



KenGen

TENDER NO. KGN-HYD-023-2017

DATE: 18/08/2017

KENYA ELECTRICITY GENERATING COMPANY

TENDER FOR DESIGN, MANUFACTURE, FACTORY TRAINING AND TESTING, DELIVERY, SUPERVISION OF ASSEMBLY, INSTALLATION, TESTING AND COMMISSIONING OF A 20/25 MVA, 11/143.7 kV, ONAN/ONAF GENERATOR STEP-UP TRANSFORMER FOR MASINGA POWER STATION

CLARIFICATION No .1

In accordance with the Tender for Design, Manufacture, Factory Training and Testing, Delivery, Supervision of Assembly, Installation, Testing and Commissioning of a 20/25 MVA, 11/143.7 kV, Onan/Onaf Generator Step-Up Transformer for Masinga Power Station , KenGen hereby issues Clarification No.1

RESPONSE TO REQUEST FOR CLARIFICATION

Clause/page	Requirement	Clarification/Comment/Deviation	KenGen Comment
Clause 7.11/page 58 of 128	1.5 Tesla for nominal voltage and rated frequency 1.65 Tesla for 110% of nominal voltage and rated frequency 1.35 Tesla for 90% of nominal voltage and rated frequency	We can comply with this low flux density. However, please confirm whether we can deviate as higher flux density, which would help more competitive price?	As per the tender document
Clause 8 / page 58 of 128	Guaranteed No-load and Full-Load losses (capitalized losses) should be stated in the offer. See Clause 2 . 1 . 4. This Shall Be Used as Evaluation criteria of the Tender based on energy price in Kenya of Kshs 0.03060/Kwh and 30 years life of the transformer.	Please provide losses capitalization rate (Kshs/kW?), capitalization formula & clause 2. 1. 4?	Losses capitalisation rate shall be 0.03060 Kshs/Kwhr (or the prevailing rates on the date of tender opening) for the anticipated 30 years transformer life. The same formula shall be used for all the bidders

<p>Clause 9.2/page 59 of 128</p>	<p>The LV Winding shall have a double layer helixial design. The HV Main Winding shall have a disc partly interleaved design. The HV Regulating Winding shall have a disc design.</p>	<p>The LV Winding shall have a double single layer helical helical design (because double layer helical is just applied for much bigger transformer than 25 MVA) The HV Main Winding shall have a disc partly interleaved design. The HV Regulating Winding shall have a disc layer design.</p>	<p>Replace the word Helixial with the word Helical. The rest as per the tender document</p>
<p>Clause 10.5.1/Page 61 of 128</p>	<p>The LVB shall be solid type and have minimum rating 36 kV, 5000 A, 125 kV</p>	<p>The minimum required current 5000 A is too big for this rated transformer. That would make transformer price high. LV bushings rated current 2000 A is enough? Please confirm whether this deviation is acceptable?</p>	<p>LV Bushing, 3000A, 24Kv</p>
<p>Clause 12.3, a)</p>	<p>Two Mercury Winding Temperature Indicators (U & W Phases)</p>	<p>Mercury winding temperature indicator is obsolete. We offer oil & winding temperature indicator as per supplier standard, not mercury type.</p>	<p>Both WTI & OTI Shall be Qualitrol AKM Capillary based Oil thermometer with:</p> <ol style="list-style-type: none"> 1. Six fully independent user adjustable switches (contacts) for control & alarms with adjustable hysteresis of 5 or 10 degrees 2. 150mm dial face with angular dial span of 260° 3. Variable SCADA analogue output of 4-20mA 4. Standard switches 15A AC or 10A DC 5. Integrated heating element in the bellow for WTI 6. Temperature range from 0 to 150 Celsius 7. Swing out case design to allow for ease of cable connection, switch configuration and testing without cover removal 8. Built in spring loaded pointer for switch field testing. 9. The remote indication gadget and cable shall be in the scope of the supplier

Clause 14.10/page 65 of 128	Gaskets for weather- and oil-tight Joint Faces shall be Nebar Brown conforming to specification Ref: ASTM F104-93 or equivalent international specification. T	Not comply. Instead, we use Nitrile Rubber gasket (NBR)	As per the tender document
Clause 15.2/page 65 of 128	All paints used on interior and external surfaces shall be of Fire Retardant type.	Our painting is not Fire Retardant type. Our painting is C5-M, which can withstand corrosive atmospheres with very high salinity and with almost permanent condensation, coastal and offshore splash zone areas.	As per tender specification
Clause 16.1/page 65 of 128	Each Radiator shall have corresponding Fan(s). The Radiator Fans shall be in two groups: Duty and Stand-by. These shall be suitably arranged in an alternating manner on both sides of the Main Tank such that on either side, any Fan in the Duty group is next to a Fan in the Stand-by group. All Radiator Fans shall have equal capability, and both groups shall have equal number of Radiator Fans.	Quantity of radiator and fans will be decided by manufacturer somehow to ensure temperature rise as required.	As per the tender document. As long as the tender requirements are met.
Clause 17.4/Page 68-69 of 128	Mercury dial type temperature indicator ...mercury contact...	Not comply. Oil and winding temperature indicator is not mercury type, not mercury contact	As per clause 12.3 above
Clause 19/page 70 of 128	Oil in adequate quantities for filling of the Main Tank and accessories after assembly shall be supplied in one steel Tank with a capacity to fill the Main Tank, and spare Oil of 3,000 litres. No oil shall be transported in Oil drums.	The oil (with quantity as required) shall be transported in drums	As per Tender requirement

<p>Clause 22.3.5/page 78 of 128</p>	<p>FAT witness: KenGen shall cater for their accommodation and return air tickets to the nearest airport in the country of the Supplier/Manufacturer. All other costs incurred during the witnessing and carrying out of the tests shall be covered by the Bidder, including meals, transport to and from the nearest airport, and local transport between factory and the hotel.</p>	<p>Meals to be provided at factory canteen. Visa cost or any other cost for entering the manufacturer's country is at KenGen's scope.</p>	<p>Visa application costs to the account of KenGen. Everything else as per the tender requirements</p>
---	---	---	--

All other terms and conditions remain unchanged

ACKNOWLEDGEMENT OF CLARIFICATION NO. 1

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

Signed.....

Tenderer.....