Advance Contract Award Notice (21-58060)

2MW Compressor Vibration and Temperature Monitoring System

Definition of an ACAN

> *An Advance Contract Award Notice (ACAN) allows departments and agencies to post a notice, for no less than fifteen calendar days, indicating to the supplier community that it intends to award a good, service or construction contract to a pre-identified contractor. If no other supplier submits, on or before the closing date, a statement of capabilities that meets the requirements set out in the ACAN, the competitive requirements of the government's contracting policy have been met. Following notification to suppliers not successful in demonstrating that their statement of capabilities meets the requirements set out in the ACAN, the contract may then be awarded using the Treasury Board's electronic bidding authorities.*
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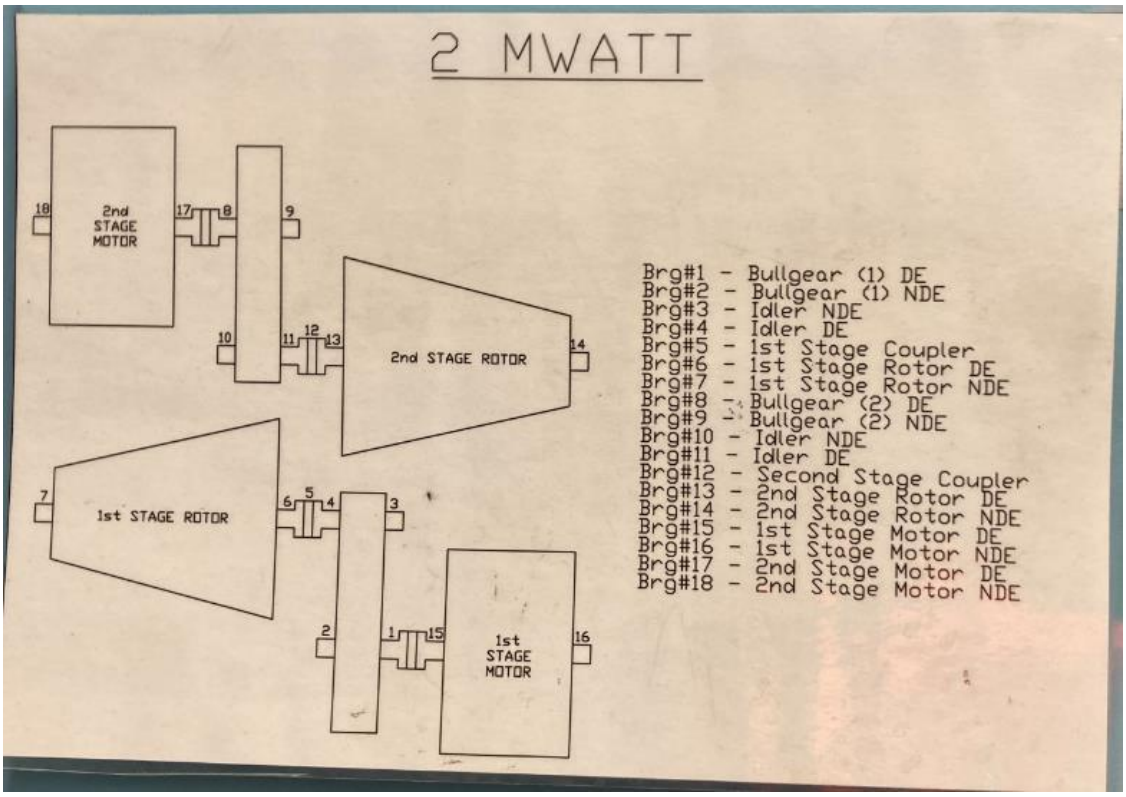
> *If other potential suppliers submit statements of capabilities during the fifteen calendar day posting period, and meet the requirements set out in the ACAN, the department or agency must proceed to a full tendering process on either the government's electronic tendering service or through traditional means, in order to award the contract.*

Definition of requirements:

This procurement aims to upgrade/replace the existing Bently Nevada 3000 series machinery protection system and also the temperature monitoring system of the 2MW compressor at the National Research Council Canada (NRC) Gas Turbines Laboratory (GTL). Existing systems utilize velocity probes with Velocity to Displacement Converters as radial vibration monitoring inputs connected to 6 x vibration monitor modules. Another data acquisition and HMI system acquires and displays the temperature measurement of 30 x RTD sensors.
The following image provides existing layout of 2MW compressor machinery monitoring system:



