

REGIONAL MUNICIPALITY OF OTTAWA-CARLETON
MUNICIPALITÉ RÉGIONALE D'OTTAWA-CARLETON

REPORT
RAPPORT

Our File/N/Réf.
Your File/V/Réf.

DATE 1 December 1997

TO/DEST. Co-ordinator
Corporate Services and Economic Development Committee

FROM/EXP. Environment and Transportation Commissioner

SUBJECT/OBJET **ROBERT O. PICKARD ENVIRONMENTAL CENTRE
COGENERATION EQUIPMENT MAINTENANCE
CONTRACT AWARD, CS 8800**

DEPARTMENTAL RECOMMENDATION

That the Corporate Services and Economic Development Committee and Council approve the award of Contract No. CS 8800 for the maintenance of the cogeneration equipment at the Robert O. Pickard Environmental Centre from 1 January 1998 to 31 October 2002, to Toromont, Concord, Ontario, for a total contract price of \$1,435,574.

BACKGROUND

In the fall of 1996, Toromont was awarded a contract to supply the electrical and thermal energy generation equipment necessary to optimize the use of the digester gas as fuel at the Robert O. Pickard Environmental Centre. The equipment (three engine/generator sets and three heat recovery packages) has been installed and is in continuous operation generating on average more than 2,000 kilowatts of electrical energy and approximately 3,000 kilowatts of thermal energy. To ensure the RMOC realizes the maximum potential for electrical purchase reductions, a long term comprehensive maintenance programme for the cogeneration equipment must be executed. Toromont offers the RMOC the best maintenance option for assured long term operability.

The work of this contract consists of supplying all parts and labour to perform all scheduled and unforeseen maintenance requirements for all Toromont supplied equipment from the contract commencement date until each engine has operated for 42,000 hours or five years, whichever comes first. During this five year term, it is anticipated that each engine/generator set will receive monthly scheduled maintenance, two engine top end overhauls, a major overhaul, annual exhaust gas boiler cleaning/inspection/repair, annual electrical switchgear maintenance, and monthly instrumentation/control maintenance. RMOC staff will participate in the maintenance programme by performing daily, weekly and minor corrective maintenance duties. RMOC staff will also perform regular oil, oil filter and air filter changes.

DISCUSSION

During the tender exercise for the supply of the cogeneration equipment, the equipment suppliers were requested to include as options, the supply of various maintenance packages for consideration by the RMOC. This formed the basis for the negotiations of a maintenance contract with the equipment supplier. The options offered during the equipment supply contract tender varied from a one year term to a five year extended warranty package. The award of this contract will maximize the return on the capital investment since Toromont has the best experience maintaining this type of equipment and will carry the risks associated with the formation of siloxane scale. This scale accumulates and causes premature failure of engine combustion chamber components. The siloxane scaling problem has elevated maintenance costs significantly in other wastewater treatment plants using digester gas as fuel. Toromont has proven to be capable of controlling the siloxane scale problems at another facility, where they carry the maintenance risk, through a water wash technique that must be tailored to the application. This is an area of maintenance where the RMOC has no experience.

The cost negotiated to perform these services is marginally lower than the prices submitted during the tendering exercise for the equipment purchase contract.

The price proposed by Toromont in the tender response was \$0.01062 per kilowatt hour for a five year extended warranty package. Under the proposed contract the cost will be \$0.01056 per kilowatt hour for a five year extended warranty package that includes a 94.2% equipment availability guarantee and the understanding that the RMOC staff will work with Toromont throughout the five years to develop expertise in the maintenance and troubleshooting techniques.

The following are the approximate costs that will be incurred over the next 58 months (a 3% annual inflation factor has been assumed for 1999-2002).

1998	\$ 280,160
1999	\$ 288,565
2000	\$ 297,222
2001	\$ 306,138
2002	<u>\$ 263,489</u>

TOTAL \$1,435,574

RATIONALE

Toromont is the sole sourced supplier of this supply and service contract since they are the only supplier of original manufacturer's equipment parts and have manufacturer trained and certified maintenance staff.

Only Toromont staff can respond to equipment malfunction to ensure the equipment manufacturer's warranties remain valid. Their service will be supplied from their Kanata office.

CONSULTATION

No public consultation process is applicable.

EXPENDITURE JUSTIFICATION

The award of this contract will ensure the best available expertise and replacement parts will be used to maximize the rate of return on the capital investment to generate electrical power using digester gas as fuel.

FINANCIAL STATEMENT

	\$
1998 Budget Request	389,000
Pre-Commitments to Date	<u>(0)</u>
Balance Available	389,000
THIS REQUEST	<u>280,160</u>
Balance Remaining	<u>108,840</u>

Funds in the amount of \$280,160 represent a pre-commitment to the 1998 Operating Budget, Account No. 252-42422-2457, Repairs & Maintenance, Vehicles and Equipment. The remaining funds in the amount of \$288,565, \$297,222, \$306,138, \$263,489, represent a pre-commitment to the 1999, 2000, 2001, and 2002 Operating Budget respectively, Account No. 252-42422-2457, Repairs & Maintenance, Vehicles and Equipment.

Approved by
M.J.E. Sheflin, P. Eng.

VM/ap

FINANCE DEPARTMENT COMMENT

Approval of this request represents a pre-commitment of the 1998 through 2002 Operating Budgets. Subject to Council approval.

*Approved by C. Colaiacovo
on behalf of the Finance Commissioner*