



KenGen

KENYA ELECTRICITY GENERATING COMPANY PLC

KGN-KIP~005~2025

RFx: 5000016523

**TENDER FOR, SUPPLY AND INSTALLATION OF 11KV INDOOR
METAL CLAD SWITCHGEAR PANEL & UNDERGROUND CABLE FOR
KIPEVU III POWER STATION.**

(Citizen Contractors)

Kenya Electricity Generating Company PLC
Stima Plaza Phase III, Kolobot Road, Parklands
P.O. BOX 47936-00100
NAIROBI.

Website: www.kengen.co.ke

March ,2025

INVITATION TO TENDER

PROCURING ENTITY: **KENYA ELECTRICITY GENERATING COMPANY PLC.**

CONTRACT NAME AND DESCRIPTION: **TENDER FOR SUPPLY AND INSTALLATION OF 11KV INDOOR METAL CLAD SWITCHGEAR PANEL & UNDERGROUND CABLE FOR KIPEVU III POWER STATION.**

KenGen PLC invites sealed tenders from eligible candidates for **Tender for Supply and Installation, of 11KV Indoor Metal Clad Switchgear Panel & Underground Cable for Kipevu III Power Station**, whose specifications are detailed in the Tender Document.

Tendering will be conducted under open competitive method (**Citizen Contractors**) using a standardized tender document. Tendering is open to all qualified and interested Tenderers.

The tender is specific to **Citizen Contractors**

Qualified and interested tenderers may obtain further information and inspect the Tender Documents during office hours between 8 a.m. and 5 p.m. starting at the date of advert at the office of:

General Manager, Supply Chain
Tel: (254) (020) 3666000
Email: tenders@kengen.co.ke; cc bpogeto@kengen.co.ke; jgesaka@kengen.co.ke,
fmakabwa@kengen.co.ke;

The document can be viewed and downloaded for free from the website www.kengen.co.ke and/or on E-procurement <https://eprocurement.kengen.co.ke:50001/irj/portal> . Tenderers who download the tender document must forward their particulars immediately to (tenders@kengen.co.ke , 0711036000 and P.O.BOX 47936-00100 postal address) to facilitate any further clarification or addendum

Bidders who are unable to download the tender documents from the website may collect them from any KenGen Supply Chain Office upon payment of a non-refundable fee of **KShs.1, 000.00** paid via Mpesa, pay bill no. **400200 and account no. 01120069076000**, then share the MPesa message to KenGen Finance office staff for receipt and issuance of official receipt or through a banker's cheque and payable to the address given below.

Tender Security is **Not** Applicable. Bidders will be required to complete and sign the Tender Securing Declaration Form annexed to this tender document.

The Tenderer shall chronologically serialize all pages of the tender documents submitted.

[hard copies of the tender document shall not be permitted]

There Shall be a Mandatory Site Visit on 13th March, 2025 at Kipevu III Power Station starting at 10.00 a.m.

Note;

Bidders shall be required to have their own means of transport to facilitate movements while conducting the site visit(s).

Completed tenders must be submitted **online** on or before **25th March, 2025 at 10.00 a.m.**

Electronic Tenders *will be permitted through our e-procurement platform found at www.kengen.co.ke (<https://eprocurement.kengen.co.ke:50001/irj/portal> on or before; 25th March, 2025 at 10.00 a.m.*

Internet Explorer and Firefox Mozilla are the preferred web browsers.

Tenders will be opened immediately after the deadline date and time specified above or any dead line date and time specified later. Tenders will be publicly opened in the presence of the Tenderers' designated representatives who

choose to attend at the address below.

Late tenders will be rejected.

1. The addresses referred to above are:
 - a. **Address for obtaining further information and for purchasing tender documents**

Physical address for hand Courier Delivery to an office or Tender Box (City, Street Name, Building, Floor Number and Room)

Kenya Electricity Generating Company PLC
Stima Plaza Phase III, Kolobot Road, Parklands
P.O. BOX 47936-00100
tenders@kengen.co.ke ;

- b. **Address for Opening of Tenders.**

General Manager, Supply Chain
Kenya Electricity Generating Company PLC
Stima Plaza Phase III, Kolobot Road, Parklands
P.O. BOX 47936-00100
6th Floor

NOTE: Public Procurement Capacity Building Levy

Pursuant to the enactment of the Legal Notice No. 206 on Public Procurement and Asset Disposal Act 2015, Section 3 (1), KenGen shall retain the Public Procurement Capacity Building Levy at the rate of zero point zero three per centum (0.03%) of the value of the signed contract effective 1st September 2024. Payment of the submitted invoices shall therefore be made minus this Levy.

***KenGen adheres to high standards of integrity in its business operations.
Report any unethical behavior immediately to any of the provided anonymous hotline service.***

- 1) ***Call Toll Free: 0800722626;***
- 2) ***Free-Fax: 00800 007788;***
- 3) ***Email: kengen@tip-offs.com***
- 4) ***Website: www.tip-offs.com***

GENERAL MANAGER, SUPPLY CHAIN

PART 1 ~ TENDERING PROCEDURES

SECTION I: INSTRUCTIONS TO TENDERERS

A General Provisions

1. Scope of Tender

- 1.1 The Procuring Entity as defined in the **TDS** invites tenders for supply of goods and, if applicable, any Related Services incidental thereto, as specified in Section V, Supply Requirements. The name, identification, and number of lots (contracts) of this Tender Document are specified in the **TDS**.
- 1.2 Throughout this tendering document:
- the term “in writing” means communicated in written form (e.g. by mail, e-mail, fax, including if specified in the **TDS**, distributed or received through the electronic-procurement system used by the Procuring Entity) with proof of receipt;
 - if the context so requires, “singular” means “plural” and vice versa;
 - “Day” means calendar day, unless otherwise specified as “Business Day”. A Business Day is any day that is an official working day of the Procuring Entity. It excludes official public holidays.

2. Fraud and Corruption

- 2.1 The Procuring Entity requires compliance with the provisions of the Public Procurement and Asset Disposal Act, 2015, Section 62 “Declaration not to engage in corruption”. The tender submitted by a person shall include a declaration that the person shall not engage in any corrupt or fraudulent practice and a declaration that the person or his or her sub-contractors are not debarred from participating in public procurement proceedings.
- 2.2 The Procuring Entity requires compliance with the provisions of the Competition Act 2010, regarding collusive practices in contracting. Any tenderer found to have engaged in collusive conduct shall be disqualified and criminal and/or civil sanctions may be imposed. To this effect, Tenders shall be required to complete and sign the “Certificate of Independent Tender Determination” annexed to the Form of Tender.
- 2.3 Unfair Competitive Advantage - Fairness and transparency in the tender process require that the firms or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to this tender. To that end, the Procuring Entity shall indicate in the **Data Sheet** and make available to all the firms together with this tender document all information that would in that respect give such firm any unfair competitive advantage over competing firms.

3. Eligible Tenderers

- 3.1 A Tenderer may be a firm that is a private entity, an individual, a state-owned enterprise or institution subject to ITT3.7, or any combination of such entities in the form of a joint venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. Public employees and their close relatives (*spouses, children, brothers, sisters and uncles and aunts*) are not eligible to participate in the tender.

In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Tendering process and, in the event the JV is awarded the Contract, during contract execution. The maximum number of JV members shall be specified in the **TDS**.

- 3.2 Public Officers of the Procuring Entity, their Spouses, Child, Parent, Brothers or Sister. Child, Parent, Brother or Sister of a Spouse their business associates or agents and firms/organizations

in which they have a substantial or controlling interest shall not be eligible to tender or be awarded a contract. Public Officers are also not allowed to participate in any procurement proceedings.

- 33 A Tenderer shall not have a conflict of interest. Any Tenderer found to have a conflict of interest shall be disqualified. A Tenderer may be considered to have a conflict of interest for the purpose of this Tendering process, if the Tenderer:
- a) directly or indirectly controls, is controlled by or is under common control with another Tenderer; or
 - b) receives or has received any direct or indirect subsidy from another Tenderer; or
 - c) has the same - representative or ownership as another Tenderer; or
 - d) has a relationship with another Tenderer, directly or through common third parties, that puts it in a position to influence the Tender of another Tenderer, or influence the decisions of the Procuring Entity regarding this Tendering process; or
 - e) or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the goods that are the subject of the Tender; or
 - f) or any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity or Procuring Entity for the Contract implementation; or
 - g) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the **TDS ITT 1.1** that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or has a close business or family relationship with a professional staff of the Procuring Entity (or of the project implementing agency, who: (i) are directly or indirectly involved in the preparation of the tendering document or specifications of the Contract, and/or the Tender evaluation process of such Contract; or (ii) would be involved in the implementation or supervision of such Contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Procuring Entity throughout the Tendering process and execution of the Contract.
- 34 A tenderer shall not be involved in corrupt, coercive, obstructive, collusive or fraudulent practice. A tenderer that is proven to have been involved in any of these practices shall be automatically disqualified.
- 35 A firm that is a Tenderer (either individually or as a JV member) shall not submit more than one Tender, except for permitted alternative Tenders. This includes participation as a subcontractor. Such participation shall result in the disqualification of all Tenders in which the firm is involved. A firm that is not a Tenderer or a JV member, may participate as a subcontractor in more than one Tender. Members of a joint venture may not also make an individual tender, be a subcontractor in a separate tender or be part of another joint venture for the purposes of the same Tender.
- 36 A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT3.9. A Tenderer shall be deemed to have the nationality of a country if the Tenderer is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or sub consultants for any part of the Contract including related Services.
- 37 A Tenderer that has been debarred by the PPRA from participating in public procurement shall be ineligible to tender or be awarded a contract. The list of debarred firms and individuals is available from the PPRA's website www.ppra.go.ke
- 38 Tenderers that are state-owned enterprises or institutions may be eligible to compete and be awarded a Contract(s) only if they are (i) a legal public entity of the state Government and/or public administration, (ii) financially autonomous and not receiving any significant subsidies or budget support from any public entity or Government, and (iii) operating under commercial law and vested with legal rights and liabilities similar to any commercial enterprise to enable it compete with firms in the private sector on an equal basis. Public employees and their close relatives are not eligible to participate in the tender.

- 39 Tenderers may be ineligible if their countries of origin (a) as a matter of law or official regulations, Kenya prohibits commercial relations with that country, or(b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Kenya prohibits any import of goods or contracting for supply of goods or services from that country, or any payments to any country, person, or entity in that country. A tenderer shall provide such documentary evidence of eligibility satisfactory to the Procuring Entity, as the Procuring Entity shall reasonably request.
- 3.10 Tenderers shall provide the qualification information statement that the tenderer (including all members of a joint venture and subcontractors) is not associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Procuring entity to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods under this Invitation for tenders.
- 3.11** Where the law requires tenderers to be registered with certain authorities in Kenya, such registration requirements shall be defined in the **TDS**
- 3.12 The Competition Act of Kenya requires that firms wishing to tender as Joint Venture undertakings which may prevent, distort or lessen competition in provision of services are prohibited unless they are exempt in accordance with the provisions of Section 25 of the Competition Act, 2010. JVs will be required to seek for exemption from the Competition Authority. Exemption shall not be a condition for tender, but it shall be a condition of contract award and signature. A JV tenderer shall be given opportunity to seek such exemption as a condition of award and signature of contract. Application for exemption from the Competition Authority of Kenya may be accessed from the website www.cak.go.ke.
- 3.13 A Kenyan tenderer shall provide evidence of having fulfilled his/her tax obligations by producing a current tax clearance certificate or tax exemption certificate issued by the Kenya Revenue Authority.

4 Eligible Goods and Related Services

- 4.1 All the Goods and Related Services to be supplied under the Contract shall have their origin in any country that is eligible in accordance with ITT 3.9.
- 4.2 For purposes of this ITT, the term “goods” includes commodities, raw material, machinery, equipment, and industrial plants; and “related services” include services such as insurance, installation, training, and initial maintenance.
- 4.3 The term “origin” means the country where the goods have been mined, grown, cultivated, produced, manufactured or processed; or, through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.
- 4.4 A procuring entity shall ensure that the items listed below shall be sourced from Kenya and there shall be no substitutions from foreign sources. The affected items are:
- a) motor vehicles, plant and equipment which are assembled in Kenya;
 - b) furniture, textile, foodstuffs, oil and gas, information communication technology, steel, cement, leather, agro-processed products, sanitary products, and other goods made in Kenya; or
 - c) goods manufactured, mined, extracted or grown in Kenya.
- 4.5 Any goods, works and production processes with characteristics that have been declared by the relevant national environmental protection agency or by other competent authority as harmful to human beings and to the environment shall not be eligible for procurement.

5 Sections of Tendering Document

- 5.1 The tendering document consist of Parts 1, 2, and 3, which include all the sections indicated

below, and should be read in conjunction with any Addenda issued in accordance with ITT8.

PART 1: Tendering Procedures

- i) Section I - Instructions to Tenderers (ITT)
- ii) Section II - Tendering Data Sheet (TDS)
- iii) Section III - Evaluation and Qualification Criteria
- iv) Section IV - Tendering Forms

PART 2: Supply Requirements

- v) Section V - Schedule of Requirements

PART 3: Contract

- vi) Section VI - General Conditions of Contract (GCC)
 - vii) Section VII - Special Conditions of Contract (SCC)
 - viii) Section VIII- Contract Forms
- 52 The notice of Invitation to Tender or the notice to the prequalified Tenderers issued by the Procuring Entity is not part of the tendering document.
- 53 Unless obtained directly from the Procuring Entity, the Procuring Entity is not responsible for the completeness of the document, responses to requests for clarification, the minutes of the pre-tender meeting (if any), or addenda to the tendering document in accordance with ITT7.
- 54 The Tenderer is expected to examine all instructions, forms, terms, and specifications in the tendering document and to furnish with its Tender all information or documentation as is required by the tendering document.

6. Clarification of Tendering Document

- 61 A Tenderer requiring any clarification of the Tender Document shall contact the Procuring Entity in writing at the Procuring Entity's address specified in the **TDS** or raise its enquiries during the pre-Tender meeting if provided for in accordance with ITT 6.4. The Procuring Entity will respond in writing to any request for clarification, provided that such request is received no later than the period specified in the **TDS** prior to the deadline for submission of tenders. The Procuring Entity shall forward copies of its response to all tenderers who have acquired the Tender documents in accordance with ITT 5.3, including a description of the inquiry but without identifying its source. If so specified in the **TDS**, the Procuring Entity shall also promptly publish its response at the web page identified in the **TDS**. Should the clarification result in changes to the essential elements of the Tender Documents, the Procuring Entity shall amend the Tender Documents following the procedure under ITT 7.
- 62 The Procuring Entity shall specify in the **TDS** if a pre-tender conference will be held, when and where. The Tenderer's designated representative is invited to attend a pre-Tender meeting. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 63 The Tenderer is requested to submit any questions in writing, to reach the Procuring Entity not later than the period specified in the **TDS** before the meeting.
- 64 Minutes of the pre-Tender meeting, if applicable, including the text of the questions asked by Tenderers and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Tenderers who have acquired the Tender Documents in accordance with ITT 6.3. Minutes shall not identify the source of the questions asked.
- 65 The Procuring Entity shall also promptly publish anonymized (*no names*) Minutes of the pre-Tender meeting at the web page identified in the **TDS**. Any modification to the Tender Documents that may become necessary as a result of the pre-Tender meeting shall be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT 7 and

not through the minutes of the pre-Tender meeting. Nonattendance at the pre-Tender meeting will not be a cause for disqualification of a Tenderer.

7. Amendment of Tendering Document

71 At any time prior to the deadline for submission of Tenders, the Procuring Entity may amend the tendering document by issuing addenda.

72 Any addendum issued shall be part of the tendering document and shall be communicated in writing to all who have obtained the tender document from the Procuring Entity in accordance with ITT 6.3. The Procuring Entity shall also promptly publish the addendum on the Procuring Entity's web page in accordance with ITT 7.1.

73 To give prospective Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders, pursuant to ITT 21.2.

C. Preparation of Tenders

8 Cost of Tendering

81 The Tenderer shall bear all costs associated with the preparation and submission of its Tender, and the Procuring Entity shall not be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering process.

9 Language of Tender

91 The Tender, as well as all correspondence and documents relating to the Tender exchanged by the Tenderer and the Procuring Entity, shall be written in English Language. Supporting documents and printed literature that are part of the Tender may be in another language provided they are accompanied by an accurate translation of the relevant passages into the English Language, in which case, for purposes of interpretation of the Tender, such translation shall govern.

10 Documents Comprising the Tender

101 The Tender shall comprise the following:

- a) Form of Tender prepared in accordance with ITT11;
- b) Price Schedules: completed in accordance with ITT 11 and ITT 13;
- c) Tender Security or Tender-Securing Declaration, in accordance with ITT 18.1;
- d) Alternative Tender: if permissible, in accordance with ITT12;
- e) Authorization: written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordance with ITT19.3;
- f) Qualifications: documentary evidence in accordance with ITT 16.2 establishing the Tenderer qualifications to perform the Contract if its Tender is accepted;
- g) Tenderer Eligibility: documentary evidence in accordance with ITT16.1 establishing the Tenderer eligibility to tender;
- h) Eligibility of Goods and Related Services: documentary evidence in accordance with ITT 15, establishing the eligibility of the Goods and Related Services to be supplied by the Tenderer;
- i) Conformity: documentary evidence in accordance with ITT15.2 that the Goods and Related Services conform to the tender document; and
- j) any other document required in the **TDS**.

102 In addition to the requirements under ITT 10.1, Tenders submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of

intent to execute a Joint Venture Agreement in the event of a successful Tender shall be signed by all members and submitted with the Tender, together with a copy of the proposed Agreement.

103 The Tenderer shall furnish in the Form of Tender information on commissions gratuities, and fees, if any, paid or to be paid to agents or any other party relating to this Tender.

11. Form of Tender and Price Schedules

11.1 The Form of Tender and Price Schedules shall be prepared using the relevant forms furnished in Section IV, Tendering Forms. The forms must be completed without any alterations to the text. All blank spaces shall be filled in with the information requested. The Tenderer shall chronologically serialise pages of all tender documents submitted.

12. Alternative Tenders

12.1 Unless otherwise specified **in the TDS**, alternative Tenders shall not be considered.

13. Tender Prices and discounts

13.1 The prices quoted by the Tenderer in the Form of Tender and in the Price, Schedules shall conform to the requirements specified below.

13.2 All lots (contracts) and items must be listed and priced separately in the Price Schedules.

13.3 The price to be quoted in the Form of Tender in accordance with ITT10.1 shall be the total price of the Tender, including any discounts offered.

13.4 The Tenderer shall quote any discounts and indicate the methodology for their application in the form of tender. Conditional discounts will be rejected.

13.5 Prices quoted by the Tenderer shall be fixed during the performance of the Contract and not subject to variation on any account, unless otherwise specified **in the TDS**. A Tender submitted with an adjustable price quotation shall be treated as non-responsive and shall be rejected, pursuant to ITT 28. However, if in accordance with **the TDS**, prices quoted by the Tenderer shall be subject to adjustment during the performance of the Contract, a Tender submitted with a fixed price quotation shall not be rejected, but the price adjustment shall be treated as zero.

13.6 If specified in ITT 1.1, Tenders are being invited for individual lots (contracts) or for any combination of lots (packages). Unless otherwise specified **in the TDS**, prices quoted shall correspond to 100 % of the items specified for each lot and to 100% of the quantities specified for each item of a lot. Tenderers wishing to offer discounts for the award of more than one Contract shall specify in their Tender the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITT 13.4 provided the Tenders for all lots (contracts) are opened at the same time.

13.7 The terms EXW, CIP, CIF, DDP and other similar terms shall be governed by the rules prescribed in the current edition of Incoterms, published by the International Chamber of Commerce.

13.8 Prices shall be quoted as specified in each Price Schedule included in Section IV, Tendering Forms. The disaggregation of price components is required solely for the purpose of facilitating the comparison of Tenders by the Procuring Entity. This shall not in any way limit the Procuring Entity's right to contract on any of the terms offered. In quoting prices, the Tenderer shall be free to use transportation through carriers registered in any eligible country. Similarly, the Tenderer may obtain insurance services from any eligible country in accordance with ITT 3.6, Eligible Tenders. Prices shall be entered in the following manner:

- a) For Goods manufactured in Kenya:
 - i) the price of the Goods quoted EXW (ex-works, ex-factory, ex warehouse, ex showroom, or off-the-shelf, as applicable) final destination point indicated in the **TDS**, including all customs duties and sales and other taxes already paid or payable on the components and raw material used in the manufacture or assembly of the Goods;
 - ii) any sales tax and other taxes which will be payable in Kenya on the Goods if the Contract is awarded to the Tenderer; and
 - iii) the price for inland transportation, insurance, and other local services required to convey the Goods to their final destination specified **in the TDS**.
- b) For Goods manufactured outside Kenya, to be imported:
 - i) the price of the Goods, quoted CIP named place of destination, in Kenya, as specified **in the TDS**;
 - ii) the price for inland transportation, insurance, and other local services required to convey the Goods from the named place of destination to their final destination specified **in the TDS**;
- c) For Goods manufactured outside Kenya, already imported:
 - i) the price of the Goods, including the original import value of the Goods; plus, any mark-up (or rebate); plus, any other related local cost, and custom duties and other import taxes already paid or to be paid on the Goods already imported;
 - ii) the custom duties and other import taxes already paid (need to be supported with documentary evidence) or to be paid on the Goods already imported;
 - iii) any sales and other taxes levied in Kenya which will be payable on the Goods if the Contract is awarded to the Tenderer; and
 - iv) the price for inland transportation, insurance, and other local services required to convey the Goods from the named place of destination to their final destination (Project Site) specified **in the TDS**.
- d) for Related Services, other than inland transportation and other services required to convey the Goods to their final destination, whenever such Related Services are specified in the Schedule of Requirements, the price of each item comprising the Related Services (inclusive of any applicable taxes).

14 Currencies of Tender and Payment

- 141 The currency (ies) of the Tender, the currency (ies) of award and the currency (ies) of contract payments shall be the same.
- 142 The Tenderer shall quote in Kenya shillings. If allowed in the **TDS**, the Tenderer may express the Tender price in any currency, provided it shall use no more than two foreign currencies in addition to the Kenya Shilling.
- 143 The rates of exchange to be used by the Tenderer shall be based on the exchange rates provided by the Central Bank of Kenya on the date 30 days prior to the actual date of tender opening.

15 Documents Establishing the Eligibility and Conformity of the Goods and Related Services

- 151 To establish the eligibility of the Goods and Related Services in accordance with ITT 15, Tenderers shall complete the country of origin declarations in the Price Schedule Forms, included in Section IV, Tendering Forms.
- 152 To establish the conformity of the Goods and Related Services to the tendering document, the Tenderer shall furnish as part of its Tender the documentary evidence that the Goods conform to the technical specifications and standards specified in Section VII, Schedule of Requirements.
- 153 The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item by item description of the essential technical and performance characteristics of the Goods and Related Services, demonstrating substantial responsiveness of the Goods and Related Services to the technical specification, and if applicable, a statement of deviations and exceptions to the provisions of the Section VII, Schedule of Requirements.
- 154 The Tenderer shall also furnish a list giving full particulars, including available sources and

current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the Goods during the period **specified in the TDS** following commencement of the use of the goods by the Procuring Entity.

155 Standards for workmanship, process, material, and equipment, as well as references to brand names or catalogue numbers specified by the Procuring Entity in the Schedule of Requirements, are intended to be descriptive only and not restrictive. The Tenderer may offer other standards of quality, brand names, and/or catalogue numbers, provided that it demonstrates, to the Procuring Entity's satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Section VII, Schedule of Requirements.

16. Documents Establishing the Eligibility and Qualifications of the Tenderer

161 To establish Tenderer eligibility in accordance with ITT 4, Tenderers shall complete the Form of Tender, included in Section IV, Tendering Forms.

162 The documentary evidence of the Tenderer qualifications to perform the Contract if its Tender is accepted shall establish to the Procuring Entity's satisfaction:

- a) that, if required **in the TDS**, a Tenderer that does not manufacture or produce the Goods it offers to supply shall submit the Manufacturer's Authorization using the form included in Section IV, Tendering Forms to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply these Goods in Kenya;
- b) that, if required **in the TDS**, in case of a Tenderer not doing business within the Kenya, the Tenderer is or will be (if awarded the Contract) represented by an Agent in the country equipped and able to carry out the Supplier's maintenance, repair and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications; and
- c) that the Tenderer meets each of the qualification criterion specified in Section III, Evaluation and Qualification Criteria.

17. Period of Validity of Tenders

171 Tenders shall remain valid for the Tender Validity period specified **in the TDS**. The Tender Validity period starts from the date fixed for the Tender submission deadline (as prescribed by the Procuring Entity in accordance with ITT 21.1). A Tender valid for a shorter period shall be rejected by the Procuring Entity as non-responsive.

172 In exceptional circumstances, prior to the expiration of the Tender validity period, the Procuring Entity may request Tenderers to extend the period of validity of their Tenders. The request and the responses shall be made in writing. If a Tender Security is requested in accordance with ITT 18, it shall also be extended for a corresponding period. A Tenderer may refuse the request without forfeiting its Tender Security. A Tenderer granting the request shall not be required or permitted to modify its Tender, except as provided in ITT 17.3.

173 If the award is delayed by a period exceeding the number of days to be specified in the **TDS** days beyond the expiry of the initial tender validity period, the Contract price shall be determined as follows:

- a) in the case of **fixed price** contracts, the Contract price shall be the tender price adjusted by the factor specified **in the TDS**;
- b) in the case of **adjustable price** contracts, no adjustment shall be made; or in any case, tender evaluation shall be based on the tender price without taking into consideration the applicable correction from those indicated above.

18. Tender Security

181 The Tenderer shall furnish as part of its Tender, either a Tender-Securing Declaration or a Tender Security, as specified **in the TDS**, in original form and, in the case of a Tender Security, in the amount and currency specified **in the TDS**.

182 A Tender Securing Declaration shall use the form included in Section IV, Tendering Forms.

- 183 If a Tender Security is specified pursuant to ITT 18.1, the Tender Security shall be a demand guarantee in any of the following forms at the Tenderer option:
- i) cash;
 - ii) a bank guarantee;
 - iii) a guarantee by an insurance company registered and licensed by the Insurance Regulatory Authority listed by the Authority; or
 - iv) a letter of credit; or
 - v) guarantee by a deposit taking micro-finance institution, Sacco society, the WOMEN Enterprise Development Fund or the Women Enterprise Fund.
- 184 If an unconditional guarantee is issued by a non-Bank financial institution located outside Kenya, the issuing non-Bank financial institution shall have a correspondent financial institution located in Kenya to make it enforceable unless the Procuring Entity has agreed in writing, prior to Tender submission, that a correspondent financial institution is not required. In the case of a bank guarantee, the Tender Security shall be submitted either using the Tender Security Form included in Section IV, Tendering Forms, or in another substantially similar format approved by the Procuring Entity prior to Tender submission. The Tender Security shall be valid for thirty (30) days beyond the original validity period of the Tender, or beyond any period of extension if requested under ITT 17.2.
- 185 If a Tender Security is specified pursuant to ITT 18.1, any Tender not accompanied by a substantially responsive Tender Security shall be rejected by the Procuring Entity as non-responsive.
- 186 If a Tender Security is specified pursuant to ITT 18.1, the Tender Security of unsuccessful Tenderers shall be returned as promptly as possible upon the successful Tenderer signing the Contract and furnishing the Performance Security pursuant to ITT 46. The Procuring Entity shall also promptly return the tender security to the tenderers where the procurement proceedings are terminated, all tenders were determined non-responsive or a bidder declines to extend tender validity period.
- 187 The Tender Security of the successful Tenderer shall be returned as promptly as possible once the successful Tenderer has signed the Contract and furnished the required Performance Security.
- 188 The Tender Security may be forfeited or the Tender Securing Declaration executed:
- a) if a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer in the Form of Tender, or any extension thereto provided by the Tenderer; or
 - b) if the successful Tenderer fails to:
 - i) sign the Contract in accordance with ITT 45; or
 - ii) furnish a Performance Security in accordance with ITT 46.
- 189 Where tender securing declaration is executed, the Procuring Entity shall recommend to the PPRA that PPRA debars the Tenderer from participating in public procurement as provided in the law.
- 1810 The Tender Security or Tender- Securing Declaration of a JV must be in the name of the JV that submits the Tender. If the JV has not been legally constituted into a legally enforceable JV at the time of Tendering, the Tender Security or Tender-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITT3.1 and ITT 10.2.
- 1811 A tenderer shall not issue a tender security to guarantee itself.

19. Format and Signing of Tender

- 191 The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT 11 and clearly mark it "ORIGINAL." Alternative Tenders, if permitted in accordance with ITT 12, shall be clearly marked "ALTERNATIVE." In addition, the Tenderer shall submit copies of the Tender, in the number **specified in the TDS** and clearly mark them "COPY." In

the event of any discrepancy between the original and the copies, the original shall prevail.

192 Tenderers shall mark as “CONFIDENTIAL” information in their Tenders which is confidential to their business. This may include proprietary information, trade secrets, or commercial or financially sensitive information.

193 The original and all copies of the Tender shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Tenderer. This authorization shall consist of a written confirmation **as specified in the TDS** and shall be attached to the Tender. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Tender where entries or amendments have been made shall be signed or initialed by the person signing the Tender.

194 In case the Tenderer is a JV, the Tender shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by each members' legally authorized representatives.

195 Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Tender.

D. Submission and Opening of Tenders

20 Sealing and Marking of Tenders

201 Depending on the sizes or quantities or weight of the tender documents, a tenderer may use an envelope, package or container. The Tenderer shall deliver the Tender in a single sealed envelope, or in a single sealed package, or in a single sealed container bearing the name and Reference number of the Tender, addressed to the Procuring Entity and a warning not to open before the time and date for Tender opening date. Within the single envelope, package or container, the Tenderer shall place the following separate, sealed envelopes:

- a) in an envelope or package or container marked “ORIGINAL”, all documents comprising the Tender, as described in ITT 11; and
- b) in an envelope or package or container marked “COPIES”, all required copies of the Tender; and
- c) if alternative Tenders are permitted in accordance with ITT 12, and if relevant:
 - i) in an envelope or package or container marked “ORIGINAL –ALTERNATIVE TENDER”, the alternative Tender; and
 - ii) in the envelope or package or container marked “COPIES- ALTERNATIVE TENDER”, all required copies of the alternative Tender.

202 The inner envelopes or packages or containers shall:

- a) bear the name and address of the Procuring Entity.
- b) bear the name and address of the Tenderer; and
- c) bear the name and Reference number of the Tender.

203 Where a tender package or container cannot fit in the tender box, the procuring entity shall:

- a) Specify in the **TDS where** such documents should be received.
- b) maintain a record of tenders received and issue acknowledgement receipt note to each tenderer specifying time and date of receipt.
- c) Ensure all tenders received are handed over to the tender opening committee for opening at the specified opening place and time.

204 If an envelope or package or container is not sealed and marked as required, the *Procuring Entity* will assume no responsibility for the misplacement or premature opening of the Tender. Tenders misplaced or opened prematurely will not be accepted.

21. Deadline for Submission of Tenders

21.1 Tenders must be received by the Procuring Entity at the address and no later than the date and time specified **in the TDS**. When so specified **in the TDS**, Tenderers shall have the option

of submitting their Tenders electronically. Tenderers submitting Tenders electronically shall follow the electronic Tender submission procedures **specified in the TDS**.

212 The Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders by amending the tendering document in accordance with ITT7, in which case all rights and obligations of the Procuring Entity and Tenderers previously subject to the deadline shall thereafter be subject to the deadline as extended.

22 Late Tenders

221 The Procuring Entity shall not consider any Tender that arrives after the deadline for submission of Tenders. Any Tender received by the Procuring Entity after the deadline for submission of Tenders shall be declared late, rejected, and returned unopened to the Tenderer.

23 Withdrawal, Substitution, and Modification of Tenders

231 A Tenderer may withdraw, substitute, or modify its Tender after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization (the power of attorney) in accordance with ITT19.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Tender must accompany the respective written notice. All notices must be:

- a) prepared and submitted in accordance with ITT 20 and 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," or "MODIFICATION;" and
- b) received by the Procuring Entity prior to the deadline prescribed for submission of Tenders, in accordance with ITT 22.

233 Tenders requested to be withdrawn in accordance with ITT 23.1 shall be returned unopened to the Tenderers.

234 No Tender may be withdrawn, substituted, or modified in the interval between the deadline for submission of Tenders and the expiration of the period of Tender validity specified by the Tenderer on the Form of Tender or any extension thereof.

24 Tender Opening

241 Except as in the cases specified in ITT 23, the Procuring Entity shall, at the Tender opening, publicly open and read out all Tenders received by the deadline at the date, time and place specified **in the TDS** in the presence of Tenderers' designated representatives who choose to attend, including to attend any specific electronic tender opening procedures if electronic tendering is permitted in accordance with ITT 21.1, shall be as specified **in the TDS**.

242 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding Tender shall not be opened, but returned to the Tenderer. If the withdrawal envelope does not contain a copy of the "power of attorney" confirming the signature as a person duly authorized to sign on behalf of the Tenderer, the corresponding Tender will be opened. No Tender withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Tender opening.

243 Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding Tender being substituted, and the substituted Tender shall not be opened, but returned to the Tenderer. No Tender substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Tender opening.

