



BIDDING DOCUMENT FOR PROCUREMENT OF WATER SUPPLY WORKS FOR WEST KARACHUONYO

PROCUREMENT OF:

**CONSTRUCTION WORKS FOR WEST KARACHUONYO WATER SUPPLY
PROJECT - PHASE II**

TENDER NUMBER: LVSWWDA/T/36/2025-2026
TENDER NAME: CONSTRUCTION OF WEST KARACHUONYO
WATER SUPPLY PROJECT- PHASE II-
ELECTROMECHANICAL WORKS- LOT II
COUNTRY: REPUBLIC OF KENYA
EMPLOYER: LAKE VICTORIA SOUTH WATER WORKS
DEVELOPMENT AGENCY (LVWWDA)

BIDDING DOCUMENTS: VOLUME I

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DATA SHEET
EVALUATION AND QUALIFICATION
CRITERIA
BIDDING FORMS
BILLS OF QUANTITIES
WORKS REQUIREMENTS
GENERAL CONDITIONS OF CONTRACT
PARTICULAR CONDITIONS OF CONTRACT
CONTRACT FORMS

OPEN

Issued on: 9th April 2026

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INVITATION TO TENDER

TENDER No: LVSWWDA/T/36/2025-2026; Construction of West Karachuonyo Water Supply Project-Phase II- Electromechanical Works-Lot II

1. The Lake Victoria South Water Works Development Agency (LVSWWDA) invites sealed tenders for **Construction of West Karachuonyo Water Supply Project-Phase II- Electromechanical Works-Lot II**.
2. Tendering will be conducted under open tender method (National) using a standardized tender document. Tendering is open to all qualified and interested Tenderers.
3. Qualified and interested tenderers may obtain further information and inspect the Tender Documents during office hours from 9.00am to 5.00pm at the address given below.
4. Tendering is open to ALL qualified firms registered with National Construction Authority (NCA) Class 4) and above under the Electrical Works and Mechanical Works category.
5. A complete set of tender documents may be purchased or obtained by interested tenderers upon payment of a non- refundable fee of Kshs. 1,000 in Banker's Cheque and payable to the address given below.
6. Tender documents may also be obtained electronically from the Public Procurement Information Portal (PIIP) www.tenders.go.ke and the LVSWWDA Website(s) <https://www.lvswwda.go.ke/tender> . Tender documents obtained electronically will be free of charge.
7. Tender documents may be viewed and downloaded for free from the PIIP www.tenders.go.ke and the LVSWWDA website <https://www.lvswwda.go.ke/tender/>. Tenderers who download the tender document must forward their particulars immediately to procurement@lvswwda.go.ke with a copy to mmayi@lvswwda.go.ke to facilitate any further clarification or addenda.
8. Tenders shall be quoted in Kenya Shillings and shall include all taxes. Tenders shall remain valid for 98 days from the date of opening of tenders.
9. All Tenders must be accompanied by a Tender Security” of KSH. 2,000,000 (Two Million shillings only)
10. The Tenderer shall chronologically serialize all pages of the tender documents submitted.
11. Completed tenders must be delivered to the **Tender Box** in the address below on or before **30th April 2026, 10.00am (Kenya Time)**. Completed tenders should be submitted in one original and one copy.
12. Tenders will be opened immediately after the deadline date and time specified above or any deadline date and times 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.
13. The addresses referred to above are:

Address for obtaining further information and for purchasing tender documents

Lake Victoria South Water Works Development Agency Office.

Lavictors House, Off Ring Road, Milimani.

P.O Box 3325 -40100, Kisumu, Kenya

Manager, Supply Chain Management: (Tel: +254 (057) 2025128, (020) 2157233, 020-2463081

Email: procurement@lvswwda.go.ke and copy to mmayi@lvswwda.go.ke

Address for Submission of Tenders.

Tender Box, situated at Ground Floor

Lake Victoria South Water Works Development Agency Office.

Lavictors House, Off Ring Road, Milimani.

P.O Box 3325 -40100, Kisumu, Kenya

Address for Opening of Tenders.

Lake Victoria South Water Works Development Agency Office.

Lavictors House, Off Ring Road, Milimani.
P.O Box 3325 -40100, Kisumu, Kenya

Name: Ms. JACKLINE KEMUNTO

Designation: **CHIEF EXECUTIVE OFFICER**

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 Appendix to Conditions of Contract invites tenders for Works Contract as described in the tender documents. The name, identification, and number of lots (contracts) of this Tender Document are **specified in the TDS**.

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.

2.4 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 being tendered for. The Procuring Entity shall indicate in the **TDS** firms (if any) that provided consulting services for the contract being tendered for. The Procuring Entity shall check whether the owners or controllers of the Tenderer are same as those that provided consulting services. The Procuring Entity shall, upon request, make available to any tenderer information that would give such firm unfair competitive advantage over competing firms.

3. **Eligible Tenderers**

3.1 A Tenderer may be a firm that is a private entity, a state-owned enterprise or institution subject to ITT 3.7 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 (*wives, 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.

3.3 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 legal representative 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) Any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the tender; or

f) any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as Engineer 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 contract specified in this Tender Document or

h) Has a close business or family relationship with a professional staff of the Procuring Entity who:

i) 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; 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.

3.4 A tenderer shall not be involved in corrupt, coercive, obstructive, collusive or fraudulent practice. A tenderer that is proven to have been involved any of these practices shall be automatically disqualified.

3.5 A Tenderer (either individually or as a JV member) shall not participate in more than one Tender, except for permitted alternative tenders. This includes participation as a subcontractor in other Tenders. 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.

3.6 A Tenderer may have the nationality of any country, subject to the restrictions pursuant to IIT 4.8. 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.

3.7 Tenderer that has been debarred 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 website of PPRA www.ppra.go.ke.

3.8 Tenderers that are state-owned enterprises or institutions may be eligible to compete and be awarded a Contract(s) only if they are accredited by PPRA to be (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.

3.9 A Firms and individuals 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 of works 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 Foreign tenderers are required to source at least forty (40%) percent of their contract inputs (in supplies, subcontracts and labor) from national suppliers and contractors. To this end, a foreign tenderer shall provide in its tender documentary evidence that this requirement is met. Foreign tenderers not meeting this criterion will be automatically disqualified. Information required to enable the Procuring Entity determine if this condition is met shall be provided in for this purpose is be provided in *“SECTION III - EVALUATION AND QUALIFICATION CRITERIA, Item 9”*.

3.11 Pursuant to the eligibility requirements of ITT 4.10, a tender is considered a foreign tenderer, if the tenderer is not registered in Kenya or if the tenderer is registered in Kenya and has less than 51 percent ownership by Kenyan Citizens. JVs are considered as foreign tenderers if the individual member firms are not registered in Kenya or if are registered in Kenya and have less than 51 percent ownership by Kenyan citizens. The JV shall not subcontract to foreign firms more than 10 percent of the contract price, excluding provisional sums.

3.12 The National Construction Authority Act of Kenya requires that all local and foreign contractors be registered with the National Construction Authority and be issued with a Registration Certificate before they can undertake any construction works in Kenya. Registration shall not be a condition for tender, but it shall be a condition of contract award and signature. A selected tenderer shall be given opportunity to register before such award and signature of contract. Application for registration with National Construction Authority may be accessed from the website www.nca.go.ke.

3.13 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

3.14 A Kenyan tenderer shall provide evidence of having fulfilled his/her tax obligations by producing a valid tax clearance certificate or tax exemption certificate issued by the Kenya Revenue Authority.

4. Eligible Goods, Equipment, and Services

4.1 Goods, equipment and services to be supplied under the Contract may have their origin in any country that is not eligible under ITT 3.9. At the Procuring Entity's request, Tenderers may be required to provide evidence of the origin of Goods, equipment and services.

4.2 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. Tenderer's Responsibilities

5.1 The tenderer shall bear all costs associated with the preparation and submission of his/her tender, and the Procuring Entity will in no case be responsible or liable for those costs.

5.2 The tenderer, at the tenderer's own responsibility and risk, is encouraged to visit and examine the Site of the Works and its surroundings, and obtain all information that may be necessary for preparing the tender and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the tenderer's own expense.

