



**KENYA ELECTRICITY GENERATING COMPANY PLC**

**RFx: 5000014836**

**KGN-OLK-021-2024**

**TENDER FOR SUPPLY, INSTALLATION, TESTING, AND COMMISSIONING OF 2.5MVA EMERGENCY DIESEL GENERATOR AND ACCESSORIES FOR OLKARIA II POWER STATION.**

*(Open National)*

Dated: 28<sup>th</sup> March, 2024

**Clarification No.2.**

In accordance with the **Tender for Supply, Installation, Testing, and Commissioning Of 2.5MVA emergency Diesel Generator and Accessories for Olkaria II Power Station**, KenGen issues a **Clarification No.2** as follows:

	<b>BIDDERS CLARIFICATION</b>	<b>KenGen's RESPONSE</b>
1.	<b>TR 2:</b> Can the certificate of quality or conformity be in the form of a Type Test Report?	Submit the type test report alongside a certificate of quality or conformity
2.	<b>TR 9:</b> Kindly clarify the requirements for the training after commissioning.	Training required as per TR 9 is onsite training once the generator set is installed and commissioned at the site. This should include but not be limited to Fault code identification, clearing, and restoring the unit to working conditions; also take note that there will be 5 days of training at the suppliers' premises to cover but not limited to; <ul style="list-style-type: none"><li>▪ Preventive maintenance training</li><li>▪ Corrective maintenance training</li><li>▪ Assembly of the engine and the generator as a unit</li><li>▪ Programming and parameter settings</li></ul>
3.	Confirm if a Circuit Breaker will be required in the Generator Room for protection and isolation since the cable connection to the 3.3KV Board is quite long.	A circuit breaker is required at the generator output. As per the requirement, another CB shall be retrofitted into the existing 3.3KV panel
4.	Confirm the length of the 3.3KV Cable to be adopted for uniformity of the bids.	Use a unit length of 140 meters per run, taking care of the bends and the possibility of using cable ladders
5.	Bid document says it need 2500kVA standby genset. And in the paged 62, 1.2 Scope of Work a) ...The generator set should be able to produce a minimum continuous power output of 2000kVA at	The generator rating should be 2500KVA standby. As per the document, the site conditions are an altitude of 2000 MASL and an ambient temperature of 35 degrees Celsius. There is considerable power derate in these

	the site with site conditions Please clarify, KENGEN need the genset standby power 2500kVA, or prime power 2000kVA, or continuous power 2000kVA?	conditions. The minimum site output should be 2000KVA.
6.	In the paged 65, 1.3.4 Alternator specifications, it says standard voltages 400V~3300V. Please clarify. One genset is available to one type of voltage only, does KENGEN need 400V, 415V, or 3300V Alternator? The output voltage expected at the terminals is 3300V. Hence the alternator shall be designed for the 3300V.	The alternator should be 3.3kV(3300V)
7.	On page 63, 1.3.2 General technical requirements ...insulation class H, temperature rise B. We suggest using temperature rise H. If temperature rise B, this requirement will make this alternator customized, and the price will be very expensive	Kindly use the insulation class specified in the tender document
8.	Page 66, 1.3.6 Instrumentation panel specifications, it says you need different meters. Can we use One DSE controller and integrate all these function into one controller. Is it acceptable by KENGEN?	This is acceptable. However, the controller should also provide a safe manual operation in case automation fails
9.	Paged 62, g) ...install back synchronization controller... Please offer more information about Olkaria II Unit 3 switchboard. Does this 2.5MVA new genset need to be synchronized with other genset? Or it just needs to come with Auto transfer switch panel?	The 2.5MVA is a stand-alone unit that will be connected to our common bus at 3.3KV to provide power to our auxiliaries during black start. Once the generation resumes, we expect a no-load break for auxiliaries, so we need to synchronize the 2.5MVA to the mains. An Auto transfer is required to transfer the load from the EDG supply to the main incomer breaker.
10.	Page 64, ...The generator set package must be proven to accept 100% block load in one step... Please clarify how many seconds it needs to accept 100% block load. Does KENGEN have a more detailed requirement for this transient response?	We need a maximum of 5.0 seconds for block load acceptance. Bidders are advised to attach Alternator Manufacturers' load curves to their bids.
11.	Please share both the complete SLDs and the control wiring of the existing Panels, especially where we will mount the new VCB.	Drawings are shared in the addendum. However, the bidder shall be required to implement a new control scheme for the incoming Breaker and interfacing with the existing controls.
12.	Kindly Confirm if the existing back-feed VCB is installed complete with PTs and CT	The supplier shall provide both the PTs and CTs necessary for synchronization, protection, auto transfer, and any required measurements. Refer to the drawings shared in the Addendum.
13.	Clarify if a day tank is required or if fuel is to be pumped directly from the external tank to the genset.	Supply day tank located in the generator room. Fuel flow is through gravity to the Day tank from the bulk storage tank(existing).
14.	Roof extension: Will it involve removing the whole roof and replacing sheets with new ones? We will, however, still need to remove the entire roof to determine its gradient	Any roof extension must be done according to acceptable building codes and standards. The roof and structural drawings will be approved before the civil works commence.

15.	Propose the gauge of the roofing sheets.	Maintain existing gauge and profile
16.	What is the room extension required, for this should be standard to all contractors to ensure uniformity in quotes?	Extend the existing room by a maximum of 6 meters in length. Any extension must be done according to acceptable building codes and standards. The structural drawings will be approved before the civil works commence.
17.	Should the cable trenching be done in the generator room for cable laying, or will it be surface mounted?	This will be surface mounted with an acceptable cable ladder support system.
18.	Please kindly clarify the sound level in dB expected to be achieved following the proximity of the generator house to staff offices. This also should be standard for all bidders.	85dBA at 7 meters.

**SUPPLIER ACKNOWLEDGEMENT OF CLARIFICATION NO.2**

We, the undersigned hereby certify that the Clarification No.2 is an integral part of the document and the alterations set out in clarification has been incorporated in the Tender Proposal.

Signed.....

Tenderer.....

Date.....