244 Next, envelopes marked "MODIFICATION" shall be opened and read out with the corresponding Tender. No Tender modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Tender opening.

245 Next, all remaining envelopes shall be opened one at a time, reading out: the name of the

Tenderer and whether there is a modification; the total Tender Prices, per lot (contract) if applicable, including any discounts and alternative Tenders; the presence or absence of a Tender Security, if required; and any other details as the Procuring Entity may consider appropriate.

- 24.6** Only Tenders, alternative Tenders and discounts that are opened and read out at Tender opening shall be considered further for evaluation. The Form of Tender and pages of the Bills of Quantities are to be initialed by the members of the tender opening committee attending the opening. The number of representatives of the Procuring Entity to sign shall be specified in the **TDS**.
- 24.7 The Procuring Entity shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 22.1).
- 24.8 The Procuring Entity shall prepare a record of the Tender opening that shall include, as a minimum:
- a) the name of the Tenderer and whether there is a withdrawal, substitution, or modification;
 - b) the Tender Price, per lot (contract) if applicable, including any discounts;
 - c) any alternative Tenders;
 - d) the presence or absence of a Tender Security or Tender-Securing Declaration, if one was required;
 - e) number of pages of each tender document submitted.
- 24.9 The Tenderers' representatives who are present shall be requested to sign the record. The omission of a Tenderer signature on the record shall not invalidate the contents and effect of the record. A copy of the tender opening register shall be issued to a Tenderer upon request.

E. Evaluation and Comparison of Tenders

25. Confidentiality

- 25.1 Information relating to the evaluation of Tenders and recommendation of contract award, shall not be disclosed to Tenderers or any other persons not officially concerned with the tendering process until the information on Intention to Award the Contract is transmitted to all Tenderers in accordance with ITT 41.
- 25.2 Any effort by a Tenderer to influence the Procuring Entity in the evaluation or contract award decisions may result in the rejection of its Tender.
- 25.3 Notwithstanding ITT 25.2, from the time of Tender opening to the time of Contract Award, if any Tenderer wishes to contact the Procuring Entity on any matter related to the Tendering process, it should do so in writing.

26. Clarification of Tenders

- 26.1 To assist in the examination, evaluation, comparison of the Tenders, and qualification of the Tenderers, the Procuring Entity may, at its discretion, ask any Tenderer for a clarification of its Tender. Any clarification submitted by a Tenderer in respect to its Tender and that is not in response to a request by the Procuring Entity shall not be considered. The Procuring Entity's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the Tender shall be sought, offered, or permitted except to confirm the correction of arithmetic errors discovered by the Procuring Entity in the Evaluation of the Tenders, in accordance with ITT 30.

If a Tenderer does not provide clarifications of its Tender by the date and time set in the Procuring Entity's request for clarification, its Tender may be rejected.

27. Deviations, Reservations, and Omissions

27.1 During the evaluation of Tenders, the following definitions apply:

- a) "Deviation" is a departure from the requirements specified in the Tendering document;
- b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the tendering document; and
- c) "Omission" is the failure to submit part or all of the information or documentation required in the tendering document.

28. Determination of Responsiveness

28.1 The Procuring Entity's determination of a Tender's responsiveness is to be based on the contents of the Tender itself, as defined in ITT28.2.

28 A substantially responsive Tender is one that meets the requirements of the tendering document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

- a) if accepted, would:
 - i) affect in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
 - ii) limit in any substantial way, inconsistent with the tendering document, the Procuring Entity's rights or the Tenderer obligations under the Contract; or
- b) if rectified, would unfairly affect the competitive position of other Tenderers presenting substantially responsive Tenders.

28.2 The Procuring Entity shall examine the technical aspects of the Tender submitted in accordance with ITT 15 and ITT 16, in particular, to confirm that all requirements of Section VII, Schedule of Requirements have been met without any material deviation or reservation, or omission.

28.3 If a Tender is not substantially responsive to the requirements of tendering document, it shall be rejected by the Procuring Entity and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

29. Non-conformities, Errors and Omissions

29.1 Provided that a Tender is substantially responsive, the Procuring Entity may waive any non-conformities in the Tender.

29.2 Provided that a Tender is substantially responsive, the Procuring Entity may request that the Tenderer submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial non- conformities or omissions in the Tender related to documentation requirements. Such omission shall not be related to any aspect of the price of the Tender. Failure of the Tenderer to comply with the request may result in the rejection of its Tender.

29.3 Provided that a Tender is substantially responsive, the Procuring Entity shall rectify quantifiable nonmaterial non-conformities related to the Tender Price. To this effect, the Tender Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component in the manner specified **in the TDS**. The adjustment shall be based on the **average** price of the item or component as quoted in other substantially responsive Tenders. If the price of the item or component cannot be derived from the price of other substantially responsive Tenders, the Procuring Entity shall use its best estimate.

30. Arithmetical Errors

30.1 The tender sum as submitted and read out during the tender opening shall be absolute and final and shall not be the subject of correction, adjustment or amendment in any way by any person or entity.

- 302 Provided that the Tender is substantially responsive, the Procuring Entity shall handle errors on the following basis:
- a) Any error detected if considered a major deviation that affects the substance of the tender, shall lead to disqualification of the tender as non-responsive .
 - b) Any errors in the submitted tender arising from a miscalculation of unit price, quantity, subtotal and total bid price shall be considered as a major deviation that affects the substance of the tender and shall lead to disqualification of the tender as non-responsive. and
 - c) if there is a discrepancy between words and figures, the amount in words shall prevail.
- 303 Tenderers shall be notified of any error detected in their bid during the notification of a ward.

31. Conversion to Single Currency

31.1 For evaluation and comparison purposes, the currency(ies) of the Tender shall be converted in a single currency as specified **in the TDS**.

32. Margin of Preference and Reservations

32.1 A margin of preference may be allowed on locally manufactured goods only when the contract is open to international tendering, where the tender is likely to attract foreign goods and where the contract exceeds the threshold specified in the Regulations.

32.2 For purposes of granting a margin of preference on locally manufactured goods under international competitive tendering, a procuring entity shall not subject the items listed below to international tender and hence no margin of preference shall be allowed. The affected items are:

- a) motor vehicles, plant and equipment which are assembled in Kenya;
- b) furniture, textile, foodstuffs, oil and gas, information communication technology, steel, cement, leather agro-processing, sanitary products, and other goods made in Kenya; or
- c) goods manufactured, mined, extracted or grown in Kenya.

32.3 A margin of preference shall not be allowed unless it is specified so in the **TDS**.

32.4 Contracts procured on basis of international competitive tendering shall not be subject to reservations to specific groups as provided in ITT 32.5.

32.5 Where it is intended to reserve a contract to a specific group of businesses (these groups are Small and Medium Enterprises, Women Enterprises, WOMEN Enterprises and Enterprises of persons living with disability, as the case may be), and who are appropriately registered as such by the authority to be specified in the **TDS**, a procuring entity shall ensure that the invitation to tender specifically indicates that only businesses or firms belonging to the specified group are eligible to tender as specified in the **TDS**. No tender shall be reserved to more than one group. If not so stated in the Tender documents, the invitation to tender will be open to all interested tenderers.

33. Evaluation of Tenders

33.1 The Procuring Entity shall use the criteria and methodologies listed in this ITT and Section III, Evaluation and Qualification criteria. No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies, the Procuring Entity shall determine the Lowest Evaluated Tender. This is the Tender of the Tenderer that meets the qualification criteria and whose Tender has been determined to be:

- a) substantially responsive to the tender documents; and
- b) the lowest evaluated price.

- 332 Price evaluation will be done for Items or Lots (contracts), as specified **in the TDS**; and the Tender Price as quoted in accordance with ITT 14. To evaluate a Tender, the Procuring Entity shall consider the following:
- a) price adjustment due to unconditional discounts offered in accordance with ITT 13.4;
 - b) converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT 31;
 - c) price adjustment due to quantifiable nonmaterial non-conformities in accordance with ITT 29.3; and
 - d) any additional evaluation factors specified **in the TDS** and Section III, Evaluation and Qualification Criteria.
- 333 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be considered in Tender evaluation.
- 334 Where the tender involves multiple lots or contracts, the tenderer will be allowed to tender for one or more lots (contracts). Each lot or contract will be evaluated in accordance with ITT 33.2. The methodology to determine the lowest evaluated tenderer or tenderers based one lot (contract) or based on a combination of lots (contracts), will be specified in Section III, Evaluation and Qualification Criteria. In the case of multiple lots or contracts, tenderer will be will be required to prepare the Eligibility and Qualification Criteria Form for each Lot.
- 335 The Procuring Entity's evaluation of a Tender will include and consider:
- a) in the case of Goods manufactured in Kenya, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the Tenderer;
 - b) in the case of Goods manufactured outside Kenya, already imported or to be imported, customs duties and other import taxes levied on the imported Good, sales and other similar taxes, which will be payable on the Goods if the contract is awarded to the Tenderer;
- 336 The Procuring Entity's evaluation of a Tender may require the consideration of other factors, in addition to the Tender Price quoted in accordance with ITT 14. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the Goods and Related Services. The effect of the factors selected, if any, shall be expressed in monetary terms to facilitate comparison of Tenders, unless otherwise specified in the **TDS** from amongst those set out in Section III, Evaluation and Qualification Criteria. The additional criteria and methodologies to be used shall be as specified in ITT 33.2(d).

34 Comparison of Tenders

- 34.1 The Procuring Entity shall compare the evaluated costs of all substantially responsive Tenders established in accordance with ITT 33.2 to determine the Tender that has the lowest evaluated cost. The comparison shall be on the basis of total cost (place of final destination) prices for all goods and all prices, plus cost of inland transportation and insurance to place of destination, for goods manufactured within the Kenya, together with prices for any required installation, training, commissioning and other services.

35 Abnormally Low Tenders

- 35.1 An Abnormally Low Tender is one where the Tender price, in combination with other constituent elements of the Tender, appears unreasonably low to the extent that the Tender price raises material concerns with the Procuring Entity as to the capability of the Tenderer to perform the Contract for the offered Tender price.
- 35.2 In the event of identification of a potentially Abnormally Low Tender by the evaluation committee, the Procuring Entity shall seek written clarification from the Tenderer, including a detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, delivery schedule, allocation of risks and responsibilities and any other requirements of the tendering document.
- 35.3 After evaluation of the price analysis, in the event that the Procuring Entity determines that the Tenderer has failed to demonstrate its capability to perform the contract for the offered

Tender price, the Procuring Entity shall reject the Tender.

36. Abnormally High Tenders

36.4 An abnormally high price is one where the tender price, in combination with other constituent elements of the Tender, appears unreasonably too high to the extent that the Procuring Entity is concerned that it (the Procuring Entity) may not be getting value for money or it may be paying too high a price for the contract compared with market prices or that genuine competition between Tenderers is compromised.

36.5 In case of an abnormally high tender price, the Procuring Entity shall make a survey of the market prices, check if the estimated cost of the contract is correct and review the Tender Documents to check if the specifications, scope of work and conditions of contract are contributory to the abnormally high tenders. The Procuring Entity may also seek written clarification from the tenderer on the reason for the high tender price. The Procuring Entity shall proceed as follows:

- i) If the tender price is abnormally high based on wrong estimated cost of the contract, the Procuring Entity may accept or not accept the tender depending on the Procuring Entity's budget considerations.
- ii) If specifications, scope of work and/or conditions of contract are contributory to the abnormally high tender prices, the Procuring Entity shall reject all tenders and may retender for the contract based on revised estimates, specifications, scope of work and conditions of contract, as the case may be.

36.6 If the Procuring Entity determines that the Tender Price is abnormally too high because genuine competition between tenderers is compromised (*often due to collusion, corruption or other manipulations*), the Procuring Entity shall reject all Tenders and shall institute or cause relevant Government Agencies to institute an investigation on the cause of the compromise, before retendering.

37. Post-Qualification of the Tenderer

37.1 The Procuring Entity shall determine, to its satisfaction, whether the eligible Tenderer that is selected as having submitted the lowest evaluated cost and substantially responsive Tender, meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.

37.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer qualifications submitted by the Tenderer, pursuant to IIT 15 and 16. The determination shall not take into consideration the qualifications of other firms such as the Tenderer subsidiaries, parent entities, affiliates, subcontractors (other than specialized subcontractors if permitted in the tendering document), or any other firm(s) different from the Tenderer.

37.3 An affirmative determination shall be a prerequisite for award of the Contract to the Tenderer. A negative determination shall result in disqualification of the Tender, in which event the Procuring Entity shall proceed to the Tenderer who offers a substantially responsive Tender with the next lowest evaluated cost to make a similar determination of that Tenderer qualifications to perform satisfactorily.

38. Lowest Evaluated Tender

38.1 Having compared the evaluated prices of Tenders, the Procuring Entity shall determine the Lowest Evaluated Tender. The Lowest Evaluated Tender is the Tender of the Tenderer that meets the Qualification Criteria and whose Tender has been determined to be:

- a) most responsive to the Tender document; and
- b) the lowest evaluated price.

39. Procuring Entity's Right to Accept Any Tender, and to Reject Any or All Tenders.

39.1 The Procuring Entity reserves the right to accept or reject any Tender, and to annul the Tendering process and reject all Tenders at any time prior to notification Award, without thereby incurring any liability to Tenderers. In case of annulment, all Tenderers shall be notified with reasons and all Tenders submitted and specifically, tender securities, shall be promptly returned to the Tenderers.

F. Award of Contract

40. Award Criteria

40.1 The Procuring Entity shall award the Contract to the successful tenderer whose tender has been determined to be the Lowest Evaluated Tender in accordance with procedures in Section 3: Evaluation and Qualification Criteria.

41. Procuring Entity's Right to Vary Quantities at Time of Award

41.1 The Procuring Entity reserves the right at the time of Contract award to increase or decrease, by the percentage (s) for items as indicated in the TDS.

42. Notice of Intention to enter into a Contract

Upon award of the contract and Prior to the expiry of the Tender Validity Period the Procuring Entity shall issue a Notification of Intention to Enter into a Contract / Notification of award to all tenderers which shall contain, at a minimum, the following information:

- a) the name and address of the Tenderer submitting the successful tender;
- b) the Contract price of the successful tender;
- c) a statement of the reason(s) the tender of the unsuccessful tenderer to whom the letter is addressed was unsuccessful, unless the price information in (c) above already reveals the reason;
- d) the expiry date of the Standstill Period; and
- e) instructions on how to request a debriefing and/or submit a complaint during the standstill period;

43. Standstill Period

43.1 The Contract shall not be awarded earlier than the expiry of a Standstill Period of 14 days to allow any dissatisfied candidate to launch a complaint. Where only one Tender is submitted, the Standstill Period shall not apply.

43.2 Where standstill period applies, it shall commence when the Procuring Entity has transmitted to each Tenderer the Notification of Intention to Enter into a Contract to the successful Tenderer.

44. Debriefing by the Procuring Entity

44.1 On receipt of the Procuring Entity's Notification of Intention to Enter into a Contract referred to in ITT 41, an unsuccessful tenderer may make a written request to the Procuring Entity for a debriefing on specific issues or concerns regarding their tender. The Procuring Entity shall provide the debriefing within five days of receipt of the request.

44.2 Debriefings of unsuccessful Tenderers may be done in writing or verbally. The Tenderer shall bear its own costs of attending such a debriefing meeting.

45. Letter of Award

Prior to the expiry of the Tender Validity Period and upon expiry of the Standstill Period specified in ITT 42, upon addressing a complaint that has been filed within the Standstill Period, the Procuring Entity shall transmit the Letter of Award to the successful Tenderer. The

letter of award shall request the successful tenderer to furnish the Performance Security within 21days of the date of the letter.

46. Signing of Contract

46.1 Upon the expiry of the fourteen days of the Notification of Intention to enter into contract and upon the parties meeting their respective statutory requirements, the Procuring Entity shall send the successful Tenderer the Contract Agreement.

46.2 Within fourteen (14) days of receipt of the Contract Agreement, the successful Tenderer shall sign, date, and return it to the Procuring Entity.

46.3 The written contract shall be entered into within the period specified in the notification of award and before expiry of the tender validity period.

47. Performance Security

47.1 Within twenty-one (21) days of the receipt of Letter of Acceptance from the Procuring Entity, the successful Tenderer, if required, shall furnish the Performance Security in accordance with the GCC 18, using for that purpose the Performance Security Form included in Section X, Contract Forms. If the Performance Security furnished by the successful Tenderer is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Tenderer to be acceptable to the Procuring Entity. A foreign institution providing a bond shall have a correspondent financial institution located in Kenya, unless the Procuring Entity has agreed in writing that a correspondent financial institution is not required.

47.2 Failure of the successful Tenderer to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security. In that event the Procuring Entity may award the Contract to the Tenderer offering the next lowest Evaluated Tender.

47.3 Performance security shall not be required for a contract, if so specified in the **TDS**.

48. Publication of Procurement Contract

48.1 Within fourteen days after signing the contract, the Procuring Entity shall publish and publicize the awarded contract at its notice boards, entity website; and on the Website of the Authority in manner and format prescribed by the Authority. At the minimum, the notice shall contain the following information:

- a) name and address of the Procuring Entity;
- b) name and reference number of the contract being awarded, a summary of its scope and the selection method used;
- c) the name of the successful Tenderer, the final total contract price, the contract duration.
- d) dates of signature, commencement and completion of contract;
- e) names of all Tenderers that submitted Tenders, and their Tender prices as read out at Tender opening;

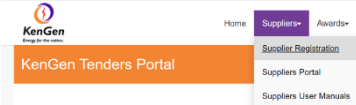

49. Procurement Related Complaints and Administrative Review

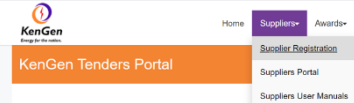
49.1 The procedures for making a Procurement-related Complaint are as specified in the **TDS**.

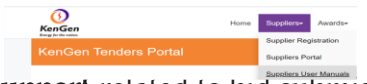
49.2 A request for administrative review shall be made in the form provided under contract forms.

SECTION II – TENDER DATA SHEET (TDS)

The following specific data shall complement, supplement, or amend the provisions in the Instructions to Tenderers (ITT). Whenever there is a conflict, the provisions herein shall prevail over those in ITT.

ITT Reference	Particulars Of Appendix To Instructions To Tenders
ITT 1.1	<p>A. General</p> <p>The reference number of the Invitation for Tenders is: KGN~KIP-005-2025</p> <p>The Procuring Entity is: Kenya Electricity Generating Company PLC</p> <p>The name of the Contract is: TENDER FOR SUPPLY AND INSTALLATION OF 11KV INDOOR METAL CLAD SWITCHGEAR PANEL & UNDERGROUND CABLE AT KIPEVU III POWER PLANT</p>
ITT 1.2(a)	<p><i>Electronic –Procurement System</i></p> <p><i>The Procuring Entity shall use the following electronic-procurement system to manage this Tendering process via</i> /www.kengen.co.ke (https://eprocurement.kengen.co.ke:50001/irj/portal/)</p> <p>Internet Explorer and Firefox Mozilla are the Preferred web browsers.</p> <p>1. For suppliers registering for the first time using the link https://supplierregistration.kengen.co.ke:4302/slc_selfreg(bD11biZjPTMwMCZkPW1pbg==)/bspwdapplication.do#VIEW_ANCHOR-ROS_TOP ensure the “Public Tender” checkbox is ticked so that the login details are sent to suppliers automatically.</p>  <p>2. It is a mandatory requirement all Documents MUST be uploaded to the SRM System through the link https://eprocurement.kengen.co.ke:50001/irj/portal found on www.kengen.co.ke.</p>  <p>After clicking on the Event Number, then click on Register (for Open tenders), then click on ‘Create Response’, bidders to click on ‘Technical RFX Response’ tab to access the cfolder page to upload your document.</p> <p><u>Instructions to Bidders: Caution on Uploading Bid Documents</u></p> <p>a. Preferred Submission Method: Bidders are advised to use the C-Folder for submitting their tenders. This platform is specifically designed to handle bulky technical bid documents of up to 99MB per file.</p> <p>b. Exceeding File Size Limit: In the event that the bid response exceeds the 99MB limit: -</p> <p>i. Bidders should try to compress the pdf file first to file size less than 99MB</p>

	<p>Attention:</p> <p><i>General Manager - Supply Chain, Kenya Electricity Generating Company PLC, 9th Floor, KenGen Pension Plaza II, Kolobot Road, Parklands, P.O. Box 47936, 00100 NAIROBI.</i></p> <p>tenders@kengen.co.ke; cc pogeto@kengen.co.ke; jgesaka@kengen.co.ke</p> <p>Requests for clarification should be received by the Procuring Entity no later than: 7 days before tender closing date. Web page: [www.kengen.co.ke].</p>
ITT 6.2	<p><i>A pre-tender site visit will be held</i></p> <p>There Shall be a MANDATORY Site Visit on 13th March,2025 at KIPEVU III Power Station starting at 10.00 a.m.</p>
ITT 6.3	<p>The questions/ Requests for clarification to reach the Procuring Entity not later than 7 Days before the tender closing date</p>
	<p>C. Preparation of Tenders</p>
ITT 10 (j)	<p>The Tenderer shall submit the following additional documents in its Tender: <i>as per Executive order no 2 of 2018 and other specified in the evaluation criteria</i></p>
ITT 12.1	<p>Alternative Tenders <i>shall not be</i> considered.</p>
ITT 13.5	<p>The prices quoted by the Tenderer shall not be subject to adjustment during the performance of the Contract.</p>
ITT 13.6	<p>Tender Prices</p> <p>Prices indicated in the tender form shall be inclusive of all applicable taxes and insurance.</p>
ITT 14.2	<p>Foreign currency requirements allowed in a freely convertible currency.</p>
ITT 15.4	<p>Period of time the Goods are expected to be functioning (for the purpose of spare parts): <i>[insert duration]</i></p>
ITT 16.2 (a)	<p>Manufacturer's authorization is: <i>required</i></p>
ITT 17.1	<p>The Tender validity period shall be 154 days.</p>
ITT 17.3	<p>(a) The Number of days beyond the expiry of the initial tender validity period will be 30 days.</p>
ITT 18.1	<p>A Tender Security is required for this tender.</p>
ITT 19.3	<p>The written confirmation of authorization to sign on behalf of the Tenderer shall consist of a Notarized Power of Attorney.</p>
	<p>D. Submission and Opening of Tenders</p>
ITT 21.1	<p>For Tender submission purposes only, the Procuring Entity's address is:</p> <p><i>The tender MUST be submitted through our e-procurement platform found at www.kengen.co.ke (https://eprocurement.kengen.co.ke:50001/irj/portal</i></p> <p><i>SUBMISSION OF TENDERS:</i></p> <p>For suppliers registering for the first time using the link https://supplierregistration.kengen.co.ke:4302/slc_selfreg(bD1lbiZjPTMwMCZkPW1pbg==)/bspwdapplication.do#VIEW_ANCHOR-ROS_TOP ensure the "Public Tender" checkbox is ticked so that the login details are sent to suppliers automatically.</p> <div style="text-align: center;">  </div> <p>It is a mandatory requirement all Documents MUST be uploaded to the SRM</p>

	<ul style="list-style-type: none"> Manuals to guide on the bidding process are accessible via the KenGen Tenders Portal.  <p>Bidders to note that system challenges/support related to bid submission issues shall be addressed to eprocurement@kengen.co.ke tender closing date and time.</p> <p>The deadline for Tender submission is:</p> <p>Date and Time: 25th March ,2025 at 10.00 a.m.</p>
ITT 24.1	<p>The Tender opening shall take place at:</p> <p style="text-align: center;">Kenya Electricity Generating Company PLC, 6th Floor, KenGen Pension Plaza II, Kolobot Road, Parklands, P.O. Box 47936, 00100 NAIROBI.</p> <p>Date and time: 25th March,2025 at 10.30 a.m.</p> <p>Bidders can request for the tender opening minutes of the tender opening session through the following email address tenders@kengen.co.ke</p>
ITT 24.6	The number of representatives of the Procuring Entity to sign is 3
	E. Evaluation and Comparison of Tenders
ITT 31.1	Where other currencies are used, the procuring entity shall convert these Currencies to Kenya Shillings using the selling exchange rate on the date of tender closing provided by the Central Bank of Kenya before comparing all the responsive tenders.
ITT 32.3	A margin of preference and/or reservation shall not apply for goods.
ITT 33.2	Price evaluation will be done for lowest evaluated bidder
	F. Award of Contract
	Preliminary Examination
	Tender sum as submitted and read out during tender opening as per the form of tender is absolute and final and shall not be subject to correction, adjustment or amendment.
	Due Diligence
	KenGen may at its own discretion conduct due diligence on the eligible bidders to establish their ability to perform the contract before award of the contract.
	Due diligence will be done on any Manufacturer's authorization submitted.
ITT 47.3	Performance security shall be at 10% of the Contract Price
ITT 49.1	The procedures for making a Procurement-related Complaint are detailed in the "Notice of Intention to Award the Contract" herein and are also available from the PPRA Website www.ppra.go.ke .

SECTION III - EVALUATION AND QUALIFICATION CRITERIA

1. General Provisions

1.1 Wherever a Tenderer is required to state a monetary amount, Tenderers should indicate the Kenya Shilling equivalent using the rate of exchange determined as follows:

a) For business turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year is to be converted) was originally established.

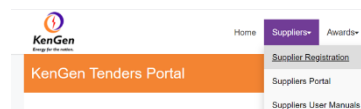
b) Value of single contract - Exchange rate prevailing on the date of the contract signature.

c) Exchange rates shall be taken from the publicly available source identified in **the ITT 14.3**. Any error in determining the exchange rates in the Tender may be corrected by the Procuring Entity.

1.2 This section contains the criteria that the Procuring Entity shall use to evaluate tender and qualify tenderers. No other factors, methods or criteria shall be used other than those specified in this tender document. The Tenderer shall provide all the information requested in the forms included in Section IV, Tendering Forms. The Procuring Entity should use the Standard Tender Evaluation Report for Goods and Works for evaluating Tenders.

REGISTRATION AND BIDDING PROCESS

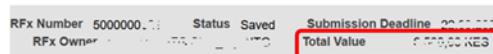
1. For suppliers registering for the first time using the link [https://supplierregistration.kengen.co.ke:4302/slc_selfreg\(bD11biZjPTMwMCZkPW1pbg==\)/bspwdapplication.do#VIEW_ANCHOR-ROS_TOP](https://supplierregistration.kengen.co.ke:4302/slc_selfreg(bD11biZjPTMwMCZkPW1pbg==)/bspwdapplication.do#VIEW_ANCHOR-ROS_TOP) ensure the “Public Tender” checkbox is ticked so that the login details are sent to suppliers automatically.



2. It is a mandatory requirement all Documents MUST be uploaded to the SRM System through the link <https://eprocurement.kengen.co.ke:50001/irj/> portal found on www.kengen.co.ke.



- Prices **MUST** be entered under item tab of the RFx and **MUST** be similar to the prices in the price/BoQ Schedule.



After clicking on the Event Number, then click on Register (for Open tenders), then click on ‘Create Response’, bidders to click on ‘Technical RFx Response’ tab to access the cfolder page to upload your document.

Instructions to Bidders: Caution on Uploading Bid Documents

a. **Preferred Submission Method:** Bidders are advised to use the C-Folder for submitting their tenders. This platform is specifically designed to handle bulky technical bid documents of up to **99MB per file**.

b. Exceeding File Size Limit: In the event that the bid response exceeds the **99MB limit:** ~

i. Bidders should try to compress the **pdf file first to file size less than 99MB** and if compressing doesn't reduce the file size consider option (ii) below.

ii. **Split the documents into two or more** separate files before submission. This ensures the integrity of the tendering process and accurate evaluation of all necessary information.

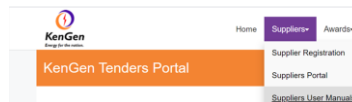
c. Bids uploaded on **“Notes and Attachments Tab”** may have a transmission failure and the bid may not be successfully received through the system and KenGen will not be held accountable for failure to transmit on eProcurement portal.

d. Assistance and Inquiries: For any questions or further assistance, bidders are encouraged to reach out to the team at least 24 hours before submission deadline through eprocurement@kengen.co.ke ; or tenders@kengen.co.ke ; or visit our offices through the Karibu Centre.

- Bidders should confirm on the supplier portal that the status of their RFX response shows “Submitted” and not “Saved” to ensure their RFX response is submitted.

Event Number	Event Description	Event Type	Event Status	Start Date	End Date	Response Number	Response Status
500000	Test Bid Invite to Bidders	Open Tendering	Published		22.09.2024	600000	Saved
500000	Test 4 in sus portal	Open Tendering	Published		15.02.2024	600000	Submitted

- Bidders who have submitted their bids should not click on **WITHDRAW** but click on **EDIT** to amend their bid response with appropriate changes if they desire to do so.
- Manuals to guide on the bidding process are accessible via the KenGen Tenders Portal.



- Bidders to note that **system challenges/support** related to bid submission issues shall be addressed to eprocurement@kengen.co.ke tender closing date and time

2 Evaluation of Tenders (ITT 33)

2.1 Successful Tender or Tenders

The Procuring Entity shall use the criteria and methodologies listed in this Section to evaluate Tenders. By applying these criteria and methodologies, the Procuring Entity shall determine the successful Tender or Tenders which has/have been determined to:

- be substantially responsive to the tender documents;
- offer the lowest evaluated cost to the Procuring Entity for all items of Goods to be procured based on either a single Contract or all multiple Contracts combined, as the case may be, in accordance with the ITT 13.6 inviting Tender prices and discounts, and provisions made of the Tender Document for evaluation of tenders and award of contract (s); and
- be offered by Tenderer or Tenderers that substantially meet the qualification criteria applicable for Contract or combined Contracts for which they are selected.

2.2 Evaluation of Tenders

Preliminary examination for Determination of Responsiveness

The Procuring Entity will start by examining all tenders to ensure they meet in

all respects the eligibility criteria and other mandatory requirements in the ITT, and that the tender is complete in all aspects in meeting the requirements provided for in the preliminary evaluation criteria outlined below. The Standard Tender Evaluation Report Document for Goods and Works for evaluating Tenders provides very clear guide on how to deal with review of these requirements. Tenders that do not pass the Preliminary Examination will be considered non-responsive and will not be considered further.

STAGE 1: MANDATORY REQUIREMENTS

The following mandatory requirements must be met notwithstanding other requirements in the tender document:

No	Requirements
MR 1	Valid copy of Registration Certificate /Certificate of Incorporation.
MR 2	Valid copy of the business permit.
MR 3	Valid tax compliance certificate and Pin Certificate.
MR 4	Copy of a valid CR 12 issued within 6 months of tender closure (where applicable)/Not Applicable to sole Proprietors.
MR 5	Duly filled, signed & stamped Tenderer's Eligibility Confidential Business Questionnaire form
MR 6	Duly filled and signed and stamped tender form.
MR 7	Duly filled and signed and stamped price schedule
MR 8	<p>Tenders must be accompanied by a “Tender Security.”</p> <p>The Original Tender Security of KES 500,000.00 or equivalent in a freely convertible currency, in form of:</p> <ul style="list-style-type: none"> ➤ Tender Security from a reputable bank registered by the Central Bank of Kenya ➤ Guarantee issued by a financial institution approved and licensed by the Central Bank of Kenya. ➤ A guarantee by an insurance company registered and licensed by the Insurance Regulatory Authority listed by the Public Procurement Regulatory Authority. <p>Valid for 30 days beyond the tender validity period. All tender securities submitted shall be subject to authentication by KenGen and MUST be submitted in a plain sealed envelope and marked “KGN-KIP-005-2025- TENDER FOR SUPPLY AND INSTALLATION OF 11KV INDOOR METAL CLAD SWITCHGEAR PANEL & UNDERGROUND CABLE FOR KIPEVU III POWER STATION” and addressed to:</p> <p style="text-align: center;">General Manager, Supply Chain, Kenya Electricity Generating Company PLC, Ground Floor, KenGen Pension Plaza I, Kolobot Road, Parklands, P.O. Box 47936, 00100 NAIROBI.</p> <p><i>The Original Tender Security</i> clearly labeled should be dropped at the tender box located on the Ground Floor at KenGen, KenGen, RBS building.</p>

	<p>E-Tender securities are acceptable subject to:</p> <p>i. Attachment of a scanned copy of the bid document.</p> <p>ii. Submission of the e-security to the address indicated below: ➤ Such E-Security can be verified by use of a Quick Response (QR) code. Such E-Security can be verified via the issuing institution's online portal</p>	
MR 9	Duly filled and stamped Addendum(s) and Clarification(s) issued must be attached (Where Applicable).	
MR 10	The Tender MUST be submitted be in the required format and serialized on each page of the bid submitted, Sec.74.1.i. of the PPADA, 2015.	
MR 11	Tender bids and documents must be submitted through our e-procurement platform found at www.kengen.co.ke (https://eprocurement.kengen.co.ke:50001/irj/portal/)	
MR 12	The tender has been dully signed by the person lawfully authorized to do so through a Tender-Specific Power of Attorney.	
MR 13	All items must be quoted in all the schedule to be considered responsive.	
MR 14	Duly filled signed and stamped Self Declaration form that the tenderer is not debarred in the matter of PPADA 2015.	
MR 15	Duly filled signed and stamped Self Declaration form that the tenderer will not engage in any corrupt or Fraudulent Practice.	
MR 16	<p>Dully filled, signed and stamped stamped Manufacturer's Authorization Letter if not a manufacturer</p> <p>The Manufacturer Authorizations shall be separate for the 11kV Switchgear panel and the 11V Underground Cable even if the manufacturer is the same for both products.</p> <p>The manufacturer's authorization letter to be directly from the manufacturer and not from a third party and should be on official letter head, signed and stamped , and with contacts (email and phone) of the person issuing for verification of validity.</p>	
MR 17	Duly filled, signed and stamped Declaration and Commitment to the Code of Ethics	
MR 18	Duly filled signed and stamped Certificate of Independent Tender Declaration.	
MR 19	Duly filled signed and stamped Tenderer Information Form	
MR 20	<p>Bidder must have conducted the mandatory site at KIPEVU III POWER STATION.</p> <p>Attach duly signed site visit certificate issued at Site.</p>	
MR 21	The audited financial statements by a registered audit firm for the last 3 years shall be submitted to be used to calculate financial ratios	
MR 22	Financial Ratios	<p>Current Ratio 1:1</p> <p>Positive net worth in their audited balance sheet.</p> <p>At least one year out of the recent three years of positive Profit before Tax</p>

221 Evaluation of Technical aspects of the Tender

The Procuring Entity shall evaluate the technical aspects of the Tender to determine compliance with the Procuring Entity's requirements under Section V 'Schedule of Requirement' and whether the Tenders are substantially responsive to the Technical Specifications and other Requirements.