5.3 The Tenderer and any of its personnel or agents will be granted permission by the Procuring Entity to enter upon its premises and lands for the purpose of such visit. The Tenderer shall indemnify the Procuring Entity against all liability arising from death or personal injury, loss of or damage to property, and any other losses and expenses incurred as a result of the inspection.

5.4 The tenderer shall provide in the Form of Tender and Qualification Information, a preliminary description of the proposed work method and schedule, including charts, as necessary or required.

B. Contents of Tender Documents

6. Sections of Tender Document

6.1 The tender document consists of Parts 1, 2, and 3, which includes all the sections specified below, and which should be read in conjunction with any Addenda issued in accordance with ITT 8.

PART 1 Tendering Procedures

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

PART 2 Works Requirements

- i) Section V - Drawings
- ii) Section VI - Specifications
- iii) Section VII - Bills of Quantities

PART 3 Conditions of Contract and Contract Forms

- i) Section VIII - General Conditions of Contract (GCC)
- ii) Section IX - Special Conditions of Contract (SC)
- iii) Section X - Contract Forms

6.2 The Invitation to Tender Document (ITT) issued by the Procuring Entity is not part of the Contract documents.

6.3 Unless obtained directly from the Procuring Entity, the Procuring Entity is not responsible for the completeness of the Tender document, responses to requests for clarification, the minutes of the pre-Tender meeting (if any), or Addenda to the Tender document in accordance with ITT 8. In case of any contradiction, documents obtained directly from the Procuring Entity shall prevail.

The Tenderer is expected to examine all instructions, forms, terms, and specifications in the Tender Document and to furnish with its Tender all information and documentation as is required by the Tender document.

7. Site Visit

7.1 The Tenderer, at the Tenderer's own responsibility and risk, is encouraged to visit and examine and inspect the Site of the Required Services and its surroundings and obtain all information that may be necessary for preparing the Tender and entering into a contract for the Services. The costs of visiting the Site shall be at the Tenderer's own expense.

8. Pre-Tender Meeting

8.1 The Procuring Entity shall specify in the TDS if a pre-tender meeting will be held, when and where. The Procuring Entity shall also specify in the TDS if a pre-arranged pretender site visit will be held and when. The Tenderer's designated representative is invited to attend a pre-arranged pretender visit of the site of the works. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

8.2 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.

8.3 Minutes of the pre-Tender meeting and the pre-arranged pretender site visit of the site of the works, 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.

8.4 The Procuring Entity shall also promptly publish anonym zed (*no names*) Minutes of the pre-Tender meeting and the pre-arranged pretender visit of the site of the works 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 and the pre-arranged pretender site visit, shall be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT 8 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.

9. Clarification and amendments of Tender Documents

9.1 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 and the pre-arranged pretender visit of the site of the works if provided for in accordance with ITT 8.4. 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 6.3, including a description of the inquiry but without identifying its source. If 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 appropriately following the procedure under ITT 8.4.

10. Amendment of Tendering Document

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

10.2 Any addendum issued shall be part of the tendering document and shall be communicated in writing to all who have obtained the tendering 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 8.4.

10.3 To give prospective Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Procuring Entity shall extend, as necessary, the deadline for submission of Tenders, in accordance with ITT 25.2 below.

C. Preparation of Tenders

11. Cost of Tendering

11.1 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.

12. Language of Tender

12.1 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 the 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 and notarized translation of the relevant passages into the English Language, in which case, for purposes of interpretation of the Tender, such translation shall govern.

13. Documents Comprising the Tender

13.1 The Tender shall comprise the following:

- a) Form of Tender prepared in accordance with ITT 14;
- b) Schedules including priced Bill of Quantities, completed in accordance with ITT 14 and ITT 16;
- c) Tender Security or Tender-Securing Declaration, in accordance with ITT 21.1;
- d) Alternative Tender, if permissible, in accordance with ITT 15;
- e) Authorization: written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordance with ITT 22.3;
- f) Qualifications: documentary evidence in accordance with ITT 19 establishing the Tenderer's qualifications to perform the Contract if its Tender is accepted;
- g) Conformity: a technical proposal in accordance with ITT 18;
- h) Any other document required in the TDS.

13.2 In addition to the requirements under ITT 11.1, 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. The Tenderer shall chronologically serialize pages of all tender documents submitted.

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

14. Form of Tender and Schedules

14.1 The Form of Tender and Schedules, including the Bill of Quantities, shall be prepared using the relevant forms furnished in Section IV, Tendering Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITT 20.3. All blank spaces shall be filled in with the information requested.

15. Alternative Tenders

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

15.2 When alternative times for completion are explicitly invited, a statement to that effect will be included in the TDS, and the method of evaluating different alternative times for completion will be described in Section III, Evaluation and Qualification Criteria.

15.3 Except as provided under ITT 13.4 below, Tenderers wishing to offer technical alternatives to the requirements of the Tender Documents must first price the Procuring Entity's design as described in the Tender Documents and shall further provide all information necessary for a complete evaluation of the alternative by the Procuring Entity, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the Tenderer with the Winning Tender conforming to the basic technical requirements shall be considered by the Procuring Entity. When specified in the TDS, Tenderers are permitted to submit alternative technical solutions for specified parts of the Works, and such parts will be identified in the TDS, as will the method for their evaluating, and described in Section VII, Works' Requirements.

16. Tender Prices and Discounts

16.1 The prices and discounts (including any price reduction) quoted by the Tenderer in the Form of Tender and in the Bill of Quantities shall conform to the requirements specified below.

16.2 The Tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Tenderer shall be deemed covered by the rates for other items in the Bill of Quantities and will not be paid for separately by the Procuring Entity. An item not listed in the priced Bill of Quantities shall be assumed to be not included in the Tender, and provided that the Tender is determined substantially responsive notwithstanding this omission, the average price of the item quoted by substantially responsive Tenderers will be added to the Tender price and the equivalent total cost of the Tender so determined will be used for price comparison.

16.3 The price to be quoted in the Form of Tender, in accordance with ITT 14.1, shall be the total price of the Tender, including any discounts offered.

16.4 The Tenderer shall quote any discounts and the methodology for their application in the Form of Tender, in accordance with ITT 14.1.

16.5 It will be specified in the TDS if the rates and prices quoted by the Tenderer are or are not subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, except in cases where the contract is subject to fluctuations and adjustments, not fixed price. In such a case, the Tenderer shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data and the Procuring Entity may require the Tenderer to justify its proposed indices and weightings.

16.6 Where tenders are being invited for individual lots (contracts) or for any combination of lots (packages), 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 16.4, provided the Tenders for all lots (contracts) are opened at the same time.

16.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 30 days prior to the deadline for submission of Tenders, shall be included in the rates and prices and the total Tender Price submitted by the Tenderer.

17. Currencies of Tender and Payment

17.1 Tenderers shall quote entirely in Kenya Shillings. The unit rates and the prices shall be quoted by the Tenderer in the Bill of Quantities, entirely in Kenya shillings. A Tenderer expecting to incur expenditures in other currencies for inputs to the Works supplied from outside Kenya shall device own ways of getting foreign currency to meet those expenditures.

18. Documents Comprising the Technical Proposal

18.1 The Tenderer shall furnish a technical proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV, Tender Forms, in sufficient detail to demonstrate the adequacy of the Tenderer's proposal to meet the work's requirements and the completion time.

19. Documents Establishing the Eligibility and Qualifications of the Tenderer

19.1 Tenderers shall complete the Form of Tender, included in Section IV, Tender Forms, to establish Tenderer's eligibility in accordance with ITT 4.

19.2 In accordance with Section III, Evaluation and Qualification Criteria, to establish its qualifications to perform the Contract the Tenderer shall provide the information requested in the corresponding information sheets included in Section IV, Tender Forms.

19.3 A margin of preference will not be allowed. Preference and reservations will be allowed, individually or in joint ventures. Applying for eligibility for Preference and reservations shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITT 33.1.

