



REQUEST FOR STATEMENTS OF QUALIFICATIONS (RFSQ) No. 22-077

DATE: September 23rd, 2022

Project Title: Greater Nanaimo Pollution Control Centre Control System Integration Services for Basement MCC Replacement Project

The Regional District of Nanaimo invites qualified and experienced firms to submit Statements of Qualifications to complete the control system integration services for the replacement/upgrade of electrical and controls equipment in the Greater Nanaimo Pollution Control Center (GNPCC) Basement MCC Room, specifically Motor Control Centres MCC961, MCC962, MCC973 and control panel CP100.

A. Intent

This Request for Statements of Qualifications (RFSQ) is issued to determine the most qualified and experienced service provider that can meet the Regional District of Nanaimo's requirements, expectations, and timeline.

The Regional District of Nanaimo will review submissions received in response to this RFSQ and enter discussions with the top-ranked Respondent to negotiate the terms, scope, timeline, and cost based on the actual scope of work required (the Work). Should these negotiations fail to result in a contract for the Work, the Regional District of Nanaimo may then elect to negotiate with the next highest ranked service provider and so on until an agreement is reached or the process cancelled.

In any event, the Regional District of Nanaimo shall not be bound to enter a contract with any Respondent to this RFSQ and, at its sole discretion, may elect to collapse this process.

B. Background

The Regional District of Nanaimo (RDN) owns and operates the Greater Nanaimo Pollution Control Centre (GNPCC), located at 4600 Hammond Bay Road, Nanaimo B.C. The facility was constructed in 1973, and has seen numerous upgrades during its lifetime, most recently the upgrade to secondary treatment which was completed in November 2020.

The GNPCC Basement MCC Room contains electrical and controls equipment which is end of life and requires upgrade and/or replacement. The electrical design engineering and equipment procurement for this work is nearing completion, with construction expected to start in Spring 2023.

C. Overall Project Description

Three (3) motor control centres (MCCs) and a PLC panel in the Basement MCC Room in the GNPC are being replaced or upgraded. The equipment being powered and controlled by the equipment is mostly part of the plant's primary waste water treatment process.

The following MCCs will be replaced or modified as follows:

- Existing MCC-961 is a Westinghouse MCC previously retrofitted with DeviceNET overloads. MCC-961 will be completely replaced with a new Rockwell MCC with Ethernet I/P overloads.
- Existing MCC-962 is a Westinghouse MCC previously retrofitted with DeviceNET overloads. MCC-962 will be completely replaced with a new Rockwell MCC with Ethernet I/P overloads.
- Existing MCC-973A is a Rockwell MCC containing DeviceNET E3+ overloads and Powerflex VFDs. Overloads and VFDs will be upgraded to be Ethernet I/P capable.
- Existing MCC-973B is a Rockwell MCC containing Ethernet I/P capable overloads and VFDs, and is not intended to be modified.

Existing PLC panel CP100, containing a Rockwell CompactLogix PLC, will be replaced with a complete new PLC panel containing a Rockwell ControlLogix PLC.

The project is planned to be implemented in a staged approach that has been planned to minimize equipment downtime. A preliminary sequence plan is included in Appendix B, along with drawings for the new equipment.

D. Control System Integration Scope of Services

The scope of services requested as part of this RFSQ should include review of existing drawings and software, development of new and modified software, QA/QC testing of the new software, and field services during implementation. This should include:

General & Project Management

- i. Attend a site kickoff meeting to review the existing facilities and project with the RDN;
- ii. Review existing plant and new project drawings and documentation;
- iii. Lead a bi-weekly project update meeting, including tracking decisions and open items in project minutes;
- iv. Provide monthly status reports, including at least the following information:
 - Financial update,
 - Schedule update,
 - Work update (work completed previous period, work to be completed next period),
 - Identify key open items.

