



**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: 27<sup>th</sup> March, 2023**

**Clarification No. 1**

In accordance with the **Tender for Distributed Control Systems (DCS) Upgrade for Kipevu III Power Station**, KenGen issues **Clarification No. 1** as follows:

| <b>ITEM</b> | <b>BIDDER'S CLARIFICATION</b>                                                                                              | <b>KENGEN RESPONSE</b>  |
|-------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>I.</b>   | Under Mandatory Requirement 20, page 32, it is mentioned that OEM/manufacture from Siemens/Schneider can bid. We find this | Refer to Addendum No. 3 |

|                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                  |  |  |  |  |         |  |  |  |  |             |  |  |  |  |                                                                         |  |  |  |  |                                                                                |
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|                                                                         | clause not allowing an open participation and favoring to a specific OEM. We request to remove this requirement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                  |  |  |  |  |         |  |  |  |  |             |  |  |  |  |                                                                         |  |  |  |  |                                                                                |
| 2.                                                                      | Appendix documents not available in tender. Please upload.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Appendix already attached at the KenGen website. |  |  |  |  |         |  |  |  |  |             |  |  |  |  |                                                                         |  |  |  |  |                                                                                |
| 3.                                                                      | Siemens internal protocols are mentioned to be mandatory. Please remove as it denies an open participation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Refer to Addendum No. 3                          |  |  |  |  |         |  |  |  |  |             |  |  |  |  |                                                                         |  |  |  |  |                                                                                |
| 4.                                                                      | <p>We noted an ambiguity with the incoterm DDP specified in the BOQ section of the tender.</p> <table border="1" data-bbox="352 625 919 771"> <tr> <td>SUB TOTAL</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>16% VAT</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>GRAND TOTAL</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CURRENCY (Inclusive of all taxes, DDP, Kipevu III Store Incoterms 2020)</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p>Delivered Duty Paid incoterm requires payment of <b>all taxes, including VAT</b>, which is not possible, nor is it recoverable for foreign entities not registered with the Kenya Revenue Authority.</p> <p>Can the BOQ be amended to allow international firms to participate?</p> | SUB TOTAL                                        |  |  |  |  | 16% VAT |  |  |  |  | GRAND TOTAL |  |  |  |  | CURRENCY (Inclusive of all taxes, DDP, Kipevu III Store Incoterms 2020) |  |  |  |  | The requirement on the Incoterms still remains Delivered Duty Paid (DDP) 2020" |
| SUB TOTAL                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                  |  |  |  |  |         |  |  |  |  |             |  |  |  |  |                                                                         |  |  |  |  |                                                                                |
| 16% VAT                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                  |  |  |  |  |         |  |  |  |  |             |  |  |  |  |                                                                         |  |  |  |  |                                                                                |
| GRAND TOTAL                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                  |  |  |  |  |         |  |  |  |  |             |  |  |  |  |                                                                         |  |  |  |  |                                                                                |
| CURRENCY (Inclusive of all taxes, DDP, Kipevu III Store Incoterms 2020) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                  |  |  |  |  |         |  |  |  |  |             |  |  |  |  |                                                                         |  |  |  |  |                                                                                |
| 5.                                                                      | <p>As per clause 34, chapter 412 C of The Public Procurement and Disposal Act, the tender document is not supposed to mention a specific brand, trademark,...etc</p> <p>(4) The technical requirements shall not refer to a particular trademark, name, patent, design, type, producer or service provider or to a specific origin unless—</p> <p>(a) there is no other sufficiently precise or intelligible way of describing the requirements; and</p> <p>(b) the requirements allow equivalents to what is referred to.</p> <p>Therefore, as one of the leading OEM in the automation field, we are highly encouraging KenGen, as one of the leading electricity generation company in the region, to accept alternative brands which</p>                                                        | Refer to Addendum No. 3                          |  |  |  |  |         |  |  |  |  |             |  |  |  |  |                                                                         |  |  |  |  |                                                                                |