STAGE 2-TECHNICAL EVALUATION ON CAPACITY TO DELIVER THE CONTRACT

Technical evaluation shall be carried out only if the tender is determined to be responsive to the preliminary examination.

Bidder must demonstrate conformance to the all the technical specifications and requirements as per the tender document, and as tabulated below.

No.	CRITERIA PARAMETERS	RESPONSE (YES or NO)
	“Yes” or “Compliant”, only-answers for descriptive responses will be considered non-responsive.	
TR 1	The Bidder must demonstrate conformance to all the technical specifications and requirements through duly filled Schedule I Technical Schedule- 11kV Indoor Metal Clad Switchgear panel.	
TR2	The Bidder must attach the manufacturer warranties for the following equipment: i. Switchgear Panel- Metallic enclosure complete with busbars and earth Switch ii. Circuit Breaker iii. Voltage Transformer iv. Current Transformer v. Multifunction Protection Relay	
TR 3	The Bidder must attach the relevant brochures/Technical Data Sheets for the following: i. Switchgear Panel- Metallic enclosure ii. Busbars iii. Earth switch iv. Circuit Breaker v. Voltage Transformer vi. Current Transformer vii. Multifunction Protection Relay viii. Energy Measurement device ix. Ammeter x. Voltmeter xi. Control devices	
TR 4	Bidder must submit Test Certificates for the following: i. Switchgear Panel- Metallic enclosure complete with busbars and earth switch ii. Circuit Breaker	

	iii. Voltage Transformer iv. Current Transformer v. Multifunction Protection Relay vi. Energy Measurement device vii. Ammeter viii. Voltmeter	
TR 5	Bidder must demonstrate conformance to all the technical specifications and requirements through duly filled Schedule II Technical Schedule- 11kV Underground Cable. “Yes” or “Compliant”, only-answers for descriptive responses will be considered non-responsive.	
TR 6	Bidder must attach the manufacturer warranties for the following equipment: i. 11kV Underground Power cable	
TR 7	Bidder must attach the relevant brochures/Technical Data Sheets for the following: i. 11kV Underground Power cable ii. Cable termination Kit and Management accessories	
TR 8	Bidder must attach Test Certificates for the following: i. 11kV Underground Power cable ii. Cable termination Kit	
TR 9	Bidder to submit a detailed training proposal as per the requirements in the technical schedule	

Consistent with and in addition to the criteria listed in ITT 33.3 and ITT 29.3; and ITT 34 and its subparagraphs the following criteria shall apply:

STAGE 3. FINANCIAL EVALUATION

Financial evaluation shall involve;

- Checking completeness of financial bid.
- Tender sum as submitted and read out during tender opening as per the form of tender is absolute and final and shall not be subject to correction, adjustment, or amendment.
- All prices must be inclusive of all the applicable taxes.
- Award shall be based on the **Total Lowest Evaluated Price** therefore a bidder must quote for the schedules.

STAGE 4. DUE DILIGENCE

KenGen, prior to award of the tender, may conduct due diligence on the recommended bidder to ascertain the information provided in their bid document.

SECTION IV

TENDERING FORMS

Form of Tender

Tenderer Information Form

Tenderer JV Members Information Form

Price Schedule: Goods

Price and Completion Schedule – Related Services

Form of Tender Security – Demand Guarantee

Form of Tender Security (Tender Bond)

Form of Tender-Securing Declaration

Manufacturer’s Authorization Form

FORM OF TENDER
(Amended and issued pursuant to PPRA CIRCULAR No. 02/2022)

INSTRUCTIONS TO TENDERERS

- i) *All italicized text is to help the Tenderer in preparing this form.*
- ii) *The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address. Tenderers are reminded that this is a mandatory requirement.*
- iii) *Tenderer must complete and sign CERTIFICATE OF INDEPENDENT TENDER DETERMINATION and the SELF DECLARATION FORMS OF THE TENDERER as listed under (s) below.*

Date of this Tender submission:.....*[insert date (as day, month and year) of Tender submission]*

Tender Name and Identification:.....*[insert identification]*

Alternative No.:.....*[insert identification No if this is a Tender for an alternative]*

To: *[Insert complete name of Procuring Entity]*

- a) **No reservations:** We have examined and have no reservations to the Tendering document, including Addenda issued in accordance with Instructions to tenderers (ITT 7);
- b) **Eligibility:** We meet the eligibility requirements and have no conflict of interest in accordance with ITT 3;
- c) **Tender/Proposal-Securing Declaration:** We have not been suspended nor declared ineligible by the Procuring Entity based on execution of a Tender-Securing Declaration. Or Proposal-Securing Declaration in Kenya in accordance with ITT 3.6;
- d) **Conformity:** We offer to supply in conformity with the Tendering document and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods: *[insert a brief description of the Goods and Related Services];*

e) **Tender Price:** The total price of our Tender, excluding any discounts offered in item (f) below is:
Option 1, in case of one lot: Total price is: *[insert the total price of the Tender in words and figures, indicating the various amounts and the respective currencies];*

or

Option 2, in case of multiple lots: (a) Total price of each lot *[insert the total price of each lot in words and figures, indicating the various amounts and the respective currencies];* and (b) Total price of all lots (sum of all lots) *[insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies];*

- f) **Discounts:** The discounts offered and the methodology for their application are:
- i) The discounts offered are: *[Specify in detail each discount offered.]*
- ii) The exact method of calculations to determine the net price after application of discounts are shown below: *[Specify in detail the method that shall be used to apply the discounts];*

g) **Tender Validity Period:** Our Tender shall be valid for the period specified in TDS 17.1 (as

amended, if applicable) from the date fixed for the Tender submission deadline specified in TDS 21.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

- h) **Performance Security:** If our Tender is accepted, we commit to obtain a performance security in accordance with the Tendering document;
- i) **One Tender per tenderer:** We are not submitting any other Tender(s) as an individual tenderer, and we are not participating in any other Tender(s) as a Joint Venture member, or as a subcontractor, and meet the requirements of ITT 3.9, other than alternative Tenders submitted in accordance with ITT 12;
- j) **Suspension and Debarment:** We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the Procuring Entity. Further, we are not ineligible under the Kenya laws or official regulations or pursuant to a decision of the United Nations Security Council;
- k) **State-owned enterprise or institution:** *[select the appropriate option and delete the other] [We are not a state- owned enterprise or institution] / [We are a state-owned enterprise or institution but meet the requirements of ITT 3.7];*
- l) **Commissions, gratuities, fees:** We have paid, or will pay the following commissions, gratuities, or fees with respect to the Tendering process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]*

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate “none.”)

- m) **Binding Contract:** We understand that this Tender, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- n) **Procuring Entity Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Tender, the Best Evaluated Tender or any other Tender that you may receive; and
- o) **Fraud and Corruption:** We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption.
- p) **Code of Ethical Conduct:** We undertake to adhere by the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal, copy available from _____ (*specify website*) during the procurement process and the execution of any resulting contract.
- q) **Collusive practices:** We hereby certify and confirm that the tender is genuine, non-collusive and made with the intention of accepting the contract if awarded. To this effect we have signed the “Certificate of Independent tender Determination” attached below.
- r) **Beneficial Ownership Information:** We commit to provide to the procuring entity the Beneficial

Ownership Information in conformity with the Beneficial Ownership Disclosure Form upon receipt of notification of intention to enter into a contract in the event we are the successful tenderer in this subject procurement proceeding.

- s) We, the Tenderer, have duly completed, signed and stamped the following Forms as part of our Tender:
- a) Tenderer's Eligibility; Confidential Business Questionnaire – to establish we are not in any conflict to interest;
 - b) Certificate of Independent Tender Determination – to declare that we completed the tender without colluding with other tenderers;
 - c) Self-Declaration of the Tenderer – to declare that we will, if awarded a contract, not engage in any form of fraud and corruption; and
 - d) Declaration and Commitment to the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal.

Further, we confirm that we have read and understood the full content and scope of fraud and corruption as informed in “**Appendix 1- Fraud and Corruption**” attached to the Form of Tender.

Name of the tenderer: **[insert complete name of the tenderer]*

Name of the person duly authorized to sign the Tender on behalf of the tenderer: ***[insert complete name of person duly authorized to sign the Tender]*

Title of the person signing the Tender: *[insert complete title of the person signing the Tender]*

Signature of the person named above:*[insert signature of person whose name and capacity are shown above]*

Date signed *[insert date of signing]* **day of** *[insert month]*, *[insert year]*

***:** In the case of the Tender submitted by a Joint Venture specify the name of the Joint Venture as tenderer.

****:** Person signing the Tender shall have the power of attorney given by the tenderer. The power of attorney shall be attached with the Tender Schedules.

CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, the undersigned, in submitting the accompanying Letter of Tender to the _____

[Name of Procuring Entity] for: _____

[Name and number of tender] in response to the request for tenders made by: _____

[Name of Tenderer] do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of _____

[Name of Tenderer] that:

1. I have read and I understand the contents of this Certificate;
2. I understand that the Tender will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am the authorized representative of the Tenderer with authority to sign this Certificate, and to submit the Tender on behalf of the Tenderer;
4. For the purposes of this Certificate and the Tender, I understand that the word "competitor" shall include any individual or organization, other than the Tenderer, whether or not affiliated with the Tenderer, who:
 - a) has been requested to submit a Tender in response to this request for tenders;
 - b) could potentially submit a tender in response to this request for tenders, based on their qualifications, abilities or experience;
5. The Tenderer discloses that [check one of the following, as applicable]:
 - a) The Tenderer has arrived at the Tender independently from, and without consultation, communication, agreement or arrangement with, any competitor;
 - b) the Tenderer has entered into consultations, communications, agreements or arrangements with one or more competitors regarding this request for tenders, and the Tenderer discloses, in the attached document(s), complete details thereof, including the names of the competitors and the nature of, and reasons for, such consultations, communications, agreements or arrangements;
6. In particular, without limiting the generality of paragraphs (5)(a) or (5)(b) above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - a) prices;
 - b) methods, factors or formulas used to calculate prices;
 - c) the intention or decision to submit, or not to submit, a tender; or
 - d) the submission of a tender which does not meet the specifications of the request for Tenders; except as specifically disclosed pursuant to paragraph (5)(b) above;
7. In addition, there has been no consultation, communication, agreement or arrangement with any competitor regarding the quality, quantity, specifications or delivery particulars of the works or services to which this request for tenders relates, except as specifically

authorized by the procuring authority or as specifically disclosed pursuant to paragraph (5)(b) above;

8. the terms of the Tender have not been, and will not be, knowingly disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening, or of the awarding of the Contract, whichever comes first, unless otherwise required by law or as specifically disclosed pursuant to paragraph (5)(b) above.

Name

Title

Date

[Name, title and signature of authorized agent of Tenderer and Date]

SELF-DECLARATION FORMS

FORM SD1

SELF DECLARATION THAT THE PERSON/TENDERER IS NOT DEBARRED IN THE MATTER OF THE PUBLIC PROCUREMENT AND ASSET DISPOSAL ACT 2015.

I of Post Office Box.....being a resident of in the Republic of.....do hereby make a statement as follows:-

1. THAT I am the Company Secretary/ Chief Executive/Managing Director/Principal Officer/Director of (*insert name of the Company*) who is a Bidder in respect of **Tender No.** for..... (*insert tender title/description*) for..... (*insert name of the Procuring entity*) and duly authorized and competent to make this statement.
2. THAT the aforesaid Bidder, its Directors and subcontractors have not been debarred from participating in procurement proceeding under Part IV of the Act.
3. THAT what is deponed to herein above is true to the best of my knowledge, information and belief.

.....
(Title)	(Signature)	(Date)
Bidder Official Stamp		

FORM SD2

SELF DECLARATION THAT THE PERSON/TENDERER WILL NOT ENGAGE IN ANY CORRUPT OR FRAUDULENT PRACTICE

I, of P.O. Box.....being a resident of..... in the Republic of do hereby make a statement as follows:-

1. THAT I am the Chief Executive/Managing Director/Principal Officer/Director of..... *(insert name of the Company)* who is a Bidder in respect of **Tender No.** for..... *(Insert tender title/description)* for..... *(insert name of the Procuring entity)* and duly authorized and competent to make this statement.
2. THAT the aforesaid Bidder, its servants and/or agents /subcontractors will not engage in any corrupt or fraudulent practice and has not been requested to pay any inducement to any member of the Board, Management, Staff and/or employees and/or agents of*(insert name of the Procuring entity)* which is the procuring entity.
3. THAT the aforesaid Bidder, its servants and/or agents /subcontractors have not offered any inducement to any member of the Board, Management, Staff and/or employees and/or agents of*(name of the procuring entity)*.
4. THAT the aforesaid Bidder will not engage/has not engaged in any corrosive practice with other bidders participating in the subject tender.
5. THAT what is deponed to herein above is true to the best of my knowledge information and belief.

.....
(Title)	(Signature)	(Date)
Bidder Official Stamp		

FORMAT OF POWER OF ATTORNEY

We..... (name and address of the registered office) do hereby constitute, appoint and authorize Mr. / Mrs. / Ms (name and residential address) who is presently employed with us and holding the position of as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our proposal for the project/goods/works/services“.....”, including signing and submission of all documents and providing information / responses to the Kenya Electricity Generating Company PLC, ("KenGen"), representing us in all matters before KenGen, and generally dealing with KenGen in all matters in connection with our Proposal for the said project/goods/works/services.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us

..... (Signature) (Name, Title and Address) Accepted

..... (Signature) (Name, Title and Address of the Attorney)

DECLARATION AND COMMITMENT TO THE CODE OF ETHICS

I..... (Person) on behalf of
(Name of the Business/ Company/Firm).....declare that I
have read and fully understood the contents of the Public Procurement & Asset Disposal
Act, 2015, Regulations and the Code of Ethics for persons participating in Public Procurement
and Asset Disposal and my responsibilities under the Code.

I do hereby commit to abide by the provisions of the Code of Ethics for persons participating
in Public Procurement and Asset Disposal.

Name of Authorized signatory.....

Sign.....

Position.....

.

Office address..... Telephone.....

E-mail.....

Name of the Firm /Company.....

Date.....

(Company Seal/Rubber Stamp where applicable)

Witness

Name

Sign.....

Date.....

...

APPENDIX 1- FRAUD AND CORRUPTION

1. Purpose

- 1.1 The Government of Kenya's Anti-Corruption and Economic Crime laws and their sanction's policies and procedures, Public Procurement and Asset Disposal Act (*no. 33 of 2015*) and its Regulation, and any other Kenya's Acts or Regulations related to Fraud and Corruption, and similar offences, shall apply with respect to Public Procurement Processes and Contracts that are governed by the laws of Kenya.

2. Requirements

- 2.1 The Government of Kenya requires that all parties including Procuring Entities, Tenderers, (applicants/proposers), Consultants, Contractors and Suppliers; any Sub-contractors, Sub-consultants, Service providers or Suppliers; any Agents (whether declared or not); and any of their Personnel, involved and engaged in procurement under Kenya's Laws and Regulation, observe the highest standard of ethics during the procurement process, selection and contract execution of all contracts, and refrain from Fraud and Corruption and fully comply with Kenya's laws and Regulations as per paragraphs 1.1 above.
- 2.2 Kenya's public procurement and asset disposal act (*no. 33 of 2015*) under Section 66 describes rules to be followed and actions to be taken in dealing with Corrupt, Coercive, Obstructive, Collusive or Fraudulent practices, and Conflicts of Interest in procurement including consequences for offences committed. A few of the provisions noted below highlight Kenya's policy of no tolerance for such practices and behavior:
- 1) a person to whom this Act applies shall not be involved in any corrupt, coercive, obstructive, collusive or fraudulent practice; or conflicts of interest in any procurement or asset disposal proceeding;
 - 2) A person referred to under subsection (1) who contravenes the provisions of that subsection commits an offence;
 - 3) Without limiting the generality of the subsection (1) and (2), the person shall be—
 - a) disqualified from entering into a contract for a procurement or asset disposal proceeding; or
 - b) if a contract has already been entered into with the person, the contract shall be voidable;
 - 4) The voiding of a contract by the procuring entity under subsection (7) does not limit any legal remedy the procuring entity may have;
 - 5) An employee or agent of the procuring entity or a member of the Board or committee of the procuring entity who has a conflict of interest with respect to a procurement:-
 - a) shall not take part in the procurement proceedings;
 - b) shall not, after a procurement contract has been entered into, take part in any decision relating to the procurement or contract; and
 - c) shall not be a subcontractor for the bidder to whom was awarded contract, or a member of the group of bidders to whom the contract was awarded, but the subcontractor appointed shall meet all the requirements of this Act.
 - 6) An employee, agent or member described in subsection (1) who refrains from doing anything prohibited under that subsection, but for that subsection, would have been within his or her duties shall disclose the conflict of interest to the procuring entity;
 - 7) If a person contravenes subsection (1) with respect to a conflict of interest described in subsection (5)(a) and the contract is awarded to the person or his relative or to another person in whom one of them had a direct or indirect pecuniary interest, the contract shall be terminated and all costs incurred by the public entity shall be made good by the awarding officer. Etc.
- 2.3 In compliance with Kenya's laws, regulations and policies mentioned above, the Procuring Entity:
- a) Defines broadly, for the purposes of the above provisions, the terms set forth below as

follows:

- i) “corrupt practice” is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
- ii) “fraudulent practice” is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
- iii) “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
- iv) “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- v) “obstructive practice” is:
 - deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede investigation by Public Procurement Regulatory Authority (PPRA) or any other appropriate authority appointed by Government of Kenya into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - acts intended to materially impede the exercise of the PPRA's or the appointed authority's inspection and audit rights provided for under paragraph 2.3 e. below.
- b) Defines more specifically, in accordance with the above procurement Act provisions set forth for fraudulent and collusive practices as follows:

"fraudulent practice" includes a misrepresentation of fact in order to influence a procurement or disposal process or the exercise of a contract to the detriment of the procuring entity or the tenderer or the contractor, and includes collusive practices amongst tenderers prior to or after tender submission designed to establish tender prices at artificial non-competitive levels and to deprive the procuring entity of the benefits of free and open competition.
- c) Rejects a proposal for award¹ of a contract if PPRA determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- d) Pursuant to the Kenya's above stated Acts and Regulations, may sanction or debar or recommend to appropriate authority (ies) for sanctioning and debarment of a firm or individual, as applicable under the Acts and Regulations;
- e) Requires that a clause be included in Tender documents and Request for Proposal documents requiring (i) Tenderers (applicants/proposers), Consultants, Contractors, and Suppliers, and their Sub-contractors, Sub-consultants, Service providers, Suppliers, Agents personnel, permit the PPRA or any other appropriate authority appointed by Government of Kenya to inspect² all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the PPRA or any other appropriate authority appointed by Government of Kenya; and
- f) Pursuant to Section 62 of the above Act, requires Applicants/Tenderers to submit along with their Applications/Tenders/Proposals a “Self-Declaration Form” as included in the procurement document declaring that they and all parties involved in the procurement process and contract execution have not engaged/will not engage in any corrupt or fraudulent practices.

TENDERER INFORMATION FORM

[The tenderer shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: *[insert date (as day, month and year) of Tender submission]*

Tender Name and Identification: *[Insert identification]*

Alternative No.: *[insert identification No if this is a Tender for an alternative]*

Page _____ of _____ pages

1. Tenderer's Name <i>[insert Tenderer's legal name]</i>
2. In case of JV, legal name of each member: <i>[insert legal name of each member in JV]</i>
3. Tenderer's actual or intended country of registration: <i>[insert actual or intended country of registration]</i>
4. Tenderer's year of registration: <i>[insert Tenderer's year of registration]</i>
5. Tenderer's Address in country of registration: <i>[insert Tenderer's legal address in country of registration]</i>
6. Tenderer's Authorized Representative Information Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[insert Authorized Representative's email address]</i>
7. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i> <input type="checkbox"/> For Kenyan Tenderers a current tax clearance certificate or tax exemption certificate issued by the Kenya Revenue Authority in accordance with ITT 3.14. <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITT 3.4. <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITT 3.1. <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITT 4.6 documents establishing: (i) Legal and financial autonomy (ii) Operation under commercial law (iii) Establishing that the tenderer is not under the supervision of the Procuring Entity 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

TENDERER’S ELIGIBILITY- CONFIDENTIAL BUSINESS QUESTIONNAIRE FORM

a) Instruction to Tenderer

Tender is instructed to complete the particulars required in this Form, *one form for each entity if Tender is a JV*. Tenderer is further reminded that it is an offence to give false information on this Form.

A. Tenderer’s details

	ITEM	DESCRIPTION
1	Name of the Procuring Entity	
2	Name of the Tenderer	
3	Full Address and Contact Details of the Tenderer.	1. Country 2. City 3. Location 4. Building 5. Floor 6. Postal Address 7. Name and email of contact person.
4	Reference Number of the Tender	
5	Date and Time of Tender Opening	
6	Current Trade License No and Expiring date	
7	Maximum value of business which the Tenderer handles.	
8		

General and Specific Details

b) Sole Proprietor, provide the following details.

Name in full _____

Age _____

Nationality _____

Country of Origin _____

Citizenship _____

c) Partnership, provide the following details.

	Names of Partners	Nationality	Citizenship	% Shares owned

--	--	--	--	--

(d) Registered Company, provide the following details.

i) Private or public Company _____

ii) State the nominal and issued capital of the Company-

Nominal Kenya Shillings (Equivalent)

Issued Kenya Shillings (Equivalent)

iii) Give details of Directors as follows.

	Names of Director	Nationality	Citizenship	% Shares owned
1				
2				
3				

(e) DISCLOSURE OF INTEREST- Interest of the Firm in the Procuring Entity.

(i) Are there any person/persons in (*Name of Procuring Entity*) who has an interest or relationship in this firm? Yes/No.....

If yes, provide details as follows.

	Names of Person	Designation in the Procuring Entity	Interest or Relationship with Tenderer
1			
2			
3			

(ii) Conflict of interest disclosure

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
1	Tenderer is directly or indirectly controlled by or is under common control with another tenderer.		
2	Tenderer receives or has received any direct or indirect subsidy from another tenderer.		
3	Tenderer has the same legal representative as another tenderer		
4	Tender has a relationship with another tenderer, directly or through common third parties that puts it in a position to influence the tender of another tenderer, or influence the decisions of the Procuring Entity regarding this tendering process.		
5	Any of the Tenderer's affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the tender.		
6	Tenderer would be providing		

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
	goods, works, non-consulting services or consulting services during implementation of the contract specified in this Tender Document.		
7	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract.		
8	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who would be involved in the implementation or supervision of the Contract.		
9	Has the conflict stemming from such relationship stated in item 7 and 8 above been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract?		

(f) Certification

On behalf of the Tenderer, I certify that the information given above is correct.

Full Name _____

Title or Designation _____

(Signature)

(Date)

TENDERER'S JV MEMBERS INFORMATION FORM

[The tenderer shall fill in this Form in accordance with the instructions indicated below. The following table shall be filled in for the tenderer and for each member of a Joint Venture]].

Date:.....*[insert date (as day, month and year) of Tender submission].*

Tender Name and Identification:.....*[insert identification*

Alternative No.:.....*[insert identification No if this is a Tender for an alternative].*

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1.Tenderer's Name: <i>[insert Tenderer's legal name]</i>
2.Tenderer's JV Member's name: <i>[insert JV's Member legal name]</i>
3. Tenderer's JV Member's country of registration: <i>[insert JV's Member country of registration]</i>
4.Tenderer's JV Member's year of registration: <i>[insert JV's Member year of registration]</i>
5.Tenderer's JV Member's legal address in country of registration: <i>[insert JV's Member legal address in country of registration]</i>
6.Tenderer's JV Member's authorized representative information Name: <i>[insert name of JV's Member authorized representative]</i> Address: <i>[insert address of JV's Member authorized representative]</i> Telephone/Fax numbers: <i>[insert telephone/fax numbers of JV's Member authorized representative]</i> Email Address: <i>[insert email address of JV's Member authorized representative]</i>
7. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITT 4.4. <input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Procuring Entity, in accordance with ITT 4.6.
8. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

PRICE SCHEDULE FORMS

The tenderer shall fill in these Price Schedule Forms in accordance with the instructions indicated. The list of line items in column 1 of the Price Schedules shall coincide with the List of Goods and Related Services specified by the Procuring Entity in the Schedule of Requirements.]

Price Schedule I: 11kV Indoor Metal Clad Switchgear Panel

No.	Item	UoM	QTY	Unit Price (Indicate Currency)	Total Price (Indicate Currency)
1.	11kV Metal Clad Switchgear Panel complete with Circuit Breaker, Busbars, Earth switch, Control, Protection and Measurement devices and all necessary Accessories	Set	1		
2.	Installation, Test and commissioning 11kV Metal Clad Switchgear Panel complete with Circuit Breaker, Earth switch, Control, Protection and Measurement devices and all necessary Accessories.	Au	1		
3.	Factory and Site Training on 11kV Metal Clad Switchgear Panel	Au	1		
	SUB-TOTAL				
	CURRENCY				
	Discount (if any)				
	VAT at 16%				
	TOTAL COST TO KIPEVU III STATION DDP (Delivered Duty Paid				
	CURRENCY				
	Country of Origin				
	Delivery Period				

TENDERER'S NAME: _____

TENDERER'S SIGNATURE: _____

COMPANY'S RUBBER STAMP: _____ DATE: _____

DELIVERY PERIOD: _____

Price Schedule II: 11kV Underground Cable

No	Item	UoM	QTY	Unit Price (Indicate Currency)	Total Price (Indicate Currency)
1.	11kV Underground Armoured 3-core 150mm ² cable	m	1000		
2.	Cable termination Kit and management accessories	Lot	1		
3.	Installation, Test and commissioning 11kV Underground Armoured 3-core cable	Au	1		
SUB-TOTAL					
CURRENCY					
Discount (if any)					
VAT at 16%					
TOTAL COST TO KIPEVU III STATION DDP (Delivered Duty Paid)					
CURRENCY					
Country of Origin					
Delivery Period					

TENDERER'S NAME: _____

TENDERER'S SIGNATURE: _____

COMPANY'S RUBBER STAMP: _____

DATE: _____

DELIVERY PERIOD: _____

Price Schedule III: Switchgear panel parts

No	Item	UoM	QTY	Unit Price (Indicate Currency)	Total Price (Indicate Currency)
1.	Circuit breaker closing coils	pc	2		
2.	Circuit breaker tripping coils	pc	2		
3.	Indication lamps (One for each type)	pc	3		
4.	Control relays- used in the Low voltage compartment (complete with their connection bases)	pc	2		
5.	Digital Voltmeter	pc	1		
6.	Digital Ammeter	pc	1		
	SUB-TOTAL				
	CURRENCY				
	Discount (if any)				
	VAT at 16%				
	TOTAL COST TO KIPEVU III STATION DDP (Delivered Duty Paid)				
	CURRENCY				
	Country of Origin				
	Delivery Period				

TENDERER'S NAME: _____

TENDERER'S SIGNATURE: _____

COMPANY'S RUBBER STAMP: _____

DATE: _____

DELIVERY PERIOD: _____

Price Schedule IV: Tender Price Summary

No.	Description	Total Price
1.	Schedule I: Price Schedule for 11kV Indoor Metal Clad Switchgear Panel	
2.	Schedule II: Price Schedule for 11kV Underground Cable	
3.	Schedule III: Price Schedule for Parts	
	GRAND TOTAL, DDP KIPEVU III POWER STATION (Inclusive of all taxes)	
	CURRENCY	

TOTALS TO BE CARRIED TO THE FORM OF TENDER.

TENDERER'S NAME: _____

TENDERER'S SIGNATURE: _____

COMPANY'S RUBBER STAMP: _____ DATE: _____

DELIVERY PERIOD: _____

FORM OF TENDER SECURITY-[Option 1–Demand Bank Guarantee]

Beneficiary: _____

Request for Tenders No:

Date: _____

TENDER GUARANTEE No.: _____

Guarantor: _____

1. We have been informed that _____ (here inafter called "the Applicant") has submitted or will submit to the Beneficiary its Tender (here inafter called" the Tender") for the execution of _____ under Request for Tenders No. ("the ITT").
2. Furthermore, we understand that, according to the Beneficiary's conditions, Tenders must be supported by a Tender guarantee.
3. At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ () upon receipt by us of the Beneficiary's complying demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Applicant:
 - (a) has withdrawn its Tender during the period of Tender validity set forth in the Applicant's Letter of Tender ("the Tender Validity Period"), or any extension thereto provided by the Applicant; or
 - b) having been notified of the acceptance of its Tender by the Beneficiary during the Tender Validity Period or any extension there to provided by the Applicant, (i) has failed to execute the contract agreement, or (ii) has failed to furnish the Performance.
4. This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) thirty days after the end of the Tender Validity Period.
5. Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

[signature(s)]

FORMAT OF TENDER SECURITY [Option 2–Insurance Guarantee]

TENDER GUARANTEE No.: _____

1. Whereas [*Name of the tenderer*] (hereinafter called “the tenderer”) has submitted its tender dated [*Date of submission of tender*] for the [*Name and/or description of the tender*] (hereinafter called “the Tender”) for the execution of ___ under Request for Tenders No. _____ (“the ITT”).
2. KNOW ALL PEOPLE by these presents that WE of [**Name of Insurance Company**] having our registered office at (hereinafter called “the Guarantor”), are bound unto [*Name of Procuring Entity*] (hereinafter called “the Procuring Entity”) in the sum of (Currency and guarantee amount) for which payment well and truly to be made to the said Procuring Entity, the Guarantor binds itself, its successors and assigns, jointly and severally, firmly by these presents.

Sealed with the Common Seal of the said Guarantor this ___ day of _____ 20 ___.

3. NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Applicant:
 - a) has withdrawn its Tender during the period of Tender validity set forth in the Principal's Letter of Tender (“the Tender Validity Period”), or any extension thereto provided by the Principal; or
 - b) having been notified of the acceptance of its Tender by the Procuring Entity during the Tender Validity Period or any extension thereto provided by the Principal; (i) failed to execute the Contract agreement; or (ii) has failed to furnish the Performance Security, in accordance with the Instructions to tenderers (“ITT”) of the Procuring Entity's Tendering document.

then the guarantee undertakes to immediately pay to the Procuring Entity up to the above amount upon receipt of the Procuring Entity's first written demand, without the Procuring Entity having to substantiate its demand, provided that in its demand the Procuring Entity shall state that the demand arises from the occurrence of any of the above events, specifying which event(s) has occurred.

4. This guarantee will expire: (a) if the Applicant is the successful Tenderer, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security and, or (b) if the Applicant is not the successful Tenderer, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the Tendering process; or (ii) twenty-eight days after the end of the Tender Validity Period.
5. Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

[Date]

[Witness]

[Signature of the Guarantor]

[Seal]

FORM OF TENDER-SECURING DECLARATION

[The Bidder shall complete this Form in accordance with the instructions indicated]

Date:.....*[insert date (as day, month and year) of Tender Submission]*

Tender No.:..... *[Insert number of tendering process]*

To:.....*[insert complete name of*

Purchaser] I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Tender-Securing Declaration.
2. I/We accept that I/we will automatically be suspended from being eligible for tendering in any contract with the Purchaser for the period of time of*[Two years]* starting on*[Closing date]*, if we are in breach of our obligation(s) under the bid conditions, because we – (a) have withdrawn our tender during the period of tender validity specified by us in the Tendering Data Sheet; or (b) having been notified of the acceptance of our Bid by the Purchaser during the period of bid validity, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the instructions to tenders.
3. I/We understand that this Tender Securing Declaration shall expire if we are not the successful Tenderer(s), upon the earlier of:
 - a) our receipt of a copy of your notification of the name of the successful Tenderer; or
 - b) thirty days after the expiration of our Tender.
4. I/We understand that if I am/we are/in a Joint Venture, the Tender Securing Declaration must be in the name of the Joint Venture that submits the bid, and the Joint Venture has not been legally constituted at the time of bidding, the Tender Securing Declaration shall be in the names of all future partners as named in the letter of intent.