Procurement requirements:

1) Replace/retrofit existing velocity probes with the following new sensor configuration:
    a. Proximity probes mounted in X-Y configuration at or near each of the four compressor bearings;
    b. Gearbox accelerometers;
    c. Bearing Velocity sensors (Velomitors) for Gearbox and Motors;
    d. Speed/phase sensors for each rotor;
2) Provide mechanical design, labour and materials to install new sensors as required, including drilling and tapping on compressor bearing caps to allow the installation of required probes;
3) Supplier to provide hardware, software and services required to replace in kind and with similar rack “foot print” the 3300 monitoring systems with an up to date machinery monitoring system that can accommodate the new transducers required above for the 2MW Compressor. Similar rack size is required to minimize legacy cabinet modifications as the cabinet accommodates other critical instrumentation and control equipment. Temperature data acquisition and monitoring modules to support a maximum of thirty (30) RTD inputs total are required as an integral part of the vibration machinery monitoring system. RTDs are existing and do not need to supplied or installed as part of this procurement;
4) Proposal should include, extension cables, interconnection cables, housings, mounting kits, relays and any other accessories required to install the proximity

and velocity probes, accelerometers, speed/phase sensors and the machinery protection and monitoring hardware;

5) Procurement excludes electrical subcontractor labor and materials to install the proposed systems;
6) Electrical designs required for the installation of the machinery protection system must be supplied. The design package will be submitted to the NRC for approval and will be utilized by the NRC to implement the system. Preliminary electrical drawings must be provided shortly after procurement order is issued to allow the NRC to contract electrical subcontractor services;
7) Procurement should include supply of system maintenance and configuration software required for the machinery protection and monitoring system;
8) Proposal should include labour required to evaluate best installation points for the vibration probes (proximity, velocity, acceleration and speed sensors);
9) Monitoring hardware must include any materials and labour required for the installation of a External Display displaying vibration and temperature indication and alarms;
10) Machinery protection and monitoring hardware must be able to communicate via Modbus with third party PLC/HMI systems;
11) All required project documentation for mechanical, electrical, modules and rack installation and maintenance must be provided;
12) Supplier to provide project management, site coordination, mechanical and electrical installation oversight;
13) All services required to perform transducer installation, probe verification for all sensors, system and I/O loop checks for all sensors (including RTDs), machinery monitoring system configuration and verification, on-site commissioning and start-up support must be included;
14) Any additional accessories, hardware and services required to accommodate the upgrade/replace of existing Bently Nevada 3000 series machinery protection system, vibration transducers/converters and temperature monitoring systems with the system from a different manufacturer must be included in the proposal.

1. This procurement is subject to the World Trade Agreement-Agreement on Government Procurement
(NAFTA/CFTA/CCFTA/CCOFTA/CHFTA/CPAFTA/CPFTA/CKFTA)
2. Contract Period: From October 4th 2021 to February 18th 2022.
3. An estimate of the cost of the proposed contract: between $180,000 and $200,000 Canadian dollars.
4. Supplier: Bently Nevada Canada/Baker Hughes Energy Services Canada, Inc. 1000-401 9th Avenue SW, Calgary, AB, T2P 3C5, Canada

Justification for the Pre-Identified Supplier

Pursuant to the Government Contracts Regulations of the Financial Administration Act, the contract is being awarded because it has been determined that only one vendor is capable of performing the contract for reasons listed herein.

The following exception(s) to the Government Contracts Regulations is (are) invoked for this procurement under subsection 6 (d)"only one person is capable of performing the work" and Limited Tendering Reasons contained in the Trade Agreements 1016 b.

where, for works of art, or for reasons connected with the protection of patents, copyrights or other exclusive rights, or proprietary information or **where there is an absence of competition for technical reasons**, the goods or services can be supplied only by a particular supplier and no reasonable alternative or substitute exists;

Suppliers' right to submit a statement of capabilities

Suppliers who consider themselves fully qualified and available to provide the goods, services or construction services described in the ACAN may submit a statement of capabilities in writing to the contact person identified in this notice on or before the closing date of this notice. The statement of capabilities must clearly demonstrate how the supplier meets the advertised requirements.

Closing date for a submission of a statement of capabilities: *October 6, 2021 at 5:00pm.*

Inquiries and submission of statements of capabilities:

Procurement Officer: Tania Backes
Tania.backes@nrc-cnrc.gc.ca