19.4 Tenderers shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a contractor or group of contractors qualifies for a margin of preference. Further the information will enable the Procuring Entity identify any actual or potential conflict of interest in relation to the procurement and/or contract management processes, or a possibility of collusion between tenderers, and thereby help to prevent any corrupt influence in relation to the procurement process or contract management.

19.5 The purpose of the information described in ITT 19.4 above overrides any claims to confidentiality which a tenderer may have. There can be no circumstances in which it would be justified for a tenderer to keep information relating to its ownership and control confidential where it is tendering to undertake public sector work and receive public sector funds. Thus, confidentiality will not be accepted by the Procuring Entity as a justification for a Tenderer's failure to disclose, or failure to provide required information on its ownership and control.

19.6 The Tenderer shall provide further documentary proof, information or authorizations that the Procuring Entity may request in relation to ownership and control which information on any changes to the information which was provided by the tenderer under ITT 6.3. The obligations to require this information shall continue for the duration of the procurement process and contract performance and after completion of the contract, if any change to the information previously provided may reveal a conflict of interest in relation to the award or management of the contract.

19.7 All information provided by the tenderer pursuant to these requirements must be complete, current and accurate as at the date of provision to the Procuring Entity. In submitting the information required pursuant to these requirements, the Tenderer shall warrant that the information submitted is complete, current and accurate as at the date of submission to the Procuring Entity.

19.8 If a tenderer fails to submit the information required by these requirements, its tender will be rejected. Similarly, if the Procuring Entity is unable, after taking reasonable steps, to verify to a reasonable degree the information submitted by a tenderer pursuant to these requirements, then the tender

will be rejected.

19.9 If information submitted by a tenderer pursuant to these requirements, or obtained by the Procuring Entity (whether through its own enquiries, through notification by the public or otherwise), shows any conflict of interest which could materially and improperly benefit the tenderer in relation to the procurement or contract management process, then:

- i) if the procurement process is still ongoing, the tenderer will be disqualified from the procurement process,
- ii) if the contract has been awarded to that tenderer, the contract award will be set aside,
- iii) the tenderer will be referred to the relevant law enforcement authorities for investigation of whether the tenderer or any other persons have committed any criminal offence.

19.10 If a tenderer submits information pursuant to these requirements that is incomplete, inaccurate or out-of-date, or attempts to obstruct the verification process, then the consequences IIT 6.7 will ensue unless the tenderer can show to the reasonable satisfaction of the Procuring Entity that any such act was not material, or was due to genuine error which was not attributable to the intentional act, negligence or recklessness of the tenderer.

20. Period of Validity of Tenders

20.1 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 IIT 24). A Tender valid for a shorter period shall be rejected by the Procuring Entity as non-responsive.

20.2 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 IIT 21.1, it shall also be extended for thirty (30) days beyond the deadline of the extended validity 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 IIT 20.3.

20.3 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.

21. Tender Security

21.1 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. A Tender-Securing Declaration shall use the form included in Section IV, Tender Forms.

21.2 If a Tender Security is specified pursuant to IIT 19.1, the Tender Security shall be a demand guarantee in any of the following forms at the Tenderer's option:

- a) an unconditional Bank Guarantee issued by reputable commercial bank); or
- b) an irrevocable letter of credit;
- c) a Banker's cheque issued by a reputable commercial bank; or
- d) another security specified **in the TDS**,

21.3 If an unconditional bank guarantee is issued by a bank located outside Kenya, the issuing bank shall have a correspondent bank located in Kenya to make it enforceable. 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 IIT 20.2.

21.4 If a Tender Security or Tender-Securing Declaration is specified pursuant to IIT 19.1, any Tender not accompanied by a substantially responsive Tender Security or Tender-Securing Declaration shall

be rejected by the Procuring Entity as non-responsive.

21.5 If a Tender Security is specified pursuant to ITT 21.1, the Tender Security of unsuccessful Tenderers shall be returned as promptly as possible upon the successful Tenderer's signing the Contract and furnishing the Performance Security and any other documents required in the TDS. The Procuring Entity shall also promptly return the tender security to the tenderers where the procurement proceedings are terminated, all tenders were determined nonresponsive or a bidder declines to extend tender validity period.

21.6 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, and any other documents required in the TDS.

21.7 The Tender Security may be forfeited or the Tender-Securing Declaration executed:

- e) if a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer on the Form of Tender, or any extension thereto provided by the Tenderer; or
- f) if the successful Tenderer fails to:
- i) sign the Contract in accordance with ITT 50; or
- ii) furnish a Performance Security and if required in the TDS, and any other documents required in the TDS.

21.8 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.

21.9 The Tender Security or the Tender-Securing Declaration of a JV shall 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 the Tender-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITT 4.1 and ITT 11.2.

21.10 A tenderer shall not issue a tender security to guarantee itself.

22. Format and Signing of Tender

22.1 The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT 13 and clearly mark it "ORIGINAL." Alternative Tenders, if permitted in accordance with ITT 15, 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.

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

22.3 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.

22.4 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 to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

22.5 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

23. Sealing and Marking of Tenders

23.1 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 15, 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.

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.

23.2 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 that are misplaced or opened prematurely will not be accepted.

24. Deadline for Submission of Tenders

24.1 Tenders must be received by the Procuring Entity at the address specified in the TDS and no later than the date and time also 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.

24.2 The Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders by amending the Tender Documents in accordance with ITT 8, 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.

25. Late Tenders

25.1 The Procuring Entity shall not consider any Tender that arrives after the deadline for submission of tenders, in accordance with ITT 24. 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.

26. Withdrawal, Substitution, and Modification of Tenders

26.1 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 in accordance with ITT 22.3, (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 22 and ITT 23 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," "MODIFICATION;" and
- b) received by the Procuring Entity prior to the deadline prescribed for submission of Tenders, in accordance with ITT 24.

26.2 Tenders requested to be withdrawn in accordance with ITT 26.1 shall be returned unopened to the Tenderers.

26.3 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.

27. Tender Opening

27.1 Except in the cases specified in ITT 23 and ITT 26.2, the Procuring Entity shall 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 chooses to attend. Any specific electronic Tender opening procedures required if electronic Tendering is permitted in accordance with ITT 24.1, shall be as specified in the TDS.

27.2 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelopes with the corresponding Tender shall not be opened, but returned to the Tenderer. 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.

27.3 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.

27.4 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.

27.5 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 Price, per lot (contract) if applicable, including any discounts and alternative Tenders; the presence or absence of a Tender Security or Tender-Securing Declaration, if required; and any other details as the Procuring Entity may consider appropriate.

27.6 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.

27.7 At the Tender Opening, the Procuring Entity shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 25.1).

27.8 The Procuring Entity shall prepare minutes 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, if one was required.
- e) number of pages of each tender document submitted.

27.9 The Tenderers' representatives who are present shall be requested to sign the minutes. The omission of a Tenderer's signature on the minutes shall not invalidate the contents and effect of the minutes. A copy of the tender opening register shall be distributed to all Tenderers upon request.

E. Evaluation and Comparison of Tenders

28. Confidentiality

28.1 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 Tender process until information on Intention to Award the Contract is transmitted to all Tenderers in accordance with ITT 46.

28.2 Any effort by a Tenderer to influence the Procuring Entity in the evaluation of the Tenders or Contract award decisions may result in the rejection of its tender.

28.3 Notwithstanding ITT 28.2, from the time of tender opening to the time of contract award, if a tenderer wishes to contact the Procuring Entity on any **matter related to the tendering process, it shall do so in writing.**

29. Clarification of Tenders

29.1 To assist in the examination, evaluation, and 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, given a reasonable time for a response. Any clarification submitted by a tenderer 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 33.

29.2 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.

30. Deviations, Reservations, and Omissions

30.1 During the evaluation of tenders, the following definitions apply:

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

31. Determination of Responsiveness

31.1 The Procuring Entity's determination of a Tender's responsiveness is to be based on the contents of the tender itself, as defined in ITT 13.