Signed:.....
.....

Capacity / title (director or partner or sole proprietor, etc.)
.....

Name:

Duly authorized to sign the bid for and on behalf of:*[insert complete name of Tenderer]*. Dated on day of.....

[Insert date of signing].

Seal or stamp.

MANUFACTURER’S AUTHORIZATION FORM

[The tenderer shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The tenderer shall include it in its Tender, if so indicated in the TDS.]

Date:.....*[insert date (as day, month and year) of Tender submission]*

ITT No.:.....*[insert number of ITT process]*

Alternative No.:.....*[insert identification No if this is a Tender for an alternative]*

To: *[Insert complete name of Procuring Entity]*

WHEREAS

We..... *[insert complete name of Manufacturer]*, who are official manufacturers of.....*[insert type of goods manufactured]*, having factories at *[insert full address of Manufacturer's factories]*, do hereby authorize *[insert complete name of tenderer]* to submit a Tender the purpose of which is to provide the following Goods, manufactured by us..... *[insert name and or brief description of the Goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 28 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed:..... *[Insert signature(s) of authorized representative(s) of the Manufacturer]*

Name:.....*[Insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title:..... *[Insert title]*

Dated on ____ day of _____, _____ *[insert date of signing]*

PART 2: SUPPLY AND WORKS REQUIREMENTS

SECTION V - SCHEDULE OF REQUIREMENTS

Notes for Preparing the Schedule of Requirements

The Schedule of Requirements shall be included in the Tendering document by the Procuring Entity, and shall cover, at a minimum, a description of the goods and services to be supplied and the delivery schedule.

The objective of the Schedule of Requirements is to provide sufficient information to enable tenderers to prepare their Tenders efficiently and accurately, in particular, the Price Schedule, for which a form is provided in Section IV. In addition, the Schedule of Requirements, together with the Price Schedule, should serve as a basis in the event of quantity variation at the time of award of contract pursuant to ITT 42.1.

The date or period for delivery should be carefully specified, taking into account (a) the implications of delivery terms stipulated in the Instructions to tenderers pursuant to the Incoterms rules that “delivery” takes place when goods are delivered to the final place of delivery, and (b) the date prescribed herein from which the Procuring Entity's delivery obligations start (i.e., notice of award, contract signature, opening or confirmation of the letter of credit).

Technical Specifications

- 1.1 The purpose of the Technical Specifications (TS), is to define the technical characteristics of the Goods and Related Services required by the Procuring Entity. The Procuring Entity shall prepare the detailed TS consider that:

- i) The TS constitute the benchmarks against which the Procuring Entity will verify the technical responsiveness of Tenders and subsequently evaluate the Tenders. Therefore, well-defined TS will facilitate preparation of responsive Tenders by tenderers, as well as examination, evaluation, and comparison of the Tenders by the Procuring Entity.
 - ii) The TS shall require that all goods and materials to be incorporated in the goods be new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided for otherwise in the contract.
 - iii) The TS shall make use of best practices. Samples of specifications from successful similar procurements in the same country or sector may provide a sound basis for drafting the TS.
 - iv) The PPRA encourages the use of metric units.
 - v) Standardizing technical specifications may be advantageous, depending on the complexity of the goods and the repetitiveness of the type of procurement. Technical Specifications should be broad enough to avoid restrictions on workmanship, materials, and equipment commonly used in manufacturing similar kinds of goods.
 - vi) Standards for equipment, materials, and workmanship specified in the Tendering document shall not be restrictive. Recognized international standards should be specified as much as possible. Reference to brand names, catalogue numbers, or other details that limit any materials or items to a specific manufacturer should be avoided as far as possible. Where unavoidable, such item description should always be followed by the words “or substantially equivalent.” When other particular standards or codes of practice are referred to in the TS, whether from the Procuring Entity's or from other eligible countries, a statement should follow other authoritative standards that ensure at least a substantially equal quality, then the standards mentioned in the TS will also be acceptable.
 - vii) Reference to brand names and catalogue numbers should be avoided as far as possible; where unavoidable the words “or at least equivalent” shall always follow such references.
 - viii) Technical Specifications shall be fully descriptive of the requirements in respect of, but not limited to, the following:
 - a) Standards of materials and workmanship required for the production and manufacturing of the Goods.
 - b) Any sustainable procurement technical requirements shall be clearly specified.
- 1.2 To encourage tenderers' innovation in addressing sustainable procurement requirements, as long as the Tender evaluation criteria specify the mechanism for monetary adjustments for the purpose of Tender comparisons, tenderers may be invited to offer Goods that exceeds the specified minimum sustainable procurement requirements.
- i) Detailed tests required (type and number).
 - ii) Other additional work and/or Related Services required to achieve full delivery/completion.
 - iii) Detailed activities to be performed by the Supplier, and participation of the Procuring Entity thereon.

- iv) List of detailed functional guarantees covered by the Warranty and the specification of the liquidated damages to be applied in the event that such guarantees are not met.

1.3 The TS shall specify all essential technical and performance characteristics and requirements, including guaranteed or acceptable maximum or minimum values, as appropriate. Whenever necessary, the Procuring Entity shall include an additional ad-hoc Tendering form (to be an Attachment to the Letter of Tender), where the tenderer shall provide detailed information on such technical performance characteristics in respect to the corresponding acceptable or guaranteed values

1.4 When the Procuring Entity requests that the tenderer provides in its Tender a part or all of the Technical Specifications, technical schedules, or other technical information, the Procuring Entity shall specify in detail the nature and extent of the required information and the manner in which it has to be presented by the tenderer in its Tender.

1.5 If a summary of the Technical Specifications (TS) has to be provided, the Procuring Entity shall insert information in the table below. The tenderer shall prepare a similar table to justify compliance with the requirements.

Summary of Technical Specifications: The Goods and Related Services shall comply with following Technical Specifications and Standards:

1. SUPPLY, INSTALL, TEST AND COMMISSIONING 11KV INDOOR METAL CLAD SWITCHGEAR PANEL AND 11KV UNDERGROUND CABLE FOR KIPEVU III POWER STATION

1.1 General Introduction

KenGen wishes to interconnect Kipevu III Power Station medium voltage busbar to the Kipevu I Power Station medium voltage busbar at 11kV. The medium voltage busbars located at the respective Medium Voltage Switchgear Rooms are the connection points for the Station transformers supplying the respective station loads. KenGen intends to interconnect the two medium voltage busbars to ensure supply of station loads between the stations. To achieve this KenGen intends to procure 11kV switchgear panel as per Schedule I and an underground 11kV cable as per Schedule II.

1.2 General Scope

The scope of the works shall include:

1.2.1 The supply, installation, testing and commissioning of one (1) 11kV Indoor Metal Clad Switchgear Panel at Kipevu III Power station.

- a) The 11kV indoor switchgear shall be supplied complete with vacuum circuit breaker, Integral earth Switch, Busbars, control, protection and measurement devices.
- b) The 11kV switchgear panel shall be integrated with the existing 11kV indoor switchgear board at Kipevu III Power station thorough extension of the medium voltage busbars.
- c) The contractor shall also arrange for Factory Acceptance Tests which the client technical staff shall witness for the switchgear equipment as per the technical specifications herein the tender document.
- d) The contractor shall carry out training on switchgear maintenance and on the protection relay to be provided.

1.2.2 The scope of the works shall include the supply, installation, testing and commissioning of 11kV armored 3-core 150mm² XLPE underground cable. The cable shall be interconnecting the medium voltage (11kV) busbar at Kipevu III Power Station and Kipevu I Power Station Medium voltage (11kV) busbar. The distance between the two busbars is approximately 1km (it is the responsibility of the contractor to confirm the actual distance at site during site visit).

Tender for Supply and Installation of 11KV Indoor Metal Clad Switchgear Panel & Underground Cable for Kipevu III Power Station

- a) The cable will be laid in trenches underground that will be as straight as possible avoiding sharp bends. The areas where trenches are to be excavated will be marked clearly on the ground. If the location of other services is known, they will be marked to take necessary precautions. Before construction commences, trial pits will be made to confirm the soil strata of the planned trenches and to confirm the location of other services. Safety precautions such as covering the trench, fencing, and warning signs will have to be provided during the period of work.
- b) When designing the plan for the trench layout, the minimum bending radii as per clause 3.7.1 shall be adhered to.
- c) Backfilling the trenching to the satisfaction of engineer shall be done. The contractor shall terminate the cable at both ends i.e. 11kV busbar at Kipevu III Medium Voltage Switch Gear Room and at the Kipevu I Medium Voltage Switchgear Room.
- d) The contractor shall carry out Commissioning tests on the new cable.

2. SCHEDULE I: SUPPLY, INSTALL, TEST AND COMMISSIONING 11KV INDOOR METAL CLAD SWITCHGEAR PANEL AT KIPEVU III POWER STATION

2.1 Introduction

KenGen wishes to interconnect Kipevu III Power Station medium voltage busbar to the Kipevu I Power Station medium voltage busbar at 11kV. The medium voltage busbars located at the respective Medium Voltage Switchgear Rooms are the connection points for the Station transformers supplying the respective station loads. KenGen intends to interconnect the two medium voltage busbars to ensure supply of station loads between the stations. These shall be achieved through supply and installation of 11kV switchgear panel as per Schedule I and an underground 11kV cable as per Schedule II.

2.2 General

This Specification covers the Design, construction and testing of the 11kV Indoor Metal Clad Switchgear Panel.

Subsequent paragraphs will give detailed descriptions and requirements for the Switchgear Panels, including the Circuit Breaker, Current Transformers, Voltage Transformers, Protection Relays, Metering, Measuring, Indicating and Control devices and other devices specified herein.

2.3 Scope

The scope of the works shall include:

- 2.3.1** The supply, installation, testing and commissioning of one (1) 11kV Indoor Metal Clad Switchgear Panel at Kipevu III Power station. The 11kV indoor switchgear shall be supplied complete with vacuum circuit breaker, Integral earth Switch, Busbars, control, protection and measurement devices.
- 2.3.2** The 11kV switchgear panel shall be integrated with the existing 11kV indoor switchgear board at Kipevu III Power station thorough extension of the medium voltage busbars.
- 2.3.3** The contractor shall also arrange for Factory Acceptance Tests which the client technical staff shall witness for the switchgear equipment as per the technical specifications herein the tender document.
- 2.3.4** The contractor shall carry out training on switchgear maintenance and on the protection relay to be provided.

2.4 Standards

Ratings, characteristics, tests and test procedures for the 11kV metal-clad switchgear panel, instrument transformers, the protection relays, measuring and indicating instruments and the control and monitoring devices shall comply with the provisions and requirements of the standards of the International Electro- technical Commission (IEC), and also relevant IET (Institution of Engineering and Technology) standards where specified.

The latest revision or edition in effect at the time of bid invitation shall apply. Where references are given to numbers in the old numbering scheme from IEC it shall be taken to be the equivalent number
*under for Supply and Installation of 11KV Indoor Metal Clad Switchgear Panel & Underground Cable for Kip
 Power Station*

in the new five-digit number scheme. The bidder shall specifically state the precise standard, complete with identification number, to which the various equipment and materials are manufactured and tested. The bid document may not contain a full list of standards to be used, as they only are referred to where useful for clarification.

2.5 Unit of Measurement and Language

In all correspondence, in all technical schedules and on all drawings prepared by the manufacturer, the metric units of measurement shall be used. All documents, correspondence, drawings, reports, operating and maintenance instructions/manuals and nameplate details of the equipment shall be in English language.

2.6 Service Conditions

From the geographical condition, the area where the switchgear panels shall be installed is categorized into the tropical climate zone (40°C). In choosing materials and their finishes, due regard shall be given to the humid tropical conditions under which the switchgear panels shall be called upon to work. The manufacturer of the switchgear panels shall submit details of his usual practice of tropicalization which have proven satisfactory for application to the switchgear panels and associated equipment to prevent rusting and ageing in the tropical climate zone. The applicable standards for tropicalization shall be listed.

2.6.1 Switchgear room Temperature.

The switchgear shall be installed in a room without air conditioning (40°C) but with ventilation to allow natural cooling. Therefore, all the protection and control devices employed shall be capable of operating in this environment without failure for their designed lifetime. Particularly the protection and control devices shall be designed for minimum heat generation and effective heat dissipation to ensure that the temperature of these devices enclosed in the switchgear panels at the above listed ambient temperatures shall not exceed the maximum operating temperature of the device.

1.4.2 Tropicalization

(a) All equipment must be designed for operations in the severe tropic climate conditions and fully comply with climatic aging tests as per IEC 60932- Design class 2.

In choosing materials their finishes, due regard shall be given to the humid tropical conditions under which the switchgear will be called upon to work. The manufacturer shall submit details of his usual practice which have proven satisfactory for application to the parts of the Switchgear panels, which may be affected by tropical conditions.

(i) Metals:

Iron and Steel painted parts shall be RAL 7035 while unpainted parts shall be galvanized. Indoor parts may alternatively have chromium or copper-nickel.

Small iron and steel parts (other than rustless steel) of all instruments and electrical equipment, the cores of electromagnets and the metal parts of relays and mechanisms shall be treated in an appropriate manner to prevent rusting.

(ii) Screws, Nuts, Springs, Etc.

The use of iron and steels shall be avoided in instruments and electrical relays wherever possible. Steel screws shall be zinc, cadmium or chromium plated or where plating is not possible owing to tolerance limitations, shall be of corrosion resisting steel. Instrument screws (except those forming part of a magnetic circuit) shall be of brass or bronze.

Springs shall be of non-rusting material, e.g., phosphor-bronze or nickel silver, as far as possible.

(iii) Rubbers:

Neoprene and similar synthetic compounds, not subject to deterioration due to the climatic conditions, shall be used for gaskets, sealing rings, diaphragms, etc.

2.7 Equipment Design

2.7.1 General

- a) The design, dimensions and materials of all parts shall be such that they will not suffer damage under the most adverse conditions nor result in deflections and vibrations, which might adversely affect the operation of the equipment. Mechanisms shall be constructed to avoid sticking due to rust or corrosion.
- b) The equipment shall be designed and manufactured in the best and most substantial and appropriate manner with materials best suited to their respective purpose and generally in accordance with up-to-date recognized standards of good practice.
- c) The equipment shall be designed to cope with 0.2g (2 m/s²) horizontal acceleration of seismology on the centers of gravity.
- d) Whenever possible, all similar parts, including spare parts, shall be made interchangeable. Such parts shall be of the same materials and workmanship and shall be constructed to such tolerances as to enable substitution or replacement by spare parts easily and quickly.
- e) All equipment shall be designed to minimize the risk of fire and consequential damage, to prevent ingress of vermin and dust and accidental contact with electrically energized or moving parts. The switchgear panels shall be capable of continuous operation with minimum attention and maintenance in the exceptionally severe conditions likely to be obtained in a tropical climate and where the switchgear is called upon to frequently interrupt fault currents on the system and also where the duty of operation is high.

2.7.2 Strength and quality

- a) All steel castings and weldings shall be stress-relieved by heat treatment before machining, and castings shall be stress-relieved again after repair by welding.
- b) Liberal factors of safety shall be used throughout, especially in the design of all parts subject to alternating stresses or shocks.

2.7.3 Design data low voltage equipment

Low voltage equipment and installation shall be designed in accordance with EMC directives. The rating and design criteria for low voltage equipment shall be as follows:

a) AC Supply Rating system

Rated voltage between phase	415 V AC
Connection type	3ph 4wire
Rated voltage between phase to earth	240 V AC
Grounding system	PME
Frequency	50 HZ
Voltage variation	+/- 10%
Frequency variation	+/- 2%
Power frequency 1 min, Test Voltage	3 kV
Thermal rating of conductors	120 % of load
Max short-circuit Current	31.5 kA

The AC supply shall be used for power circuit and for lighting, indication, motor controls and similar

small power circuits.

Unless otherwise specified, the equipment provided under this tender is to be capable of reliable operation at voltages as low as 85% of the rated voltage, and to withstand continuously up to 110% supply voltage above the rated value of 240V or 415V AC.

b) DC Auxiliary Supply Rating

Equipment/Device Rated voltage	110V DC
Connection type	2 wire
Voltage variation	85 – 137 V DC

- 1) The auxiliary dc supply shall be used for controls, indication, alarm, protection relays, and circuit breaker tripping and closing circuit, among others.
- 2) All equipment and apparatus including the circuit breakers, protective relays, control devices and accessories, measuring and indicating instruments and electronic equipment shall be capable of satisfactory operation at 80% to 125% of the rated dc supply voltage.

2.7.4 Design data for the Medium voltage equipment

The rating and design criteria for the MV equipment shall be as follows:

Item	Parameters	SYSTEM PARAMETER
1	System description	50 Hz, 3 phase, 3 wire
2	Neutral point earthing	Solid earthed
3	Nominal system voltage	11 kV
4	Highest system (Service) voltage as defined by IEC-60038	12 kV
5	Highest Equipment Rated voltage as defined by IEC-60071	17.5 KV
6	Minimum rated continuous current of circuit breaker	Given in the detailed specifications
7	Insulation level according to IEC 60071:	
7a	Lightning impulse withstand voltage (1.2/50 μ s kVpeak)	75 kV
7b	Test voltage at power frequency 1 min dry and wet. To earth and between phases	28 kV
8	For the design and erection of the Busbars the following minimum clearances shall be observed	
8a	Phase to earth [mm]	300
8b	Phase to phase [mm]	250
9	Minimum nominal creepage distance as defined in IEC 60815, Table II	25 mm/kV

2.8 General Requirements for Electrical Equipment

All materials supplied under this Contract shall be new and of the best quality and of the class most suitable for working under the conditions specified. They shall withstand the variations of temperature and atmospheric conditions arising under working conditions without distortion, deterioration or undue stresses in any parts and also without affecting the suitability of the various parts of the service for which they were designed.

2.8.1 Electrical controls, auxiliaries and power supplies

(a) Electrical control and auxiliaries

The manufacturer shall provide all control, indication, alarm and protection devices and all auxiliary equipment with wiring and interconnecting cable which are integral parts of or are directly associated with or mounted on the switchgear panels to be supplied under this tender. The design of protection and control schemes for the switchgear panels shall be subject to approval by the client.

b) Operation and control

Interlocking devices shall be incorporated in the control circuit to ensure safety, and proper sequence and correct operation of the equipment.

2.8.2 Corona and radio interference

a) Switchgear shall electrically be designed to avoid local corona formation and discharge likely to cause radio interference.

b) The design of jointing of adjacent metal parts and surfaces shall be such as to prevent corrosion of the contact surfaces and to maintain good electrical contact under service conditions.

c) Particular care shall be taken during manufacture of busbars and fittings and during subsequent handling to ensure smooth surface free from abrasion. All joints on the busbars and the circuit within the switchgear board shall be silver or tin-plated to ensure good electrical connection.

2.8.3 Switchgear Panels

(a) The switchgear panels shall be dead-front, floor-standing, rigid welded steel frames, completely enclosed by metal sheets and suitable for indoor installation.

(b) The floor-standing switchgear panel shall have provision for bolting to the floor.

(c) Suitable terminal blocks shall be provided for all outgoing power and control cables. All cable terminals shall generally be located for bottom entry and connections.

(d) The Switchgear panel shall be painted to RAL 7035 color.

(e) Enclosures for the switchgear panel and for other electrical equipment shall have the following degree of protection (according to IEC 60034, IEC 60529 and IEC 60947):

Equipment	Degree of protection
Medium voltage enclosed switchgear	IP 41
Indoor control and relaying equipment	IP 51

(f) Interior illumination lamps operated by door switches shall be provided for each switchgear control compartment. The Lamps should be easily available in the local market for future replacements. One 240V socket outlet of 3-point square terminals shall be provided for the switchgear panel in the control compartment.

(g) Space heaters for 240V AC shall be provided inside the switchgear panel, circuit breaker and

control compartments to prevent moisture condensation. A hygrostat control unit with variable temperature and humidity control setting shall be installed to control the heater.

2.8.4 Measuring instruments

All measuring instruments, including power measurement unit, shall be of flush-mounted, back-connected, dust-proof and heavy-duty switchboard type. Each measuring instrument shall have a removable cover, either transparent or with a transparent window. Each instrument shall be suitable for operation with the instrument transformers detailed in these specifications, under both normal and short-circuit conditions.

2.8.5 Indicating lamps

a) Indicating lamp assemblies shall be of the switchboard type, insulated for 110 VDC power, with appropriately colored lens. The lens shall be made of a material, which will not be softened by the heat from the lamps.

b) For the circuit breakers, red indicating lamps shall be used for “ON” position, green lamps for “OFF” position indication and amber for circuit breaker auto trip.

2.8.6 Nameplate and Escutcheon Plates

a) Nameplates and Escutcheon Plates

Each cubicle, panel, meter, switch and device shall be provided with a nameplate or escutcheonplate for identification with English description and the IEC number on the front of the panel directly below each device as appropriate. On the inside of the control compartment of the switchgear panel, a white label, engraved in Black Letters and Numbers shall be fixed on or below each device. The device name/number fixed on the inside of the control compartment shall correspond to the name/number used in the drawings. Each equipment shall be provided with a rating plate containing the required information as specified in the relevant IEC standards.

b) The plates shall be made of stainless steel and shall not be deformed under the service conditions at the site. The entries on the plates shall be indelibly marked by engraving with black letter on a white background or vice versa as specified.

2.8.7 Wiring

a) General

i) All wiring inside the switchgear panel shall be done with PVC insulated wire not less than 2.5 mm², flexible cable. A suitable wiring duct system firmly fixed on the panel and having covers shall be installed for all inter-panel and front-to-rear panel wiring as well as for wiring within the panels, which will provide easy access for inspection and replacement of the wires.

ii) Wiring between terminals of the various devices shall be point to point. Splices or tee connection will not be acceptable. Wire runs from the duct to the device shall be neatly trucked or clamped.

iii) Exposed wiring shall be kept to a minimum, but where used, shall be formed into compact groups suitably bound together and properly supported.

iv) Instrument transformer secondary circuits shall be grounded only on the terminal block in the control compartment. Facilities for short circuiting the current transformers secondary windings while the switchgear panel is in service shall be provided.

v) Cable supports and clamp type terminal lugs shall be provided for all incoming and outgoing

power wiring terminated at the panel. All wiring conductors (wires) shall be marked at each point of termination onto the terminal block or device. These wire markers shall be of an approved type and permanently attached to the conductor insulation. The method of ferruling shall be subject to approval by the client; It is however preferred that the wire marker(ferrule) corresponds to the device number or terminal block number and the number of the terminal where it is connected. All the devices and the terminal blocks must therefore have unique numbers.

b) The standard phase arrangement when facing the front of the panel shall be L1-L2-L3-N, and L-N from the left to right, from top to bottom, and front to back for A.C three-phase and single- phase circuits. For DC circuit it shall be N-P from left to right, P-N from top to bottom and front to back. All relays, instruments, other devices, buses and equipment involving three- phase circuit shall be arranged and connected in accordance with the standard phase arrangement wherever possible.

(c) All low voltage cables/wires shall have the following colors:

Circuit	Color
Instruments Transformers (Voltage/Current) cables	Brown, Black, Grey, Blue
A.C. supply(auxiliary) connection cable	Brown and Blue
D.C. Control cables	Brown and Blue
Grounding/earthing cables	Green with yellow stripes

(d) Phase and polarity color code

Colored ferrules shall be provided on each wire in order to identify phase and polarity.

Phase and Polarity		Color
A.C., three Phase for CT and VT secondary wiring	First phase	Brown
	Second phase	Black
	Third phase	Grey
	Neutral	Blue
A.C., single- phase,	First phase	Brown
	Neutral	Blue
	Ground	Green with yellow stripe
DC auxiliary Supply connection	Positive	Brown
	Negative	Blue

Cable markers and wire numbers system must be submitted to the client for approval before commencing the detailed design works for protection and control.

2.8.8 Terminal blocks

- Terminal blocks for control wiring shall be rated not less than 600V AC/DC.
- White or other light-colored marking strips, fitted to each block, shall be provided for circuit designation.
- The terminal arrangement, including the terminal blocks for VT and CT circuit connections, shall be subject to the client's approval. There shall be at least 10 spare terminals provided for future use.
- Shorting Links shall be provided on the current transformer (CT) circuits on the terminal

block. It shall be possible to short-out the CTs under live system conditions without open-circuiting the CTs.

e) Isolation links (sliding Links) shall be provided on the trip circuits, alarm and on the VT circuits to allow easy isolation of these circuits without disconnecting the wires from the terminal block.

f) Each individual terminal block shall be marked with a distinctive number, which shall be the same number used in the drawings, for identification purposes. The terminal block number shall be engraved in black numbers in white background and shall be durable so as to last the lifetime of the switchgear board.

g) Each set of terminal blocks shall be identified by a label to distinguish it from another set of terminal blocks. The numbers used to mark the terminals on the terminal blocks shall be unique. The labels used shall match those used in the drawings.

2.9 Earthing

2.9.1 General

All the Compartments including the hinged doors of the Switchgear Panels and all the earthing points of the equipment installed/mounted in the Switchgear panels shall be connected to the grounding conductor at the bottom of the panel for external connection to the substation earthing system.

The earthing conductor on the primary equipment such as the Earth Switch and also for inter-panel earth-bonding as well as for external connection to the substation Earthing – grid shall be adequate to carry the rated switchgear short-circuit current of 50 kA for 1 second.

Low voltage compartments earthing conductors shall be of annealed high conductivity copper stranded in accordance with Table 4 in BS.6346 and protected with an extruded PVC sheath of 1000 volts grade.

2.10 Materials and Workmanship

2.10.1 General

a) Materials shall be new; the best quality of their respective kinds and such as are usual and suitable for work of like character. All materials shall comply with the latest issues of the specified standard unless otherwise specified or permitted by the client.

b) Workmanship shall be of the highest class throughout to ensure reliable and vibrations-free operations. The design, dimensions and materials of all parts shall be such that the stresses to which they may be subjected shall not cause distortion, undue wear, or damage under the most severe conditions encountered in service.

c) All parts shall conform to the dimensions shown and shall be built in accordance with approved drawings. All joints, datum surfaces and meeting components shall be machined, and all castings shall be spot faced for nuts. All machined finishes shall be shown on the drawings. All screw, bolts, studs and nuts and threads for pipe shall conform to the latest standards of the International Organization for Standardization covering these components and shall all conform to the standards for metric sizes

d) All materials and works that have cracks, flaws or other defects or inferior workmanship shall be rejected by the client.

2.10.2 Assembly

Necessary items of equipment shall be assembled in the factory prior to shipment and routine tests shall be performed by the manufacturer as per the requirements of the latest issue of IEC as specified under each equipment in these specifications to demonstrate to the satisfaction of the client that the switchgear panels comply with the requirements of the relevant IEC standards.

2.10.3 Casting

a) Casting shall be true to pattern, of workmanlike finish and of uniform quality and condition, free from blowholes, porosity, hard spots, shrinkage defects, cracks or other injurious defects, shall be satisfactorily cleaned for their intended purpose.

2.10.4 Welding

a) Wherever welding is specified or permitted, a welding process, including stress relieve treatment as required if necessary, conforming to an appropriate and widely recognized professional standard shall be used. All welders and welding operators shall be fully qualified by such a standard.

2.10.5 Color standard

The final color of each item shall be as described under each item.

2.10.6 Operation Details

Instructions shall be engraved on the switchgear panel, on the circuit breaker compartment describing in simple steps how to carry out correct and safe isolation, racking-in and racking-out switching operations on the circuit breaker. Similar details should be provided for the operation of the earth switch.

2.11 Protection, Cleaning and Painting

2.11.1 Steel exposed to atmosphere

a) All machined parts surfaces shall be cleaned and protected from corrosion before leaving the manufacturer's plant by the application of an approved rust preventive coating, or a peelable plastic film. Where the latter is impracticable, such parts shall be heavily covered with high melting point grease. After erection such parts shall be cleaned with solvent and lapped or polished bright.

b) All parts, other than machined parts, which will be exposed after erection shall be thoroughly cleaned and galvanized or given with two coats of best quality approved primer and one coat of best quality approved finish paint before leaving the manufacturer's plant and a further one coat of paint of an approved quality and colour after erection and touching up on the site, except such apparatus as panels and instruments which shall be finished painted under approved procedures.

c) All outside panel surfaces shall be primed, filed where necessary, and given not less than two coats of synthetic undercoat. The finishing coat for the outdoor and indoor installations shall be a gloss paint.

d) Primer shall be applied to surfaces prepared in accordance with the plant manufacturer's instructions. The surface shall be wiped clean immediately prior to applying the paint. The primer and finish coats of paint shall be applied using the methods and equipment recommended by the manufacturer.

e) The final color of all equipment, frames for meters and relays, and switch handle shall be as described under each particular item.

f) The humid and tropical conditions shall be taken into account on selection of the paints and painting procedure.

2.12 Design & Engineering Stage, Manufacturing and Testing of Switchgear panel

2.12.1 Design and Engineering Stage

a) The design and engineering of the project scope shall follow the award and signing of the contract between the client and the contractor. During the design & engineering stage, the client shall submit details, documents or such information as shall be requested by the contractor for execution of the project. Where the information such required may not be available, the client shall inform the contractor in good time and the contractor shall take the necessary action to progress the contract despite lack of information.

i) The contractor shall send drawings, datasheets, calculations among other technical information/documents to the client for approval and comments. The client shall review all documents, designs and drawings submitted within three weeks of their submission by the contractor. A copy of each document and item of data will be returned to the Contractor marked “APPROVED”, or “APPROVED AS NOTED”, or “NOT APPROVED”.

ii) Drawings/documents submitted by the contractor for approval will be checked / reviewed by the client and comments, if any, on the same will be sent to the contractor. It is the responsibility of the contractor to incorporate correctly all the comments conveyed by the Client on the Contractor’s drawings. If the Contractor is unable to incorporate certain comments in his drawings, he/she shall clearly state in his forwarding letter such non-compliance along with valid reasons and justification.

iii) Comment of “NOT APPROVED” would imply the drawing has to be re-done as per comments given; meaning the client is not in agreement with the content, idea and implications of the drawing on the overall design and operation of the system. Comment of “APPROVED AS NOTED” shall imply the client agrees with the design/information or implications of the drawing but requires some changes to be implemented before approval.

iv) Drawings and data requiring revision shall be promptly dealt with and resubmitted as aforementioned. Thereafter, changes shall NOT be made in the Contractor’s drawing without written permission of the Client Engineer. The above procedure shall be repeated for all authorized changes.

v) Any work performed (including purchase, assembly, ordering of material (and/or components) by the contractor prior to receipt of drawings/designs stamped ‘APPROVED’ by the client shall be at the risk of the contractor. After drawing has been returned ‘APPROVED’, the contractor may proceed to the next stage of the contract.

vi) All drawings and data supplied by the Contractor after the date of contract, which cover changes in the work, extra work, or which supplement existing drawings and data shall, upon approval by the Client Engineer, form part of the contract documents. If, at any time before the completion of the work, changes are made necessitating revision of approved drawings, the contractor shall make such revisions and proceed in the same routine as for the original approval.

vii) Subsequent changes contemplated by the Contractor shall be indicated on revised drawings and data resubmitted for approval. The Contractor shall make any changes in the design which are considered necessary to make the work conform to the provisions and intent of the specification without additional cost to KenGen.

viii) To expedite the delivery and return of the required drawings, scanned drawings shall be used and sent to the following KenGen E-mail addresses–

To: bpogeto@kengen.co.ke
c.c.akatune@kengen.co.ke, pkanyi@kengen.co.ke

Or any other email supplied by the client.

ix) All drawing submitted for approval or sent to the Client for any other reason may be sent by

courier, email or a cloud storage managed by the contractor.

x) Approval of the Contractor's drawings and data shall in no way construe or imply relief of the Contractor from responsibility for any error or omission therein or from any obligation under the Contract.

2.12.2 Manufacture of Switchgear panel

a) The manufacture of the switchgear shall then proceed strictly in accordance with the approved drawings and also in accordance with the detailed specifications as contained herein.

b) Where conflict may arise between the specifications and the approved drawings, the specifications will take precedence, unless it's specifically indicated in writing on the approved drawings that the conflicting clause in the specifications is superseded, or where following discussions between the manufacturer and the client, the client gives approval in writing to supersede the conflicting clause in the specifications.

