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To: Chair and Members
Lambton Area Water Supply System Joint Board of Management

From: Clinton Harper
General Manager

Subject: WTP Main Switchgear & Generator Replacement- Project Award

Recommendation

It is recommended that the LAWSS Joint Board;

1. Increase the total budget for Project 20-131 Replacement of 5kV Switchgear and Emergency Generators at LAWSS from \$6,141,000 to \$6,716,892. A total increase of \$575,892.
2. Award the General Contracting component, as outlined in RFQ 20-131 Replacement of 5kV Switchgear and Emergency Generators at LAWSS, to J.M.R. Electric Limited for the amount of \$2,751,910 +H.S.T.

Background:

With the assistance of EXP Services, engineering design for replacement of the water treatment plant's emergency standby power system and 5kV switchgear has been ongoing since late 2018. To save costs and to streamline the design process it was decided that the two major pieces of equipment, the gensets and the switchgear, would be bought out-right by LAWSS and supplied to a successful General Contractor capable of executing the project scope. In July 2020, a rebuild of the existing fuel system was added to the project's scope at staff's recommendation. The addon was necessary to address major deficiencies in the existing fuel system that were expected to impact LAWSS ability to connect the new diesel power system.

Due to the criticality of the systems that will be affected during the project, an effort was made to prequalify the contractors authorized to bid on the General Contracting (GC) component. The general contractors approved to bid on the GC component of the project were pre-qualified based on the following criteria:

- Demonstration of a specified level of overall Company qualifications and experience.
- Availability of specialized staff required for the project.
- Past Company safety performance.
- Commitment to communication.

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The prequalification tendering process yielded three contractors with the sufficient experience and the necessary qualifications to successfully complete the LAWSS Generator and Switchgear Replacement Project. However, during the actual tender process one of the two contractors was disqualified from bidding on the project and only two submissions were received.

Financial Implications:

LAWSS Board established an overall budget of \$6,141,000 to replace the standby power system, the main 5kV Switchgear and to address TSSA requirement related to the existing WTP fuel system. Of this initial budget, \$2,224,452 remains available to cover the remaining contract costs related to overall demolition, construction and commissioning (GC Component).

On September 10, 2020, a LAWSS RFQ for the GC component of the project closed after a 4-week tender period. The submissions were reviewed for completeness and the results are described in Table #1. The GC Contract includes the work necessary to achieve the three main project goal outlines of Table #2. A comprehensive list of necessary project spending, and how spending relates to the overall budget, is outlined in Table #3.

Table #1: Results

Bid Price	K&L Construction Limited	JMR Electric Limited
Base Bid	\$3,821,400	\$2,490,000
Provisional item #1	\$46,500	\$61,910
Contingency Allowance	\$200,000	\$200,000
Total Price	\$4,067,900	\$2,751,910
Total Price (incl. HST)	\$4,139,496	\$2,800,344

Table #2: Approved Budget

Description	Approved Budget
Generator Replacement Project Budget (including Engineering)	\$4,250,000
Main SWGR Replacement Project Budget (including Engineering)	\$1,616,000
Fuel System Replacement (including Engineering)	\$275,000
Total Project Budget including Engineering	\$6,141,000

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Table #3: Remaining Budget (including non-rebatable H.S.T.)

Total Project Budget (including Engineering)		\$6,141,000
Board Approved Engineering	\$344,458	
Additional Necessary Engineering:		
SCADA Integration	\$12,211	
Fuel System Audit/TSSA	\$6,695	
Existing Stack Structural Assessment	\$10,176	
SCR Exhaust Stack Bracing	\$5,902	
Air Emissions Modeling	\$5,495	
Approved Equipment	3,495,982	
Additional Necessary Equipment:		
Genset Switchgear deliverable refinement.	-\$11,986	
OCWA- Genset Factory Testing	\$2,427	
Main Switchgear L/R Switch Addition	\$7,288	
Crank Case Ventilation Emissions Absorber	\$19,080	
Equipment Storage	\$18,821	
Total Cost:	3,916,548	-\$3,916,548
Remaining Overall Budget Available for General Construction (GC) Contract		\$2,224,452
GC Contract (Pending)		\$2,800,344
Balance		-\$575,892

Consultation:

This report was completed in consultation with the LAWSS General Accountant, EXP Services Inc., and OCWA Operational Staff.

Conclusion

Attached to this report is a letter prepared by EXP Services Inc. that verifies both bids we received were complete in their entirety and submitted as per tendering instructions with the appropriate documentation. They are recommending that J.M.R. Electric Limited, a reputable Electrical Contractor that has demonstrated their ability on projects of similar size and complexity, be awarded as they were the lowest price we received for the work. A combination of the following factors may have contributed to the budget shortfall:

1. The extent of SCADA integration was not clearly defined at that time of the budget preparation. It was solidified during our final design stage.

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2. The tendering timeline for the GC component was not ideal due to delays caused by COVID-19.
3. The evolution of the overall project scope affected project complexity in a way that was difficult to quantify from an engineering standpoint.
4. COVID-19 protocols that limit the number of workers that are permitted within proximity to each other are expected to be driving up costs across the industry.

I have reviewed their recommendation against the budgetary constraints outlined above and based on this review I also recommend that LAWSS proceed with the project for the following reasons:

1. It is unlikely that re-tendering will result in a better outcome.
2. Sufficient effort was undertaken to secure a competitive price for all aspects of this project.
3. There will be additional costs incurred related to storage of built equipment if the project is delayed.

By postponing current projects and adjusting the capital plan, staff can take reasonable steps to address the budget shortfall without severely impacting current and future cashflow. If the recommendations are accepted, changes to the capital plan will be presented to the LAWSS Board at the budget proposal in October and will include postponement of \$120,000 in approved engineering in 2020. Over the next 5 years, approximately \$1.76 million is designated to upgrade/replace the major electrical equipment downstream of the 5kV Switchgear. This plan will need to be altered to accommodate the 2020 budget shortfall related to this project.

This report was prepared by Clinton Harper, LAWSS General Manager

Attachment(s): EXP Recommendation letter- Tendering Results.