

While every effort is made to ensure the accuracy of the contents of this site, users should be aware that due to circumstances beyond our control, it may be necessary to change the text of documents posted here and therefore no responsibility will be accepted by the Toronto Transit Commission for discrepancies which may occur between documents contained on this site and the formal hardcopy versions presented to the Commission.

If it is necessary to rely on the accuracy of Commission documents the Office of the General Secretary should be contacted at 393-3698 to obtain a certified copy. ONLY HARDCOPY RECORDS CERTIFIED BY THE GENERAL SECRETARY WILL BE DEEMED TO BE OFFICIAL.

Form Revised: February 2005

**TORONTO TRANSIT COMMISSION
REPORT NO.**

MEETING DATE: FEBRUARY 27, 2007

SUBJECT: Procurement Authorization – Supply And Disposal Of Rectifier Transformers – Delaware Substation

RECOMMENDATION

It is recommended that the Commission authorize the award of a contract to Black & McDonald Limited (B & M) in the amount of \$764,068.00, for the Supply and Disposal of Rectifier Transformers – Delaware Substation on the basis of the lowest tendered and evaluated price.

FUNDING

Sufficient funds have been included under Project 2.1-Electrical Systems, Traction Power, under Work Order #7633 – Replace/Rebuild Rectifier Transformers, as set out on pages 143 to 146 category “State of Good Repair” of the 2007-2011 Capital Program, approved by the Commission on January 31, 2007.

BACKGROUND

Rectifier transformers are major components in the conversion of AC power to DC traction power for the streetcar, subway and Scarborough Rapid Transit systems. A feasibility study on the replacement of leaking rectifier transformers at various traction power substations recommended replacement of such transformers based on life expectancy, parts availability, service reliability, annual operating costs, and environmental impact due to oil leaking. The Commission previously approved replacement of 28 rectifier transformers at 15 substations. The Commission owns 51 substations with a total of 117 rectifier transformers in actual service.

The next transformers scheduled for replacement are the four located at Delaware Substation. Delaware Substation supplies traction power to Bloor-Danforth subway line. The substation consists of a building and

an adjacent fenced area. The rectifier transformers are located outdoors in the transformer yard. Four transformers at Delaware Substation have developed miscellaneous problems, e.g. oil leaks and tap changer defects. An emergency patchwork method of repairs, which has been carried out to date, is no longer considered acceptable as the units have been in service for more than 40 years, therefore approaching a hazard curve at which expected failures significantly increase with age. The four rectifier transformers are scheduled to be replaced in 2007 and 2008.

DISCUSSION

Specification and drawings were prepared for the supply and installation of new rectifier transformers and disposal of existing rectifier transformers. A Request for Tenders was posted on the TTC's Web site as of December 11, 2006. Four companies picked up copies of the tender documents out of which three submitted a tender as summarized in Appendix 'A'.

Black & McDonald Limited submitted the lowest priced tender and did not state any exceptions or qualifications. Their tender is considered acceptable.

The Agreement to Bond submitted by Black & McDonald covers both a Labour and Material Payment Bond and a Performance Bond and was submitted by Travelers Guarantee Company of Canada, which has been verified as a Surety Company licensed to transact business under the Insurance Act of Ontario.

The State Group Inc. submitted the second lowest priced tender and also did not state any exceptions or qualifications. Their tender is also considered acceptable.

Ainsworth Inc. submitted the third lowest priced tender and also did not state any exceptions or qualifications. Their tender is also considered acceptable.

The successful Tenderer will be required to execute a Labour and Material Payment Bond and a Performance Bond each in the amount of 50% of the contract value.

JUSTIFICATION

The four existing rectifier transformers have exceeded their operational lifespan and parts for repair are no longer available. These transformers have developed miscellaneous problems that are beyond repair. The units have been in service for more than 40 years reaching a wear and tear condition at which the probability of failures significantly increases with age. Failure of these transformers could result in disruption to revenue service.

February 7, 2007

6-235-235

Attachment – Appendix 'A'

APPENDIX 'A'

**PROCUREMENT AUTHORIZATION – SUPPLY AND DISPOSAL OF RECTIFIER
TRANSFORMERS – DELAWARE SUBSTATION**

SUMMARY OF TENDERS

COMPANY	TENDERED PRICE
Black & McDonald Ltd.	\$764,068.00
The State Group Inc.	\$816,960.00
Ainsworth Inc.	\$1,037,388.00
Preliminary Estimate	\$650,000.00