2.12.3 Testing at the Place of Manufacture

a) Upon manufacture of the Switchgear panel and all protection and control devices, the manufacturer shall invite the Client to inspect and conduct factory acceptance tests (FAT) on the panel and all protection and control devices. The manufacturer shall then rectify any minor defects noted during FAT.

b) The bidder shall arrange for three (3) engineers from the client to attend Factory Acceptance Tests (FAT) on the Switchgear panel, where all routine tests as per the IEC standard listed above and other special tests listed in these specifications shall be carried out in their presence. The duration of the FAT shall be five (5) working days and testing shall strictly be carried out during working hours from 8.00 am to 5.00 pm.

c) The manufacturer shall be responsible for performing or for having performed all the required tests listed under the specification for the switchgear and all the current transformers, voltage transformers, protection relays, measuring and indicating instruments.

d) The bidder shall confirm the manufacturer's capabilities in this regard when submitting tenders. Any limitations shall be clearly specified.

e) Tender documents shall be accompanied by copies of Type test and Routine test reports & certificates for similar rated equipment for the purpose of tender evaluation. Type test reports & certificates shall be certified by the National Standards and Testing Authority (NSTA) of the country of origin or by a third-party Reputable Testing Authority. Where a body other than NSTA is used to certify the type-test reports, a copy of the certificate of accreditation shall be attached. Current contact information of the testing and certification authority shall be provided.

f) Upon completion of the manufacturing process, routine tests shall be carried out as per the respective IEC standards of each equipment as follows: -

- i) Circuit Breaker IEC 62271-100 & IEC 60298
- ii) Switchgear panel, IEC 60294
- iii) Current Transformers, IEC 60044-1
- iv) Voltage Transformer, IEC 60044-2
- v) Protection Relays and Measuring and Indicating Instruments, IEC 60255.

g) In case the equipment fails the test and has to be rectified or the manufacturer is not able to complete the tests within the set duration, then the bidder shall meet the cost of accommodation and meals for the Clients Engineers for the additional days required for completion of the tests.

h) Upon testing the panel as in clauses above, the drawings shall be edited to capture any minor

wiring errors detected in order to produce the final As-built drawings. A copy of the final As-Built drawings and Routine test results for the panel, signed by the Manufacturer shall be sent by courier or electronically to the client before shipment of the equipment.

i) Where the manufactured Switchgear panel and all protection and control devices are unsatisfactory and the manufacturer fails to rectify the defects to satisfactory status within four (4) weeks after attendance of the FAT, the Client shall have the option to cancel the tender.

j) The client's engineers will only sign the Tests Reports/Certificates only when the tests are conducted in their presence in accordance with the relevant IEC standard or the procedure agreed beforehand between the client and the manufacturer.

k) Only upon receipt of authentic certified copies of the FAT Routine Test Reports/certificates and special tests and satisfactory report from the engineers, shall the client give clearance for shipment of the switchgear boards once all the other listed requirements on drawings, operation and maintenance manuals and software have been met.

2.13 Project Documentation

2.13.1 Operating and Maintenance Manuals

a) The manufacturer shall supply detailed instruction manuals concerning the correct manner of assembling/installing, configuring, setting, testing and commissioning, operating and maintaining the equipment and devices constituting the switchgear panel, including the board itself. The maintenance details of each component shall also be described, including the frequency of inspections and lubrication.

b) The instruction manual shall include a separate and complete section describing the normal and emergency operating procedures for the switchgear and shall include explanatory diagrammatic drawings to facilitate understanding of the instructions.

c) The manufacturer shall, in preparing the instruction manuals, take into account the lack of experience and familiarity of the operators with this type of equipment.

d) One complete set of the operating and maintenance manuals for all the equipment and devices installed on the switchgear board shall be sent to the client together with the drawings for approval.

e) Before approval of shipment of the switchgear panel, **three (3) Copies** of the operating and maintenance instructions/manuals shall be sent to the client by courier. The operating and maintenance manuals shall be original copies printed by the manufacturer. Any illegible copies of the operating and maintenance manuals submitted shall be rejected by the client.

f) In addition, softcopies of the manuals in a flash memory stick shall be delivered to the client alongside the hard copies.

2.13.2 Drawings

a) The switchgear panel shall have its drawings, with the name of the panel included on the drawings for identification.

b) Before Approval of shipment of the switchgear panels, three (3) copies of bound As-Built

drawings (A4 size) in Hard Copy shall be forwarded to the client in Durable Hard Cover Box Files. The files shall have a tag with the following Inscription:

**Kenya Electricity Generating Company PLC
Kipevu III Power Station, Mombasa Kenya
11kV Switchgear panel AS Built Drawings
File No. 1-3**

c) Software copies of the As-Built drawings (in a flash memory stick) in portable document format(pdf) and the AutoCAD Electrical 2010SLM or later version shall be sent to the client via courier. The flash memory stick will have the same label as above. The drawings provided on soft copy shall be freely editable to allow the client to incorporate any changes made in future.

d) All protection and control drawings shall be done on A4 - size paper. The function of each drawing shall be clearly indicated. Related drawings shall be arranged sequentially, and have the same drawing number/name but different sheet numbers. The drawings shall include the following;

- i) AC single line drawing-AC Schematics
- ii) DC Schematics
- iii) Functional Drawings
- iv) Panel wiring, including inter-panel bus-wiring list- Connection schedule.
- v) Panel device layout drawing
- vi) General layout drawings for the switchgear panel
- vii) Relays and device list (bill of quantities) for the panel.

2.13.3 Software

a) Two (2) copies of each different type of software in a flash memory stick, for the protection relay, power measurement unit, transducers and other measuring devices whose configuration and settings is software based shall be supplied with the board. Two (2) communication connection cable for each type of device shall also be supplied with the switchgear board.

b) Before approval for shipment of the switchgear board is granted by the client, all the software indicated in the completed technical schedules shall be supplied. The software shall be for configuration, parameter setting and for data download and analysis.

c) It shall be possible to load the software into at least three (3) different personal computers without requirement for additional licenses. Where additional licenses are required, the cost shall be considered to have been included in the bid.

d) Two (2) sets of soft manuals for each type of software supplied providing detailed instructions for programming settings and configuration of the relays and other devices and downloading of data, shall be supplied with switchgear.

2.14 Spares and Accessories for the Switchgear panel

2.14.1 Spare Parts

a) As the schedule of requirements and price schedules, the bidder shall supply the following spare parts.

- i) Two (2) circuit breaker closing coils
- ii) Two (2) circuit breaker tripping coils

- iii) Three (3) indication lamps (One for each type)
- iv) Two (2) of control relays (complete with their connection bases) used in the Low voltage compartment
- v) One (1) digital voltmeter
- vi) One (1) digital ammeter.

b) The spare parts supplied shall be packed or treated in such a manner as to be suitable for storage under the climate conditions at the site for a period of not less than two years.

c) The manner of storage shall be as per manufacturer recommendation.

d) Spare parts provided shall be delivered with the switchgear to the client's stores.

2.14.2 Accessories

The following accessories shall be supplied with the switchgear panel: -

- i) Two (2) circuit breaker rack in/rack out handle/tool
- ii) Two (2) circuit breaker manual spring charging handle/tool
- iii) Two (2) earth switch operating handle/tool
- iv) One (1) circuit breaker withdrawal trolley

1.14 Packing

a) The switchgear panel and spares shall be packed properly and protected for shipment from the place of manufacture to the client's stores.

b) Each crate of package shall contain a packing list in a waterproof envelope and a copy in triplicate shall be forwarded to the client prior to dispatch. All items of material shall be clearly marked for ease of identification against the packing list.

c) All cases, packages, etc, shall be clearly marked on the outside to indicate the total weight, to show where the weight is bearing and the correct position of the slings and shall bear an identification mark relating them to the appropriate shipping documents.

d) Bolts, nuts, washers and fillers shall be bagged in sealed vinyl and packed in steel cans. The cans shall bear the contents and be crated together.

e) The Client reserves the right to inspect and approve the equipment and the packing before the items are dispatched. However, the bidder shall be entirely responsible for ensuring that the packing is suitable for transit and such inspection will not relieve the bidder from responsibility for any loss or damage due to faulty packing.

consignment:

Consignee: KENYA ELECTRICITY GENERATING COMPANY PLC.

Name of Project: KIPEVU III POWER STATION 11KV SWITCHGEAR PANEL

Contract No.:

Port of destination:

Item Number, if applicable, Package number in sequence, and quantity per package:.....

Description of Contents:

Net and gross weight:

The final shipping mark is subject to the Client's approval.

1.15 Delivery

The delivery of the switchgear panel shall be at Kipevu III Power Station Stores, Mombasa- Kenya, on **Delivered Duty Paid (DDP)** terms.

2.0 DETAILED TECHNICAL SPECIFICATIONS FOR 11 KV METAL CLADSWITCHGEAR PANEL.

2.1 Scope

The scope of this tender is the design, manufacture, supply, install, test and commission one (1) 11kV Indoor, three pole, metal clad switchgear with vertical or horizontal isolation, horizontal draw out with circuit breaker employing vacuum gas interrupter. The 11kV switchgear panel shall be installed as an extension on the existing 8-Cubicle 11kV switchgear board, ABB Type Unigear ZS1 constructed in accordance with IEC 62271-200 standard. The new switchgear panel shall seamlessly fit with the existing switchgear panels as an extension.

2.2 References

The following documents were referred to during the preparation of this specification, and may be referred to; however, in case of conflict, the provision of this specification shall take precedence. Unless otherwise specified, the latest revision, edition and amendments of the following standards shall apply

- IEC 60298: High voltage switchgear in metallic enclosure
- IEC 60051: Direct acting indicating analogue electrical measuring instruments and their accessories.
- IEC 62271: High-voltage Switchgear and Control gear
- IEC 60044-1: Current transformers
- IEC 60044-2: Voltage transformers
- IEC 60255: Electrical Relays
- IEC 60529: Degrees of protection provided by enclosures (IP Code)
- IEEE/ANSI 37: Medium voltage AC metal - enclosed switchgear and control gear

2.3 Switchgear Panel Construction

- a) The whole switchgear equipment and components shall be designed and constructed in accordance with IEC 60298. The panel shall be complete with all the relevant components including, busbars, circuit breaker, cable compartment, instrument transformers, protection relays, instruments and controls.
- b) The switchgear panel shall be constructed to IP41 degree of protection in accordance with IEC 60529. A type test report for the degree of protection of the switchgear panel from a third-party reputable testing laboratory or certified by the national standards and testing authority (NSTA) of the country of Origin or a laboratory accredited to the NSTA shall be submitted with the tender for evaluation purposes.
- c) The contractor shall be responsible for confirmation of the existing switchgear panels dimensions to ensure seamless and fitting extension of the new switchgear panel during installation. The existing panel dimensions shall be confirmed during site visit tour by the contractor.
- d) The switchgear panel shall have restricted dimensions suitable for installation in limited space available at site.

In particular and without compromising the insulation level, bus-bar current rating and short circuit current performances, the width of the panels shall not exceed **800mm**.

The Low Voltage compartment shall not be less than **700 mm** in height, to ensure adequate space for mounting the relays and other devices and accessories and adequate space for the cable trucks, terminal blocks and wiring.

The depth of the switchgear, i.e., from the front to the back shall be kept to the minimum and in any case not exceeding **1339 mm**.

- e) The switch gear panel or cubicle shall be built up of separate metal clad-compartmented cubicles with earthed metal partitions. The compartments shall be for busbar, cable connection, circuit breaker, current transformer, Voltage transformer, Earth Switch and control (Low Voltage) compartments.
- f) A drawing showing the layout and dimensions of each of the compartments of the switchgear panel and the devices/components installed in the compartment shall be submitted with the bid for tender evaluation.
- g) The drawing shall also include the arc venting chamber (Gas exhaust duct) to be supplied with the switchgear panel (existing Switchgear Type ABB Unigear ZS1). The Gas exhaust duct shall be positioned above the switchgear panel and run along its whole length. The dimensions of the duct supplied must fit to the existing duct.
- h) The power compartment shall be fitted with a flap on its top surface that shall be operated by the pressure generated by the fault makes it open, allowing the gas to pass into the duct.
- i) The circuit breaker shall be mounted on an inbuilt carriage to facilitate isolation and withdrawal of the circuit breaker. Where the carriage is fixed in the compartment and does not allow complete withdraw of the circuit breaker outside it's compartment, then a purposely built trolley shall be provided equipped with a lowering/raising gear to lower the circuit breaker to the floor, and to raise the circuit breaker to it's compartment by one person. This requirement shall be demonstrated during the FAT.
- j) The complete switchgear shall be such that the complete switchboard is of flush-front design.
- k) The switchgear panel shall have four separate compartments as follows: -
 - i) LV Compartment

- ii) Circuit Breaker Compartment
- iii) Busbars Compartment
- iv) Cable, CTs, VTs and Earth Switch compartment

The circuit breaker, busbars and cable compartments shall be provided with arc venting outlet to the top of the switchgear panel.

The top of the complete switchgear panel shall be equipped with arc by-products venting chamber to direct the arc by products outside the switchgear room. The design of the arc chamber shall be adequate to handle arc by products at the rated withstand level of the switchgear board of 50 kA, 1 second. The design of the arc chamber shall be complete in every way with provision of connection to the existing arc ducts on the existing switchgear board wall at two points.

l) The low voltage section shall be completely separate from the high voltage section. All the protection relays, auxiliary relays, power measurement unit, indication lamps, instruments, control and selection switches and any other associated accessories will be mounted in this compartment.

m) The switchgear shall be designed for erection with the rear side close to a wall as well as for free standing erection.

n) The switchgear shall be of arc resistant design as per IEEE/ANSI C37.20 and hence ensure complete safety for a switching personnel standing in-front or at the rear of the switchgear board. A copy of the type test report shall be submitted with the bid for tender evaluation purposes.

o) The cable compartment should have an anti-vermin guard plate giving protection against rats, rodents among others.

p) The circuit breaker compartment door shall be provided with provisions for padlocking.

q) The doors shall be capable of withstanding the effects of maximum internal arcing fault without being blown off and causing danger to personnel and other equipment. This should be proven by successful testing, as per ANSI C37.20.7 or equivalent IEC standards. Type test report shall accompany the bid.

r) The busbar shall be single, three phase, air insulated. The primary busbars and connections shall be of high conductivity and electrolytic material, high grade copper, and shall be in unit lengths. The busbars shall preferably have a PVC cover to prevent accidental short-circuits

s) Busbars, connections and their support shall be rated 1250 A continuously under ambient conditions and capable of carrying the short-time current associated with the short circuit ratings of the circuit breakers, for 1 Seconds.

t) Busbars shall be extensible at both ends, such extension shall entail the minimum possible disturbance to the existing busbar.

u) Provision shall be made for locking the busbar and circuit shutters separately in the circuit breaker compartment. These shutters shall open and close automatically during the racking in and racking out of the circuit breaker.

v) Provision shall be made for integral circuit earthing and for busbar earthing. Means of earthing shall be by purposely built integral earth switch. Mechanical interlocks to ensure correct switching operation shall then be provided. It shall not be possible to close the earth switch on the incoming panel, when the incoming 11kV cable is live.

w) The earth switch shall be easy to operate by one operator and be spring loaded to ensure effectively make operation independent of the operator action. The earth switch shall be rated to make and carry for 1 second, the rated short-circuit current of the respective switchgear panel of 50 kA.

The Status of the earth Switch shall be visible from the front of the Panel. It shall not be possible to rack-in the circuit breaker into the service position with the earth switch in closed position. The mechanical interlock between the circuit breaker and the earth switch shall be strong enough to guarantee safety of the switching personnel and the switchgear.

The earth switch shall be equipped with auxiliary contacts for local and supervisory indication of the status of the earth switch. The earth switch operating lever shall be covered by a shutter and shall only be accessible when it is permitted to operate the earth switch.

x) The operation of the Earth Switch shall be set in such a way that during both the close and open operations, a clearance of at least 9 inches shall be maintained between the operating handle and the bottom of the switchgear panel.

y) It shall not be possible to insert the earth switch operating handle into position except when the circuit breaker is in the test or isolated position. The earth switch shall be equipped with pad-locking facilities when in the closed position

z) All earthing facilities shall be rated for fault making at the rated switchgear short-circuit current.

aa) The Panel wiring for protection, instruments, indication and metering circuits and other control accessories shall be completely done. All circuits for connection to external cables such DC & AC auxiliary supplies, external tripping, supervisory control and indications shall be wired up to the terminal block at the bottom of the Low Voltage compartment of the switchgear panel where external cables shall be connected. At least 10 spare terminals shall be provided on the terminal board for any future requirements.

bb) The Switchgear panel will have a terminal block at the bottom of the Low Voltage Compartment where all external cables such as for 110V DC supply, 240V AC supply, connection of DCS/SCADA, measurands/commands and alarms shall be terminated.

cc) The AC and DC supplies (110V DC, and 240V) for circuit breaker control, alarm circuits, protection relays, metering and motor supply for each panel, shall be controlled by suitably rated miniature circuit breakers.

dd) The switchgear panel shall be tropical vermin proof. The plates shall be of high-quality mild steel of at least 2mm thickness thoroughly cleaned by shot blasting or other approved methods. They shall then be given a primary coat and two coats of contrasting colour of durable and weather resistant paint. The final coat shall be gloss and of RAL 7035 The final thickness of the paint shall not be less than 80 Microns at any point within the switchgear panel. The paint thickness shall be measured during the Factory Acceptance Tests.

ee) Anti-condensation heaters shall be provided inside the switchgear panel. They shall be located so as not to cause injury to personnel or damage to equipment. The heaters shall be controlled by a hygostat with a variable humidity and temperature setting. The heaters shall be dimensioned to ensure that condensation cannot occur within the switchgear panel. Heaters of adequate rating shall be provided for the circuit breaker, cable and LV compartments.

The 240V AC supply, for the heaters shall be controlled by a suitably rated single pole miniature circuit Breaker.

ff) The circuit breaker cubicle shall have a limit switch which shall be wired to provide DCS/SCADA indications on whether the breaker is fully racked in or fully racked out (withdrawn).

gg) The switchgear panel shall be rodent and vermin proof.

hh) Suitable means shall be provided to monitor the status of the busbar, i.e., whether it is live or dead. The monitoring device shall be through installation of one panel mount digital voltage meter (0-15kV) for the Line voltages (selectable through a selector switch on the panel) i.e L1-L2, L2-L3, L3-L1 at the front of Low voltage compartment. The indications shall be labeled L1, L2 & L3. The device shall meet the requirements of IEC 61243-5.

ii) There shall be current (load) monitoring through installation of panel mount digital ammeter (range programmable 0-9999A, input 0-1A) for three phases i.e L1, L2, L3 at the front of Low voltage compartment. Each phase current shall have a dedicated line for display.

jj) Each switchgear panel shall be provided with Tinned Copper earth bar of adequate cross section area to be able to withstand the rated short-circuit current of 50 kA for 1 second and arranged so that the bars of adjacent panels are joined together to form a common earth busbar. Provision shall be made at either end the assembled switchgear panel for connection of the earthing bar to the existing switchgear board earthing.

kk) Manual close & open push buttons shall be provided on the circuit breaker compartment door for manual close and open of the circuit breaker both in the service and in the test(withdrawn) position. The manual close and open push buttons shall be clearly labeled with CLOSE and OPEN Labels and with I(red) and O(Green) Symbols and color codes as per the IEC standard.

2.3.1 Circuit Breaker

a) The circuit breaker shall be three-pole operated, indoor type, employing Vacuum Interrupter with air or solid Insulation and shall comply with the requirement of IEC 62271-100 in respect of design, type tests, service operation and the making and breaking of faulty currents.

b) The moving portion of the circuit breaker shall consist of a three-pole circuit breaker, operating mechanism, primary and secondary disconnecting devices, auxiliary switches, position indicators and necessary control wiring. The Auxiliary switches shall be of the plug-in type, with the male contacts mounted on the breaker carriage and the female contacts on the plug-in cable connected to the panel wiring. Other options may be considered where there is adequate proof that the auxiliary contacts will always be making firmly without mis-alignment. Finger contacts will however not be acceptable.

c) It shall be fully interchangeable (both for overall dimensions and electrical diagrams) with ABB HD4/P 12.16.50 1600A, 50kA/1s medium voltage gas circuit breaker

d) Name plate for the circuit breaker shall be provided with all the required details as per IEC standards, including: -

- i) Circuit Breaker type
- ii) Applicable IEC standard
- iii) Total Weight
- iv) Rated Voltage
- v) Lightning impulse withstand voltage
- vi) 1 minute Power frequency withstand voltage
- vii) Rated frequency
- viii) Rated Current
- ix) Breaking Capacity
- x) Short time current
- xi) Making capacity
- xii) Operating sequence
- xiii) Rated voltage of closing and opening coil
- xiv) Rated voltage of spring charging motor

- e) The circuit breaker operating mechanism shall be motor wound spring operated, power closing with electrical release and with provision for handspring charge.
- f) Mechanical indication shall be provided to indicate the state of the spring. This shall be visible without opening the circuit breaker compartment door. Also two pairs of Auxiliary contacts, which are closed, when the springs are charged shall be provided for local and supervisory indication.
- g) A spare set of four (4) normally open and four (4) normally closed auxiliary contacts of the circuit breaker shall be provided and shall be wired to a terminal block (box), for connection to DCS/SCADA system.
- h) The control circuits for the circuit breaker shall automatically be connected when inserting the breakers into the cubicle. Alternatively, a single plug-in cable for all auxiliary contacts shall be provided. It will not be possible to rack-in the circuit breaker without connecting the plug in cable first.
- i) The operating mechanism shall be completely trip free both mechanically and electrically.
- j) The circuit breaker shall have a mechanical operations counter
- k) One mechanical ON/OFF indicator, with inscription "ON" white letters on red background and inscription "OFF" white letters on green background shall be provided for the circuit breaker. Alternatively approved IEC indications for circuit breaker ON and OFF shall be used.
- m) The breaker controls shall have anti-pumping facilities
- n) Circuit breaker poles between the interrupters and the primary plug-in contacts shall be fully insulated with durable material.
- o) The circuit breaker maintenance and operations manual shall contain clear instructions on the maintenance requirements of the circuit breaker, to prevent switchgear failure in service, due to excessive fault current clearance or any other cause.

2.3.2 Current Transformers

- a) Current transformers shall be Cast Resin Type and shall be accommodated inside the cubicle, in a separate compartment or in the same compartment as the cable.
- b) The current transformers shall be in accordance with the requirements of IEC 60044-1 and IEC 60044-6 and shall have the specified accuracy under load and short-circuit conditions and shall be able to withstand the effect of short-circuit fault current rating of the switchgear, of 50kA for 1 second.
- c) Current transformers shall have a rated burden as specified, sufficient for the connected Protection relays and Power Measurement Unit and other instruments. The **CT rated burden** shall however **not be less than 15 VA**.
- d) The type and make of the CTs shall be identified at the time of bid submission. Copies of Type Test certificates and routine Test Reports/Certificates as per IEC 60044-1 of CTs of similar rating and class verifying the class and accuracy as well as the limits of error for the declared class similar to those of the specified CTs shall be submitted with the bid for tender evaluation purposes. The specified CTs must be within the product range of the manufacturer.
- e) The current transformer shall have markings on the secondary and primary terminals as per the requirements of the IEC 60044-1 standard. The markings shall be indelibly made. The secondary terminals shall have screw terminals.
- f) The details of the current transformer shall be provided as per IEC 60044-1 Standards, *under for Supply and Installation of 11KV Indoor Metal Clad Switchgear Panel & Underground Cable for Kij Power Station*

including but not limited to: -

- i) The manufacturer's name
- ii) Type designation
- iii) Rated primary and secondary current
- iv) Rated frequency
- v) Rated output, burden and corresponding accuracy class for each secondary winding, including the rated accuracy limit factor and instrument security factor for protection and metering secondary windings respectively.
- vi) The highest voltage of the equipment
- vii) The rated Insulation level (class)
- viii) The rated short-time thermal current (I_{th}) and the rated dynamic current
- ix) Rated continuous thermal current

2.3.3 Voltage Transformer

- a) The VT shall be of Cast resin, indoor, type mounted within the 11kV switchgear panel. The VT shall be a three-phase unit.
- b) Voltage transformers shall be suitable for operation of the protection relays and metering and shall be in accordance with the requirement of IEC 60044-2.
- c) The voltage transformer shall be three phase, five limb, star/star connected and complete with HV and LV fuses and links, alternatively three single phase units shall be installed and connected.
- d) It shall have an open delta winding to be used for directional earth fault Relay.
- e) The type and make of the VTs shall be identified at the time of bid submission. Copies of Type Test certificates and routine Test Reports/Certificates as per IEC 60044-2, of VTs of similar rating and class as the specified VTs shall be submitted with the tender for evaluation purposes. The Specified VTs must be within the product range of the manufacturer.
- g) The details of the voltage transformer shall be provided as per IEC 60044-2 Standards, including but not limited to: -

- i) The manufacturer's name
- ii) Type designation
- iii) Rated primary and secondary voltage
- iv) Rated frequency
- v) Rated output and corresponding accuracy class for each secondary winding,
- vi) The highest voltage of the equipment
- ix) Class of Insulation for the transformer
- x) Rated voltage factor and corresponding rated time.
- xi) The use each secondary winding and it's corresponding terminals

2.3.4 Protection Relays

(must be read together with particular technical specifications of control and protection)

- a) The LV compartment terminal block shall include a test switch (block), which enables the CTs circuits to be isolated from the relay and shorted-out without opening circuiting the CT, to facilitate relay testing in situ and to allow for isolation of VT circuits, alarm and trip circuits without disconnecting wires at the terminal block.

- b) The protection relays shall be numerical type flush mounted, with event recording, Fault recording, power measurement, and shall be in accordance to IEC 60255.
- c) Besides the communication port, the relays shall have a human – machine interface facility(HMI) and LCD Screen where one can easily access relay information.
- d) Relay contacts shall be suitable for making and breaking the maximum currents, which they are required to control in normal service. Where contacts of the protective relays are not sufficient for circuit breaker tripping, auxiliary trip relays shall be provided, in order to prevent damage to output contacts of the measuring relay.
- e) Operating time for auxiliary tripping relays shall not significantly affect the overall fault clearance time, i.e., the auxiliary trip relays must have short pick-up time of less than 30 ms.
- f) Relay contacts shall make firmly without bounce and the relay mechanism shall not be affected by stray panel vibration or external magnetic fields.
- g) Relays shall be provided with clearly inscribed labels describing their functions and IEC Device function numbers. The labels shall be to the approval of the Client.
- h) Relays shall be suitable for operation on the station 110V DC supply without use of dropping resistors or diodes.
- i) To reduce the effect of electrolysis, relay coils operating on DC shall be so connected such that they are not continuously connected from the positive pole of the station battery.
- j) The relay thermal rating shall be such that the fault clearance times on any combination of current and time multiplier settings shall not exceed the thermal withstand capability of the relay.
- k) The relay communication protocol capability shall comply with Modbus TCP and IEC 61850.
- l) The relay shall be fitted with two Ethernet copper (RJ45) ports, one at the back for remote communication and one at the front for local communication/maintenance. The front port must have a plug-in blind for security of the port.

2.3.5 Indications and Instruments

All instruments shall be flush mounted and shall be in accordance with the requirement of IEC 51. The cubicle shall have the following indications.

- i) One indicator lamp to show the breaker in closed position - RED color.
- ii) One indicator lamp to show the breaker in open position - GREEN color.
- iii) One indicator lamp to show breaker Auto-trip - Amber color.
- iv) One Digital ammeter for load measurements, range programmable 0 -9999A, three phase indication.
- v) One Digital Voltmeter for busbar line voltages measurement, range programmable 0-20kV- L1-L2, L2-L3, L3-L1.

2.3.6 Power Cable Termination

Cable compartment design shall be suitable for heat shrinkable (or equivalent) jointing application termination. The following provisions shall be made: -

- i) Three core single gland fabricated sheet steel cable boxes complete with gland and armour clamp suitable for receiving one (1) single core 11kV cable upto 400mm² 11kV XLPE cable per phase.

ii) The cable connection terminals shall be located at least 250 mm from the current transformer primary terminals.

2.4 RATINGS OF SWITCHGEAR EQUIPMENTS

a) Feeder Circuit Breaker, 1 pc

No.	Feature	Specification
1.	Interrupting Medium	Vacuum
2.	Number of poles	3
3.	Rated Voltage	12kV
4.	Highest equipment Voltage	17.5kV
5.	One minute power frequency withstand voltage	28 kV
6.	Impulse withstand voltage	75kV
7.	Frequency	50 Hz
8.	Rated short time current	50kA
9.	Rated short time making current (peak)	125kA
10.	Rated Short circuit current withstand	50kA
11.	Short circuit withstand time	3 seconds
12.	First pole to clear factor	1.5
13.	Operating sequence	O-0.3 sec-CO-15 sec.-CO
14.	Auxiliary D.C. voltage for closing and tripping coils	110VDC
15.	Auxiliary AC voltage	240V AC, 50Hz
16.	Tripping/closing coil auxiliary voltage	110 V DC
17.	Spring charging motor supply	110 VDC
18.	Shunt closing release	110 VDC
19.	Shunt Opening release	110 VDC
20.	Locking magnet (CB in/out isolated)	110VDC
21.	Contacts signaling CB in connected and isolated positions	Minimum 3NO and 3NC respectively.
22.	Auxiliary contacts	-Set of 10 circuit-breaker auxiliary contacts. -Set of 5 extra circuit-breaker auxiliary contacts 3C/2O
23.	Rated normal Current – Feeder	1600 A

24.	Interlocking (for operation)	110VDC coil
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b) Busbar Section

No.	Feature	Specification
1.	Number of poles	3
2.	Rated Voltage	12kV
3.	Highest equipment Voltage	17.5kV
4.	One minute power frequency withstand voltage	28 kV
5.	Impulse withstand voltage	75kV
6.	Frequency	50 Hz
7.	Rated short time current	50kA
8.	Rated short time making current (peak)	125kA
9.	Rated Short circuit current withstand	50kA, 3 seconds
10.	Rated normal Current – Bus-sections, Branch	1250 A
11.	Rated normal Current – Bus-sections, Main	4000 A

c) Current Transformers for the switchgear Panel

i) Load Measurement CT, 3 pcs

No.	Feature	Specification
1.	Type	
2.	Rated Voltage	12kV
3.	Highest equipment Voltage	17.5kV
4.	One minute power frequency withstand voltage	28 kV
5.	Impulse withstand voltage	75kV
6.	Frequency	50 Hz
7.	Rated short time current	50kA
8.	Rated Short circuit current withstand	50kA, 1 second
9.	Primary Current	150 A
10.	Secondary Current	1/1 A
11.	Number of Secondary cores	2
12.	Core 1 accuracy class, Burden	c1-0.5, 15VA
13.	Core 2 accuracy class, Burden	5P10, 15VA

ii) Core Balance CT, 1 pc

No.	Feature	Specification
1.	Type	Core Balance
2.	Primary Current	50 A
3.	Secondary Current	1 A
4.	Number of Secondary cores	1
5.	Core 1 accuracy class, Burden	10P10,1.0VA
6.	Ring Core, Bush opening	300mmX500mm

d) Voltage Transformer on truck, 3 pcs

No.	Feature	Specification
1.	Type	On Truck
2.	Rated Voltage	12kV
3.	Highest equipment Voltage	17.5kV
4.	One minute power frequency withstand voltage	28 kV
5.	Impulse withstand voltage	75kV
6.	Frequency	50 Hz
7.	Primary voltage	11000/ $\sqrt{3}$ V
8.	Secondary voltage, Core 1	110/ $\sqrt{3}$ V
9.	Secondary voltage, Core 2	110/ $\sqrt{3}$ V
10.	Number of Secondary cores	2
11.	Core 1 accuracy class, Burden	c1-0.5, 50VA
12.	Core 2 accuracy class, Burden	6P 50VA
13.	HV Fuses	3 pcs

e) Earthing Switch

No.	Feature	Specification
1.	Type	
2.	Rated Voltage	12kV
3.	Rated Short circuit current withstand	50kA, 1 second
4.	Interlocking (for operation)	110VDC coil
5.	Auxiliary contacts, NO	5
6.	Auxiliary contacts, NC	5

2.5 FACTORY ACCEPTANCE TESTS (FAT) (To be read together with clause 1.10.3)

The switchgear panel shall be tested in accordance with the requirement of IEC 60298. Tests shall be carried out on the circuit breaker as per the requirement of IEC 62271-100.

Current transformers and Voltage transformers shall be tested in accordance with the requirement of IEC 60044-1 and IEC 6044-2 respectively.

The following tests shall be carried out during the FATs, by the contractor in presence of the client's engineers.

2.5.1 Switchgear panel

- a) Dimensional Checks
- b) Operational Tests
- c) Primary Injection Tests
- d) Calibration Tests on Relays
- e) Insulation Test
- f) Contact resistance test of Primary joints
- g) Lightning Impulse withstand test
- h) Power frequency Withstand Test on Instrument transformers

2.5.2 Circuit Breaker

Routine tests

- a) Operation test.
- b) High Voltage test, dry.
- c) Voltage tests on controls and auxiliary circuits.
- d) Main Contact resistance tests- both static and dynamic.

Type Tests

- a) Mechanical endurance test
- b) Temperature rise test.
- c) Impulse voltage test
- d) Interrupting Capacity

The bidder shall submit copies of Type Test Certificates for a similar rated Circuit Breaker and Certified by National Standards and Testing Authority body or Reputable Third-Party Test Laboratory during tender submission for evaluation purposes.

2.5.3 Current Transformer

Routine tests shall be carried out at the manufacturer's plant as per the requirement of IEC 60044-1, as listed below, in the presence of CLIENT Engineers.

