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Meeting Date: February 27, 2020
File No.:

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

From: Clinton Harper
General Manager

Subject: Scope of Work- RFP Engineering Design for 5kV Motor Control Group A&B Replacement.

Recommendation

"That the LAWSS Joint Board of Management **ENDORSE** the scope of work for RFP-Engineering Design for 5kV Motor Control Group A&B Replacement."

Evaluation Process:

Staff will use a Qualification-Based Selection process utilizing a "two (2) step method" procurement process in which bids are received and evaluated in two (2) separate phases.

The first step (Phase 1) consists of technical and qualitative information and is opened and evaluated first. The second step (Phase 2) consists of cost and price information which may be opened and evaluated only after the information in Phase 1 has been evaluated in accordance with the requirements of the RFP document.

Technical proposal Submissions will be assessed and scored based on the evaluation criteria, but not limited to, the following:

Criteria	Weighting
Project Manager Qualifications and Experience on Directly Related Projects	15
Technical and Support Staff Qualifications and Experience on Directly Related Projects	25
Understanding of Project Goals, Methodology, and Approach	25
Implementation Strategy, Schedule of Key Activities, and Commitment to Maintaining Timeline and Deliverables	25
Innovation and Recommendations	10

The Technical Proposal must receive a score of seventy (70) points or greater, based on the technical evaluation criteria to be considered for the Cost Proposal phase. Proposals that do not achieve this score will not be considered further.

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Description:

Provide a proposal for full replacement.

Motor Control Centre - Group A
The existing Group 'A' MCC is a Federal Pacific Electric make, is rated for 4160V, 3PH, 1200A and serves the High Lift Wash Water Pump, High Lift Pump #2, High Lift Pump #3, High Lift Pump #8, Low Lift Pump #2 and Low Lift Pump #3. The unit appears to have been well maintained and has no visible signs of rust of other damage. This MCC is original to the 1972 building and is past the typical life cycle of 25 to 30 years. Technology in the components are outdated and are bound to be showing signs of wear and tear and replacement parts may be impossible to find. It was noted that the starter for the High Lift Wash Water Pump was retrofitted in July 2002, the High Lift Pump #2 was retrofitted in March 2003 and Low Lift Pump #4 was retrofitted in September of 2001.

Motor Control Centre - Group B
The existing Group 'B' MCC is a Federal Pacific Electric make, and is rated for 4160V, 3PH, 1200A and serves High Level Pump #1, High Level Pump #4, High Level Pump #6, Low Level Pump #3 and Low-Level Pump #5.

Scope of Work:

Part 1 (to be completed in 2020)

Development and Design
a) Identification and review of acceptable equipment model replacements that can meet the physical limitations of the facility. This shall include at a minimum the following:
1. Right size all components based on current requirements;
2. Warranty of all components;
3. Parts availability through expected life cycle;
4. Diagnostic requirements for trouble shooting and repairs
5. Equipment Staging and delivery co-ordination
b) Engineering design including civil, electrical, SCADA, mechanical and including the required panel in the MCC;

Compliance Documentation and Tendering
a) Complete all regulatory requirements licence and permit updates;
b) Prepare tender documents including all requirements and comprehensive 5-year maintenance contract;
c) Include complete disposal of existing equipment off site;

Part 2 (to be completed in 2021)

Project Administration
a) Provide complete project oversight and management;
b) Review weekly with LAWSS Representative(s) project construction status;
c) Review weekly with LAWSS Representative(s) project budget management;
d) Provide review of contractor progress payments for approval by LAWSS Representative(s);
e) Address all Environmental requirements with the MECP as required;
f) Provide Form 6 for notice of substantial completion.

Project Commission and Closeout
a) Provide complete as-built drawings for all equipment and changes completed;
b) Provide operator training, manuals, maintenance guidelines, and part sources for all equipment installed as part of the project;
c) Provide a 5-year Maintenance Plan.

Tendering:

The Tender/Proposal Process, as outlined in the LAWSS Procurement Bylaw will be used to secure prices for this work. Every effort will be made to secure three competitive bids. The results of the Tender/Proposal Process will be used to establish a recommendation that will be outlined in a future report to the Board.

Financial Implications:

An electrical reliability study completed in 2019 identified a path for replacement for the major electrical components downstream of the main plant switchgear. The 5kV Motor Control Group A&B is the first step in that process after the generator replacement and main plant switchgear project is complete. The 5kV Motor Control Group A&B project is estimated at $700,000 and is proposed in 2021. In 2020, $90,000 was budgeted to complete the engineering and project management necessary to complete this project.

This report was prepared by Clinton Harper, LAWSS General Manager

Attachment(s): none