



NTPC Limited  
Corporate Operation Services EOC, Noida

Ref: 01: OS: C&I: Enlistment: QR

Date: 18.08.2020

**Sub: QR for Vendor Enlistment for supply of Microprocessor Based Electronic Positioners.**

A	MEG Details	
	1.0 MEG No.	94MEG-05
	2.0 MEG Description	<b>Microprocessor Based Electronic Positioners</b>
	3.0 Responsibility Centre	CC
B	Technical Criteria of QR: <ol style="list-style-type: none"><li>1. The applicant should be manufacturer of Microprocessor Based Electronic Positioners.</li><li>2. The applicant should have supplied Microprocessor Based Electronic Positioners to power plants having 200MW and higher size units during last 5 Years from the date of application.</li></ol>	
C	<b>Documents required in support of meeting Qualifying Requirements (QR):</b> <ol style="list-style-type: none"><li>1. QR-1: Documents in support of manufacturing facility: Valid ISO certificate/NSIC/ Catalogue /any other suitable document as a proof of being manufacturer of the required material. Brief details of manufacturing facilities for Microprocessor Based Electronic Positioners are also to be given.</li><li>2. QR-2: PO / Contract / Work order copies and their Invoices/completion Certificates etc. in support of supply.</li></ol>	
D	<b>Other Documents to be submitted:</b> In addition to the documents required in support of meeting technical requirements as stated above, following documents are required to be submitted by the Applicants applying for enlistment:- <ol style="list-style-type: none"><li>1. Three POs of the highest executed values of similar work (see definition at point E-Note below) during previous five years from the date of application. Copy of Invoice / Completion certificate from the concerned buyer/s in support of successful execution of supply against the POs to be submitted. These will be required for calculation of Execution capability</li><li>2. Audited balance sheet including Profit &amp; Loss statement for the previous three completed financial years reckoned from the date of application. In case the audited documents are not ready / available, then certified copy by a registered practicing Chartered accountant may be submitted.</li><li>3. Latest annual report OR NSIC / SSI / MSME registration certificate / BIS license / ISO certificate/ Certificate of registration from the concerned excise department / any other statutory document as a proof of being manufacturer of the required material.</li><li>4. Any other documents in addition to the above which the applicant wants to submit.</li><li>5. NTPC can ask other documents as necessary during the course of evaluation.</li></ol>	
E	<b>Note-1</b> Similar works means: Supply of Microprocessor Based Electronic Positioners or Instrumentation and Control items to any Power Plants / Petroleum Refinery / Fertiliser Plants / Steel / Aluminium Industry within last 5 (five) years from the date of application for enlistment. <b>Note-2</b> The executed value means Basic value of quantity of similar works executed/supplied against the reference PO (also applicable to partly executed POs as on date of application). Where PO value is composite (i.e. including Taxes etc.), the applicant to give item-wise break-up of Composite PO value mentioning Basic Value, Taxes etc.	

**1. SPECIFICATIONS FOR MICROPROCESSOR BASED ELECTRONIC POSITIONER.**

1	Electrical	a) Input Demand Signal	4-20 mA
		b) Power Supply	Loop powered from the output card of Control System for Positioners.
		c) Protocol	Positioners shall be compatible to HART Protocol.
		d) Valve position sensing	Position sensing 4-20 mA output signal to be provided for Control System for conventional positioners.
2	Environment	a) Operating temp.	(-)30 To 80 Deg. C
		b) Humidity	0-95 %
		c) Protection class	IP-65 Minimum
3	Software for Configuration and Diagnostics	Software	Software shall meet the requirements for Configuration, Diagnostics, Calibration and Testing of the actuator.
		Diagnostic/Test features	Advanced diagnostic features like Stroke counter or Travel counter, Leakage in actuators, Valve Signature analysis, Step Response test, Valve friction /Jamming detection etc. to be provided.
4	Test reports/ Certificates	Factory Valve Signature Tests Reports (Pr. Vs Valve travel and Travel Vs I/P signal) are to be provided.	
		Test certificates as per Manufacture Standard/Relevant Standard are to be submitted.	
5	Configuration/ Calibration.	Remote & Local Calibration, Auto & Manual Calibration shall be possible.	
6	Operating Range	Full range/ Split range.	
7	Modes	Valve Action	Direct / Reverse Valve Action
		Flow Characterization	Possible to fit Valve Characteristic Curves- Linear, Equal percentage etc.
8	Fail Safe/Fail Freeze	Fail Safe/Fail Freeze feature is to be provided.	
9	Pneumatic	Air capacity	Sufficient to handle the valves & actuators selected.

		Air pressure	To suit the air supply pressure/quality available.
		Process connection	¼" NPT
10	Performance	Characteristic deviation	<=0.5 % of span.
		Ambient temp effect	<=0.01 %/ deg C or better.
10	EMC & CE Compliance	Required to International Standard like EN/IEC.	EN50081-2 & EN50082 or equivalent.
11	Accessories	In-built Operator Panel	Display with push buttons for configuration and display on the positioner itself (Password protected/Hardware lock).
		Press Gauge Block	For supply & output pressures, Air Filter Regulator and other accessories shall be provided on as required basis for making system complete.
		Electrical Cable Entry	½" NPT, side or bottom entry to avoid water ingress.
		Valves Mounting Assembly	For Sliding Stem/Rotary/Single acting/Double acting actuators on as required basis.