- a) Polarity test and verification of terminal markings test
- b) Ratio and phase angle error test (accuracy class composite error test)
- c) Power frequency tests on primary and secondary windings
- d) Power frequency withstand tests between sections (windings)
- e) Inter-turn over voltage tests
- f) Partial discharge measurement

Certificates and type Test report for the following type tests shall be provided during the FAT: -

- a) Lightning Impulse voltage withstand test
- b) Temperature rise test
- c) Short time current test
- d) Determination of Errors test
- e) Radio Interference voltage measurement (RIV)

2.5.4 Voltage Transformer

Routine tests shall be carried out at the manufacturer's plant during FATs as per the requirement of IEC 60044-2, as listed below:-

- a) Polarity tests and verification of terminals
- b) Power frequency withstand tests on Primary windings
- c) Power frequency withstand tests on secondary windings
- d) Power frequency withstand tests between sections
- e) Determination of errors
- f) Partial discharges measurement

Certificates and type test report for the following type tests shall be provided during the FATs:-

- a) Temperature rise test
- b) Lightning Impulse Test
- c) Determination of errors
- d) Short-circuit withstand test capability
- e) Measurement of the radio interference voltage (RIV)

2.5.5 Protection Relay Tests

- a) Relay Pick-up tests for all functions and phases
- b) Relay timing test for all functions and phases
- c) Relay auto-reclose test
- d) Directional characteristic test

2.6 TRAINING

2.6.1 Factory Training

During the FATs the manufacturer shall conduct complete training for the following equipment for at least three (3) Client's Engineers: -

(a) Overcurrent and Earth Fault Relay

The Training content shall include: -

- i) Theory on application of all the functions included in the relay
- ii) Complete configuration of the relay using software including creation and editing of the switchgear Mimic
- iii) Relay parameter setting
- iv) Downloading and analysis of all the data including disturbance recording
- v) Installation and testing
- vi) Troubleshooting and repair
- vii) Complete testing of all the relay functions

(b) 11kV Circuit Breaker.

The Training shall include: -

- i) Functions of the Circuit breaker
- ii) Installation checks and operational tests
- iii) Inspections, repair and maintenance

(c) Power/Energy Measurement Unit

The training content shall include:-

- i) Theory on application of all the functions included in the meter
- ii) Complete Configuration and parameter setting of the meter using software
- iii) Downloading and analysis of all the data including events
- iv) Installation and testing
- v) Troubleshooting and repair

The manufacturer shall plan adequate time for the training separate from the FATs. The duration of the training shall however not be less than three (3) eight-hour working days.

The Training shall be considered to have been successful once the engineers are able to carry out all the above activities on their own. The manufacturer shall conduct evaluation tests and give a feedback report on the training to the client for each of the engineers.

2.6.2 Training at Site

The manufacturer shall conduct complete training for the following equipment at site-Mombasa Kenya

(a) Overcurrent and Earth Fault Relay

The Training shall include :-

- i) Theory on application of all the functions included in the relay
- ii) Complete Configuration of the relay using software Relay parameter setting
- iii) Downloading and analysis of all the data including disturbance recording
- iv) Installation and testing
- v) Troubleshooting and repair
- vi) Complete Testing of all the relay functions

(b) 11kV Circuit Breaker

The Training shall include: -

- i) Functions of the Circuit breaker
- ii) Installation checks and operational tests
- iii) Inspections, repair and maintenance

(c) Power/Energy Measurement Unit

The training content shall include :-

- i) Theory on application of all the functions included in the meter
- ii) Complete Configuration and parameter setting of the meter using software
- iii) Downloading and analysis of all the data including events
- iv) Installation and testing
- v) Troubleshooting and repair

The Training shall be conducted for Ten (10) technical staff members (Engineers and Technicians) at a venue as shall be arranged by the client. The duration of the training shall be at least three (3) days.

The training shall be considered to have been successful once the engineers/technicians are able to carry out all the above activities on their own. The manufacturer shall conduct evaluation tests and give a feedback report on the training to the client for each of the engineers/technicians.

2.7 Switchgear Panel Devices

(This shall be read together with particular technical specification for control and protection 2.8)

2.7.1 General Requirements

- a) The equipment for the control system shall be highly reliable, long – lived and suitable for continuous operation.
- b) All instrument scales, coils, relay contacts and other features shall be suitable for the apparatus controlled or the purpose intended
- c) It shall be the contractor's responsibility to properly design the electrical control, protective relaying, alarm and indication schemes related to the 11kV switchgear panel.

d) The contractor shall prepare arrangement and detailed drawings, equipment lists and wiring diagrams based on the requirements for relays, control switches, meters, indicating lamps and other devices including those to be supplied under other subsections.

e) Protection against electrical faults and abnormal conditions on 11kV switchgear panel and the outgoing 11kV feeder shall be conducted by the protective relay and associated switchgear.

2.7.2 Bill of Materials

The items listed under the Schedule of requirements shall be installed and connected to form a complete and safe working system. Any components and accessories required to form a complete safe and correct working system, though not listed below shall be installed wired and connected by the manufacturer shall be deemed to have included in the bid and contract price.

2.7.3 Switchgear Panel Protection Relay, Controls and Measuring Devices Requirements

The switchgear panel shall be equipped with the following protection relays, measuring and indicating devices, controls and other accessories.

a) Three phase directional overcurrent and earth fault relay

b) A Power measurement unit shall be provided for switchgear panel to capture instantaneous, totalized, and maximum demand values for the following parameters: I, kV, MW, MVAR, p.f, MWh, MVARh

c) Current Transducer; output 0-20mA, for input current of 0 – 1 Amp

d) Digital ammeter, for three phase current indication, range programmable 0-9999A, input 0-1A, 1 pc

e) Digital voltmeter, range programmable 0-20kV (3 phase), Input 0-110VAC

f) Circuit breaker control switch (Close, Open &Neutral), with a mechanical Lock

g) Circuit Breaker ON (red), OFF (green) and auto-trip (amber) indication lamps

h) Anti-condensation heaters for the Circuit Breaker and the LV compartment

i) Hygrostat with separate humidity and temperature control setting to control the heater.

j) Door switch operated lighting point and bulb

k) Suitably rated MCBs for auxiliary 110V DC for control, 110V DC for Trip, 110VDC for motor, 240 V AC for heaters and illumination.

2.7.4 Protection Relays

References

IEC 60255: Electrical Relays

General Requirements

a) The protection relay shall be a numerical type.

b) The protective relays and auxiliary relays shall operate successfully for any value of the DC supply voltage between 85% and 125% of the rated voltage of 110V DC without exceeding the temperature rise limits for the operating coils.

- c) The protection relay shall be of the panel flush mounted, back connected, type with rectangular case. Each relay shall have a removable transparent cover or cover with a transparent window making the front of the relay visible.
- d) The protection relay shall be equipped with adequate electrically independent contacts, of adequate rating for Trip and Alarm functions. The relay shall also have adequate number of LEDs to assign each of the available protection functions.
- e) Test facilities for each AC current secondary circuit so as to provide access for testing of the protective relay and its associated circuits. This shall be provided on the terminal block and will consist of isolation links on the current transformer and voltage transformer circuits and suitable terminals for insertion of test leads banana terminals for injection of secondary current and voltage.
- f) Each current transformer circuit shall be earthed through a removable link at one point only in the control compartment's terminal block. The protection trip and alarm circuit for the panel shall be provided with an isolation link to facilitate isolation of the trip or alarm circuit for testing and trouble-shooting of the circuits.
- g) Relays contacts shall be suitable for making and breaking the maximum currents, which they may be required to control in normal service. Where contacts of the protective relays are unable to deal directly with the tripping currents, Auxiliary Trip relays shall be provided. This will ensure safety for the protection relays output contacts.
- h) Auxiliary relays, of Static or electromechanical design, with mechanical flag indicators are acceptable.
- i) Relays contacts shall make firmly without bounce and the whole of the relay mechanism shall be as far as possible unaffected by vibration or external magnetic fields.
- j) Relays shall be provided with clearly inscribed labels on the surface of the panel describing their application in words e.g., "Three overcurrent & earth Fault relay" in addition to the IEC numbering.
- k) To minimize the effects of electrolysis, relay coils operating on DC shall be so connected that the coils are not continuously connected from the positive pole of the battery.
- l) The relay thermal rating should be such that the fault current clearance times on any combination of current and time multiplier setting shall not exceed the thermal withstand capability of the relay (Maximum Fault current = 50 kA).
- m) The numerical relay shall be equipped with two RJ45 (Ethernet) communication ports, one at the back for remote communication and one at the front for local communication/maintenance. The front port must have a plug-in blind for security of the port.
- n) The relay shall also have an HMI with LCD screen and keypad to facilitate manual relay programming and data access.
- o) Relay operation due to system fault, shall be indicated by a Red L.E.D. and the fault details (flags) shall be displayed on the MMI. Both the relay fault flags and red L.E.D shall be reset via reset push buttons without opening the relay Cover.
- p) The relay communication protocol capability shall comply with Modbus TCP and IEC 61850.

2.8 Detailed Specifications for Relays, Measuring and Indicating Instruments, Control Switches and Other Accessories

These specifications indicate the required performance characteristics for each of the Protection Relays and are in accordance with IEC 60255.

2.8.1 Overcurrent and Earth Fault Protection Relay

- i) Relay must be of Numerical Design
- ii) Shall be suitable for mounting on the panel front.
- iii) Rated auxiliary Supply voltage; 40 – 265 V ac/dc
- iv) Frequency; 50/60 Hz
- v) Number of phases; 3 phases
- vi) Overcurrent rated phase current I_n ; 1A
- vii) Overcurrent measuring range; $0 \dots 50 \times I_n$
- viii) Earth fault rated neutral current I_{on} ; 1A
- ix) Earth fault current measuring range $0 \dots 5 \times I_n$
- x) I.D.M.T characteristics according to BS142 or IEC60255 i.e. SI, VI, EI, LTI, including definite time for the high-set Elements.
- xi) Time setting multiplier 0.05 - 1.0
- xii) Thermal Withstand; $4 \times I_n$ (continuous), $20 \times I_n$ (for 10 s), $100 \times I_n$ (for 1 s)
- xiii) Broken conductor protection feature
- xiv) Circuit breaker maintenance
- xv) Fault records and event records
- xvi) Drop off /pickup ratio $> 90\%$
- xvii) Low transient overreach $< 10\%$
- xviii) Digital inputs - Number of inputs 1
- xix) Trip and start contacts shall be freely configurable to the output relays.

Trip contacts

- Number of contacts 2 making contacts (relays T1 and T2)
- Rated voltage 250 V ac/dc
- Continuous carry 5 A

Alarm contacts

- 3 making contacts (relays A1, A2 and A3)
- 1 making contact (IF relay)
- Rated voltage 250 V ac/dc
- Continuous carry 5 A

xx) Communication ports

- Local communication Ethernet port
- Number of ports; 1 on front
- Data transfer rate; 10Mbps/100Mbps
- Electrical connection RJ45
- Remote control connection
- Number of ports; 1 on rear panel
- Electrical connection; RJ45
- Protocols; Modbus TCP, IEC61850
- Data transfer rate; 10Mbps/100Mbps

xxi) Environmental conditions

- Operating Ambient temperature; $-40 - 60^\circ\text{C}$ ($-40 - 140^\circ\text{F}$)
- Relative air humidity $< 95\%$
- Maximum operating altitude; 2000m ASL

xxii) Degree of protection according to IEC 60529

At least: IP30 front panel.

2.8.2 Circuit breaker Close/Open control Switch

- i) The switch shall have a mechanical interlock to prevent accidental operation of the switch.
- ii) It shall have a close, neutral and open positions engraved on the switch, black letters on white background. After an operation, the switch shall return to the neutral position by spring action.
- iii) The terminals of the switch shall be screw-type and shall be indelibly marked.

2.8.3 Digital meters

a) Ammeter

- i) The connection shall be 3-Phase, 4-Wire
- ii) Auxiliary power supply shall be 110 V AC/DC.
- iii) The transducer terminals shall be of screw type, large enough to accommodate up to 4 mm² cable and shall be indelibly marked.
- iv) Display range 0-150A
- v) Input: 0-1A
- vi) Individual display for each phase current in ampere
- vii) Size: (H)96mm X (W)96mm X(D)43mm
- viii) Output shall be 0/4 - 20 mA
- ix) Mounting- Panel flush mounting

b) Voltmeter

- i) The connection shall be 3-Phase 4-Wire
- ii) Inputs 0-110V AC
- iii) Auxiliary power supply shall be 110 V AC/DC
- iv) Individual display for each phase voltage
- v) Output shall be 0/4 - 20 mA
- vi) Selectable display between Phase- Neutral and line- Line voltage.
- vii) Frequency display function available
- viii) Size: (H)96mm X (W)96mm X(D)43mm
- ix) The transducer terminals shall be of screw type, large enough to accommodate up to 4mm² cable and shall be indelibly marked.
- x) Mounting- Panel flush mounting

c) Current Transducer

- i) Input 0- 1A
- ii) Output 0/4 –20 mA
- iii) Auxiliary power supply shall be 110 V AC/DC
- iv) Transducer terminals shall be screw-type, large enough to accommodate upto 4mm² cable and indelibly marked.

d) Molded Case Circuit Breakers

- i) Three phase unit with Auxiliary contact
- ii) Rated operating voltage, 400V AC
- iii) Rated Insulation voltage 600V AC
- iv) Rated frequency 50 HZ
- v) Setting value of Thermally delayed Overload release, 3 A
- vi) The auxiliary switch should have 1 NC & 1 NO contact.
- vii) Suitable for fixing on a DIN rail
- viii) Terminals suitable for connection of upto 4 mm² cable

e) Miniature Circuit breaker

- i) Three phase unit with Auxiliary contact
- ii) Rated operating voltage, 400V AC
- iii) Rated Insulation voltage 600V AC
- iv) Rated frequency 50 HZ

f) Anti-condensation Heater

- i) The heater should be suitable for mounting inside the circuit breaker, the cable and the LV compartment.
- ii) The Heater for each compartment shall be adequately rated to preventing condensation within the respective compartment.

g) Indicating Lamps

- i) Shall be suitable for mounting on the front of the panel.
- ii) The Lamp Indicators should be rated for 130V DC and equal or less than 2.5W rating.
- iii) The lamp indicators should be designed for continuous operation and give a long life of at least 10 Years.
- iv) The bulb shall be easily replaceable without using a special tool.
- v) The Lamp Indicators shall be of LED design.
- vi) For the circuit breakers, red indicating lamps shall be used for “ON” position, green lamps for “OFF” position indication and amber for circuit breaker auto trip.

h) Power/Energy Measurement Unit

- i) This is a power monitoring meter for panel mounting
- ii) The unit shall be of numerical design
- iii) The unit shall have a large LCD display for displaying the measurements
- iv) The unit shall measure instantaneous values of; rms voltage, both phase – phase and phase to ground, currents, active reactive and apparent power, energy, frequency, power factor and phase angle per phase
- v) The unit shall have the following input ratings, 1A and 110V AC phase to phase.
- vi) The unit shall be for flush mounting on the front of the panel
- vii) The unit shall be for 3 phase, 4 –wire connection on the secondary of current and voltage transformers
- viii) The unit shall be equipped with an RJ45- Ethernet port for programming the unit to ensure correct measurement and display of the parameters. The CT and VT ratios shall be programmable.
- ix) The accuracy of measurement shall be at least class 1.0
- x) It shall be possible to display all the measured parameters on the screen through the pre-programmed display screen. The screen to be displayed shall be selectable using the keys on the front of the unit
- xi) The software and the PC to measurement unit connection cable shall be supplied with the unit.
- xii) The LCD screen shall be large enough to accommodate at least three measurands simultaneously
- xiii) All the terminals shall be clearly marked
- xiv) The measurement range for power shall at least be up to 5 MVA.
- xv) The measurement unit terminals shall be screw-type, large enough to accommodate 4mm² cable and indelibly marked.

SCHEDULE II- SUPPLY, INSTALL, TEST AND COMMISSIONING 11KV UNDERGROUND CABLE AT KIPEVU III POWER STATION

3.0 Technical specifications –11 kV Underground Cable

3.1 Introduction

KenGen wishes to interconnect Kipevu III Power Station medium voltage busbar to the Kipevu I Power Station medium voltage busbar at 11kV. The medium voltage busbars located at the respective Medium Voltage Switchgear Rooms are the connection points for the Station transformers supplying the respective station loads. KenGen intends to interconnect the two medium voltage busbars to ensure supply of station loads between the stations. These shall be achieved through installation of 11kV switchgear panel as per Schedule I above and an underground 11kV cable (Schedule II).

3.2 Underground Cable

3.2.1 General

All cables accessories and materials shall be in accordance with the latest editions (including all amendments) of IEC and ISO recommendations.

The cable shall be designed and manufactured in accordance with BS 6622, IEC 60502-2 and the requirements of this specification.

All cables shall be suitable for operation:

- on a system with direct earthing of the transformer neutral
- under maximum load (ONAF conditions) plus 10 % specified for respective transformers
- in the climatic conditions prevailing at site

No joints shall be allowed. Special precautions shall be taken to avoid ingress and spreading of moisture and development of water-treeing.

All materials used shall be compatible and suitable for the continuous operating temperature of the cable of 90°C and short circuit temperature of 250°C (5seconds max duration) as per IEC 60502-2.

3.2.2 Scope

The scope of the works shall include the supply, installation, testing and commissioning of 11kV armored 3-core 150mm² XLPE underground cable. The cable shall be interconnecting the medium voltage (11kV) busbar at Kipevu III Power Station and Kipevu I Power Station Medium voltage (11kV) busbar. The distance between the two busbars is approximately 1km (it is the responsibility of the contractor to confirm the actual distance at site during site visit).

The cable will be laid in trenches underground that will be as straight as possible avoiding sharp bends. The areas where trenches are to be excavated will be marked clearly on the ground. If the location of other services is known, they will be marked to take necessary precautions. Before construction commences, trial pits will be made to confirm the soil strata of the planned trenches and to confirm the location of other services. Safety precautions such as covering the trench, fencing, and warning signs will have to be provided during the period of work.

When designing the plan for the trench layout, the minimum bending radii as per clause 3.7.1 shall be adhered to.

Backfilling the trenching to the satisfaction of engineer shall be done. The contractor shall terminate the cable at both ends i.e. 11kV busbar at Kipevu III Medium Voltage Switch Gear Room and at the Kipevu I Medium Voltage Switch Gear Room.

The contractor shall carry out Commissioning tests on the new cable.

3.2.3 Conductors

All conductors shall be a Class 2 stranded aluminium. The conductor shall be clean, uniform in size, shape and quality, smooth and free from scale, splits, sharp edges and other harmful defects. The conductor shall be in accordance with IEC 60228. The conductor shall be filled with swelling powder to stop axial ingress of moisture.

3.2.4 Cable Construction

The conductor shall be covered with:

- An extruded semi-conducting layer
- A layer of dry vulcanized cross-linked polyethylene (XLPE) insulation
- An extruded strippable semi-conducting layer
- A watertight copper tape screen
- Extruded inner covering and filler.
- A layer of swelling tape to prevent axial ingress of water along the screen
- A layer of earthing screen of stranded aluminium
- An outer polyvinyl chloride compound (PVC) sheath for water tightness and mechanical protection.

3.2.5 Laying-up and Fillers of Three Phase Cables

The cores of three-phase cable shall be laid-up together with suitable fillers, wormed circular and binding tapes applied overall.

3.2.6 Cable markings

The manufacturer's identification shall be provided throughout the length of the cables embossed on the outer PVC sheet together with identification and voltage markings.

3.2.7 Armour

The cable shall be armored according to approved manner

The armour shall consist of non-magnetic round aluminium or aluminium alloy wires applied helically with a left-hand lay. The dimensions of armour wires and tapes shall not fall below the nominal dimension values.

An extruded separation layer (bedding) of black polyvinyl chloride (PVC) or Polyethylene (PE) shall be applied between the core and the armour.

3.2.8 Over sheath

Overall sheath shall comprise of a layer of extruded either PVC type 9 conforming to BS 7665- 4.2 or type TS2 conforming to BS 7655-10.1. The extruded oversheath shall be black in colour and shall meet the requirements of IEC 60502-2.

When a DC voltage test is performed on the over-sheath, a semi-conducting layer such as graphite coating shall be applied over the surface of the extruded over-sheath

The oversheath PVC material shall have operating temperature range of -5°C to 90°C, short circuit temperature of 250°C and shall withstand a power frequency test voltage of 25.5kVrms.

3.2.9 Insulation material requirements as per BS6622

Component	Property	Test Method	Requirement
Extruded PVC oversheath	Minimum tensile strength	BS EN 60811-1-1	12.5N/mm ²
	Minimum elongation at break		150%
	Maximum variation of tensile strengthA)		25%
	Maximum variation of elongation at breakA)		25%
Extruded inner covering	Minimum tensile strength	BS EN 60811-1-1	4 N/ mm ²
	Minimum elongation at break		50%
Extruded separation sheath-Bedding	Minimum tensile strength	BS EN 60811-1-1	4 N/ mm ²
	Minimum elongation at break		50%
Insulation screen	Maximum resistivity at 90°C	BS 6622 Annex J	1 000 Ω·m
	Forces to remove cold strippable insulation screen	BS 6622 Annex J	8N to 45N
Insulation	Maximum variation of tensile strength A)	BS EN 60811-1-1	25%
	Maximum variation of elongation at breakA)		25%
Conductor screen	Maximum resistivity at 90°C	BS 6622 Annex J	1 000 Ω·m
Semiconducting lapped inner covering	Maximum resistivity at 23_+5°C	BS 6622 Annex K	1500 Ω /square
A)The variation is the difference between the values obtained prior to and after heat treatment, respectively, expressed as a percentage of the former.			

3.2.10 Standard cable characteristics

The dimensional requirements for the cable shall conform to the table below:

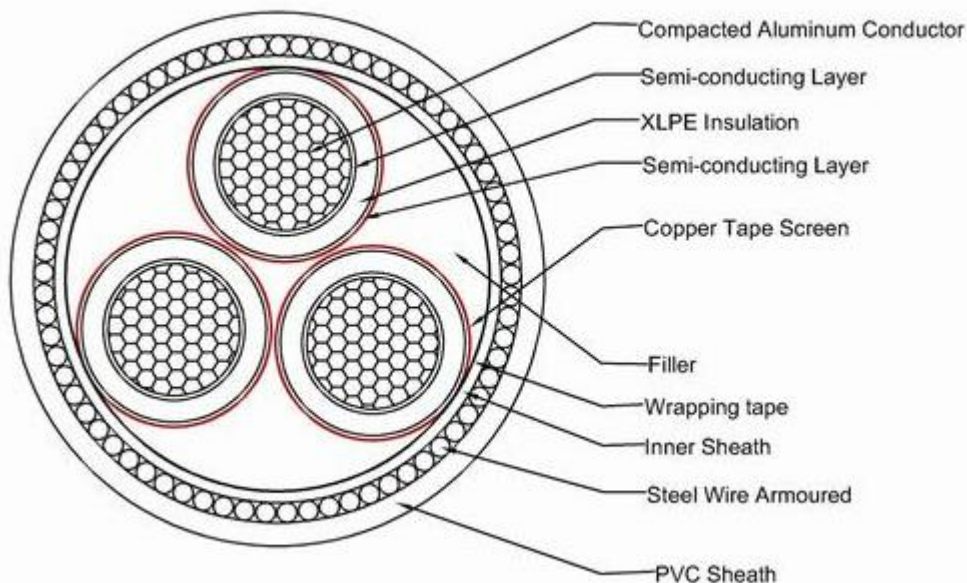
Dimensional data for the XLPE cables as per IEC 60502-2, IEC 60228 and BS 6622.

Cable type	AL/XLPE/SC/SWA/PVC	
According to regulation	IEC60502-2	
Rated voltage (U)	(kV)	15kV
Voltage to neutral (U ₀)	(kV)	8.7kV
Material of conductor	Aluminium	
Nominal cross-section area of conductor	(mm ²)	150mm ²
Number of cores/conductors	3 Core	
Material of insulation	XLPE	
Identification of cores	Red-Yellow-Blue	
Thickness of insulation	(mm)	4.5
Screen size	(mm ²)	25mm ²
Armouring type	Round Galvanized Steel wires SWA	
Material of cable sheath	PVC	
Thickness of cable sheath	(mm)	2.8
Overall diameter (Approx.)	(mm)	66.0
Permissible operating temperature of conductor	(°C)	90
Permissible temp.in emergency overload	(°C)	130

Permissible short-circuit temperature up to 5 sec.	(°C)	250
Permissible final temperature of copper screen	(°C)	250
Nominal short-circuit current for 1 second of conductor	(kA)	14.1
Nominal short-circuit current for 1 second of screen	(kA)	3.3
Conductor DC resistance at 20 °C	(Ohm/km)	0.206
Conductor AC resistance by maximum temperature	(Ohm/km)	0.269
Insulating resistance at 20 °C (Approx.)	(Mohm x km)	75000
Current carrying capacity in ground (20 °C)	(A)	260
Current carrying capacity in air (30 °C)	(A)	309
Maximum dielectric loss of cable	(W/km)	6.0
Conductor losses in the ground	(kW/km)	70
Charging current per phase	(A/km)	0.59
Operating capacitance	(uF/km)	0.29
Phase inductance	(mH/km)	0.30
Dielectric power factor at U ₀ (tan δ)		0.0004
Inductive reactance	(Ohm/km)	0.09
Capacitive reactance	(Ohm/km)	0.01
Net weight of cable	(kg/km)	7450
Minimum bending radius of cable	(mm)	12xD
Standard length of drum	(m)	1000

Note: D- Cable diameter

3.2.11 Basic cable construction



3.3 Testing

Notwithstanding that the cable is manufactured to approved standards all cables, accessories and materials shall be subjected to and withstand satisfactorily the test requirements detailed in this specification. All materials shall withstand such routine tests as are customary in the manufacture of the cables and accessories included in the tender.

Test Reports for the cable to be supplied under the contract shall be submitted to KenGen for approval before delivery and shall include the following:

- A. Material tests as per BS 6622, IEC 60502-1 and IEC 60811-1-1
 - a) Conductor screen resistivity

- b) Insulation material grade test
 - c) Insulation screen resistivity,
 - d) Insulation screen cold strippability,
 - e) Semiconductor lapped inner covering resistivity,
 - f) Separation (bedding) sheath material
 - g) Armour
 - Tensile test for aluminium wires
 - h) Oversheath material grade test
 - Material
 - Shrinkage
 - i) Compatibility test
 - j) Test under fire conditions.
- B. Electrical tests as per BS 6622, IEC 60502-1, IEC 60230, and IEC 60885-3
- a) Partial discharge test
 - b) Bending test
 - c) Tan ϕ in relation to voltage
 - d) Tan ϕ in relation to temperature
 - e) Heating cycle test
 - f) Impulse voltage test
 - g) Four-hour voltage tests
 - h) Adherence of screens in short circuit temperature.

Routine and sample test reports for the cable to be supplied shall be submitted to KENGEN for approval before supply of the goods.

- a) Conductor material and construction
- b) Insulation resistance tests
- c) Conductor and armour resistance tests
- d) Laid up cores and core identification
- e) Dimensional checks
- f) Compatibility checks
- g) Fire test on single cable.
- h) Spark resistance tests.

Upon delivery of the cable KenGen will inspect and may perform or have performed any of the relevant tests to verify compliance with the specifications. The supplier shall replace/rectify without extra or additional charge to KenGen which upon examination, test or use fail to meet any of the requirements in the specification.

3.4 Sealing and drumming

The cable shall be wound on strong drums arranged to take a round spindle of a section adequate to support the loaded cable drum during installation and handling. The drums shall be lagged with closely fitting battens that shall be securely fixed to prevent damage to the cable. Wooden drums shall be constructed of seasoned timber to prevent shrinkage of drums during shipment and subsequent storage at site. Each drum shall be clearly marked including indication of direction of rolling.

The ends of the cables shall be suitably sealed to prevent ingress of moisture. The end of the cable left projecting from the drum shall be securely protected against damage by mishandling during

transport and storage.

3.5 Current carrying Capacity and Design Parameters

The maximum continuous current carrying capacity and maximum permissible continuous conductor temperature, and the factors for determining such rating and temperature shall be based on recommendations found in IEC 60287, subsequent amendments and all conditions prevailing on the Site

3.6 Terminations

Detailed drawings showing the types of cable sealing ends, terminal arrangements shall be submitted to the Project Manager for approval. Stress cones or other approved means shall be provided for grading the voltage stress on the core insulation of the cables.

The terminations for the cables shall be of an appropriate heat shrink design incorporating a suitable arrangement for stress control.

Termination kits shall include suitable heat shrink tubing to effectively shroud, seal and insulate the exposed cable conductor and shall include a heat shrink glove to effectively seal the crutch of the cable to prevent ingress of moisture into the interstices of the cable. Suitable arrangements shall be provided to earth the cable screens and armour.

Terminations into cable boxes shall include brass compression glands and back nuts of the correct size, which shall secure the cable outer sheath and ensure effective continuity between the cable armouring wires and the metal enclosures on which the cables are terminated. At all rising terminations the cable inner sheath shall passthrough the gland to terminate not less than 6 mm above the gland.

3.7 Heat Shrink Materials

Heat shrink tubing and moulded parts shall be flexible, flame retardant, polyofin - based material of electrical insulating quality, and shall be obtained from an approved manufacturer. They shall be suitable for use indoors or outdoors in the conditions prevailing on site

The material shall reduce to predetermined size and shape when heated above 120 °C. The components shall also be provided with an internal coating of hot melt adhesive compound that shall not flow or exude at temperatures below 85 °C.

Each part shall bear the manufacturer's mark, part number and any other necessary marking to ensure correct identification for use on the correct size and type of cable. Each set of parts shall be packed as one unit with full and complete installation instruction and clearly marked to show the application.

3.8 Installation

3.8.1 General

The cables shall be directly buried in the ground and the lying shall be as straight as possible avoiding sharp bends.

The areas where trenches are to be excavated will be marked clearly on the ground. If the location of other services is known, they will be marked in order to take necessary precautions.

Before excavation commences trial pits will be made in order to confirm the soil strata of the planned trenches and to confirm the location of other services.

Safety precautions such as covering the trench, fencing and warning signs shall be provided by the contractor during the period of work.

When designing the plan for the trench layout, the minimum radius shall be as in the following table.

Table: Bending Radii

Bending radii	Single core	3-core
Recommended	17xD	15xD
Minimum	15xD	12xD
At sealing ends	12xD	10xD

D = cable diameter

3.8.2 Cable Marker

Cable markers shall be installed at the beginning and end of the cable run on the surface all along the route, at all changes of direction, and above all joints, above cable duct entries and exits and at an interval not exceeding 30m along the cable route.

3.8.3 Excavation of Trenches

The trench will be dug vertically to a minimum depth of 800mm or more as required.

All precautions must be made so as not to cover any services e.g. fire hydrants with soil that may be encountered in the path of the trench.

During works on public roads passage and access of motorists and pedestriansto commercial areas must be maintained.

If trenches are constructed in soggy or inconsistent soil, the cables will be laid inside a duct as a protective measure and precautions taken to prevent the entry of water at the ends or joints of the ducts

The bottom of the trench must be made of firm material in order to prevent collapse of the base that may subject the cable to mechanical stress.

Where several cables of different voltages are laid in the same trench they will be placed at different depths. The cables of the higher voltage will be placed deepest.

Where the trench is too deep as to cause instability to the walls of the trench shoringwill be placed to provide lateral support to the trench walls.

The separation between two groups of cables will be a minimum of 250mm. If this separation cannot be attained, they will be laid in ducts or will be separated by a layer of bricks.

3.8.4 Backfilling of Trenches

Once the cable has been laid, the trenches must be back filled to an adequate compaction level. Care must be taken to ensure that the first layer covering the cables will be free of rocks or any sharp mechanical objects.

The back fill will be laid in layers of 150mm, which should be compressed and watered,if necessary, in order to make the soil sufficiently compact.

3.8.5 Roads, Access ways and Pavement Reinstating

Any roads, access ways or pavements affected by the works of the trenches shall be reinstated back to the original status. All new materials used shall be in accordance with national constructions standards with approval of the client's Supervisor in charge.

3.8.6 Ducts

Road crossings when necessary will be done with ducts in the following manner

- they will be installed in a level position and concreted where possible to provide mechanical protection throughout its length, they will have a depth of 1.2m.
- future expansion will be provided for by providing one or several spare ducts depending on the location of the crossing.
- at all times the cables should be adequately protected.
- road and railway crossings must be planned in full detail.
- drainage of the trenches must be provided for during and after construction.

In crossings with other normal underground services, a prudent distance will be maintained in view of future excavations, and when there is a possibility of service interference, as is the case of other electric cables, waste water sewers e.t.c.

The ducts will be fabricated from PVC or concrete with a smooth interior surface and an interior diameter of not less than 2 times the diameter of the cable to be housed insideit, and in no case will this diameter be less than 150 mm.

The joints of ducts will be sealed with cement, in which case the bottom of the trench must be carefully levelled after setting down a layer of fine sand or red soil in order to permit continuous joints.

The ducts will be laid in such a manner that there is no abrasion between the insulation of the cable and the surface of the duct.

In the cases of single core cables the cable will have to be anchored to prevent movement due to magnetic effects by concreting the ducts at the ends of the joints.This shall not apply to three core cables.

When constructing a duct a length of wire will be left inside to facilitate the fitting of cleaning elements as well as the cables themselves.

The cleaning will consist of passing inside a cylinder in order to remove concrete thatwill pass through the joints and later passing a broom or a rag to remove the residue.

3.8.7 Direct Burial

For the armoured cable the following criteria for burial will be met:

- the trench must have a 150mm layer of fine sand upon which the cable shall be laid to protect the cable from mechanical damage due to sharp objects. On topof the cable another 150mm of fine sand will be laid. Both layers will cover the entire width of the trench.
- the sand should be well graded.
- any materials used for backfilling the trench must meet the approval of the Client's Supervisor in charge.
- the cable must be buried at a depth of not less than 800mm. Exceptions could be made for rocky areas where the minimum depth cannot be attained, in this case the cable will be laid in a duct.
- cables must be protected with a layer of protective slabs, which will also indicate their presence.
- the excavated materials without mechanically sharp objects will be adequate enough to backfill the trench.
- Cables shall not be buried in areas within the substation boundaries. Necessary cable trenches shall be prepared instead to the satisfaction of the client's Supervisor in charge.