31.2 A substantially responsive Tender is one that meets the requirements of the Tender document without material deviation, **reservation, or omission**. **A material deviation, reservation, or omission is one that, if accepted, would:**

- a) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or
- b) limit in any substantial way, inconsistent with the tender document, the Procuring Entity's rights or the tenderer's obligations under the proposed contract; or
- c) if rectified, would unfairly affect the competitive position of other tenderers presenting substantially responsive tenders.

31.3 The Procuring Entity shall examine the technical aspects of the tender submitted in accordance with ITT 18, to confirm that all requirements of Section VII, Works' Requirements have been met without any material deviation, reservation or omission.

31.4 If a tender is not substantially responsive to the requirements of the tender 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.

32. Non-material Non-conformities

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

32.2 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, to rectify nonmaterial non-conformities in the tender related to documentation requirements. Requesting information or documentation on such non- conformities 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.

32.3 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**.

33. Arithmetical Errors

33.1 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.

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, and 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

33.2 Tenderers shall be notified of any error detected in their bid during the notification of a ward.

34. Currency provisions

34.1 Tenders will priced be in Kenya Shillings only. Tenderers quoting in currencies other than in Kenya shillings will be determined non-responsive and rejected.

35. Margin of Preference and Reservations

35.1 No margin of preference shall be allowed on contracts for small works.

35.2 Where it is intended to reserve the contract to specific groups under Small and Medium Enterprises, or enterprise of women, youth and/or persons living with disability, 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/firms belonging to those specified groups are the only ones eligible to tender. Otherwise if no so stated, the invitation will be open to all tenderers.

36. Nominated Subcontractors

36.1 Unless otherwise stated in the **TDS**, the Procuring Entity does not intend to execute any specific elements of the Works by subcontractors selected in advance by the Procuring Entity.

36.2 Tenderers may propose subcontracting up to the percentage of total value of contracts or the volume of works as specified in the TDS. Subcontractors proposed by the Tenderer shall be fully qualified for their parts of the Works.

36.3 The subcontractor's qualifications shall not be used by the Tenderer to qualify for the Works unless their specialized parts of the Works were previously designated by the Procuring Entity in the TDS as can be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications of the Specialized Subcontractors proposed by the Tenderer may be added to the qualifications of the Tenderer.

37. Evaluation of Tenders

37.1 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 Best Evaluated Tender in accordance with ITT 40.

37.2 To evaluate a Tender, the Procuring Entity shall consider the following:

- a) price ~~adjustment~~ due to discounts offered in accordance with ITT 16;
- b) converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT 39;
- c) price adjustment due to quantifiable nonmaterial non-conformities in accordance with ITT 30.3; and
- d) any additional evaluation factors specified **in the TDS** and Section III, Evaluation and Qualification Criteria.

37.3 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.

37.4 In the case of multiple contracts or lots, Tenderers shall be allowed to tender for one or more lots and the methodology to determine the lowest evaluated cost of the lot (contract) combinations, including any discounts offered in the **Form of Tender, is specified in Section III, Evaluation and Qualification Criteria.**

38. Comparison of Tenders

38.1 The Procuring Entity shall compare the evaluated costs of all substantially responsive Tenders established in accordance with ITT 38.2 to determine the Tender that has the lowest evaluated cost.

39. Abnormally Low Tenders

39.1 An Abnormally Low Tender is one where the Tender price, in combination with other elements of the Tender, appears so low that it raises material concerns as to the capability of the Tenderer in regards to the Tenderer's ability to perform the Contract for the offered Tender Price or that genuine competition between Tenderers is compromised.

39.2 In the event of identification of a potentially Abnormally Low Tender, the Procuring Entity shall seek written clarifications from the Tenderer, including detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the Tender document.

39.3 After evaluation of the price analyses, 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.

40. Abnormally High Tenders

40.1 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.

40.2 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.

40.3 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 competent Government Agencies to institute an investigation on the cause of the compromise, before retendering.

41. Unbalanced and/or Front-Loaded Tenders

41.1 If in the Procuring Entity's opinion, the Tender that is evaluated as the lowest evaluated price is seriously unbalanced and/or front loaded, the Procuring Entity may require the Tenderer to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the tender prices with the scope of works, proposed methodology, schedule and any other requirements of the Tender document.

41.2 After the evaluation of the information and detailed price analyses presented by the Tenderer, the Procuring Entity may as appropriate:

- a) accept the Tender; or
- b) require that the total amount of the Performance Security be increased at the expense of the Tenderer to a level not exceeding a 30% of the Contract Price; or
- c) agree on a payment mode that eliminates the inherent risk of the Procuring Entity paying too much for undelivered works; or
- d) reject the Tender,

42. Qualifications of the Tenderer

42.1 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.

42.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to IIT 19. The determination shall not take into consideration the qualifications of other firms such as the Tenderer's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Subcontractors if permitted in the Tender document), or any other firm(s) different from the Tenderer.

42.3 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 price to make a similar determination of that Tenderer's qualifications to perform satisfactorily.

42.4 An Abnormally Low Tender is one where the Tender price, in combination with other elements of the Tender, appears so low that it raises material concerns as to the capability of the Tenderer in regards to the Tenderer's ability to perform the Contract for the offered Tender Price.

42.5 In the event of identification of a potentially Abnormally Low Tender, the Procuring Entity shall seek written clarifications from the Tenderer, including detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the Tender document.

42.6 After evaluation of the price analyses, if 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.

43. Best Evaluated Tender

43.1 Having compared the evaluated prices of Tenders, the Procuring Entity shall determine the Best Evaluated Tender. The Best 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.

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

44.1 The Procuring Entity reserves the right to accept or reject any Tender and to annul the Tender process and reject all Tenders at any time prior to Contract 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

45. Award Criteria

45.1 The Procuring Entity shall award the Contract to the successful tenderer whose tender has been determined to be the Lowest Evaluated Tender.

46. Notice of Intention to enter into a Contract

46.1 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;

47. Standstill Period

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

47.2 Where a Standstill Period applies, it shall commence when the Procuring Entity has transmitted to each Tenderer the Notification of Intention to Enter **into a Contract with the successful Tenderer.**

48. Debriefing by the Procuring Entity

48.1 On receipt of the Procuring Entity's Notification of Intention to Enter into a Contract referred to in ITT 46, 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.

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

49. Letter of Award

49.1 Prior to the expiry of the Tender Validity Period and upon expiry of the Standstill Period specified in ITT 42.1, 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 21 days of the date of the letter.

50. Signing of Contract

50.1 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.

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

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

51. Appointment of Adjudicator

51.1 The Procuring Entity proposes the person named in the TDS to be appointed as Adjudicator under the Contract, at the hourly fee specified in the TDS, plus reimbursable expenses. If the Tenderer disagrees with this proposal, the Tenderer should so state in his Tender. If, in the Letter of Acceptance, the Procuring Entity does not agree on the appointment of the Adjudicator, the Procuring Entity will request the Appointing Authority designated in the Special Conditions of Contract (SCC) pursuant to Clause 23.1 of the General Conditions of Contract (GCC), to appoint the Adjudicator.

52. Performance Security

52.1 Within twenty-one (21) days of the receipt of the Letter of Acceptance from the Procuring Entity, the successful Tenderer shall furnish the Performance Security and, any other documents required

in the TDS, in accordance with the General Conditions of Contract, subject to ITT 40.2 (b), using the Performance Security and other Forms included in Section X, Contract Forms, or another form acceptable to the Procuring Entity. A foreign institution providing a bank guarantee shall have a correspondent financial institution located in Kenya, unless the Procuring Entity has agreed in writing that a correspondent bank is not required.

52.2 Failure of the successful Tenderer to submit the above-mentioned Performance Security and other documents required in the TDS, 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 Best Evaluated Tender.

52.3 Performance security shall not be required for contracts estimated to cost less than Kenya shillings five million shillings.

53. Publication of Procurement Contract

53.1 Within fourteen days after signing the contract, the Procuring Entity shall publish the awarded contract at its notice boards and websites; and on the Website of 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.

54. Procurement Related Complaints

54.1 The procedures for making Procurement-related Complaints are as specified in the TDS.

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.

