

Municipality of Lakeshore – Report to Council

Operations

Water Management



To: Mayor & Members of Council

From: Krystal Kalbol, P. Eng., Corporate Leader – Operations

Date: April 20, 2023

Subject: Contract Award, Programmable Logic Controller (PLC) Replacements at Stoney Point and John George Water Treatment Plant (WTP)

Recommendation

Award the contract for the Programmable Logic Controller (PLC) Replacement at both the Stoney Point and John George Water Treatment Plant (WTP) to ONYX Engineering through non-competitive selection in the amount of \$162,816.00, including non-recoverable HST, as presented at the May 2, 2023 Council meeting.

Background

Programmable Logic Controllers assist with the operation of Lakeshore's Supervisory Control and Data Acquisition (SCADA) system at both the Stoney Point WTP and John George WTP. These assist with the collection and monitoring of data for all critical functions in the WTPs while the potable water process is underway.

There are 3 PLCs at the Stoney Point WTP and 7 PLCs at the John George WTP.

2 PLCs were previously replaced at the John George WTP, one in 2019 and one in 2022, leaving still 3 to be replaced at the Stoney Point WTP and 5 at the John George WTP.

In the 2023 Budget, Council approved the replacement of four (4) PLCs, three (3) in Stoney Point WTP and one (1) in John George WTP. The remaining PLCs that have not been replaced at John George WTP (four (4)) will be brought forward in the 2024 budget.

Comments

The existing PLCs have reached their life expectancy and require replacement to provide reliable and continuous monitoring of data and to continue to remain in compliance with Provincial Regulations.

When replaced, the PLCs will also be upgraded to mitigate the risk of potential cyber-attacks. The current PLCs cannot be programmed to prevent malware attacks on Lakeshore's SCADA system, leaving the process, monitoring, and information collected at the Water Treatment Plants at risk.

The replacement and upgrade of the PLCs will ensure that the WTP(s) can perform in a safe, efficient, and risk-free manner.

Lakeshore's Purchasing By-law 36-2020, Section 3.9 allows non-competitive selection for purchases based on the below:

- a) The requirement for competitive bid solicitation for goods, services, and construction may be waived under joint authority of the appropriate Department Head and the Purchasing Coordinator and replaced with negotiations by the Department Head under the following circumstances:
 - i. where competition is precluded due to the application of any Act or legislation or because of the existence of patent rights, copyrights, technical secrets or controls or raw material;
 - ii. where due to abnormal market conditions, the good, services, or construction required are in short supply;
 - iii. where only one source of supply would be acceptable and cost effective;
 - iv. where there is an absence of competition for technical or other reasons and the goods, services, or construction can only be supplied by a particular supplier and no alternatives exist;
 - v. where the nature of the requirement is such that it would not be in the public interest to solicit competitive bids as in the case of security or confidentiality matters.
- b) When a Department Head intends to select a supplier to provide goods, services, or construction pursuant to subsection 3.9 a), a written report indicating the compelling rationale that warrants a non-competitive selection will be submitted by the Department Head to Town Council for approval.

Based on the circumstances listed in item a) above, i and iii was found to apply based on the below:

- i. ONYX Engineering has been appointed as the Rockwell (Allen Bradley) Automation Recognized System Integrator for the Windsor Region, therefore in this case competition would be precluded as they are the only authorized area integrator to supply and work on Rockwell Automation based equipment (including trouble shooting, maintenance and warranty support).

- iii. Since the existing PLC equipment is Allen Bradley which must require Allen Bradley hardware and software replacement in order to be compatible with the existing system, the replacement also requires approved suppliers, as applicable in this case which would be acceptable and cost effective as ONYX are the only local approved supplier for these parts.

Further, Section 3.9 (b) will be met, upon receipt and support for award under this report.

Therefore, using a non-competitive selection process for this project meets the criteria outlined in Lakeshore's Purchasing By-law and allows the project to proceed immediately.

Additionally, there is a short supply of all parts required for PLC Replacement projects throughout Ontario. ONYX Engineering is expecting the material delivery for the project to take approximately 16 weeks (4 months) and it has been identified that this is not a guarantee based on the existing global supply shortage. In addition, due to the global chip shortage, timing is critical on ordering, however because this is considered an essential service use, priority will be provided to the project.

Others Consulted

ONYX was consulted as part of this project.

Financial Impacts

In the 2023 Budget, Council approved the replacement of four (4) PLCs, three (3) in Stoney Point WTP and one (1) in John George WTP in the amount of \$200,000.

The total project cost to complete the four (4) PLC replacements is in the amount of \$162,816.00, including non-recoverable HST. This project is \$37,184.00 under the approved budget.

The remaining funds allocated for this project in the amount of \$37,184.00 will be put back into the water reserves to support the future replacements.

Report Approval Details

Document Title:	Contract Award, PLC Replacements at Stoney Point and John George Water Treatment Plant (WTP).docx
Attachments:	
Final Approval Date:	Apr 26, 2023

This report and all of its attachments were approved and signed as outlined below:

Prepared by Krystal Kalbol

Approved by Justin Rousseau and Truper McBride