

KENYA ELECTRICITY GENERATING COMPANY PLC

TENDER No. KGN-HYD-054-2021

TENDER FOR DESIGN, MANUFACTURE, DELIVERY, INSTALLATION, TEST & COMMISSIONING OF TWO (2) NEW FRANCIS TURBINE RUNNERS FOR UNITS 2 & 3 AT GITARU HYDRO ELECTRIC POWER PLANT

CLARIFICATION NO. 3

Date: 31st January 2022

In accordance with the "Tender for Design, Manufacture, Delivery, Installation, Test & Commissioning Of Two (2) New Francis Turbine Runners For Units 2 & 3 At Gitaru Hydro Electric Power Plant", KenGen Hereby Issues Clarification No 3 as follows;

NO.	CLARIFICATION SOUGHT	KENGEN RESPONSE
١.	Operation Data: • Most frequent operating points.	Optimization range
	Hours of operation.	for existing runners
	Pressure pulsations: maximum values.	–
	Cavitation behavior (if any).	is already in the
	• Fault history.	tender document.
	Signs of sediment damage (if any).	cender document.
	Historical record of interventions carried out on each turbine (turbines 2&3) Basic Data:	
	Original Hill-Chart, turbines 283	Pasic data of ovisting
	Model test Report, turbines 2&3	Basic data of existing
	Runner diameters:	equipment is already
	o D1: blade inlet edge diameter at crown side	• •
		in the tender
	O Ø Throat B0 (Distributor height)	document.
	D0 (Wicket gate pitch circle diameter)	document.
	Elevation of center-line distributor	
	• "The operating range of the new runners shall be between 10 to 82 MW or wider". Was it a mistake?. CHECK (It is not possible to guarantee this	
	operating range for Francis turbines)	Drawing issues have
	Water Analysis (Solid content in water: size, chemical features, hardness)	been answered in
	 It is acceptable the design to be based on a reference (homologous) model test, being the differences verified through CFD?. The existing reference model shall have similar specific speed as the Gitaru prototype turbines 	
	Hydraulic Circuit (cross and plant view)	previous
	Air inlet system	clarifications.
	Drawings	ciarifications.
	Detailed drawings of head cover and bottom ring interfaces with runner, including moving and fixed labyrinth seals.	
	Drawings and details of the coupling interface with the shaft. Are the coupling bolts included in the supply? (we believe they shall be replaced)	
2.	Drawings and details of the coupling interface with the shaft. Are the coupling bolts included in the supply? (we believe they shall be replaced)	Drawing issues have
	Drawings and/or P&ID for the existing auxiliaries showing size of pipes, number and characteristics of the installed devices, filters, coolers, valves,	-
	pumps (if any) etc.	been answered in
	Drawings with dimensions on the available space for running the piping layout, including limits of the supply.	
	Bearing instruments list including the available inputs at the Unit Control System for connecting them, expected alarms, etc.	previous
		clarifications.
3.	Drawings	Drawing issues have
	Information on discharge ring's disconnection mechanism (drawings)	been answered in
	Information on discharge ring's disconnection mechanism (drawings) Drawings of the turbine shaft and stationary components to evaluate accessibility, surface areas for sand blasting and painting, areas to be ND	been answered in
	Tested, surfaces to be machined.	previous
	Drawings showing the layout of the machinery house and particularly the maintenance bay.	-
	Basic Data:	clarifications.
	Weight of the main components to be handled during disassembly and reassembly, such as generator rotor, generator shaft, thrust bearing, etc.	
	Available lifting devices and special lifting gear (bridge cranes quantity and capacity, existing lifting devices, available slings, pins, shackles, etc.)	

NO.	CLARIFICATION SOUGHT		KENGEN RESPONSE
		Lifting devices of sufficient capacity available for all components.	
4.	10% down payment 45% upon design , factory tests, delivery to the site, training. 15% upon successful erection and commisisioning per unit against Taking Over Certificate 10% on completion of Defects Liability period 2,5% retention for each unit upon expiry of the Warranty	Can we certify model test and engineering? It is not defined when Taking Over Certificates is to be issued. Is it going to be after Operational Acceptance?. Please, confirm Is "Warranty" equivalent to <u>Defects Liability Period</u> ?. Please, confirm.	 They are not equivalent Warranty is for the equipment. DLP is for the works done on site Taking Over Certificate will be issued after Operational Acceptance. Model Test and Engineering are part of the design stage
5.	The prices quoted by the Tenderer shall not be subject to adjustment during the performance of the Contract	Exception made of delays in Contract Award for more than 56 days beyond the expiry of the initial Tender validity period (as mentioned in PART 1, SECTION II - PARTICULARS OF APPENDIX TO INSTRUCTION TO TENDERS, ITT 21.3 (a)	As per the tender document
6.	"The tender Security shall be from a registered bank by the Central Bank of Kenya" "The performance Security shall be in the form of the Demand Bank Guarantee"	i) Could Security bonds be accepted. If not, ii) Could the Bank Guarantees be replaced by Cash Deposits in a registered bank by the Central Bank of Kenya?.	As per the tender document
7.	"A margin of preference may be allowed on locally manufactured goods (plant and equipment) only when the contract is open to international tendering" "preferential treatment for local citizen <u>contractors</u> shall apply"	Only reference to <u>goods</u> is made. Does the margin of preference also apply to <u>services</u> rendered by Kenyan entities? The Margin of preference varies from 6% up to 10%, depending on the shareholding of Kenyan Citizen. The maximum margin corresponds to either shareholdings over 50% or JV with citizen Contractors. Do these margins apply only to <u>Contractors</u> (those Bidders whose proposals have been accepted) or also they do to <u>sub-contractors</u> ?, It does not mention anything regarding dismantling, and re-	Margin of preference is on the contract price Margin of preference only applies to the Contractors (As per the tender document) Bidder to read
8.	"the Procuring Entity shall provide sufficente, properly qualified operating and maintenance personnel, shall supply and make available all raw materials, utilities, lubricants, chamicals, catalysts, other materials and facilities and sghall perform all work and services of whatsoever nature, including those required by the Contractor to properly carry out Pre-commissioning, Commissioning and Guarantee Tests, all in accordance with the provisions of the Appendix of the Contract"	It does not mention anything regarding dismantling, and re- installation of equipment. Will the Client provide qualified personnel for these works also?	Bidder to read "Scope of Project" in the tender document.
9.	"The Procuring Entity shall, at its own risk and expense transport each item to the place on or near the Site as agreed upon by the Prties and make such item available to the Contractor"		This tender uses the incoterm DAP.

ACKNOWLEDGEMENT OF CLARIFICATION No. 3

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

Signed.....

Tenderer.....Date.....