A. General	
ITT 1.1	The name of the Contract is: Construction of West Karachuonyo Water Supply Project -Phase II- Electromechanical Works -Lot II The Reference Number of the Contract is: LVSWWDA/T/36/2025-2026
ITT 2.3	The information made available on competing firms is as follows: N/A
ITT 3.1	Maximum number of members in the Joint Venture (JV) shall be: N/A
B. Content of Tender Document	
ITT 8.1	There will be no mandatory pre-tender conference/ visit. However, bidders are encouraged to acquaint themselves with the site conditions or make any relevant inquiries or clarifications in accordance with the Conditions of Tender.
ITT 8.2	The Tenderer will submit any questions in writing, to reach the Procuring Entity not later than 30th April 2026 .
ITT 8.4	The Procuring Entity’s website where Minutes of the pre-Tender meeting and the pre-arranged pretender site visit will be published is; www.lvswwda.go.ke and www.tenders.go.ke

ITT 9.1	<p>For Clarification of Tender purposes, for obtaining further information and for purchasing tender documents, the Procuring Entity's address is:</p> <ol style="list-style-type: none"> 1. Name of Procuring Entity; <i>Lake Victoria South Water Works Development Agency (LVSWWDA)</i> 2. Physical address for hand Courier Delivery to an office or Tender Box; <i>Tender documents to be deposited in the Tender Box provided at the First Floor, Reception Area of LVSWWDA.</i> 3. Postal Address; <i>LVSWWDA, P. O. Box 3325-40100, Kisumu.</i> 4. Insert name, telephone number and e-mail address of the officer to be contacted.; <i>Manager, Supply Chain Management, Email; procurement@lvswwda.go.ke and cc to mmayi@lvswwda.go.ke</i>
C. Preparation of Tenders	
ITP 13.1 (h)	The Tenderer shall submit the following additional documents in its Tender; <i>All documents to be submitted shall be included under Section III – Evaluation and Qualification Criteria</i>
ITT 15.1	Alternative Tenders <i>shall not</i> be considered.
ITT 15.2	Alternative times for completion <i>shall not be permitted.</i>
ITT 15.4	Alternative technical solutions shall be permitted for the following parts of the Works: <i>Not Applicable</i>
ITT 16.5	The prices quoted by the Tenderer <i>shall be fixed.</i>
ITT 20.1	The Tender validity period shall be <i>98 days.</i>
ITT 20.3 (a)	<p>(a) The delayed to exceeding 30__number of days.</p> <p>(b) The Tender price shall be adjusted by the following percentages of the tender price:</p> <p>(i) By _____% of the local currency portion of the Contract price adjusted to reflect local inflation during the period of extension, and</p> <p>(ii) By _____% the foreign currency portion of the Contract price adjusted to reflect the international inflation during the period of extension;</p> <p><i>Prevailing consumer price index obtained from Kenya National Bureau of Statistics or the monthly inflation rate issued by the Central Bank of Kenya for both (i) and (ii)</i></p>
ITT 21.1	Tenderer shall submit tender security in form of Bank Guarantee of Kshs 400,000 from a reputable bank.
ITT 21.2 (d)	The other Tender Security shall be: <i>Shall be of Kshs 2,000,000 from reputable bank in form of bank guarantee.</i>
ITT 21.8	The Procuring Entity may declare the Tenderer ineligible to be awarded a contract by the Procuring Entity for a period of: <i>as provided in the law</i>
ITT 22.1	In addition to the original of the Tender, the number of hard copies is: <i>One (1).</i>
ITT 22.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of: <i>Tender Specific Written Power of Attorney</i>
D. Submission and Opening of Tenders	
ITT 24.1	<p>(A)For <u>Tender submission purposes</u> only, the Procuring Entity's address is:</p> <p>Lake Victoria South Water Works Development Agency</p> <p>Physical Address: Lavictors House, Off Ring Road, Milimani.</p>

	<p>Postal Address, P.O. Box 3325-40100, Kisumu</p> <p>Date and time for submission of Tenders: <i>on or before 30th April 2026 at 10.00am</i></p> <p>Tenderers <i>shall not submit</i> tenders electronically.</p>
ITT 27.1	<p>The Tender opening shall take place at the time and the address for Opening of Tenders Provided below:</p> <p>Lake Victoria South Water Works Development Agency</p> <p>Physical Address: Lavictors House, Off Ring Road, Milimani.</p> <p>Postal Address: P.O. Box 3325-40100, Kisumu</p> <p>State date and time of tender opening <i>30th April 2026 at 10.00am</i></p>
ITT 27.6	<p>The number of representatives of the procurement entity to sign are: <i>At least Three (3)</i></p>
E. Evaluation, and Comparison of Tenders	
ITT 32.3	<p>The adjustment shall be based on the <i>highest</i> 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.</p>
ITT 35.2	<p>a. The invitation to tender is open to all qualified contractors</p>
ITT 36.1	<p>At this time, the Procuring Entity <i>does not intend</i> to execute certain specific parts of the Works by subcontractors selected in advance.</p>
ITT 36.2	<p>Contractor's may propose subcontracting: <i>Not Applicable</i></p>
ITT 36.3	<p>The parts of the Works for which the Procuring Entity permits Tenderers to propose Specialized Subcontractors are designated as follows: <i>Not Applicable</i></p>
ITT 37.2 (d)	<p>Additional requirements apply. <i>All requirements are detailed in the evaluation criteria in Section III,</i></p>
ITT 45.1	<p>Award Criteria:</p> <p><i>The Procuring Entity shall award the Contract to the successful tenderer whose tender has been determined to be the Lowest Evaluated Tender.</i></p> <p><i>In addition, any contractor terminated on grounds of integrity and/or fraud or corruption is ineligible to tender</i></p>
ITT 46	<p><i>Notification of intent to enter into a contract shall be communicated through E-mail. Tenderers must therefore provide their E-mail addresses:</i></p> <p><i>Email Address 1 (Mandatory): _____</i></p> <p><i>Email Address 2: (Optional): _____</i></p>
ITT 51.1	<p>The person named to be appointed as Adjudicator is: <i>N/A</i> _</p>
ITT 52.1	<p><i>Performance Security: Performance Security shall be required only for Contracts above Ksh. 5 Million as per the requirements of Reg. 135(1) of the Public Procurement and Asset Disposal Regulations, 2020. The performance Security shall be in the form of an unconditional Bank Guarantee amounting to 1% of the contract sum.</i></p>
ITT 52.2	<p>Other documents required in addition to the Performance Security are: <i>Detailed Work Program</i></p>
ITT 54.1	<p>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</p>

www.ppra.go.ke or email complaints@ppra.go.ke.

If a Tenderer wishes to make a Procurement-related Complaint, the Tenderer should submit its complaint following these procedures, in writing (by the quickest means available, that is either by hand delivery or email to:

For the attention: **Ms. Jackline Kemunto**

Title/position: **Chief Executive Officer**

Procuring Entity: **Lake Victoria South Water Works Development Agency**

Email address: info@lvswwda.go.ke

In summary, a Procurement-related Complaint may challenge any of the following (among others):

- (i) the terms of the Tender Documents; and
- the Procuring Entity's decision to award the contract.

SECTION III - EVALUATION AND QUALIFICATION CRITERIA

1. General Provisions

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 construction 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 are 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.

This section contains the criteria that the Employer shall use to evaluate tender and qualify tenderers. No other factors, methods or criteria shall be used other than 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 Document for Goods and Works for evaluating Tenders.

Evaluation and contract award Criteria

The Procuring Entity shall use the criteria and methodologies listed in this Section to evaluate tenders and arrive at the Lowest Evaluated Tender. The tender that (i) meets the qualification criteria, (ii) has been determined to be substantially responsive to the Tender Documents, and (iii) is determined to have the Lowest Evaluated Tender price shall be selected for award of contract.

2. 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 requirements in the ITT, and that the tender is complete in all aspects in meeting the requirements of “Part 2 – Procuring Entity's Works Requirements”, including checking for tenders with unacceptable errors, abnormally low tenders, abnormally high tenders and tenders that are front loaded. 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 **irresponsive and will not be considered further**.

