleyways.

CNG is the preferred fuel technology for refuse fleets. Across North America, large refuse companies, such as Waste Management and Progressive Waste Solutions (was BFI), are transitioning their fleets to CNG due to the reduced cost of CNG fuel and the environmental benefits. Local refuse companies such as Smithrite, Waste Management, and Progressive Waste Management (refuse haulers for City of Surrey) are all using CNG.

There are numerous benefits to using CNG in the City of Vancouver fleet. CNG will provide a net \$181,000 in annual fuel savings. This savings is a result of a 28% reduction in per litre CNG costs compared to B5 biodiesel. CNG also presents a significant opportunity for the City of Vancouver to reduce fleet CO₂e emissions. CNG produces 36% less CO₂e than the equivalent B5 biodiesel powered unit. The conversion of these 29 units to CNG will result in a 3.4% reduction in the total City fleet CO₂e emissions. Lastly, CNG presents partnership opportunities for the City. The first partnership will allow the City to support and showcase a local success story through the use of, made in Vancouver, Westport engine technology. The second partnership will be with FortisBC, who will provide \$572,907 in incentives for the purchase of these vehicles. The conversion to CNG will also demonstrate green leadership and thus assist in supporting further growth and implementation within the Province of British Columbia. These units will be the first heavy duty CNG powered vehicles in the City fleet.

Fueling options are being explored and will be reported on in a separate report to Council.

Strategic Analysis

The RFP was issued in accordance with the City's Procurement Policy. There were 7 proponents that responded to the RFP. Their proposals were evaluated under the

stewardship of Supply Chain Management to ascertain which submissions offered the best overall value to the City; taking into account purchase price, operational requirements and annual operating costs, technical requirements and sustainability, among other factors. The evaluation involved a cross-functional evaluation team comprised of representatives from various departments throughout the City, including Equipment Services and Sanitation Department.

The evaluation process for this procurement initiative went through two stages as described below.

1. A preliminary short listing evaluation took place and bids were evaluated on criteria including:
 - Technical assessment - Evaluation of suitability of equipment for City operations (height, wheelbase, automated claw arm swing, etc.)
 - Service assessment - Evaluation of service capabilities of proponent (warranty information, service capabilities, vendor history, etc.)
 - Financial assessment - Evaluation of annual equipment costs

Three chassis options and three refuse bodies for a total of nine (9) different units were shortlisted.

2. The shortlisted units were then subjected to a more in depth and rigorous secondary evaluation including:
 - Technical and Operational Assessment - Maintenance and Operational demonstrations as well as an analysis of technical specifications,
 - Business Assessment - Assessment of service and support capabilities, warranty terms, references, sustainability questionnaire, etc.
 - Financial Assessment - Evaluation of annual equipment costs

The technical and operational assessment consisted of a rigorous demonstration process that included operations, maintenance staff, ergonomics experts, Sanitation management and Equipment Services Engineering personnel. These vehicles are some of the most heavily used in the City Fleet and the work they do is high impact and arduous. Two key considerations:

- The units operate within tight laneways that leave minimal room to manoeuvre. The evaluation team focused on minimizing the width, length and height of the units and the arm swing of the automated refuse claw. This will result in fewer impacts to the units, reducing costs associated with repair of vehicles and private property.
- Operators of the vehicles are subject to an unusually high amount of repetitive stress and strain type injuries. Ergonomic design was very important in the assessment.

After a comprehensive and detailed analysis of the technical and financial factors, the team concluded that the proposal submitted by Rollins Machinery Ltd. provides the best overall value to the City.

*Implications/Related Issues/Risk**Financial*

The total Multi Year Capital Project Budget required for the purchase of 29 CNG Automated Refuse Trucks is \$8,215,555 (plus applicable taxes). Source of funds for this purchase is shown in Table 1 below.

Table 1:

Source of Funds	Amount
2013-14 Truck and Equipment Replacement Program	\$7,642,648
Fortis Truck Incentives	\$572,907
Total	\$8,215,555

As delivery and thus expenditure outlay is not anticipated to commence until 2015, these expenditures will be considered as part of the 2015 Capital Budgeting process.

Environmental

All new and replacement equipment in the City fleet goes through an environmental and right-sizing review process. This is to ensure that the equipment will not only meet the user's operational needs but that the selected equipment has the best combination of fuel efficiency and cost effectiveness.

The powertrain options considered included compressed natural gas (CNG), hydraulic hybrid and biodiesel. The primary fuel choice for these units will be Compressed Natural Gas (CNG) which provides the following advantages:

1. a 36% reduction in CO₂ (556 tonnes per year)
2. a 71% reduction in particulate matter (2,670 kg per year)
3. a fuel source produced within British Columbia
4. a strategic partnership with FortisBC through incentives to encourage the use of CNG
5. a local Vancouver based engine manufacturer, Cummins Westport.

CONCLUSION

In summary, City staff recommends that the City of Vancouver award a contract for the supply and delivery of automated side loading refuse trucks, subject to on-going negotiations being finalized and all contract terms being settled, to Rollins Machinery Ltd. at an estimated contract value of \$8,215,555 (for 29 trucks), (plus applicable taxes) with the option to purchase 11 additional units for an estimated value of \$3,116,245 (plus applicable taxes) over three years with two one-year extensions. Rollins Machinery Ltd. had the highest overall evaluation score and offers the best value to the City.

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