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|           | is increasing the competitiveness, ensure fair chances for all prospective bidders & assure KenGen to get the most cheapest & qualified solution.                                                                                                                                                                                                                                                                                                                                                                                              |                                                  |
| <b>6.</b> | <p>Page 32 of I79, 22 Evaluation of tenders, MR 20 , “Provide proof of Authorization from PLC Hardware manufacturer by providing a Manufacturer’s Authorization Letter (if bidder not an OEM) or Manufacturer’s Self Declaration for Original Equipment Manufacturer bidders from Siemens or Schneider Electric.”</p> <p>Query : This clause is restricting manufacturers/OEMs other than Siemens and Schneider to participate. This clause is found to be highly restrictive and it is requested to allow other OEMs also to participate.</p> | Refer to Addendum No. 3                          |
| <b>7.</b> | <p>Page 51 of I79, Schedule I, Price Schedule, No. 4 : “M580 PLC complete with Hot standby CPUs, power supply modules, networking modules and other accessories at CFC cabinet”</p> <p>Query : M580 PLC is MODICON PLC belonging to Schneider Electric. This restricts other OEM/Manufacturers to bid for the same. It is requested to allow latest CPU models from other makes also.</p>                                                                                                                                                      | Refer to Addendum No. 3                          |
| <b>8.</b> | <p>Page 66 of I79 : “NB: Drawings indicated below are attached at the Appendix.</p> <ul style="list-style-type: none"> <li>• Appendix I - KDP III DCS HMI Architecture Existing</li> <li>• Appendix II - KDP III DCS HMI upgrade drawing proposed</li> <li>• Appendix III -Kipevu III GIS control system existing</li> <li>• Appendix IV -KDP III Local control panel proposed</li> </ul>                                                                                                                                                      | Appendix already attached at the KenGen website. |

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|     | <p>Query : Above appendix documents are not attached with the tender document. It si requested to make available these documents.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 9.  | <p>Page 72 of 179, 2. DETAILED SCOPE OF WORK,2.1.5 : “The license keys shall be a dongle license.”</p> <p>Query: It is requested to also allow for software/paper licenses.</p>                                                                                                                                                                                                                                                                                                                                                                                              | <p>The requirement on Licences remains as dongle licence</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 10. | <p>Page 72 of 179, 2.2 SCADA data Gateway, 2.2.2,” The SCADA Data Gateway shall act as an OPC to IEC61850 server for the purposes of supervision, control and data acquisition of the GIS substation for the new DCS HMI stations at the Central Control Room”</p> <p>Query: The SCADA Data Gateway (SDG) is used by System Integrators and Utilities to collect data and translate it to other protocols. This product belongs to a particular company. It is requested to allow any equivalent SCADA solutions meeting similar requirements ( IEC 61850 protocol etc.)</p> | <p>Bidders are encouraged to deploy the SCADA gateway as a link to the GIS network.</p> <p>The SCADA gateway is still a requirement as per the tender specifications.</p>                                                                                                                                                                                                                                                                                                                                      |
| 11. | <p>Page 72 of 179, 2.2 SCADA data Gateway, 2.2.3,” It shall also act as protocol converter (OPC to IEC 60870-5-104) for communication of Medium Voltage equipment data to the ABB RTU560 through the IEC 60870-5-104 protocol over the GIS ethernet network.”</p> <p>Query : What is the purpose of this communication requirement? What is the existing SCADA communication scheme ? Is MV equipment directly communicating to the ABB RTU and the SCADA is communicating to the RTU ?</p>                                                                                  | <p>The MV switchgear status signals (both digital and analogue) are communicated to the grid operator by the existing ABB MicroSCADA through the RTU560 on IEC 60870-5-104 protocol. It is this ABB MicroSCADA that is being replaced. AS such, this functionality of the MV switchgear signals communication to the grid operator shall be retained without changing the protocols at the RTU560. Therefore the provided solution must be able to replace the ABB microSCADA functionalities in totality.</p> |

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| <p><b>12.</b></p> | <p>Page 72 of 179, 2.3 LOCAL HMI DISPLAY , 2.3.3,” The Local HMI thick client application shall be fully licensed. The license shall be an one -off type on a USB dongle.”</p> <p>Query : It is requested to also allow for software/paper licenses.</p>                                                                                                                               | <p>The requirement on Licences remains as dongle licence</p> |
| <p><b>13.</b></p> | <p>Page 118 of 179, 3.17.2 Cyber Security Software ,3.17.2.3.g, “Application control for DCS/ICS protocols and devices with visibility to a minimum of the following protocols; a. IEC-60870-5-104 b. IEC 60870-6 (ICCP) c. IEC 61850 d. Modbus e. OPC f. Profinet g. S7 (Siemens).”</p> <p>Query : S7 is a siemens internal protocol and it is requested to remove from the list.</p> | <p>Reviewed, Refer to Addendum No. 3</p>                     |
| <p><b>14.</b></p> | <p>Under Mandatory Requirement 20, page 32 , it is mentioned that OEM/manufacture from Siemens/Schneider can bid. We find this clause not allowing an open participation and favoring to a specific OEM. We request to remove this requirement.</p>                                                                                                                                    | <p>Reviewed, Refer to Addendum No. 3</p>                     |
| <p><b>15.</b></p> | <p>Appendix documents not available in tender. Please upload.</p>                                                                                                                                                                                                                                                                                                                      | <p>Appendix already attached at the KenGen website.</p>      |
| <p><b>16.</b></p> | <p>Siemens internal protocols are mentioned to be mandatory. Please remove as it denies an open participation.</p>                                                                                                                                                                                                                                                                     | <p>Reviewed, Refer to Addendum No. 3</p>                     |
| <p><b>17.</b></p> | <p>Please clarify the following:</p>                                                                                                                                                                                                                                                                                                                                                   | <p>Reviewed, Refer to Addendum No. 3</p>                     |