PRELIMINARY/MANDATORY EVALUATION CRITERIA

No.	Parameter
1.	Proof of Registration with Registrar of Companies. Companies Incorporated under the Company's Act must in addition submit Copy of recent Certificate of Confirmation of Directors and Shareholding (CR12) issued within the last 12 months from the date of tender opening. <i>(This may be verified with the Registrar of Companies)</i>
2.	Proof of Current and Valid Certificate of registration with National Construction Authority in Mechanical Works (NCA4 or above) and Electrical Works (NCA4) and above
3.	Proof of Valid NCA contractor's practicing licence in Mechanical and Electrical Installation Works
4.	Proof of Current and Valid License with the Energy and Petroleum Regulatory Authority (EPRA) in Class C.
5.	Copy of Valid Tax Compliance Certificate issued by the Kenya Revenue Authority <i>(Will be verified on the KRA TCC Checker)</i> . The Tax Compliance Certificate shall be valid at least up to the Tender Closing date.
6.	Form of Tender duly Completed, Signed and Stamped by the Tenderer in the format provided.
7.	Must submit a Duly Completed, Signed and Stamped Tenderer's Eligibility - Confidential Business Questionnaire in format provided
8.	Submit a duly completed, signed and stamped Certificate of Independent Tender Determination in format provided
9.	Submit a duly completed, signed and stamped Self Declaration that the person/tenderer is not debarred in the matter of the Public Procurement and Asset Disposal Act 2015 (Form SD1)
10.	Submit a duly completed, signed and stamped Self Declaration that the person/tenderer will not engage in any corrupt or fraudulent practice (Form SD2)
11.	Submit a duly completed, signed and stamped Declaration and Commitment to Code of Ethics Code Form in format provided
12.	Bills of Quantities duly Completed, Signed and Stamped by the Tenderer in the format provided

13.	Must submit a Duly Completed, Signed and Stamped Tenderer Information Form in format provided
14.	Submit a duly completed, signed and stamped Tender Securing Declaration Form attached to this tender document.
15.	Submit Tender Specific Written Power of Attorney witnessed by a Commissioner of Oaths. Attach a copy of the Annual Practicing License for the Commissioner of Oaths.
16.	Proof of Registration within County of residence. Submit a valid relevant current Trading License / Single Business Permit issued by the County Government.
17.	Properly bound, good-presented document. The tender document shall be paginated / serial numbered. All bidders are required to submit their documents paginated in a continuous ascending order i.e. sequentially paginated, from the first page to the last in this format; (i.e. 1, 2, 3..... n where n is the last page)
	<i>NB: Bidders are also informed to organize their evidentiary documentation in the order above for ease of reference.</i>

3. **Tender Evaluation (ITT 35) Price evaluation:** in addition to the criteria listed in ITT 35.2 (a) – (c) the following criteria shall apply:

i) **Alternative Completion Times**, if permitted under ITT 13.2, will be evaluated as follows:

.....N/A.....

ii) **Alternative Technical Solutions** for specified parts of the Works, if permitted under ITT 13.4, will be evaluated as follows: N/A

iii) **Other Criteria**; if permitted under ITT 35.2(d): See Section 8B: Qualification Criteria

4. **Multiple Contracts**

Multiple contracts will be permitted in accordance with ITT 35.4. Tenderers are evaluated on basis of Lots and the lowest evaluated tenderer identified for each Lot. The Procuring Entity will select one Option of the two Options listed below for award of Contracts.

OPTION 1

i) If a tenderer wins only one Lot, the tenderer will be awarded a contract for that Lot, provided the tenderer meets the Eligibility and Qualification Criteria for that Lot.

ii) If a tenderer wins more than one Lot, the tender will be awarded contracts for all won Lots, provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the Lots. The tenderer will be awarded the combination of Lots for which the tenderer qualifies and the others will be considered for award to second lowest the tenderers.

OPTION 2

The Procuring Entity will consider all possible combinations of won Lots [contract(s)] and determine the combinations with the lowest evaluated price. Tenders will then be awarded to the Tenderer or Tenderers in the combinations provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the won Lots.

5. **Alternative Tenders (ITT 13.1)**

An alternative if permitted under ITT 13.1, will be evaluated as follows: N/A

The Procuring Entity shall consider Tenders offered for alternatives as specified in Part 2- Works Requirements. Only the technical alternatives, if any, of the Tenderer with the Best Evaluated Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.

6. **Margin of Preference** is not applicable

7. **Post qualification and Contract award (ITT 39), more specifically,**

a) In case the tender was subject to post-qualification, the contract shall be awarded to the lowest evaluated tenderer, subject to confirmation of pre-qualification data, if so required.

b) In case the tender was not subject to post-qualification, the tender that has been determined to be the lowest evaluated tenderer shall be considered for contract award, subject to meeting each of the following conditions.

i) The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow of **Kenya Shillings fifty million. (Kshs. 50,000,000/=)**

ii) Minimum average annual construction turnover of **Kenya Shillings Hundred million (Kshs.100,000,000/=)**, equivalent calculated as total certified payments received for contracts in progress and/or completed within the last **5 years**, calculated from the following formula:

iii) At least **2** of contract(s) of a similar nature executed within Kenya, or the East African Community or abroad, that have been satisfactorily and substantially completed as a prime contractor, or joint venture member or sub-contractor each of minimum value of **Kenya shillings Twenty million (Ksh. 20,000,000/=)** equivalent.

iv) Contractor's Representative and Key Personnel, which are specified as in Table below:

No.	Position	Qualifications	Total Work Experience (years)	In Similar Works Experience (years)
1.	Project Manager- One (1 No.)	• B.Sc. Electrical /Mechanical Engineering	10	5
2.	Site Engineer – One (1No.)	• B.Sc. Electrical /Mechanical Engineering	8	5
3.	Electromechanical Engineer – One (1No.)	• B.Sc. Electrical Engineering/Mechanical Engineering/Electromechanical Engineering	8	5
4.	Foremen (Electrical Works)	• Higher National Diploma (HND)/Diploma in Electrical/Mechanical Engineering or equivalent	8	5
5.	Electrical technician/Artisan	• At least Certificate in Electrical Engineering or equivalent with 3 years' experience in LV/MV installations	8	5
<i>NB: Bidders are also informed to organize their evidentiary documentation in the order above for ease of reference.</i>				

v) Contractors key equipment listed on the table “Contractor's Equipment” below and more specifically listed as

No.	Equipment Type and Characteristics	Minimum Required	Number
1	Pick-Ups – 1 Ton	1	
2	Phase Sequence meter;	1	
3	Earth loop impedance Tester;	1	
4	Earth resistance tester;	1	
5	Insulation resistance tester;	1	
6	Clamp meter/multimeter;	1	
9	Mobile Support Vehicle	1	
<i>NB: Bidders are also informed to organize their evidentiary documentation in the order above for ease of reference.</i>			

vi) Other conditions depending on their seriousness.

a) **History of non-performing contracts:**

Tenderer and each member of JV in case the Tenderer is a JV, shall demonstrate that non-performance of a contract did not occur because of the default of the Tenderer, or the member of a JV in the last **5 years**. The required information shall be furnished in the appropriate form.

b) **Pending Litigation**

Financial position and prospective long-term profitability of the Single Tenderer, and in the case the Tenderer is a JV, of each member of the JV, shall remain sound according to criteria established with respect to Financial Capability under Paragraph (i) above if all pending litigation will be resolved against the Tenderer. Tenderer shall provide information on pending litigations in the appropriate form.

c) **Litigation History**

There shall be no consistent history of court/arbitral award decisions against the Tenderer, in the last **5 years**. All parties to the contract shall furnish the information in the appropriate form about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the years specified. A consistent history of awards against the Tenderer or any member of a JV may result in rejection of the tender.

