KENYA ELECTRICITY GENERATING COMPANY PLC

RFx: 5000016005

KGN-OLK-041-2024

TENDER FOR ONSITE DYNAMIC BALANCING AND VIBRATION ANALYSIS OF ROTATING EQUIPMENT FOR KENGEN POWER PLANTS.
(Framework Contract for Three (3) Years)

(Citizen Contractors

Dated: 29th November, 2024

Clarification No.1.

In accordance with the **Tender for Onsite Dynamic Balancing and Vibration Analysis of Rotating Equipment for KenGen Power Plants**, KenGen issues **Clarification No.1** as follows:

	BIDDERS CLARIFICATION	KenGen's RESPONSE
1.	Please respond as follows. Operating speed of the shaft line(s):	Refer to the Provided Table below.
2.	How many bearings?	
3.	Type of bearing – Journal or Roller?	
4.	What kind of vibration measurement sensors are installed on each bearing? (proximity probes or accelerometers or velocity sensors	
5.	Normally the power plant has a drawing of the shaft line with the instrumentation installed (PID), please provide.	The drawings cover distinct areas, and therefore, bidders can access them during the site visit(s).

Plant	Operating Speed (Rev/min)	No of Units	Bearing Type	Turbine Bearings/Unit	Generator Bearings/Unit	Types of Vibration Sensors Installed
Olkaria II	3000	3	Journal bearings	2	2	Proximity probes
Olkaria IV	3000	2	Journal bearings	2	2	Proximity probes
Olkaria 1AU 4 & 5	3000	2	Journal bearings	2	2	Proximity probes
Olkaria 1U6	3000	1	Journal bearings	2	2	Proximity probes
Olkaria V	3000	2	Journal bearings	2	2	Proximity probes
Wellheads C50	5804	10	Journal bearings	2	2	Proximity probes
Wellheads C64	6802	10	Journal bearings	2	2	Proximity probes
Eburru	4622	1	Journal bearings	2	2	Proximity probes
Kindaruma	215	3	Journal bearings	1	20 (Thrust and Lower guide)	No sensor installed
Masinga	272	2	Journal bearings	1	26 (Thrust, lower and upper guide)	No sensor installed
Kamburu	272	3	Journal bearings	1	32 (Thrust, lower and upper guide)	No sensor installed
Kiambere	300	2	Journal bearings	1	28 (Thrust, lower and upper guide)	No sensor installed
Gitaru	272	3	Journal bearings	1	28 (Thrust, lower and upper guide)	No sensor installed
Wanjii 1 & 2	600	2	Spherical roller bearing 24060 CC/C3 W33 on the Drive End side & Toroidal roller bearing C 3048/C3 on the Non Drive End side	0	2	No sensor installed
Wanjii	750	2	Spherical roller bearing 24048 CC/C3 W33 on the Drive End side & Toroidal roller bearing C 3048/C3 on the Non Drive End side	0	2	No sensor installed

Mesco	750	1	Turbine spherical roller bearing 29326E & Cylindrical roller bearing NU226 ECMA. Generator - Drive End bearing- Deep groove ball bearing (6226/C3) & Generator Non Drive End - Deep groove ball bearing (6320/C3)	2	2	No sensor installed
Tana 1 & 2	333.33	2	Upper Guide journals , thrust pads, Lower guide jornals and turbine journal bearings	1	3	Bentley nevada - inductive sensor
Tana 3 & 4	500	2	Upper Guide journals , thrust pads, Lower guide jornals and turbine journal bearings	1	3	Bentley nevada - inductive sensor
Sondu	500	2	Upper Guide journals , thrust pads, Lower guide jornals and turbine journal bearings	8	24 (Thrust, lower and upper guide)	Proximity probes & Accelerometer sensor
Sangoro	428.6	2	Upper Guide journals , thrust pads, Lower guide jornals and turbine journal bearings	1	24 (Thrust, lower and upper guide)	Proximity probes & Accelerometer sensor
Gogo	600	2	Upper Guide journals , thrust pads, Lower guide jornals and turbine journal bearings	1	3	No sensor installed
Turkwel	600	2	Upper Guide journals , thrust pads, Lower guide jornals and turbine journal bearings	1	3	Proximity probes
Kipevu	500	7	Each Engine Has these Journal bearings. 18 for Big End bearings, 1 Thrust bearing and 9 Crankshaft Main bearings. 20 Camshaft bearing	48 Journal bearings in the prime mover/ engine	2	Torsional Vibration sensor

Ngong 1 Phase 1	1620	6	Two journal bearings on low speed main shaft, one cylindrical and two thrust roller bearings on gearbox high speed shaft, two ball bearings on generator	2	2	None
Ngong 1 Phase 2	1620	8	Two journal bearings on low speed main shaft, one cylindrical and two thrust roller bearings on gearbox high speed shaft, two ball bearings on generator	2	2	None
Ngong 2	1620	16	Two journal bearings on low speed main shaft, one cylindrical and two thrust roller bearings on gearbox high speed shaft, two ball bearings on generator	2	2	None

SUPPLIER ACKNOWLEDGEMENT OF CLARIFICATION NO.1

We, the undersigned hereby certify that the Clarification No.1 is an integral part of the document and the alterations set out in Clarification has been incorporated in the Tender Proposal.

Signed…….

Tenderer…….

Date…….....