



**KENYA ELECTRICITY GENERATING COMPANY LIMITED**

**KGK-GDD-080-2018 - TENDER FOR IMPROVEMENT OF CIRCULATING WATER SYSTEM & STRUCTURAL REHABILITATION OF OLKARIA II GEOTHERMAL POWER PLANT**

**22<sup>nd</sup> October, 2018**

**ADDENDUM NO.5 – CLARIFICATIONS**

In accordance with the **TENDER FOR IMPROVEMENT OF CIRCULATING WATER SYSTEM & STRUCTURAL REHABILITATION OF OLKARIA II GEOTHERMAL POWER PLANT**, KenGen hereby issues Addendum No.5

No.	BIDDERS REQUEST	KENGEN RESPONSE
1.	In case of Joint Venture, how will they be evaluated in terms their turnovers and their proof of ability to source funds (line of credit)?	In this case, a summation of the Joint efforts at Turnovers and proof of source of funds shall be done.
2.	Foreign / international firms wanted to know if identified local personnel can be replaced with their own international personnel of equivalent professional and academic qualifications	Yes this is possible with prior approval from the Project Manager as indicated in the Tender Data Sheet Ref No. 33 Item 3 paragraph 1 on the tender document (page 46)
3.	Why ask for equivalent qualification on NCA / EBK and still ask for 30% local content? This is a conflict.	Both are legal requirements hence no conflict
4.	Request for additional drawings for:- a) As built for Layout of pile foundations. b) As built drawing for foundation area showing existing services (cabling and others). c) Isometric and P & ID drawings for circulation water system (FRP). d) Storm water drainage layout around the plant	a) Not available b) There are no underground cabling on the cold end of the plant. (fire service and storm water system have been shared) c) We have provided the P&ID for unit 3 Circulation water system. d) As built storm water layout has been shared for your convenience.
5.	Request for Technical specifications for a) Oil Interceptor b) Storm drainage system c) Scope of drainage system	a) Provided b) Provided c) Provided

6.	<p>BOQ on Firefighting ring system, only mentions “item” as the measure of quantity.</p> <ol style="list-style-type: none"> <li>a) Could you provide current and new proposed design drawing for the same to enable measure of scope as we bid.</li> <li>b) Where the firefighting system is to pass above road, how do we tackle?</li> </ol>	<ol style="list-style-type: none"> <li>a) Provided existing, this shall form basis for new design.</li> <li>b) The entire length of the ducts shall be covered to allow for heavy traffic. Refer to clause 3.3.9 on page 83</li> </ol>
7.	<p>7. On FRP,</p> <ol style="list-style-type: none"> <li>a) What is the thickness of the existing interphase pipe</li> <li>b) What is the current condensate flow rate in the FRP pipe</li> <li>c) What is the current heat mass balance</li> <li>d) What are the current pipe operating pressures</li> <li>e) What length of RFP is to be considered for the design.</li> </ol>	<ol style="list-style-type: none"> <li>a) 17.5mm</li> <li>b) Refer to Section C of the tender document on table 4.3.5.1 – plant design parameters</li> <li>c) This shall be provided after closure of bidding process.</li> <li>d) Refer to the Detailed FRP pipe layouts provided (with dimensions)</li> </ol>
8.	<p>On BOQ item No. 3.10, pg. 103, once you detach the power house from the steam-field pipe support structure, there is redistribution of loading that may necessitate a load imbalance. How is the load imbalance taken care of as there are no provisions for extra support once detachment is done?</p>	<p>All bidders to stick to and Quote for the item on the BOQ which is to detach.</p>
9.	<p>Why was it necessary to request for a Project Manager with background in Geothermal Experience yet the works are not geothermal related and mostly civil engineering related?</p>	<p>The Fluid in use here is Geothermal and the essence of conversion from FRP to stainless steel is due to this fluid. Structural challenges are related to Geothermal extraction. Therefore this requirement is essential.</p>
10.	<p>During decommissioning of the FRP pipe, how will isolation be carried out to ensure there is no water in the pipe?</p>	<p>The FRP pipes have got dewatering points/valves, however, this shall only be done based on a plant outage within the proposed outage schedule of the bidder.</p>
11.	<p>What are the valve and instrumentation specifications for the FRP section?</p>	<p>There shall be no supply/design of new instrument unless if damage occurs during relocation of an instrument. Refer to section 9 on page 95. P&amp;ID has been provided.</p>
12.	<p>Is the component cooling water return line (FRP) part of this scope?</p>	<p>No but provisions and reconnection for it shall be maintained as in the layout.</p>
13.	<p>Kindly confirm the FRP pipe to be change is only upto the joint of the Distribution</p>	<p>This is adequately addressed on page 89 of the tender document Item No 11.0 but for</p>

