KENYA ELECTRICITY GENERATING COMPANY PLC

KGN-SONDU-015-2024

RFx: 5000015229

TENDER FOR SUPPLY AND DELIVERY OF PLANT SYSTEM STRATEGIC SPARES FOR SANG'ORO POWER STATION

(*CITIZEN CONTRACTORS*)

Date: 23rd May, 2024

Clarification No. 1.

In accordance with the "**Tender For Supply and Delivery of Plant System Strategic Spares for Sang'oro Power Station** "KenGen issues **Clarification No. 1**as follows;

NO	CLARIFICATION SOUGHT	KENGEN'S RESPONSE
1	Please advise if you need only the requested brand.	1. Only the requested brand is required
2	We need more details including measuring medium, temperature, pressure, pipe material.	2. See details below • Product headline Flowmeter for basic water and wastewater applications with easy-to-use operation concept. Reliable measurement at constant accuracy with 0 x DN inlet run without pressure loss. Suitable for elementary measurement tasks such as raw water intake. See details below that apply for DN25,DN50,DN65 and DN125 Sizes • Sensor features Flexible engineering – sensor with fixed or lap-joint process connections. Application fitness – EN ISO 12944 corrosion protection for underground or underwater installation. Improved plant availability – sensor compliant with industry-specific requirements. International drinking water approvals. Degree of protection IP68 (Type 6P enclosure). International drinking water approvals. Installation length: DVGW/ISO conform. • Transmitter features Optimum usability – operation with mobile devices and SmartBlue app or display with touch screen. Simple, time-saving commissioning – guided parameterization in advance and in the field. Integrated verification – Heartbeat Technology. System integration with HART, Modbus RS485. Flexible operation

		with app and optional display.
		• Nominal diameter range
		DN 25 to 3000(1 to 120")
		• Wetted materials
		Liner material hard rubber: 0 to +80 °C (+32 to +176 °F) Liner material polyurethane: –20 to +50 °C (–4 to +122 °F) Liner material PTFE: –20 to +90 °C (–4 to +160 °F) Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022)
		• Measured variables
		Volume flow, conductivity, mass flow
		• Max. measurement error
		Volume flow (standard): ±0.5 % o.r. ± 1 mm/s (0.04 in/s)
		• Measuring range
		0.5 m3/h to 263000 m3/h (2.5gal/min to 1665 Mgal/d)
		• Wetted materials
		Liner material hard rubber: 0 to +80 °C (+32 to +176 °F) Liner material polyurethane: –20 to +50 °C (–4 to +122 °F) Liner material PTFE: –20 to +90 °C (–4 to +160 °F) Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022)
		• Measured variables
		Volume flow, conductivity, mass flow
		• Max. measurement error
		Volume flow (standard): ±0.5 % o.r. ± 1 mm/s (0.04 in/s)
		• Measuring range
		0.5 m3/h to 263000 m3/h (2.5gal/min to 1665 Mgal/d)
		• Max. process pressure
		PN 40, Class 300, 20K
		• Medium temperature range
		Liner material hard rubber: 0 to +80 °C (+32 to +176 °F) Liner material polyurethane: –20 to +50 °C (–4 to +122 °F) Liner material PTFE: –20 to +90 °C (–4 to +194°F)
		• Ambient temperature range
		-40 to 60°C (-40 to 140°F)
		• sensor housing material
		DN 25 to 300 (1 to 12"): AlSi10Mg, coated DN 350 to 2000 (14 to 78"): Carbon steel with protective varnish
		• Transmitter housing material
		Polycarbonat; AlSi10Mg, coated

		• Degree of protection
		Compact version: IP66/67, type 4X enclosure Sensor remote version (standard): IP66/67, type 4X enclosure Sensor remote version (option): IP68, type 6P enclosure, with protective varnish according to EN ISO 12944 C5-M/Im1/Im2/Im3
		Display/Operation
		• LCD display with touch & auto rotate
		• Outputs
		4-20 mA HART (active/passive), Pulse/frequency/switch output Modbus RS485, 4-20 mA
		• Digital communication
		HART, MODBUS RS485
		• Power supply
		DC 24 V AC 100 to 230 V AC 100 to 230 V / DC 24 V (non-hazardous area)
		• Hazardous area approvals
		CSA, GP, KC
		• Metrological approvals and certificates
		Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025) Heartbeat Technology complies with the requirements for measurement traceability according to ISO 9001:2015 – Section 7.1.5.2 a (TÜV SÜD attestation)
3	For connection type, do you need flange type, clamp type or thread type?	3. Proline promag 10w/ 5WBB65-4Q44/0 is the preferred model. Refer to the datasheet.
4	TURCK MS22-Ri (Speed Transducer) This product is completely phased out and discontinued. Can we offer the substitute as adviced by the supplier TURCK? Substitute part number: IM12-FI01-1SF-1I1R-C0/24VDC	4. Proposed **TURCK** model must conform to all technical specifications of the MS22-Ri
5	TURCK MS24-R (Speed Transducer) This product is completely phased out and discontinued. Can we offer the substitute as adviced by the supplier TURCK? Substitute part number:	5. Proposed **TURCK** model must conform to all technical specifications of the MS24-R

	IM12-FI01-1SF-1R-0/24VDC	
6	AC-DC CONVERTER Power One Please provide a part number. Please send the nameplate of the existing one if possible. Please provide a part number. Please send the nameplate of the existing one if possible.	6. 
7	Power supply module Quint Phoenix Contact 3AC/24DC/40 Will an equivalent Siemens one be suitable? SIEMENS alternative part number: 6EP3437-8SB00-4AY0 ; SIEMENS alternative description: SITOP PSU8400 3AC 40A IOL Stabilized power supply Input: 400-500 V 3 AC output: 24 V DC/40 A with IO-Link connection	7. Specified model is preferred, and no other.
8	ITEM 10. Please refer to the attached item 10 AC DC Convertor, can you specify the following: 1. Input Voltage 2. Number of phases 3. Output voltage 4. Output Current 5. Method of communication 6. Part No. of the power supply	<u>AC – DC CONVERTOR</u> 1. Input Voltage: 100-240VAC,3.5A,50-60HZ or 90-350VDC,3.3A 2. Single phase 3. Output Voltage: 24.7VDC 4. 10A DC 5. Serial -RS232 Part no: LWN 1601-6M2K

<u>BIDDER'S ACKNOWLEDGEMENT OF CLARIFICATION NO. 1</u>

We, the undersigned hereby certify that the **Clarification** is an integral part of the document and the alterations set out in Addendum have been incorporated in our tender document.

Signed ……

Tenderer ……

Date ……