8. QUALIFICATION FORM SUMMARY

1	2	3	4	5
Item No.	Qualification Subject	Qualification Requirement	<i>Document To be Completed by Tenderer</i>	<i>For Procuring Entity's Use (Qualification met or Not Met)</i>
1	Nationality	Nationality in accordance with ITT 3.6	Forms ELI ~ 1.1 and 1.2, with attachments	
2	Tax Obligations for Kenyan Tenderers	Has produced a current tax clearance certificate or tax exemption certificate issued by Kenya Revenue Authority in accordance with ITT 3.14.	Attachment	
3	Conflict of Interest	No conflicts of interest in accordance with ITT 3.3	Form of Tender	
4	PPRA Eligibility	Not having been declared ineligible by the PPRA as described in ITT 3.7	Form of Tender	
5	State- owned Enterprise	Meets conditions of ITT 3.8	Forms ELI ~ 1.1 and 1.2, with attachments	
6	Goods, equipment and services to be supplied under the contract	To have their origin in any country that is not determined ineligible under ITT 4.1	Forms ELI ~ 1.1 and 1.2, with attachments	
7	History of Non-Performing Contracts	Non-performance of a contract did not occur as a result of contractor default since 1st January 2017	Form CON-2	
8	Suspension Based on Execution of Tender/Proposal Securing Declaration by the Procuring Entity	Not under suspension based on-execution of a Tender/Proposal Securing Declaration pursuant to ITT 19.9	Form of Tender	
9	Pending Litigation	Tender's financial position and prospective long-term profitability still sound according to criteria established in 3.1 and assuming that all pending litigation will NOT be resolved against the Tenderer.	Form CON-2	

10	Litigation History	No consistent history of court/arbitral award decisions against the tenderer since 1st January 2017	Form CON - 2	
11	Financial Capabilities	<p>The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as Kenya Shillings Fifty Million (Kshs. 50,000,000) equivalent for the subject contract(s) net of the Tenderer's other commitments.</p> <p>(i) The Tenderers shall also demonstrate, to the satisfaction of the Procuring Entity, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.</p> <p>(ii) The audited balance sheets or, if not required by the laws of the Tenderer's country, other financial statements acceptable to the Procuring Entity, for the last 3 years shall be submitted and must demonstrate the current soundness of the Tenderer's Financial position and indicate its prospective long-term profitability.</p>	Form FIN - 3.1, with attachments	
12	Average Annual Turnover	Minimum average annual Electrical Installation turnover of Kenya Shillings One Hundred million (Kshs. 100,000,000) equivalent calculated as estimated project cost divided by 1 years multiplied by a factor of 2.	Form FIN - 3.2	
13	General Construction Experience	Experience under construction contracts in the role of prime contractor, JV member, sub-contractor, or management contractor for at least the last 5 years, starting 1st January 2017 .	4. Form EXP - 4.1 Experience	

14	Specific Construction & Contract Management Experience	<p>A minimum number of two similar contracts specified below that have been satisfactorily and substantially completed as a prime contractor, joint venture member, management contractor or sub-contractor between 1st January 2017 and tender submission deadline i.e. three contracts, each of minimum value Kenya shilling Twenty Million (Ksh. 20,000,000) equivalent.</p> <p>The contractor shall demonstrate that he has successfully undertaken a similar project in the past five years:</p>	Form EXP 4.2(a)	
<p><i>NB: Bidders are also informed to organize their evidentiary documentation in the order above for ease of reference.</i></p>				

TECHNICAL EVALUATION (100 marks)					
<u>1. General Experience (5 marks)</u>					
Experience under construction contracts in the role of prime contractor, JV member, sub-contractor, or management contractor for at least the last 3 years, starting 5 No of projects. The similarity of the contracts shall be based on the following: Fabrication, testing , installation & commissioning of LV/MV Electrical works of in an industrial setup <i>with cumulative contract value of not less than 10M for each project</i>			1		5
<u>2. Specific construction Experience (45 marks)</u>					
A minimum number of two similar contracts (Fabrication, testing , installation & commissioning of LV/MV Electrical works) specified below that have been satisfactorily and 100% completed as a prime contractor, joint venture member, management contractor or sub-contractor. The contracts shall be tabulated comprising of: 1. Project Name, 2. Project Value, 3. Client/PE, 4. PE/Client Contact Person and supported by duly signed contract agreement and completion certificates) each of minimum value Kenya shilling Twenty million (Kshs. 20,000,000) equivalent			9		45
<u>3. Critical Equipment (10 marks) Leased or owned –Lease agreements/logbooks attached</u>					
NO	Equipment Type and Characteristics	Minimum Number Required			
1.	Pick-Ups – 1 Ton	1	3		10
2.	Mobile Supports vehicle	1	2		
3.	Phase Sequence meter;	1	1		
4.	Earth loop impedance Tester;	1	1		
5.	Earth resistance tester;	1	1		
6.	Insulation resistance tester;	1	1		
7.	Clamp meter/multimeter;	1	1		
<u>4. Experience of Key Personnel (15 marks)</u>					
Position	Qualifications	Total Work Experience (years)	In Similar Works Experience (years)	Marks	Marks
Project Manager-One (1 No.)	<ul style="list-style-type: none"> B.Sc. Electrical Engineering or equivalent 	10	5	3	15

Site Engineer - One (1Nr)	• B.Sc. Electrical Engineering or equivalent	8	5	3		
Electromechanical Engineer - One (1Nr)	• B.Sc. B.Sc. Electrical Engineering/Mechanical Engineering/Electromechanical Engineering	8	5	3		
Foremen (Electrical Works)	• Diploma in Electrical /Mechanical Engineering or equivalent	8	5	3		
Electrical technician/Artisan	• At least Certificate in Electrical Engineering or equivalent with 3 years' experience in Installation of LV/MV works	8	5	3		
<u>5. Financial Capability (10 marks)</u>					-	-
(i) The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as Kenya Shillings Fifty million (Kshs. 50,000,000) equivalent for the subject contract(s) net of the Tenderer's other commitments.					2	10
(ii) The Tenderers shall also demonstrate, to the satisfaction of the Procuring Entity, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.					2	
(iii) The audited balance sheets or, if not required by the laws of the Tenderer's country, other financial statements acceptable to the Procuring Entity, for the last 3 years shall be submitted and must demonstrate the current soundness of the Tenderer's Financial position and indicate its prospective long-term profitability.					2	
Average Annual Construction Turnover						
Minimum average annual construction turnover of Kenya Shillings One Hundred million (Kshs. 100,000,000) equivalent.					4	
<u>6. Other Requirements (10 marks)</u>						
Method statement					3	10
Site Organization and Organogram					2	
Mobilization schedule					3	
Work Programme					2	
ADDITIONAL INFORMATION TO BE PROVIDED (5 marks)						
The following additional information to be provided by the bidder						5
a) Litigation Information					2	
Information regarding litigation, current if any						

b) Current Work Commitment			
Information, in a tabular format, on the Tenderer's current work commitment whether as the main contractor or sub-contractor		2	
c) Ongoing contracts with the Lake Victoria South Water Works Development Agency. Information, in a tabular format, on the Tenderer's current work commitment as the main contractor		1	
NOTE:			
<i>Only Bidders who attain minimum technical score of 80% (in B above) will proceed to the next phase of financial evaluation.</i>			
Total marks			100
	PASS MARK IS 80%		
<i>NB: Bidders are also informed to organize their evidentiary documentation in the order above for ease of reference.</i>			

FINANCIAL EVALUATION

Stage 1

This will include the following: -

- Confirmation of and considering Bill of Quantities completed and signed.
- Conducting a financial comparison for the firms that passed preliminary and technical evaluation

Stage 2 and Post Qualification

The lowest evaluated tender having passed stage 1 above shall be the winning bid subject to the employer’s right to exercise due diligence relating to confirmation of information submitted by the bidder. **The LVSWWDA may conduct post-qualification as it deems necessary** in accordance with “The Public Procurement & Disposal Act 2015 Section 83(1), which provides that *“An evaluation committee may, after tender evaluation, but prior to the award of the tender, conduct due diligence and present the report in writing to confirm and verify the qualifications of the tenderer who submitted the lowest evaluated responsive tender to be awarded the contract in accordance with this Act”*. Any bidder who shall be found to have supplied false or misleading information shall be disqualified and the next lowest tender that has passed stage 1 shall be considered.

In addition, any contract terminated on grounds of integrity and/or fraud or corruption is ineligible to tender. These bidders shall be disqualified and the next lowest tender that has passed stage 1 shall be considered.