Programming and Configuration

- v. PLC programming, including any temporary logic for the sequenced installation work or changes to other PLCs to accommodate project equipment changes;
 - vi. HMI/SCADA programming and updates;
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- vii. Configuration of programmable/configurable devices as required for proper operation of the complete integrated control system, including:
 - o Managed and unmanaged Ethernet switches,
 - o Rockwell PowerFlex Variable frequency drives,
 - o Rockwell E300 Ethernet I/P intelligent overloads.

Project Documentation

- i. Control Narrative (to be issued for review, issued for programming);
- ii. HMI/SCADA static screens (to be issued for review, issued for programming);
- iii. IP address listings;
- iv. Final documentation package (software/configuration files, QA/QC documentation, etc.).

Field Services

- i. Be a key member of the field checkout and commissioning team;
- ii. Plan and implement control system changes as part of the staged project implementation;
- iii. Develop and complete QA/QC documentation for control system checkout and commissioning.

An excerpt of the RDNs Control Narrative template is included in Appendix C.

The Respondent shall provide their own computers and software as required to execute the work.

E. Contemplated Schedule

The current contemplated major milestones, based on known equipment deliveries, is as follows:

- Project award and kickoff meeting - October 2022;
- Technical field investigation/scoping site visits – November 2022;
- IFC drawings provided from the electrical engineer – December 2022;
- PLC cabinets and MCCs on site, construction starts – June 2023;
- Project implementation complete – September 2023.

The schedule is subject to change based on equipment deliveries, electrical engineering progress, contractor progress, plant operating conditions, or other unforeseen circumstances.

F. Statement of Qualifications and Evaluation

The statement of qualifications should be no longer than eight (8) single sided pages in length (not including cover page, cover letter and appendices). Please include the following:

- Qualifications and areas of expertise of the Firm and nominated Project Manager. Include CV/Resume of the Project Manager and explain how this individual will provide value for the RDN.
 - Qualifications and areas of expertise of the nominated Technical Lead(s). Include CV/Resume, and a statement confirming their role(s) in the project and their continuity of involvement through to the completion of the field implementation work.
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- Experience of Firm and nominated Technical Lead(s) in previous relevant work using similar control system hardware and software as those used to be used on this project. Provide short descriptions of similar projects and assignments completed by the Firm, the nominated Project Manager, and the project Technical Lead. Examples must be industrial in nature and in operating plants such as GNPCC.
- Provide within the appendices sample documents that highlight your firm's ability to execute the work. These documents must include:
 - Field I/O check-out sheet (1 page)
 - Monthly progress report (1 page)
 - Process control narrative (2 pages)
- A statement of your firm's ability to complete the work within the tentative project schedule.
- Indicate your firm's ability to perform engineering work in the Province of British Columbia.
- A statement of your firm's approach to advancing equity and sustainability in corporate operations and service provision, including mention of official policies, achievements or standards met.

Statements of Qualifications (the "SOQ") will be initially evaluated by the Regional District of Nanaimo based on the above and assigned a qualitative score out of 50. Any or all SOQs will not necessarily be accepted.

E. Submission Date & Time

Statements of Qualifications should be received **BY EMAIL ONLY** on or before 3:00 p.m. pacific standard time on the 7th day of October 2022. The RDN reserves the right to accept late submissions.

F. Questions and Submissions

Questions and submissions should be directed to:

Chris Mathie, P.Eng
E&I Project Engineer, Engineering Services
Regional District of Nanaimo
6300 Hammond Bay Road, V9T 6N2
Phone: 250-758-1157
Email: cmathie@rdn.bc.ca



