



## KENYA ELECTRICITY GENERATING COMPANY PLC

RFx: 5000012126

KGN-KIP-14-2023

### TENDER FOR DISTRIBUTED CONTROL SYSTEMS (DCS) UPGRADE FOR KIPEVU III POWER STATION

(OPEN INTERNATIONAL)

Date: 6<sup>th</sup> April, 2023

#### Clarification No.2

In accordance with the **Tender for Distributed Control Systems (DCS) Upgrade for Kipevu III Power Station**, KenGen issues **Clarification No. 2** as follows:

ITEM	BIDDER'S CLARIFICATION	KENGEN RESPONSE
1.	We are not able to find deviation Template on the GCC and SCC related to the tender. Please advise if we can send our deviation list on the GCC and SCC.	This is an open tender, and deviations to the specified requirements in the tender document is <b>not allowed</b> .
2.	Also we would like to request for an extension of tender submission date to 29 <sup>th</sup> of April 2023, to enable us enough time to prepare the tender documents	Refer to Addendum No. 4
3.	We would be grateful if you can extend the submission deadline by 3 weeks, the scope became completely different scope after the last addendum. This will give us the needed time to prepare a responsive technical & commercial proposal meeting your requirements.	Refer to Addendum No. 4

### Kindly find the list of clarifications below:

#	Reference	Page	Clause n.	Clarification
1.	KGN-KIP-14-2023 TENDER FOR DISTRIBUTED CONTROL SYSTEMS (DCS) UPGRADE FOR KIPEVU III POWER STATION	67/179	1.2.1 "Design/engineering of a new DCS HMI for the plant as per the proposed architecture and tender specifications. This shall include design, assembly and supply of two(2) new 42U server cabinet fully installed with ; two (2) redundant industrial server, one (1)KVM switch, one(1) time server, two (2) ethernet switches, one(1)firewall ,five(5) industrial operator stations, one(1) plant information station."	What is the plant information station and is it differ from the engineering laptop workstation mentioned on page 71/179
2.	KGN-KIP-14-2023 TENDER FOR DISTRIBUTED CONTROL SYSTEMS (DCS) UPGRADE FOR KIPEVU III POWER STATION	67/179	1.2.2 "Design/engineering of one (1) engine's PLC system as per the proposed architecture and tender specifications. This shall include design, assembly and supply of new PLCs and its associated local and remote IO modules and associated accessories. The existing control cabinets CFE, CFC and BJA shall be retained."	Please confirm that tag list, mapping list, backups of the existing system shall be provided
3.	KGN-KIP-14-2023 TENDER FOR DISTRIBUTED CONTROL SYSTEMS (DCS) UPGRADE FOR KIPEVU III POWER STATION	67/179	1.2.3 "The contractor shall design, integrate, install, test and commission the GIS HMI (ABB Micro SCADA) functionalities in the new DCS HMI at the Kipevu 3 control room."	ABB Micro SCADA is the only acceptable Manufacturer for the HMI? Or can we offer alternatives? Also please confirm that a copy of the existing graphics shall be provided
4.	KGN-KIP-14-2023 TENDER FOR DISTRIBUTED CONTROL SYSTEMS (DCS) UPGRADE FOR KIPEVU III POWER STATION	67/179	1.2.29 "A 2N UPS system, adequately sized with minimum spare capacity of 40% and autonomy of 2 hours, shall be provided by the contractor for power supply to the server cabinet equipment and operator workstations."	Please confirm that the UPS shall feed the PLC, cabinets, and workstations only. So that the field instruments connected to the PLC shall be powered through external power supplies, or else please share the load list
5.	KGN-KIP-14-2023 TENDER FOR DISTRIBUTED CONTROL SYSTEMS (DCS) UPGRADE FOR KIPEVU III POWER STATION, Appendix II KDP3 DCS HMI Upgrade Drawing Proposed			According to the provided architecture and the technical documents provided, please confirm that redundancy required is for the CPU, Power supply and servers only. The IO cards and communication cards shall be considered non-redundant
6.	KGN-KIP-14-2023 TENDER FOR DISTRIBUTED CONTROL SYSTEMS (DCS) UPGRADE FOR KIPEVU III POWER STATION	67/179	1.2.32 "Supply and lay power and signal cables from the server system to the control network and all server clients and any other device (the proposed server location at the Kipevu III central control room). Bidders to confirm location during site visit."	Please provide cable routing schedule, layouts, drawings, etc..
7.	KGN-KIP-14-2023 TENDER FOR DISTRIBUTED CONTROL SYSTEMS (DCS) UPGRADE FOR KIPEVU III POWER STATION, Appendix II KDP3 DCS HMI Upgrade Drawing Proposed	71/179	2.2 "2.2 SCADA Data Gateway	Regarding the section 2.2 SCADA gateway and refer to the proposed architecture, can you further explain the function of the SCADA gateway and point out its function on the proposed architecture

Plant Information station will replace the current WISE station which currently manages plant production, technical and availability reports.

The Tag list, backups of the existing systems shall be provided to the successful bidder.

Kindly note as per the technical specs we are integrating the ABB microSCADA **functionalities** in the Server based HMI but not replacing it with another ABB MicroSCADA version. The existing graphics shall be provided to the successful bidder.

The UPS will only supply the Server based HMI hardware and any related accessories at the in the 42U cabinets. The PLC is supplied independently.

Redundancy is limited to the server, ethernet switch hardware and the communication buses.

This was a site visit issue however the Cable routing and to be shared with successful bidder.

The SCADA gateway is a multi- protocol converter i.e OPC to IEC61850 for HV signals to the server-based HMI system and OPC to IEC 60870-5-104 for MV signals to the to the grid operator

**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 document.

Signed.....

Tenderer.....

Date.....