|     |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                        |
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|     | <p>Modicon PLC requirement, Siemens protocol (S7) requirement and Siemens/Schneider MAF requirement is favoring a particular OEM only to bid. Kindly advise if this is a Single source Tender or we can provide Manufacturer Authorization Letters from Other manufacturers.</p>                                |                                                                                                                                                        |
| 18. | <p>Please clarify the following:</p> <p>Due to complexity of this tender, we are kindly requesting you to extend the Tender closing date to <b>4<sup>th</sup> April 2023</b> so as to give our Manufacturer ample time to offer you the best solution and give us ample time to adequately prepare our Bid.</p> | <p>The tendering period has been extended. See Addendum 2 on the KenGen website</p>                                                                    |
| 19. | <p>We would like to request for a tender extension for 2 weeks</p>                                                                                                                                                                                                                                              | <p>The tendering period has been extended. See Addendum 2 on the KenGen website</p>                                                                    |
| 20. | <p>We would like to ask for three weeks time extension for the subject tender.</p> <p>We will appreciate your kind consideration.</p>                                                                                                                                                                           | <p>The tendering period has been extended. See Addendum 2 on the KenGen website</p>                                                                    |
| 21. | <p>We are interested to participate in the a/m Open International Tender advertised on your website.</p> <p>We have two clarifications that we seek.</p> <p>I. Is the tender open to JV cooperation and how many maximum members if so ?</p>                                                                    | <p>ITT 3.5 Joint venture shall not be required in this tender.</p> <p>The tendering period has been extended. See Addendum 2 on the KenGen website</p> |

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|     | 2. Possibility of an extension of the tender closing date by two weeks.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                              |
| 22. | we kindly request a 2-week submission extension for the tender KGN-KIP-14-2023 - TENDER FOR DISTRIBUTED CONTROL SYSTEMS (DCS)UPGRADE FOR KIPEVU III POWER STATION to enable us to propose a complete package as per your request.                                                                                                                                                                                                                                                                                                                                                                                                                                      | The tendering period has been extended. See Addendum 2 on the KenGen website |
| 23. | As we have not received clarifications, we are not in a position to initiate bid preparation and hence you are kindly requested to please extend the validity by 21st April 2023.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | The tendering period has been extended. See Addendum 2 on the KenGen website |
| 24. | <p>In reference to the above-mentioned tender please find a few deviations which we would like to highlight and also request for an extension:</p> <p>Our Company Our Company will not meet all the required Preliminary Examination and thus ask for deviation for below MR items:</p> <p>MR 20 Our Company is not the PLC Hardware manufacturer, but Our Company is the manufacturer and designer of the Automation system.</p> <p>MR 21 Our Company is not the HMI software manufacturer, but Our Company is the manufacturer and designer of the Automation system.</p> <p>MR 22 Our Company will provide 12 months warranty for KenGen for the updated system</p> | Reviewed, refer to Addendum 3                                                |