3.8.8 Galleries

When the number of cables justify their use, they shall be laid in galleries. The cables will be fixed to

the cable trays by means of brackets or clamps.

All metallic elements will be earthed with independent connectors if there are circuits of different voltages.

The cables shall not be installed where there are inflammable materials.

3.8.9 Parallel Separation

i) Low Voltage Cables

Medium Voltage cable (11kV cable) may be laid parallel to Low voltage cables as long as there is always a minimum distance of 250 mm between them. When this distance cannot be attained, a solid brick wall shall separate them or they shall be placed in ducts.

ii) Medium Voltage Cables

The distance to be maintained in the case of parallel situations of underground Medium Voltage cables is 250mm. If this distance cannot be achieved a protective brick wall will be installed between them, or one of them will be installed within ducts.

iii) High Voltage Cables

The distance to be maintained in the case of parallel situations of underground High Voltage cable is 250mm. If this distance cannot be achieved a protective brick wall will be installed between them, or one of them will be installed within ducts.

iv) Telecommunication Cables

In the case of parallel laying of telecommunications cables, they must be as far as possible from each other. As long as the cables both electric and telecommunications are buried, a minimum separation of 2000mm must be maintained at all times. This distance could be reduced further to 250mm between ducts.

v) Water pipelines

In parallel layouts between power cables and buried water pipes a minimum distance of 500mm will be maintained in a horizontal projection. If these clearances cannot be maintained the cables will be laid in ducts.

vi) Oil Pipelines

The minimum distance between the medium voltage cable and the oil pipelines will be 500mm. The cable shall be protected from any gas leaks.

vii) Sewerage Line

In the case of parallel running of the Medium Voltage cable with sewerage lines, a minimum distance of 500mm will be maintained, the cables shall be adequately protected if this distance cannot be maintained.

viii) Fuel Storage Tanks

There shall be a minimum distance of 1200mm between the medium voltage cable and fuel storage tanks, apart from providing adequate protection for the cable.

ix) Foundations of Other Services

When there are structural supports for public transport, suspended telecommunication wires, street lighting, the electric cables will be laid at a distance of at least 500mm from the outer extremities of the supports or foundations of the structures. This minimum distance shall further be increased to

1.5m if the support or foundation is subject to continuous stress towards the curb sides.

If this separation cannot be maintained a resistant mechanical safety measure must be used throughout the length of the support and its foundation, extending to a length of 500mm, on both sides of outer extremes.

3.8.10 Crossing of Roads

i) Public Roads

When crossing streets and roads cables must be laid at depths of at least 1.2m. The ducts must be durable and mechanically strong, and must have a minimum diameter of 150mm in order to permit the easy passage of the cables within the tubes. Conditions specified in the Electric Power Act must be observed at all times. Spare ducts must be provided where necessary.

ii) Crossing Other Services

a) Low Voltage Cables

When medium voltage cables cross low voltage cables, a minimum distance of 250mm must be kept between them. If this cannot be achieved, medium voltage and low voltage cables must be separated by pipes, conduits, or solid brick divisor walls.

b) Medium Voltage Cables

When crossing other medium voltage cables, the minimum distance to be observed between them is 250mm. If this distance cannot be maintained solid bricks must be laid between them.

c) Telecommunication Wires

When crossing telecommunication wires, the electric cables must be situated within conduits of appropriate mechanical resistance, maintaining a minimum distance of at least 250mm, between the outer sides.

The electric cable must be protected in PVC or concrete duct and in such a way that it guarantees that the distance between the cables is greater than the minimum established for parallel layouts.

The crossing must be at least 1000mm from a junction box for telecommunications wires and joints for electric cables will not be installed next to crossings of telecommunications cables.

d) Water Steam

There should never be a water pipe joint over the cable. A water pipe joint must be at least 2000mm from a crossing.

e) Gas

The minimum distance in crossings with gas pipelines shall be of 250mm. The crossing shall not be made over gas pipelines joints.

f) Sewers

In crossing sewage pipes it is recommended that the electric cable should be above the sewer line where possible.

g) Fuel Depots

Electric cable crossings over fuel depots will be avoided at all times, the electric cables must be laid bordering the fuel tanks, maintaining a minimum distance of 1200mm.

3.9 Transporting Cable Drums

Loading and unloading from trucks or appropriate trailers will always be made through an adequately sized and approved bar that can handle the load positioned in such a way that it passes

through the centre of the cable drum.

The cable drums will always be transported upright and never on its side.

When several cable drums are transported together they must be aligned back to back and have stopping blocks to prevent movement.

The stoppers should be uniform so that they do not pierce the cable insulation. The stoppers should span the whole length of the cable drum.

An alternative to stoppers may be to have wooden pieces nailed to the platform supporting cable drums. The stoppers will be placed at the reels of the cable drums.

The cable drum must not be tied down with ropes, cables or chains. Upon offloading the cable drum the roll must not drop down from the truck or trailer, a provisional ramp with an inclination of not more than 1/4 will instead be constructed in the case where there are no pulleys for lifting the drum. The roll can be rolled of the ramp by means of guide ropes. Sand can be placed at the bottom of the ramp to act as shock absorber and brake for the cable drum.

When rolling the drum on the ground the rotational direction must be observed so that the cable does not come loose.

When the drum is rolled care must be taken to ensure that the drum is not rolled on rough ground. Care must also be taken to ensure the reel is not broken because the splinters can puncture the cable.

Where possible the cable drums should not be exposed to the elements.

3.10 Laying of the Cable

- i. The cable drum will be installed on the site in such a way that the cable is reeled out of the top part of the drum and is not forced when the cable is laid.
- ii. During cable laying the drum will always be supported by means of a mechanical jack and a bar of the appropriate strength.
- iii. The base of the jacks will be sufficiently large as to ensure stability during operation.
- iv. When taking off the wood stoppers care must be taken such that the material used in nailing them does no damage to the cable.
- v. The cables must always be unrolled and laid with the greatest care to avoid torsion or kinks and always maintaining the correct bending radius of the cables (refer to clause: **3.7.1**)
- vi. When the cables are being laid the workers must be distributed uniformly along the trench.
- vii. The cables should also be laid using cable rollers.

3.11 Mechanical Protection

Underground electric lines must be protected against possible breakdowns caused by landslides, contact with hard bodies, and clashing of metal tools. For this purpose, a protective layer of hatari slabs of class 15 concrete will be placed.

3.12 Warning Signs

All cables must have a protection slab placed over the cables buried at least 200 mm above the cable layer. When the cables or groups of cables of different voltages are placed in vertical layers the protection slab must be placed over each layer.

3.13 Identification

The cables must bear marks indicating the year of manufacture, manufacturers name, and cable characteristics (size and voltage level) as per BS 6622.

4 Project Completion

4.1 Taking Over Certificate

On satisfactory completion of the commissioning tests of both the 11kV switchgear panel and underground cable, the client shall issue a Taking Over Certificate. This shall show the effective date of taking over which shall be the date of commencement of the 12-month Defects Liability Period.

4.2 Warranty And Defect Liability Period

4.2.1 The Supplier shall warrant that the Goods supplied under the Contract are new and unused. The Supplier shall further warrant that all Goods supplied under this Contract shall have no defect, arising from design, materials, workmanship, or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country.

4.2.2 There shall be warranties for the respective components/items used in the 11kV switchgear panel twelve (12) months after the commissioning and Site Acceptance Test (SAT).

4.2.3 It is a condition of this contract that all malfunctioning items during the warranty period shall be replaced by the Contractor at his own cost.

4.2.4 There shall be defects liability period of 12 months from the date of commissioning of the 11kV Switchgear panel and 11kV underground cable.

4.2.5 During the defect's liability period, the client shall report the defects recorded to the contractor. The contractor shall carry out work to remedy the defects reported.

4.2.6 At the expiry of the Defect Liability Period (DLP), the client shall issue a DLP certificate indicating successful resolution of reported defects.

5 Tender Preparation

The bids to be submitted under this tender shall be in two (2) schedules as follows:

- a) Schedule 1: Supply, install, test and commission 11kV Metal Clad Switchgear Panel for Kipevu III Station.
- b) Schedule 2: Supply, install, test and commission 11kV Underground Cable for Kipevu III Station.

A bidder shall submit their bid document for ALL schedules stated above. Failure to submit required details for all schedules shall be considered non-responsive and the bid thus rejected.

The award of the tender shall NOT be per schedule – Tender shall be awarded as a whole.

6 Schedule I: Technical Schedule- 11kV Indoor Metal Clad Switchgear Panel

6.1 Switchgear Panel Enclosure Requirements

No.	Description	KenGen Specifications	Bidder's Offer
1.	Make/Model	ABB	
2.	System description	50 Hz, 3 phase, 3 wire	
3.	Neutral point earthing	Solid earthed	
4.	Nominal system voltage	11 kV	
5.	Highest system (Service) voltage as defined by IEC-60038	12 kV	

6.	Highest Equipment Rated voltage as defined by IEC-60071		17.5 KV	
7.	Minimum rated continuous current of circuit breaker		Given in the detailed specifications	
8.	Insulation level according to IEC 60071:	Lightning impulse withstand voltage (1.2/50 μ s kVpeak)	75 kV	
		Test voltage at power frequency 1 min dry and wet. To earth and between phases	28 kV	
9.	For the design and erection of the Busbars the following minimum clearances shall be observed	Phase to earth [mm]	300	
		Phase to phase [mm]	250	
10.	Minimum nominal creepage distance as defined in IEC 60815, Table II		25 mm/kV	

6.2 Vacuum Circuit Breaker Requirements

No.	Description	KenGen Specifications	Bidder's Offer
1.	Breaker Model	ABB	
2.	Interrupting Medium	Vacuum	
3.	Number of poles	3	
4.	Rated Voltage	12kV	
5.	Highest equipment Voltage	17.5kV	
6.	One minute power frequency withstand voltage	28 kV	
7.	Impulse withstand voltage	75kV	
8.	Frequency	50 Hz	
9.	Rated short time current	50kA	
10.	Rated short time making current (peak)	125kA	
11.	Rated Short circuit current withstand	50kA	
12.	Short circuit withstand time	3 seconds	
13.	First pole to clear factor	1.5	
14.	Operating sequence	O-0.3 sec-CO-15 sec.-CO	
15.	Auxiliary D.C. voltage for closing and tripping coils	110VDC	
16.	Auxiliary AC voltage	240V AC, 50Hz	
17.	Tripping/closing coil auxiliary voltage	110 V DC	
18.	Spring charging motor supply	110 VDC	
19.	Shunt closing release	110 VDC	
20.	Shunt Opening release	110 VDC	
21.	Locking magnet (CB in/out isolated)	110VDC	
22.	Contacts signaling CB in connected and isolated positions	Minimum 3NO and 3NC respectively.	
23.	Auxiliary contacts	-Set of 10 circuit-	

No.	Description	KenGen Specifications	Bidder's Offer
		breaker auxiliary contacts. -Set of 5 extra circuit-breaker auxiliary contacts 3C/2O	
24.	Rated normal Current – Feeder	1600 A	
	Interlocking (for operation)	110VDC coil	

6.3 Busbar Requirements

No.	Description	KenGen Specifications	Bidder's Offer
1.	Number of poles	3	
2.	Rated Voltage	12kV	
3.	Highest equipment Voltage	17.5kV	
4.	One minute power frequency withstand voltage	28 kV	
5.	Impulse withstand voltage	75kV	
6.	Frequency	50 Hz	
7.	Rated short time current	50kA	
8.	Rated short time making current (peak)	125kA	
9.	Rated Short circuit current withstand	50kA, 3 seconds	
10.	Rated normal Current – Bus-sections, Branch	1250 A	
11.	Rated normal Current – Bus-sections, Main	4000 A	

6.4 Current Transformers for the switchgear Panel

i) Load Measurement CT

No.	Description	KenGen Specifications	Bidder's Offer
1.	Type		
2.	Rated Voltage	12kV	
3.	Highest equipment Voltage	17.5kV	
4.	One minute power frequency withstand voltage	28 kV	
5.	Impulse withstand voltage	75kV	
6.	Frequency	50 Hz	
7.	Rated short time current	50kA	
8.	Rated Short circuit current withstand	50kA, 1 second	
9.	Primary Current	150 A	
10.	Secondary Current	1/1 A	
11.	Number of Secondary cores	2	
12.	Core 1 accuracy class, Burden	c1-0.5, 15VA	
13.	Core 2 accuracy class, Burden	5P10, 15VA	

ii) Core Balance CT

No.	Description	KenGen Specifications	Bidder's Offer
1.	Type	Core Balance	
2.	Primary Current	50 A	
3.	Secondary Current	1 A	
4.	Number of Secondary cores	1	
5.	Core 1 accuracy class, Burden	10P10,1.0VA	
6.	Ring Core, Bush opening	300mmX500mm	

6.5 Voltage Transformer on truck

No.	Description	KenGen Specifications	Bidder's Offer
1.	Type	On Truck	
2.	Rated Voltage	12kV	
3.	Highest equipment Voltage	17.5kV	
4.	One minute power frequency withstand voltage	28 kV	
5.	Impulse withstand voltage	75kV	
6.	Frequency	50 Hz	
7.	Primary voltage	11000/ $\sqrt{3}$ V	
8.	Secondary voltage, Core 1	110/ $\sqrt{3}$ V	
9.	Secondary voltage, Core 2	110/ $\sqrt{3}$ V	
10.	Number of Secondary cores	2	
11.	Core 1 accuracy class, Burden	c1-0.5, 50VA	
12.	Core 2 accuracy class, Burden	6P 50VA	
13.	HV Fuses	3 pcs	

6.6 Earthing Switch

No.	Description	KenGen Specifications	Bidder's Offer
1.	Type		
2.	Rated Voltage	12kV	
3.	Rated Short circuit current withstand	50kA, 1 second	
4.	Interlocking (for operation)	110VDC coil	
5.	Auxiliary contacts, NO	5	
6.	Auxiliary contacts, NC	5	

6.7 Overcurrent and Earth Fault Protection Relay

No.	Description	KenGen Specifications	Bidder's Offer
1.	Relay Make/Model		

No.	Description		KenGen Specifications	Bidder's Offer
2.	Relay Type		Numerical	
3.	Mounting		Flush-panel mounted	
4.	Rated auxiliary Supply voltage		40 – 265 V ac/dc	
5.	Frequency;		50/60 Hz	
6.	Number of phases;		3 phases	
7.	Overcurrent rated phase current In;		1A	
8.	Overcurrent measuring range;		0...50 x In	
9.	Earth fault rated neutral current Ion;		1A	
10.	Earth fault current measuring range		0...5 xIn	
11.	I.D.M.T characteristics according to BS142 or IEC60255		i.e. SI, VI, EI, LTI, including definite time for the high-set Elements.	
12.	Time setting multiplier		0.05 - 1.0	
13.	Thermal Withstand;		4 x In (continuous), 20 x In (for 10 s), 100 x In (for 1 s)	
14.	Broken conductor protection feature		Available	
15.	Fault records and event records		Available	
16.	Drop off /pickup ratio		>90%	
17.	Low transient overreach		< 10%	
18.	Digital inputs -		Number of inputs 2	
19.	Trip and start contacts		shall be freely configurable to the output relays.	
20.	Trip contacts		<ul style="list-style-type: none"> • Number of contacts 2 making contacts (relays T1 and T2) • Rated voltage 250 V ac/dc • Continuous carry 5 A 	
21.	Alarm contacts		<ul style="list-style-type: none"> • 3 making contacts (relays A1, A2 and A3) • 1 making contact (IF relay) • Rated voltage 250 V ac/dc • Continuous carry 5 A 	
22.	Communication ports	Local communication Ethernet port	<ul style="list-style-type: none"> • Number of ports; 1 on front • Data transfer rate; 10Mbps/100Mbps • Electrical connection RJ45 	
		Remote control connection	<ul style="list-style-type: none"> • Number of ports; 1 on rear panel • Electrical connection; RJ45 	

No.	Description	KenGen Specifications	Bidder's Offer
		<ul style="list-style-type: none"> • Protocols; Modbus TCP, IEC61850 • Data transfer rate; 10Mbps/100Mbps 	
23.	Environmental conditions	<ul style="list-style-type: none"> • Operating Ambient temperature; -40 – 60°C (-40 – 140°F) • Relative air humidity < 95% • Maximum operating altitude; 2000m ASL 	
24.	Degree of protection according to IEC 60529	At least: IP30 front panel.	

7 Schedule II: Technical Schedule- 11kV Underground Cable

7.1 11kV Underground cable requirements

No.	Description	KenGen Specifications	Bidder's Offer
1.	Cable type	AL/XLPE/SC/SWA/PVC	
2.	According to regulation	IEC60502-2	
3.	Rated voltage (U)	(kV)	15kV
4.	Voltage to neutral (U _o)	(kV)	8.7kV
5.	Material of conductor	Aluminium	
6.	Nominal cross-section area of conductor	(mm ²)	150m ²
7.	Number of cores/conductors	3 Core	
8.	Material of insulation	XLPE	
9.	Identification of cores	Red-Yellow-Blue	
10.	Thickness of insulation	(mm)	4.5
11.	Screen size	(mm ²)	25mm ²
12.	Armoring type	Round Galvanized Steel wires SWA	
13.	Material of cable sheath	PVC	
14.	Thickness of cable sheath	(mm)	2.8
15.	Overall diameter (Approx.)	(mm)	66.0
16.	Permissible operating temperature of conductor	(°C)	90
17.	Permissible temp.in emergency overload	(°C)	130
18.	Permissible short-circuit temperature up to 5 sec.	(°C)	250
19.	Permissible final temperature of copper screen	(°C)	250
20.	Nominal short-circuit current for 1 second of conductor	(kA)	14.1
21.	Nominal short-circuit current for 1 second of screen	(kA)	3.3
22.	Conductor DC resistance at 20 °C	(Ohm/k m)	0.206

No.	Description	KenGen Specifications		Bidder's Offer
	Conductor AC resistance by maximum temperature	(Ohm/k m)	0.269	
23.	Insulating resistance at 20 °C (Approx.)	(Mohm x km)	75000	
24.	Current carrying capacity in ground (20 °C)	(A)	260	
25.	Current carrying capacity in air (30 °C)	(A)	309	
26.	Maximum dielectric loss of cable	(W/km)	6.0	
27.	Conductor losses in the ground	(kW/km)	70	
28.	Charging current per phase	(A/km)	0.59	
29.	Operating capacitance	(uF/km)	0.29	
30.	Phase inductance	(mH/km)	0.30	
31.	Dielectric power factor at Uo (tan &)	0.0004		
32.	Inductive reactance	(Ohm/k m)	0.09	
33.	Capacitive reactance	(Ohm/k m)	0.01	
34.	Net weight of cable	(kg/km)	7450	
35.	Minimum bending radius of cable	(mm)	12xD	
36.	Standard length of drum	(m)	1000	

Note: D- Cable diameter

7.2 Insulation material requirements as per BS6622 and BS EN 60811-1-1

No.	Description		KenGen Specifications	Bidder's Offer
1.	Extruded PVC Oversheath	Minimum tensile strength	12.5N/m m ²	
		Minimum elongation at break	150%	
		Maximum variation of tensile strength ^{A)}	25%	
		Maximum variation of elongation at break ^{A)}	25%	
2.	Extruded inner covering	Minimum tensile strength	4 N/ mm ²	
		Minimum elongation at break	50%	
3.	Extruded separation sheath-Bedding	Minimum tensile strength	4 N/ mm ²	
		Minimum elongation at break	50%	
4.	Insulation screen	Maximum resistivity at 90°C	1 000 Ω·m	
		Forces to remove cold strippable insulation screen	8N to 45N	
5.	Insulation	Maximum variation of tensile strength ^{A)}	25%	
		Maximum variation of elongation at break ^{A)}	25%	
6.	Conductor screen	Maximum resistivity at 90°C	1 000 Ω·m	

7.	Semiconducting lapped inner covering	Maximum resistivity at 23_+5°C	1500 Ω /square	
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Note:

A) The variation is the difference between the values obtained prior to and after heat treatment, respectively, expressed as a percentage of the former.

PART 3 ~ CONDITIONS OF CONTRACT AND CONTRACT FORMS

SECTION VI - GENERAL CONDITIONS OF CONTRACT

1. Definitions

In the Conditions of Contract (“these Conditions”), which include Special Conditions, Parts A and B, and these General Conditions, the following words and expressions shall have the meanings stated. Words indicating persons or parties include corporations and other legal entities, except where the context requires otherwise.

- a) “Contract” means the Contract Agreement entered into between the Procuring Entity and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- b) “Contract Documents” means the documents listed in the Contract Agreement, including any amendments thereto.
- c) “Contract Price” means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.
- d) “Day” means calendar day.
- e) “Completion” means the fulfilment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
- f) “GCC” means the General Conditions of Contract.
- g) “Goods” means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Procuring Entity under the Contract.
- h) “Procuring Entity” means the Procuring Entity purchasing the Goods and Related Services, as **specified in the SCC**.
- i) “Related Services” means the services incidental to the supply of the goods, such as insurance, delivery, installation, commissioning, training and initial maintenance and other such obligations of the Supplier under the Contract.
- j) “SCC” means the Special Conditions of Contract.
- k) “Subcontractor” means any person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.
- l) “Supplier” means the person, private or government entity, or a combination of the above, whose Tender to perform the Contract has been accepted by the Procuring Entity and is named as such in the Contract Agreement.
- m) “**Base Date**” means a date 30 day prior to the submission of tenders.
- n) “**Laws**” means all national legislation, statutes, ordinances, and regulations and by-laws of any legally constituted public authority.
- o) “**Letter of Acceptance**” means the letter of formal acceptance, signed by the contractor. Procuring Entity, including any annexed memoranda comprising agreements between and signed by both Parties.
- p) “**Procuring Entity**” means the Entity named in the Special Conditions of Contract.

2. Interpretation

- 2.1. If the context so requires it, singular means plural and vice versa.
- 2.2. Incoterms
 - a) Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of parties thereunder shall be as prescribed by Incoterms **specified in the SCC**.
 - b) The terms EXW and CIP and other similar terms, when used, shall be governed by the rules prescribed in the current edition of Incoterms specified in the **SCC** and published by the International Chamber of Commerce in Paris, France.

3. Contract Documents

Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole. The documents forming the Contract shall be interpreted in the following order of priority:

- a) the Contract Agreement,
- b) the Letter of Acceptance,
- c) the General Conditions of Contract
- d) Special Conditions of Contract
- e) the Form of Tender,
- f) the Specifications and Schedules of the Drawings (if any), and
- g) the Schedules of Requirements, Price Schedule and any other documents forming part of the Contract.

4. Fraud and Corruption

- 3.1 The supplier shall comply with anti-corruption laws and guidelines and the prevailing sanctions, policies and procedures as set forth in the Laws of Kenya.
- 3.2 The Supplier shall disclose any commissions, gratuity or fees that may have been paid or are to be paid to agents or any other person with respect to the Tendering process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

4.1 Entire Agreement

- 4.3.1 The Contract constitutes the entire agreement between the Procuring Entity and the Supplier and supersedes all communications, negotiations and agreements (whether written or oral) of the parties with respect thereto made prior to the date of Contract.

4.2 Amendment

No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.

4.3 Non-waiver

- a) Subject to GCC Sub-Clause 4.5(b) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.

- b) Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

4.4 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

5. Language

5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Procuring Entity, shall be written in the **English Language**. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate and certified translation of the relevant passages in the **English Language**, in which case, for purposes of interpretation of the Contract, the English language is translation shall govern.

5.2 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Supplier.

6. Joint Venture, Consortium or Association

6.1 If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Procuring Entity for the fulfilment of the provisions of the Contract and shall designate one member of the joint venture, consortium, or association to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior written consent of the Procuring Entity.

7. Eligibility

7.1 The Supplier and its Subcontractors shall have the nationality of an eligible country. A Supplier or Sub-contractor shall be deemed to have the nationality of a country if it is a citizen or constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country.

7.2 All Goods and Related Services to be supplied under the Contract shall have their origin in Eligible Countries. For the purpose of this Clause, origin means the country where the goods have been grown, mined, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.

7.3 The Tenderer, if a Kenyan firm, must submit with its tender a valid tax compliance certificate from the Kenya Revenue Authority.

8. Notices

8.1 Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the **SCC**. The term "in writing" means communicated in written form with proof of receipt.

8.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

9. Governing Law

9.1 The Contract shall be governed by and interpreted in accordance with the laws of Kenya.

9.2 Throughout the execution of the Contract, the Supplier shall comply with the import of goods and services prohibitions in Kenya:

- a) where, as a matter of law, compliance or official regulations, Kenya prohibits commercial relations with that country or any import of goods from that country or any payments to any country, person, or entity in that country ; or

- b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Kenya prohibits any import of goods from that country or any payments to any country, person, or entity.

10. Settlement of Disputes

10.1 The Procuring Entity and the Supplier shall make every effort to resolve amicably by direct negotiation any disagreement or dispute arising between them under or in connection with the Contract.

10.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Procuring Entity or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

10.2 Arbitration proceedings shall be conducted as follows:

10.2.1 Any claim or dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with Sub-Clause 10.1 shall be finally settled by arbitration.

10.2.2 No arbitration proceedings shall be commenced on any claim or dispute where notice of a claim or dispute has not been given by the applying party within thirty days of the occurrence or discovery of the matter or issue giving rise to the dispute.

10.2.3 Notwithstanding the issue of a notice as stated above, the arbitration of such a claim or dispute shall not commence unless an attempt has in the first instance been made by the parties to settle such claim or dispute amicably with or without the assistance of third parties. Proof of such attempt shall be required.

10.2.4 The Arbitrator shall, without prejudice to the generality of his powers, have powers to direct such measurements, computations, or valuations as may in his opinion be desirable in order to determine the rights of the parties and assess and award any sums which ought to have been the subject of or included in any due payments.

10.2.5 Neither Party shall be limited in the proceedings before the arbitrators to the evidence, or to the reasons for the dispute given in its notice of a claim or dispute.

10.2.6 Arbitration may be commenced prior to or after delivery of the goods. The obligations of the Parties shall not be altered by reason of any arbitration being conducted during the progress of the delivery of goods.

10.2.7 The terms of the remuneration of each or all the members of Arbitration shall be mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration.

10.3 Arbitration Proceedings

10.3.1 Arbitration proceedings with national suppliers will be conducted in accordance with the Arbitration Laws of Kenya. In case of any claim or dispute, such claim or dispute shall be notified in writing by either party to the other with a request to submit it to arbitration and to concur in the appointment of an Arbitrator within thirty days of the notice. The dispute shall be referred to the arbitration and final decision of a person or persons to be agreed between the parties. Failing agreement to concur in the appointment of an Arbitrator, the Arbitrator shall be appointed, on the request of the applying party, by the Chairman or Vice Chairman of any of the following professional institutions;

- i) Kenya National Chamber of Commerce
- ii) Chartered Institute of Arbitrators (Kenya Branch)
- iii) The Law Society of Kenya

10.3.2 The institution written to first by the aggrieved party shall take precedence over all other institutions.

1033 Alternative Arbitration Proceedings

Alternatively, the Parties may refer the matter to the Nairobi Centre for International Arbitration (NCIA) which offers a neutral venue for the conduct of national and international arbitration with commitment to providing institutional support to the arbitral process.

104 Arbitration with Foreign Suppliers

104.1 Arbitration with foreign suppliers shall be conducted in accordance with the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL); or with proceedings administered by the International Chamber of Commerce (ICC) and conducted under the ICC Rules of Arbitration; by one or more arbitrators appointed in accordance with said arbitration rules

104.2 The place of arbitration shall be a location specified in the **SCC**; and the arbitration shall be conducted in the language for communications defined in Sub-Clause 1.4 [Law and Language].

105 Alternative Arbitration Proceedings

Alternatively, the Parties may refer the matter to the Nairobi Centre for International Arbitration (NCIA) which offers a neutral venue for the conduct of national and international arbitration with commitment to providing institutional support to the arbitral process.

106 Failure to Comply with Arbitrator's Decision

106.1 The award of such Arbitrator shall be final and binding upon the parties.

10.6.1 In the event that a Party fails to comply with a final and binding Arbitrator's decision, then the other Party may, without prejudice to any other rights it may have, refer the matter to a competent court of law.

107 Contract operations continue

Notwithstanding any reference to arbitration herein,

- a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and
- b) the Procuring Entity shall pay the Supplier any monies due the Supplier.

11. Inspections and Audit by the Procuring Entity

11.1 The Supplier shall keep, and shall cause its Subcontractors to keep, accurate and systematic accounts and records in respect of the Goods in such form and details as will clearly identify relevant time, changes and costs.

11.2 Pursuant to paragraph 2.2 of Instruction to Tenderers, the Supplier shall permit and shall cause its subcontractors to permit, the Procuring Entity and/or persons appointed by the Procuring Entity or by other statutory bodies of the Government to inspect the Site and/or the accounts and records relating to the procurement process, selection and/or contract execution, and to have such accounts and records audited by auditors appointed by the Procuring Entity. The Supplier's and its Subcontractors' attention is drawn to Sub- Clause 3.1 which provides, inter alia, that acts intended to materially impede the exercise of the Procuring Entity's inspection and audit rights constitute a prohibited practice subject to contract termination, as well as to a determination of ineligibility.

12. Scope of Supply

12.1 The Goods and Related Services to be supplied shall be as specified in the Schedule of Requirements.

13. Delivery and Documents

13.1 Subject to GCC Sub-Clause 33.1, the delivery of the Goods and completion of the Related Services shall be in accordance with the List of Goods and Delivery Schedule specified in the Supply Requirements. The details of shipping and other documents to be furnished by the Supplier are specified in the **SCC**.

14. Supplier's Responsibilities

14.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GCC Clause 12, and the Delivery and Completion Schedule, as per GCC Clause 13.

15. Contract Price

15.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its Tender, with the exception of any price adjustments authorized in the **SCC**.

15.2 Where the contract price is different from the corrected tender price, in order to ensure the supplier is not paid less or more relative to the contract price (*which would be the tender price*), any partial payment valuation based on rates in the schedule of prices in the Tender, will be adjusted by a plus or minus percentage. The percentage already worked out during tender evaluation is worked out as follows: *(corrected tender price – tender price)/tender price X 100*.

16. Terms of Payment

16.1 The Supplier shall request for payment by submitting invoice(s), delivery note(s) and any other relevant documents as specified in the **SCC** to the Procuring Entity.

16.2 Payments shall be made promptly by the Procuring Entity, but not later than thirty (30) days after submission of an invoice by the Supplier, and after the Procuring Entity has accepted it.

16.3 Where a Procuring Entity rejects Goods and Related Services, in part or wholly, the procuring Entity shall promptly inform the Supplier to collect, replace or rectify as appropriate and give reasons for rejection. The Supplier shall submit a fresh invoice, delivery note and any other relevant documents as specified in the **SCC**.

16.4 The currencies in which payments shall be made to the Supplier under this Contract shall be those in which the Tender price is expressed.

16.5 In the event that the Procuring Entity fails to pay the Supplier any payment by its due date or within the period set forth in the **SCC**, the Procuring Entity may pay to the Supplier interest on the amount of such delayed payment at the rate shown in the **SCC**, for the period of delay until payment has been made in full, whether before or after judgment or arbitration award.

17. Taxes and Duties

17.1 The Supplier shall be entirely responsible for all taxes, duties, license fees, and other such levies incurred to deliver the Goods and Related Services to the Procuring Entity at the final delivery point.

17.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in Kenya, the Supplier shall inform the Procuring Entity and the Procuring Entity shall use its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.

18. Performance Security

18.1 If required as specified in the **SCC**, the Supplier shall, within twenty-eight (28) days of the notification of contract award, provide a performance security for the performance of the Contract in the amount specified in the **SCC**.

182 The proceeds of the Performance Security shall be payable to the Procuring Entity as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

183 As specified in **the SCC**, the Performance Security, if required, shall be denominated in the currency(ies) of the Contract, or in a freely convertible currency acceptable to the Procuring Entity; and shall be in one of the formats stipulated by the Procuring Entity in **the SCC**, or in another format acceptable to the Procuring Entity.

184 The Performance Security shall be discharged by the Procuring Entity and returned to the Supplier not later than thirty (30) days following the date of Completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in the **SCC**.

19. Copyright

19.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Procuring Entity by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Procuring Entity directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.

20. Confidential Information

20.1 The Procuring Entity and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Sub-Supplier such documents, data, and other information it receives from the Procuring Entity to the extent required for the Sub Supplier to perform its work under the Contract, in which event the Supplier shall obtain from such Sub Supplier undertaking of confidentiality similar to that imposed on the Supplier under GCC Clause 20.

20.2 The Procuring Entity shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Procuring Entity for any purpose other than the performance of the Contract.

20.3 The obligation of a party under GCC Sub-Clauses 20.1 and 20.2 above, however, shall not apply to information that:

- a) the Procuring Entity or Supplier need to share with other arms of Government or other bodies participating in the financing of the Contract; such parties shall be disclosed in **the SCC**;
- b) now or hereafter enters the public domain through no fault of that party;
- c) can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or
- d) otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.