**REQUEST FOR STATEMENTS OF
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Appendix A: Site Photos



MCC-962 Rear



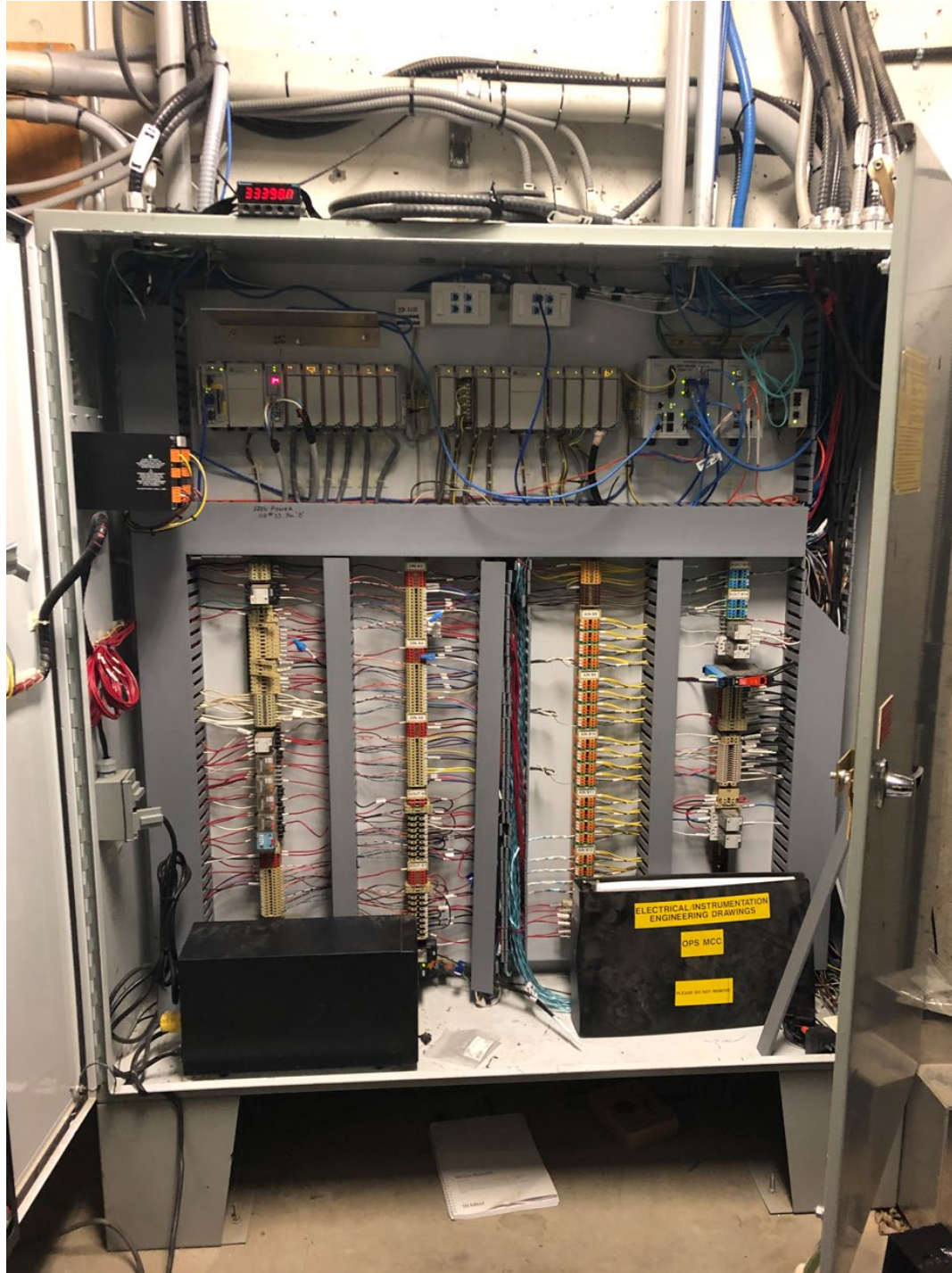
MCC -962 Front



MCC-961 Front



MCC-973B



CP-100



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Appendix B: Drawings and Documentation



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Appendix C: Control Narrative Sample