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|  | <p>Our Company will also ask extension for the deadline for Tender submission. 19<sup>th</sup> of May 2023. Reasons for asking extension: to get all clarifications cleared, deviations for Our Company Policies to be approved (legal, financing) and to work out technical design</p> | <p>The tendering period has been extended. See Addendum 2 on the KenGen website.</p> |
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| <p><b>25.</b></p>                                                                 | <p>we seek the following clarifications to assist in the preparation of the tender:</p> <p>Following the advertised of the tender listed above, we are interested bidders and we seek the following clarifications to assist in the preparation of the tender.</p> <table border="1" data-bbox="338 685 1365 1240"> <thead> <tr> <th colspan="4" style="background-color: #008000; color: white;">Tender No.: KGN-KIP-14-2023</th> </tr> <tr> <th colspan="4" style="background-color: #008000; color: white;">TENDER FOR DISTRIBUTED CONTROL SYSTEMS (DCS) UPGRADE FOR KIPEVU III POWER STATION</th> </tr> <tr> <th colspan="4" style="background-color: #008000; color: white;">TQ Date: 13 March 2023</th> </tr> <tr> <th>No</th> <th>Specification Clause / Requirements</th> <th>SCHNEIDER Question / Clarification</th> <th>CUSTOMER Clarification / Response</th> </tr> </thead> <tbody> <tr> <td rowspan="2">1</td> <td rowspan="2">Controllers</td> <td>Provide existing PLC Logic back-ups</td> <td></td> </tr> <tr> <td>Provide I/O Schedule.</td> <td></td> </tr> <tr> <td rowspan="2">2</td> <td rowspan="2">SCADA Data Gateway</td> <td>Provide I/O count details and wirimng requirement for ABB RTU560 and MicroSCADA</td> <td></td> </tr> <tr> <td>Provide Logics and existing Graphics for ABB RTU560 and MicroSCAD</td> <td></td> </tr> <tr> <td>3</td> <td>Maneuvering Panel</td> <td>Provide I/O signal details of all existing analog indicators, meters, counters and switches in the existing local maneuvering</td> <td></td> </tr> </tbody> </table> <p>We hereby request more time to allow your prompt response on the clarifications and to enable us compile our bid. An additional 7 days will be sufficient.</p> | Tender No.: KGN-KIP-14-2023                                                                                                   |                                   |  |  | TENDER FOR DISTRIBUTED CONTROL SYSTEMS (DCS) UPGRADE FOR KIPEVU III POWER STATION |  |  |  | TQ Date: 13 March 2023 |  |  |  | No | Specification Clause / Requirements | SCHNEIDER Question / Clarification | CUSTOMER Clarification / Response | 1 | Controllers | Provide existing PLC Logic back-ups |  | Provide I/O Schedule. |  | 2 | SCADA Data Gateway | Provide I/O count details and wirimng requirement for ABB RTU560 and MicroSCADA |  | Provide Logics and existing Graphics for ABB RTU560 and MicroSCAD |  | 3 | Maneuvering Panel | Provide I/O signal details of all existing analog indicators, meters, counters and switches in the existing local maneuvering |  | <p>The tendering period has been extended. See Addendum 2 on the KenGen website.</p> <p>The details requested for shall be provided to the successful bidder.</p> |
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| Tender No.: KGN-KIP-14-2023                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |                                   |  |  |                                                                                   |  |  |  |                        |  |  |  |    |                                     |                                    |                                   |   |             |                                     |  |                       |  |   |                    |                                                                                 |  |                                                                   |  |   |                   |                                                                                                                               |  |                                                                                                                                                                   |
| TENDER FOR DISTRIBUTED CONTROL SYSTEMS (DCS) UPGRADE FOR KIPEVU III POWER STATION |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |                                   |  |  |                                                                                   |  |  |  |                        |  |  |  |    |                                     |                                    |                                   |   |             |                                     |  |                       |  |   |                    |                                                                                 |  |                                                                   |  |   |                   |                                                                                                                               |  |                                                                                                                                                                   |
| TQ Date: 13 March 2023                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                               |                                   |  |  |                                                                                   |  |  |  |                        |  |  |  |    |                                     |                                    |                                   |   |             |                                     |  |                       |  |   |                    |                                                                                 |  |                                                                   |  |   |                   |                                                                                                                               |  |                                                                                                                                                                   |
| No                                                                                | Specification Clause / Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SCHNEIDER Question / Clarification                                                                                            | CUSTOMER Clarification / Response |  |  |                                                                                   |  |  |  |                        |  |  |  |    |                                     |                                    |                                   |   |             |                                     |  |                       |  |   |                    |                                                                                 |  |                                                                   |  |   |                   |                                                                                                                               |  |                                                                                                                                                                   |
| 1                                                                                 | Controllers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Provide existing PLC Logic back-ups                                                                                           |                                   |  |  |                                                                                   |  |  |  |                        |  |  |  |    |                                     |                                    |                                   |   |             |                                     |  |                       |  |   |                    |                                                                                 |  |                                                                   |  |   |                   |                                                                                                                               |  |                                                                                                                                                                   |
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| 2                                                                                 | SCADA Data Gateway                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Provide I/O count details and wirimng requirement for ABB RTU560 and MicroSCADA                                               |                                   |  |  |                                                                                   |  |  |  |                        |  |  |  |    |                                     |                                    |                                   |   |             |                                     |  |                       |  |   |                    |                                                                                 |  |                                                                   |  |   |                   |                                                                                                                               |  |                                                                                                                                                                   |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Provide Logics and existing Graphics for ABB RTU560 and MicroSCAD                                                             |                                   |  |  |                                                                                   |  |  |  |                        |  |  |  |    |                                     |                                    |                                   |   |             |                                     |  |                       |  |   |                    |                                                                                 |  |                                                                   |  |   |                   |                                                                                                                               |  |                                                                                                                                                                   |
| 3                                                                                 | Maneuvering Panel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Provide I/O signal details of all existing analog indicators, meters, counters and switches in the existing local maneuvering |                                   |  |  |                                                                                   |  |  |  |                        |  |  |  |    |                                     |                                    |                                   |   |             |                                     |  |                       |  |   |                    |                                                                                 |  |                                                                   |  |   |                   |                                                                                                                               |  |                                                                                                                                                                   |



**SUPPLIER ACKNOWLEDGEMENT OF CLARIFICATION NO. I**

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

Signed.....

Tenderer.....

Date.....