20.4 The above provisions of GCC Clause 20 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.

20.5 The provisions of GCC Clause 20 shall survive completion or termination, for whatever reason, of the Contract.

21. Subcontracting

21.1 The Supplier shall notify the Procuring Entity in writing of all subcontracts awarded under the Contract if not already specified in the Tender. Such notification, in the original Tender or later shall not relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.

21.2 Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.

22. Specifications and Standards

22.1 Technical Specifications and Drawings

- a) The Goods and Related Services supplied under this Contract shall conform to the technical specifications and standards mentioned in Section VI, Schedule of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the Goods' country of origin.
- b) The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Procuring Entity, by giving a notice of such disclaimer to the Procuring Entity.
- c) Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Procuring Entity and shall be treated in accordance with GCC Clause 33.

23. Packing and Documents

23.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.

23.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified **in the SCC**, and in any other instructions ordered by the Procuring Entity.

24. Insurance

24.1 Unless otherwise specified in the **SCC**, the Goods supplied under the Contract shall be fully insured—in a freely convertible currency from an eligible country—against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the **SCC**.

25. Transportation and Incidental Services

25.1 Unless otherwise specified in the **SCC**, responsibility for arranging transportation of the Goods shall be in accordance with the specified Incoterms.

25.2 The Supplier may be required to provide any or all of the following services, including additional services, if any, specified **in SCC**:

- a) performance or supervision of on-site assembly and/or start-up of the supplied Goods;
- b) furnishing of tools required for assembly and/or maintenance of the supplied Goods;
- c) furnishing of a detailed operations and maintenance manual for each appropriate unit

of the supplied Goods;

- d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
- e) training of the Procuring Entity's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.

253 Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services

26. Inspections and Tests

26.1 The Supplier shall at its own expense and at no cost to the Procuring Entity carry out all such tests and/or inspections of the Goods and Related Services as are specified in the **SCC**.

262 The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, at point of delivery, and/or at the Goods' final destination, or in another place in Kenya as specified in the **SCC**. Subject to GCC Sub-Clause 26.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Procuring Entity.

263 The Procuring Entity or its designated representative shall be entitled to attend the tests and/or inspections referred to in GCC Sub-Clause 26.2, provided that the Procuring Entity bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all travelling and board and lodging expenses.

264 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Procuring Entity. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Procuring Entity or its designated representative to attend the test and/or inspection.

265 The Procuring Entity may require the Supplier to carry out any test and/or inspection not required by the Contract but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specifications codes and standards under the Contract, provided that the Supplier's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of manufacturing and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery Dates and Completion Dates and the other obligations so affected.

266 The Supplier shall provide the Procuring Entity with a report of the results of any such test and/or inspection.

267 The Procuring Entity may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Procuring Entity, and shall repeat the test and/or inspection, at no cost to the Procuring Entity, upon giving a notice pursuant to GCC Sub- Clause 26.4.

268 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Procuring Entity or its representative, nor the issue of any report pursuant to GCC Sub-Clause 26.6, shall release the Supplier from any warranties or other obligations under the Contract.

27. Liquidated Damages

27.1 Except as provided under GCC Clause 32, if the Supplier fails to deliver any or all of the

Goods by the Date(s) of delivery or perform the Related Services within the period specified in the Contract, the Procuring Entity may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in those SCC. Once the maximum is reached, the Procuring Entity may terminate the Contract pursuant to GCC Clause 35.

28. Warranty

- 28.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 28.2 Subject to GCC Sub-Clause 22.1(b), the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.
- 28.3 Unless otherwise specified in the SCC, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or for eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.
- 28.4 The Procuring Entity shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Procuring Entity shall afford all reasonable opportunity for the Supplier to inspect such defects.
- 28.5 Upon receipt of such notice, the Supplier shall, within the period specified in the SCC, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Procuring Entity.
- 28.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the SCC, the Procuring Entity may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Procuring Entity may have against the Supplier under the Contract.

29. Patent Indemnity

- 29.1 The Supplier shall, subject to the Procuring Entity's compliance with GCC Sub-Clause 29.2, indemnify and hold harmless the Procuring Entity and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Procuring Entity may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:
- a) the installation of the Goods by the Supplier or the use of the Goods in the country where the Site is located; and
 - b) the sale in any country of the products produced by the Goods.

Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, neither any infringement resulting from the use of the Goods or any part thereof, or any products produced thereby in association or combination with any other equipment, plant, or materials not supplied by the Supplier, pursuant to the Contract.

- 292 If any proceedings are brought or any claim is made against the Procuring Entity arising out of the matters referred to in GCC Sub-Clause 29.1, the Procuring Entity shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Procuring Entity's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.
- 293 If the Supplier fails to notify the Procuring Entity within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Procuring Entity shall be free to conduct the same on its own behalf.
- 294 The Procuring Entity shall, at the Supplier's request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.
- 295 The Procuring Entity shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Supplier may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Procuring Entity.

30. Limitation of Liability

- 30.1 Except in cases of criminal negligence or willful misconduct,
- a) the Supplier shall not be liable to the Procuring Entity, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Procuring Entity, and
 - b) the aggregate liability of the Supplier to the Procuring Entity, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the Procuring Entity with respect to patent infringement.

31. Change in Laws and Regulations

- 31.1 Unless otherwise specified in the Contract, if after the date of 30 days prior to date of Tender submission, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in Kenya (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with GCC Clause 15.

32. Force Majeure

- 32.1 The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 32.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Procuring Entity in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

323 If a Force Majeure situation arises, the Supplier shall promptly notify the Procuring Entity in writing of such condition and the cause thereof. Unless otherwise directed by the Procuring Entity in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

33. Change Orders and Contract Amendments

331 The Procuring Entity may at any time order the Supplier through notice in accordance GCC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:

- a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Procuring Entity;
- b) the method of shipment or packing;
- c) the place of delivery; and
- d) the Related Services to be provided by the Supplier.

332 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Supplier's receipt of the Procuring Entity's change order.

333 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

334 **Value Engineering:** The Supplier may prepare, at its own cost, a value engineering proposal at any time during the performance of the contract. The value engineering proposal shall, at a minimum, include the following;

- a) the proposed change(s), and a description of the difference to the existing contract requirements;
- b) a full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle costs) the Procuring Entity may incur in implementing the value engineering proposal; and
- c) a description of any effect(s) of the change on performance/functionality.

335 The Procuring Entity may accept the value engineering proposal if the proposal demonstrates benefits that:

- a) accelerates the delivery period; or
- b) reduces the Contract Price or the life cycle costs to the Procuring Entity; or
- c) improves the quality, efficiency or sustainability of the Goods; or
- d) yields any other benefits to the Procuring Entity, without compromising the necessary functions of the Facilities.

336 If the value engineering proposal is approved by the Procuring Entity and results in:

- a) a reduction of the Contract Price; the amount to be paid to the Supplier shall be the percentage specified **in the SCC** of the reduction in the Contract Price; or
- b) an increase in the Contract Price; but results in a reduction in life cycle costs due to any benefit described in
(a) to (d) above, the amount to be paid to the Supplier shall be the full increase in the Contract Price.

33.7 Subject to the above, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

34. Extensions of Time

34.1 If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GCC Clause 13, the Supplier shall promptly notify the Procuring Entity in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, the Procuring Entity shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.

34.2 Except in case of Force Majeure, as provided under GCC Clause 32, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 26, unless an extension of time is agreed upon, pursuant to GCC Sub-Clause 34.1.

35. Termination

35.1 Termination for Default

- a) The Procuring Entity, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate the Contract in whole or in part:
 - i) if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Procuring Entity pursuant to GCC Clause 34;
 - ii) if the Supplier fails to perform any other obligation under the Contract; or
 - iii) if the Supplier, in the judgment of the Procuring Entity has engaged in Fraud and Corruption, as defined in paragraph 2.2 a of the Appendix to the GCC, in competing for or in executing the Contract.
- b) In the event the Procuring Entity terminates the Contract in whole or in part, pursuant to GCC Clause 35.1(a), the Procuring Entity may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Procuring Entity for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

35.2 Termination for Insolvency.

The Procuring Entity may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Procuring Entity

35.2 Termination for Convenience.

- a) The Procuring Entity, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Procuring Entity's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
- b) The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of notice of termination shall be accepted by the Procuring Entity at the Contract terms and prices. For the remaining Goods, the Procuring Entity may elect:
 - i) to have any portion completed and delivered at the Contract terms and prices; and/or
 - ii) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

36. Assignment

36.1 Neither the Procuring Entity nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

37. Export Restriction

37.1 Notwithstanding any obligation under the Contract to complete all export formalities, any export restrictions attributable to the Procuring Entity, to Kenya, or to the use of the products/goods, systems or services to be supplied, which arise from trade regulations from a country supplying those products/goods, systems or services, and which substantially impede the Supplier from meeting its obligations under the Contract, shall release the Supplier from the obligation to provide deliveries or services, always provided, however, that the Supplier can demonstrate to the satisfaction of the Procuring Entity that it has completed all formalities in a timely manner, including applying for permits, authorizations and licenses necessary for the export of the products/goods, systems or services under the terms of the Contract. Termination of the Contract on this basis shall be for the Procuring Entity's convenience pursuant to Sub-Clause 35.3.

SECTION VII - SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract (SCC) shall supplement and/or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
GCC 1.1(h)	The Procuring Entity is: <i>Kenya Electricity Generating Company PLC</i>
GCC 4.2 (b)	The version edition of Incoterms shall be <i>INCOTERMS 2020</i>
GCC 8.1	<p>For notices, the Procuring Entity’s address shall be:</p> <p>Attention: General Manager - Supply Chain Postal address P.O Box 47936 00100 Nairobi, Kenya Physical Address KenGen Pension Plaza II, 9th Floor, Kolobot Road, Parklands. Telephone: 0711036000 Electronic mail address: contracts@kengen.co.ke;</p>
GCC 10.4.2	The place of arbitration shall be Nairobi, Kenya. (Nairobi Centre for International Arbitration)
GCC 15.1	The prices charged for the Goods supplied and the related Services performed shall not be adjustable.
GCC 16.1	<p>Payment Terms and Conditions</p> <p>Payment Terms and Conditions</p> <p>a) Forty per cent (40%) upon successful delivery and acceptance of Goods at Kipevu III Stores</p> <p>b) Forty per cent (40%) upon successful installation, testing and commissioning and acceptance of the system at Kipevu III Power Station</p> <p>c) Twenty per cent (20%) upon physical delivery and acceptance of Spares and project documentation at Kipevu III Power Station stores ; and</p> <p>d) Five per cent (5%) retention of the contract amount which shall be paid after defects liability period (DLP). There shall be 5% retention upon each payment; to be released upon completion of the DLP.</p> <p>Advance Payment Advance payment is not applicable. Local suppliers shall be paid through Electronic Funds Transfer (EFT).</p> <p>Advance Payment</p> <p>Advance payment is not applicable</p>
	<p>Contract Duration/ Validity is 12 Months from contract signature(or such other duration as may be agreed by the Parties in writing.</p> <p>Delivery Period shall be Six (6) months from the Commencement Date or such other time as may be agreed by the Parties in writing.</p> <p>The Intended Completion Date for the whole of the works shall be within six months (6). Contract duration shall be twelve (12)months. inclusive of six (6) months DLP</p>

	DLP period shall be 6 months from the day of issuing the completion certificate
GCC 18.1	A Performance Security shall be required. Performance Security Performance security shall be at 10% of the Contract Price where the contract value is above five million shillings. The performance security shall remain valid for 30 days beyond the validity of the contract.
GCC 18.3	The Performance Security shall be in the form of: an on-Demand Bank Guarantee from a bank registered by Central Bank of Kenya The Performance security shall be denominated in the currency of the contract.
GCC 24.1	The insurance coverage shall be as specified in the Incoterms. The terms shall be strictly Delivery Duty Paid (DDP) Kipevu III Diesel Power Plant
GCC 25.1	“The Supplier is required under the Contract to transport the Goods to a specified place of final destination within Kenya, defined as the Project Site, transport to such place of destination in Kenya, including insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price”; or any other agreed upon trade terms
GCC 26.1	The inspections and tests shall be: ➤ All consignments subject to Pre-Export Verification of Conformity (PVoC) to Standards Programme must obtain a Certificate of Conformity (CoC) issued by PVoC Country Offices Prior to shipment. The Certificate is a mandatory Customs Clearance document in Kenya; ➤ Consignments arriving at Kenyan Ports without this document will be denied entry into the Country. ➤ Since PVoC is a conformity assessment process to verify that products imported to Kenya are in compliance with the applicable Kenya standards or approved equivalents, regulations and technical requirements before shipment, it is the sole responsibility of the supplier (i.e. exporter) to demonstrate the same and hence meet any associated costs of verification.
GCC 26.2	The Inspections and tests shall be conducted at KenGen premises. However, prior to shipment of the goods, the supplier will be required to submit detailed designs and manufacturing datasheets for approval by KenGen engineers. This approval shall form part of the payment prerequisite documents.
	Resolution of disputes The procuring entity’s and the contractor shall make every effort to resolve to be amicably by direct informal negotiations any disagreement or dispute arising between them under or in connection with the contract
	Governing Language The contract shall be written in the English language. All correspondence and other documents pertaining to the contract, which

	are exchanged by the parties, shall be written in the same language.
Taxes	<p>a) "Taxes" means all present and future taxes, levies, duties, charges, assessments, deductions or withholdings whatsoever, including any interest thereon, and any penalties and fines with respect thereto, wherever imposed, levied, collected, or withheld pursuant to any regulation having the force of law and "Taxation" shall be construed accordingly.</p> <p>b) Local Taxation</p> <p>i. Nothing in the Contract shall relieve the Contractor and/or his Sub-Contractors from their responsibility to pay any taxes, statutory contributions and levies that may be levied on them in Kenya in respect of the Contract.</p> <p>ii. The Contract Price shall include all applicable taxes and shall not be adjusted for any of these taxes.</p> <p>iii. Tax exemption granted under this Contract shall be for an official aid funded project and shall be as provided under the applicable tax laws in Kenya.</p> <p>iv. The Contractor shall be deemed to be familiar with the tax laws in the Employer's Country and satisfied themselves with the requirements for all taxes, statutory contributions and duties to which they may be subjected during the term of the Contract. This shall include applicable local or foreign withholding tax, excise duty, Value Added Tax (VAT), importation duties, Local government taxes, and any other taxes not mentioned herein.</p> <p>v. In instances where discussions are held between the Employer and the Contractor regarding tax matters, this shall not be deemed to constitute competent advice and hence does not absolve the Contractor of their responsibility in relation to due diligence on the tax issue as per (i).</p> <p>c) Tax Deduction</p> <p>i. If the Employer is required to make a tax deduction by Law, then the deduction shall be made from payments due to the Contractor and paid directly to the Kenya Revenue Authority. The Employer shall upon remitting the tax to Kenya Revenue Authority furnish the Contractor with the relevant tax deduction certificates.</p> <p>ii. Where payments for the Contract Price are made directly by the financiers to the Contractor, the Contractor and the financiers shall make the necessary arrangements with Employer to ensure that withholding income tax is remitted to the Kenya Revenue Authority.</p> <p>d) Tax Indemnity</p> <p>i. The Contractor shall indemnify and hold the Employer harmless from and against any and all tax liabilities, which the Employer may incur for any reason of failure by the Contractor to comply with any tax laws arising from the execution of the Contract whether during the term of the Contract or after its expiry.</p> <p>ii. The Contractor warrants to pay the Employer (within fourteen (14) days of demand by the Employer), an amount equal to the loss, liability or cost which the Employer determines has been (directly or indirectly) suffered by the Employer for or on account of the Contractor's Tax liability arising from the Contract.</p>

	iii. Where the amount in (ii) above remains unpaid after the end of the fourteen (14) days moratorium, the Employer shall be entitled to compensation for financing charges.
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SECTION VIII - CONTRACT FORMS

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful tenderer after contract award.

FORM No. 1: NOTIFICATION OF INTENTION TO AWARD

This Notification of Intention to Award shall be sent to each Tenderer that submitted a Tender. Send this Notification to the Tenderer's Authorized Representative named in the Tender Information Form on the format below.

FORMAT

1. For the attention of Tenderer's Authorized Representative

i) Name: _____ *[insert Authorized Representative's name]*

ii) Address: _____ *[insert Authorized Representative's Address]*

iii) Telephone: _____ *[insert Authorized Representative's telephone/fax numbers]*

iv) Email Address: _____ *[insert Authorized Representative's email address]*

[IMPORTANT: insert the date that this Notification is transmitted to Tenderers. The Notification must be sent to all Tenderers simultaneously. This means on the same date and as close to the same time as possible.]

2. Date of transmission: _____ *[email]* on *[date]* _____ (local time)

This Notification is sent by _____ *(Name and designation)*

3. Notification of Intention to Award

i) Employer: _____ *[insert the name of the Employer]*

ii) Project: _____ *[insert name of project]*

iii) Contract title: _____ *[insert the name of the contract]*

iv) Country: _____ *[insert country where ITT is issued]*

v) ITT No: _____ *[insert ITT reference number from Procurement Plan]*

This Notification of Intention to Award (Notification) notifies you of our decision to award the above contract. The transmission of this Notification begins the Standstill Period. During the Standstill Period, you may:

4. Request a debriefing in relation to the evaluation of your tender

Submit a Procurement-related Complaint in relation to the decision to award the contract.

a) The successful tenderer

i) Name of successful Tender _____

ii) Address of the successful Tender _____

iii) Contract price of the successful Tender Kenya Shillings _____ (in words _____)

b) Other Tenderers

Names of all Tenderers that submitted a Tender. If the Tender's price was evaluated include the evaluated price as well as the Tender price as read out. For Tenders not evaluated, give one main reason the Tender was unsuccessful.

S/No.	Name of Tender	Tender Price as read out	Tender's evaluated price (Note a)	One Reason Why Not Evaluated
1				
2				
3				
4				
5				

(Note a) State NE if not evaluated

5. How to request a debriefing

- a) **DEADLINE:** The deadline to request a debriefing expires at midnight on *[insert date] (local time)*.
- b) You may request a debriefing in relation to the results of the evaluation of your Tender. If you decide to request a debriefing your written request must be made within three (5) Business Days of receipt of this Notification of Intention to Award.
- c) Provide the contract name, reference number, name of the Tenderer, contact details; and address the request for debriefing as follows:
 - i) Attention: _____ *[insert full name of person, if applicable]*
 - ii) Title/position: _____ *[insert title/position]*
 - ii) Agency: _____ *[insert name of Employer]*
 - iii) Email address: _____ *[insert email address]*
- d) If your request for a debriefing is received within the 3 Days deadline, we will provide the debriefing within five (3) Business Days of receipt of your request. If we are unable to provide the debriefing within this period, the Standstill Period shall be extended by five (3) Days after the date that the debriefing is provided. If this happens, we will notify you and confirm the date that the extended Standstill Period will end.
- e) The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.
- f) If the deadline to request a debriefing has expired, you may still request a debriefing. In this case, we will provide the debriefing as soon as practicable, and normally no later than fifteen (15) Days from the date of publication of the Contract Award Notice.

6. How to make a complaint

- a) **Period:** Procurement-related Complaint challenging the decision to award shall be submitted by midnight, *[insert date]* (local time).
- b) Provide the contract name, reference number, name of the Tenderer, contact details; and address the Procurement-related Complaint as follows:
 - i) Attention: _____ *[insert full name of person, if applicable]*
 - ii) Title/position: _____ *[insert title/position]*
 - iii) Agency: _____ *[insert name of Employer]*

- iv) Email address: _____ [*insert email address*]
- c) At this point in the procurement process, you may submit a Procurement-related Complaint challenging the decision to award the contract. You do not need to have requested, or received, a debriefing before making this complaint. Your complaint must be submitted within the Standstill Period and received by us before the Standstill Period ends.
- d) Further information: For more information refer to the Public Procurement and Disposals Act 2015 and its Regulations available from the Website www.ppra.go.ke or email complaints@ppra.go.ke.

You should read these documents before preparing and submitting your complaint.

- e) There are four essential requirements:
 - i) You must be an ‘interested party’. In this case, that means a Tenderer who submitted a Tender in this tendering process, and is the recipient of a Notification of Intention to Award.
 - ii) The complaint can only challenge the decision to award the contract.
 - iii) You must submit the complaint within the period stated above.
 - iv) You must include, in your complaint, all of the information required to support your complaint.

7. Standstill Period

- i) DEADLINE: The Standstill Period is due to end at midnight on [*insert date*] (local time).
- ii) The Standstill Period lasts ten (14) Days after the date of transmission of this Notification of Intention to Award.
- iii) The Standstill Period may be extended as stated in paragraph Section 5 (d) above.

If you have any questions regarding this Notification please do not hesitate to contact us.

On behalf of the Employer:

Signature: _____

Name: Title/position Telephone: _____

Email: _____

FORM NO. 2 - REQUEST FOR REVIEW

FORM FOR REVIEW(r.203(1))

PUBLIC PROCUREMENT ADMINISTRATIVE REVIEW BOARD

APPLICATION

NO.....OF.....20.....BETWEEN.....
APPLICANT ANDRESPONDENT (Procuring Entity)

Request for review of the decision of the..... (Name of the Procuring Entity ofdated the...day of20.....in the matter of Tender No.....of20..... for(Tender description).

REQUEST FOR REVIEW

I/We.....,the above named Applicant(s), of address: Physical address.....P. O. Box No..... Tel. No.....Email, hereby request the Public Procurement Administrative Review Board to review the whole/part of the above mentioned decision on the following grounds , namely:

- 1.
- 2.

By this memorandum, the Applicant requests the Board for an order/orders that:

- 1.
- 2.

SIGNED(Applicant) Dated on.....day of/...20.....

FOR OFFICIAL USE ONLY Lodged with the Secretary Public Procurement Administrative Review Board on.....day of20.....

SIGNED
Board Secretary

FORM NO. 3 LETTER OF AWARD

[Use letter head paper of the Procuring Entity]

_____ *[Date]*

To: _____ *[name and address of the Supplier]*

Subject: _____ **Notification of Award Contract No.**

This is to notify you that your Tender dated _____ *[insert date]* for execution of the _____ *[insert name of the contract and identification number, as given in the SCC]* for the Accepted Contract Amount of _____ *[insert amount in numbers and words and name of currency]*, as corrected and modified in accordance with the Instructions to tenderers is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 30 days in accordance with the Conditions of Contract, using for that purpose the of the Performance Security Form included in Section X, Contract Forms, of the Tendering document.

Authorized Signature: _____

Name and Title of Signatory: _____

Name of Agency: _____

Attachment: Contract Agreement

FORM NO. 4 - CONTRACT AGREEMENT

[The successful tenderer shall fill in this form in accordance with the instructions indicated]

THIS AGREEMENT made the _____ *[insert: number]* day of _____ *[insert: month]*, *[insert: year]*. BETWEEN (1) _____ *[insert complete name of Procuring Entity]* and having its principal place of business at *[insert: address of Procuring Entity]* (hereinafter called "Procuring Entity"), of the one part; and (2) _____ *[insert name of Supplier]*, a corporation incorporated under the laws of *[insert: country of Supplier]* and having its principal place of business at _____ *[insert: address of Supplier]* (hereinafter called "the Supplier"), of the other part.

1. WHEREAS the Procuring Entity invited Tenders for certain Goods and ancillary services, viz., *[insert brief description of Goods and Services]* and has accepted a Tender by the Supplier for the supply of those Goods and Services, the Procuring Entity and the Supplier agree as follows:
 - i) In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
 - ii) The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other contract documents.
 - a) the Letter of Acceptance
 - b) the Letter of Tender
 - c) the Addenda Nos. ___ (if any)
 - d) Special Conditions of Contract
 - e) General Conditions of Contract
 - f) the Specification (including Schedule of Requirements and Technical Specifications)
 - g) the completed Schedules (including Price Schedules)
 - h) any other document listed in GCC as forming part of the Contract
 - iii) In consideration of the payments to be made by the Procuring Entity to the Supplier as specified in this Agreement, the Supplier hereby covenants with the Procuring Entity to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
2. The Procuring Entity hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
3. IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Kenya on the day, month and year indicated above.

For and on behalf of the Procuring Entity

Signed: _____ *[insert signature]*

in the capacity of _____ *[insert title or other appropriate designation]* In the presence of _____

_____ *[insert identification of official witness]* **For and on behalf of the**

Supplier

Signed: _____ *[insert signature of authorized representative(s) of the Supplier]* in the

capacity of _____ *[insert title or other appropriate designation]* in the
presence of _____ *[insert identification of official witness]*

FORM NO. 5 - PERFORMANCE SECURITY [Option 1 - Unconditional Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: _____ [insert name and Address of Employer]

Date: _____ [Insert date of issue]

Guarantor: _____ [Insert name and address of place of issue, unless indicated in the letterhead]

1. We have been informed that _____ (hereinafter called "the Contractor") has entered into Contract No. _____ dated _____ with (name of Employer) _____ (the Employer as the Beneficiary), for the execution of _____ (hereinafter called "the Contract").
2. Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.
3. At the request of the Contractor, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (in words),¹ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.
4. This guarantee shall expire, no later than the Day of, 2.....², and any demand for payment under it must be received by us at the office indicated above on or before that date.
5. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months] [one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

[Name of Authorized Official, signature(s) and seals/stamps]

FORM No. 6 - PERFORMANCE SECURITY [Option 2- Performance Bond]

[Note: Procuring Entities are advised to use Performance Security – Unconditional Demand Bank Guarantee instead of Performance Bond due to difficulties involved in calling Bond holder to action]

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: _____ *[insert name and Address of Employer]*

Date: _____ *[Insert date of issue]*

PERFORMANCE BOND No.: _____

Guarantor: _____ *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. By this Bond _____ as Principal (hereinafter called “the Contractor”) and _____] as Surety (hereinafter called “the Surety”), are held and firmly bound unto _____] as Obligee (hereinafter called “the Employer”) in the amount of _____ for the payment of which sum well and truly to be made in the types and proportions of currencies in which the Contract Price is payable, the Contractor and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.
2. WHEREAS the Contractor has entered into a written Agreement with the Employer dated the _____ day of , 20 _____, for _____ in accordance with the documents, plans, specifications, and amendments thereto, which to the extent herein provided for, are by reference made part hereof and are hereinafter referred to as the Contract.
3. NOW, THEREFORE, the Condition of this Obligation is such that, if the Contractor shall promptly and faithfully perform the said Contract (including any amendments thereto), then this obligation shall be null and void; otherwise, it shall remain in full force and effect. Whenever the Contractor shall be, and declared by the Employer to be, in default under the Contract, the Employer having performed the Employer's obligations thereunder, the Surety may promptly remedy the default, or shall promptly:
 - 1) complete the Contract in accordance with its terms and conditions; or
 - 2) obtain a tender or tenders from qualified tenderers for submission to the Employer for completing the Contract in accordance with its terms and conditions, and upon determination by the Employer and the Surety of the lowest responsive Tenderers, arrange for a Contract between such Tenderer, and Employer and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the Balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term “Balance of the Contract Price,” as used in this paragraph, shall mean the total amount payable by Employer to Contractor under the Contract, less the amount properly paid by Employer to Contractor; or
 - 3) pay the Employer the amount required by Employer to complete the Contract in accordance with its terms and conditions up to a total not exceeding the amount of this Bond.
4. The Surety shall not be liable for a greater sum than the specified penalty of this Bond.
5. Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate. No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Employer named herein or the

heirs, executors, administrators, successors, and assigns of the Employer.

6. In testimony whereof, the Contractor has hereunto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly attested by the signature of his legal representative, this day _____ of _____ 20_____.

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

SIGNED ON _____ on behalf of _____

By _____ in the capacity of _____

In the presence of _____

FORM NO. 7 - ADVANCE PAYMENT SECURITY [Demand Bank Guarantee]
[Guarantor letterhead]

Beneficiary: _____ *[Insert name and Address of Employer]*

Date: _____ *[Insert date of issue]*

ADVANCE PAYMENT GUARANTEE No.: *[Insert guarantee reference number]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

1. We have been informed that _____ (hereinafter called "the Contractor") has entered into Contract No. _____ dated _____ with the Beneficiary, for the execution of _____ (hereinafter called "the Contract").

2. Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum _____ (*in words* _____) is to be made against an advance payment guarantee.

3. At the request of the Contractor, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of _____ (*in words* _____) ¹ upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:

- (a) has used the advance payment for purposes other than the costs of mobilization in respect of the goods; or
- (b) has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.

4. A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary's bank stating that the advance payment referred to above has been credited to the Contractor on its account number _____ at _____.

5. The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, less provisional sums, has been certified for payment, or on the ___ day of _____, 2____, ² whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

6. The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.

[Name of Authorized Official, signature(s) and seals/stamps]

¹The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency of the advance payment as specified in the Contract.

² Insert the expected expiration date of the Time for Completion. The Employer should note that in the event of an extension of the time for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.

**FORM NO. 8 BENEFICIAL OWNERSHIP DISCLOSURE FORM
(Amended and issued pursuant to PPRA CIRCULAR No. 02/2022)**

INSTRUCTIONS TO TENDERERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE FORM

This Beneficial Ownership Disclosure Form ("Form") is to be completed by the successful tenderer pursuant to Regulation 13 (2A) and 13 (6) of the Companies (Beneficial Ownership Information) Regulations, 2020. In case of joint venture, the tenderer must submit a separate Form for each member. The beneficial ownership information to be submitted in this Form shall be current as of the date of its submission.

For the purposes of this Form, a Beneficial Owner of a Tenderer is any natural person who ultimately owns or controls the legal person (tenderer) or arrangements or a natural person on whose behalf a transaction is conducted, and includes those persons who exercise ultimate effective control over a legal person (Tenderer) or arrangement.

Tender Reference No.: _____ [insert identification no]

Name of the Tender Title/Description: _____ [insert name of the assignment]

to: _____ [insert complete name of Procuring Entity]

In response to the requirement in your notification of award dated _____ [insert date of notification of award] to furnish additional information on beneficial ownership: ___ [select one option as applicable and delete the options that are not applicable]

I) We here by provide the following beneficial ownership information.

Details of beneficial ownership

	Details of all Beneficial Owners	% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)
1.	Full Name	Directly-- ----- % of shares	Directly.....% of voting rights	1. Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes - ----No----	1. Exercises significant influence or control over the Company body of the Company (tenderer) Yes -----No----
	National identity card number or Passport number				
	Personal Identification Number (where applicable)	Indirectly-- ----- % of shares			
	Nationality				

Details of all Beneficial Owners		% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)
Date of birth [dd/mm/yyyy]				directly or indirectly?:	exercised directly or indirectly?
Postal address				Direct.....	Direct.....
Residential address			
Telephone number				Indirect.....	Indirect.....
Email address			
Occupation or profession					
2.	Full Name	Directly-- ----- % of shares	Directly.....% of voting rights	1. Having the right to appoint a majority of the board of the directors or an equivalent governing body of the Tenderer: Yes - -----No-----	1. Exercises significant influence or control over the Company body of the Company (tenderer) Yes -----No---- ~
	National identity card number or Passport number		Indirectly---- -----% of voting rights	2. Is this right held directly or indirectly?:	2. Is this influence or control exercised directly or indirectly?
	Personal Identification Number (where applicable)	Indirectly- ----- % of shares		Direct.....	Direct.....
	Nationality(ies)		
	Date of birth [dd/mm/yyyy]			Indirect.....	Indirect.....
	Postal address		
	Residential address				
	Telephone number				
	Email address				
	Occupation or profession				
3.					

	Details of all Beneficial Owners	% of shares a person holds in the company Directly or indirectly	% of voting rights a person holds in the company	Whether a person directly or indirectly holds a right to appoint or remove a member of the board of directors of the company or an equivalent governing body of the Tenderer (Yes / No)	Whether a person directly or indirectly exercises significant influence or control over the Company (tenderer) (Yes / No)
e.t .c					

II) Am fully aware that beneficial ownership information above shall be reported to the Public Procurement Regulatory Authority together with other details in relation to contract awards and shall be maintained in the Government Portal, published and made publicly available pursuant to Regulation 13(5) of the Companies (Beneficial Ownership Information) Regulations, 2020. (Notwithstanding this paragraph Personally Identifiable Information in line with the Data Protection Act shall not be published or made public). *Note that Personally Identifiable Information (PII) is defined as any information that can be used to distinguish one person from another and can be used to deanonymize previously anonymous data. This information includes National identity card number or Passport number, Personal Identification Number, Date of birth, Residential address, email address and Telephone number.*

III) In determining who meets the threshold of who a beneficial owner is, the Tenderer must consider a natural person who in relation to the company:

- (a) holds at least ten percent of the issued shares in the company either directly or indirectly;
- (b) exercises at least ten percent of the voting rights in the company either directly or indirectly;
- (c) holds a right, directly or indirectly, to appoint or remove a director of the company; or
- (d) exercises significant influence or control, directly or indirectly, over the company.

IV) What is stated to herein above is true to the best of my knowledge, information and belief.

Name of the Tenderer:[insert complete name of the Tenderer]_____*

*Name of the person duly authorized to sign the Tender on behalf of the Tenderer: ** [insert complete name of person duly authorized to sign the Tender]*

Designation of the person signing the Tender: [insert complete title of the person signing the Tender]

Signature of the person named above: [insert signature of person whose name and capacity are shown above]

Date this [insert date of signing] day of..... [Insert month], [insert year]

Bidder Official Stamp