	pipe or the entire distribution pipe is also to be replaced with SS pipe.	avoidance of doubt the distribution header shall also be replaced up to the isolation valves for the risers. The cooling tower cell risers shall not be replaced.
14.	What is the scope of painting	Quantities and specifications for painting are available in the BOQ at section C.
15.	The 'Units' and 'Quantity' are not included in the price schedule document for the improvement of the circulating water system (page 97-101). Please provide the P & ID drawing for the FRP line to help us provide an accurate realistic quotation	We have provided the P&ID for unit 3 Circulation water system.
16.	For the Mass flow of the Cool water piping (circulating system FRP) we require information regarding current design flow rate and isometric drawing and civil drawing of current as built, detailed drawings of the existing flanges.	Refer to Section C of the tender document on table 4.3.5.1 – plant design parameters
17.	Please provide the fire-fighting water line drawings (both civil and piping drawings), with details of pipe diameters, and manhole locations. The drawings should include number of manholes and their sizes	Provided
18.	Cooling tower cooling capacity, and full dimensions are to be given if mass heat balance is to be presented.	Refer to Section C of the tender document on table 4.3.5.1 – plant design parameters available and bidders are free to measure levels on site.
19.	FRP replacement by Stainless Steel, given current design the outflow after the pump to cooling tower cannot be laminar flow in current design for at least 6 times current diameter, is laminar flow required on both ends? Please provide pump capacity and current pipe design, if any, given in the facility for creating laminar flow and intake of water from cooling tower to condenser	For guidelines on the flow characteristics for the new design, please refer to item 10 page 95 of the tender document.  For pump output pressures, please Refer to Section C of the tender document on table 4.3.5.1 – plant design parameters available and bidders are free to measure levels on site.
20.	At 7.01 the redundancy (see point and verify) the 350 m <sup>2</sup> should read 350 m <sup>3</sup> ?	Refer to addendum 4 item C
21.	Can the concrete walls be replaced with wall panels? This is a vibration stable solution	Kindly provide your proposed solutions as per the tender document.
22.	Is an analysis and review of expansion joints at various places recommended? And can that be added to isolate vibrating structures, how should we account for that in the tender?	Vibration analysis is outside of the scope of tender, kindly read the complete tender document and addendums.

23.	What is the overhead crane capacity of the monorail portal crane? What is the weight of the crane itself and are the foundation strength calculation of initial design available as well as the as built drawings and factorising of forces considered.	You shall NOT be required to do a design for the structural rehabilitation works before closure and award of the tender, At design stage, static and live loads acting on the building shall be availed and those that are not available shall be derived from 1 <sup>st</sup> principles.  Please refer to addendum No I.
24.	Current storm water and oil interceptor drawings need to be shared to allow for accurate appraisal	Provided
25.	Point 10 page 44; Details of Sub-Contractors. It is not mandatory to use sub-contractors. (or is it?). [...At the bottom of page 44 it is stated that where such are not provided ( duly filled forms) the tenderer's bid shall be disqualified from further evaluation]. In the event a bidder has no sub-contractor(s), should they submit the requisite form stating as such and is this acceptable? Point 16 page 44; Signed Warranty as detailed in employer's requirement. We have not found this specific requirement and where exactly the warranty should apply, for consistency of application and avoidance of doubt, kindly guide with respect to the employer requirement and format. Point 17 page 44; ISO 9001 or equivalent certificates for avoidance of doubt and to ensure consistency, what certificates would qualify as equivalent to ISO 9001 for local and/or International Bidders.	<p><b>1) SUB-CONTRACTORS</b> Use of sub-contractor is not mandatory. As such, if there are no sub-contractor, there is no need of filling the requisite forms</p> <p><b>2) WARRANTY</b> Please refer clause 11 on Page 74 - All EQUIPMENT/ELECTRICAL/MECHANICAL INSTALLATIONS shall have a minimum of 1 (one) year warranty.</p> <p><b>3) ISO 9001 or Equivalent</b> It is the bidders responsibility to propose and provide the equivalent</p>
26.	Element 04 in Civil – Unit for 4.01, 4.02, 4.03 are in m2 - Please confirm the unit weather it is m2 or just m mostly due to filling does not make sense when costing	The units are M <sup>2</sup>
27.	Element 06 in Civil – Could you provide with a typical drawing of the manhole with connecting pipe sizes	A drawing is not available for this
28.	Another major aspect is the painting of the structural with zinga paint, Can we suggest any other type of paint which will match	Stick to the tender document requirements

	the requirement like HAMPEL with certificate of guarantee .	
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**ACKNOWLEDGEMENT OF ADDENDUM NO. 5**

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

**Signed** \_\_\_\_\_

**Tenderer** \_\_\_\_\_