QUALIFICATION FORMS

1. FORMEQU: EQUIPMENT

The Tenderer shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III, Evaluation and Qualification Criteria. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Tenderer.

Item of equipment		
Equipment information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

Omit the following information for equipment owned by the Tenderer.

Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

2. FORM PER -1

Contractor's Representative and Key Personnel Schedule

Tenderers should provide the names and details of the suitably qualified Contractor's Representative and Key Personnel to perform the Contract. The data on their experience should be supplied using the Form PER-2 below for each candidate.

Contractor' Representative and Key Personnel

1.	Title of position: Contractor's Representative	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
2.	Title of position: / _____ /	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
3.	Title of position: / _____ /	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
4.	Title of position: / _____ /	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
5.	Title of position: <i>[insert title]</i>	
	Name of candidate	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment: for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>

3. FORM PER-2:

Resume and Declaration - Contractor's Representative and Key Personnel.

Name of Tenderer		
Position [#1]: [title of position from Form PER-1]		
Personnel information	Name:	Date of birth:
	Address:	E-mail:
	Professional qualifications:	
	Academic qualifications:	
	Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i>	
Details	Address of Procuring Entity:	
	Telephone:	Contact (manager / personnel officer):
	Fax:	
	Job title:	Years with present Procuring Entity:

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Project	Role	Duration of involvement	Relevant experience
<i>[main project details]</i>	<i>[role and responsibilities on the project]</i>	<i>[time in role]</i>	<i>[describe the experience relevant to this position]</i>

Declaration

I, the undersigned *[insert either "Contractor's Representative" or "Key Personnel" as applicable]*, certify that to the best of my knowledge and belief, the information contained in this Form PER-2 correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Tender:

Commitment	Details
Commitment to duration of contract:	<i>[insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work on this contract]</i>
Time commitment:	<i>[insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work on this contract]</i>

I understand that any misrepresentation or omission in this Form may:

- a) be taken into consideration during Tender evaluation;
- b) result in my disqualification from participating in the Tender;
- c) result in my dismissal from the contract.

Name of Contractor's Representative or Key Personnel: *[insert name]*

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Tenderer:

Signature: _____

Date: (day month year): _____

4. TENDERERS QUALIFICATION WITHOUT PRE-QUALIFICATION

To establish its qualifications to perform the contract in accordance with Section III, Evaluation and Qualification Criteria the Tenderer shall provide the information requested in the corresponding Information Sheets included hereunder.

4.1 FORM ELI - 1.1 Tenderer Information Form

Date: _____
 ITT No. and title: _____

Tenderer's name
In case of Joint Venture (JV), name of each member:
Tenderer's actual or intended country of registration: <i>[indicate country of Constitution]</i>
Tenderer's actual or intended year of incorporation:
Tenderer's legal address [in country of registration]:
Tenderer's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <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 3.6 <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITT 3.5 <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITT 3.8, documents establishing: _____ <ul style="list-style-type: none"> • Legal and financial autonomy • Operation under commercial law 1. • Establishing that the Tenderer is not under the supervision of the Procuring Entity 2. Included are the organizational chart and a list of Board of Directors.

4.2 FORM ELI -1.2
Tenderer's JV Information Form
(to be completed for each member of Tenderer's JV)

Date: _____

ITT No. and title: _____

Tenderer's JV name:
JV member's name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
<p>1. Attached are copies of original documents of</p> <p><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 3.6.</p> <p><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 3.8.</p> <p>2. Included are the organizational chart and a list of Board of Directors.</p>

4.3 FORM CON - 2

Historical Contract Non-Performance, Pending Litigation and Litigation History

Tenderer's Name: _____

Date: _____ J

V Member's Name _____ I

TT No. and title: _____

Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> Contract non-performance did not occur since 1 st January <i>[insert year]</i> specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1.			
<input type="checkbox"/> Contract(s) not performed since 1 st January <i>[insert year]</i> specified in Section III, Evaluation and Qualification Criteria, requirement 2.1			
Year	Non-performed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and Kenya Shilling equivalent)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Procuring Entity: <i>[insert full name]</i> Address of Procuring Entity: <i>[insert street/city/country]</i> Reason(s) for nonperformance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>
Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.			
<input type="checkbox"/> Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.			

Year of dispute	Amount dispute (currency) in	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
		Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: _____ Status of dispute: _____	
		Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: _____ Status of dispute: _____	
Litigation History in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4.			
<input type="checkbox"/> Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			
Year of	Outcome as	Contract Identification	Total Contract

award	percentage of Net Worth		Amount (currency), Kenya Shilling Equivalent (exchange rate)
<i>[insert year]</i>	<i>[insert percentage]</i>	Contract Identification: <i>[indicate complete contract name, number, and any other identification]</i> Name of Procuring Entity: <i>[insert full name]</i> Address of Procuring Entity: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Procuring Entity" or "Contractor"]</i> Reason(s) for Litigation and award decision <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>

4.4 FORM FIN – 3.1:

Financial Situation and Performance

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

4.4.1 Financial Data

Type of Financial information in _____ (currency)	Historic information for previous _____ years, (Amount in currency, currency, exchange rate*, USD equivalent)				
	Year 1	Year 2	Year 3	Year 4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

4.4.2 Sources of Finance

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

No	Source of finance	Amount (Kenya Shilling equivalent)
1		
2		
3		

Financial documents

The Tenderer and its parties shall provide copies of financial statements for _____ year pursuant Section III, Evaluation and Qualifications Criteria, Sub-factor 3.1. The financial statements shall:

- 1.1.1.1. reflect the financial situation of the Tenderer or in case of JV member, and not an affiliated entity (such as parent company or group member).
- 1.1.1.2. be independently audited or certified in accordance with local legislation.
- 1.1.1.3. be complete, including all notes to the financial statements.
- 1.1.1.4. correspond to accounting periods already completed and audited.

Attached are copies of financial statements¹ for the _____ year required above; and complying with the requirements

4.5 FORM FIN – 3.2

Average Annual Construction Turnover

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Annual turnover data (construction only)			
Year	Amount Currency	Exchange rate	Kenya Shilling equivalent
<i>[indicate year]</i>	<i>[insert amount and indicate currency]</i>		
Average Annual Construction Turnover *			

* See Section III, Evaluation and Qualification Criteria, Sub-Factor 3.2.

¹ If the most recent set of financial statements is for a period earlier than 12 months from the date of Tender, the reason for this should be justified.

4.6 FORM FIN – 3.3:

Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as specified in Section III, Evaluation and Qualification Criteria

Financial Resources			
No.	Source of financing	Amount (Kenya Shilling equivalent)	
1			
2			
3			

4.7 FORM FIN-3.4:

Current Contract Commitments / Works in Progress

Tenderers and each member to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Current Work Commitments

N o.	Name of Contract	Procuring Entity's Contact Address, Tel,	Value of Outstanding Work [Current Kenya Shilling /month Equivalent]	Estimated Completi on Date	Average Monthly Invoicing Over Last Six Months [Kenya Shilling /month]
1					
2					
3					
4					
5					

4.8 FORM EXP - 4.1

General Construction Experience

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Page _____ of _____ pages

Starting Year	Ending Year	Contract Identification	Role of Tenderer
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	

4.9 FORM EXP - 4.2(a)

Specific Construction and Contract Management Experience

Tenderer's Name: _____

Date: _____

JV Member's Name _____

ITT No. and title: _____

Similar Contract No.	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount				Kenya Shilling
If member in a JV or sub-contractor, specify participation in total Contract amount				
Procuring Entity's Name:				
Address: Telephone/fax number E-mail:				

4.10 FORM EXP - 4.2 (a) (cont.)

Specific Construction and Contract Management Experience (cont.)

Similar Contract No.	Information
Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:	
1. Amount	
2. Physical size of required works items	
3. Complexity	
4. Methods/Technology	
5. Construction rate for key activities	
6. Other Characteristics	

4.11 FORMEXP-4.2(b)

Construction Experience in Key Activities

Tenderer's Name: _____

Date: _____

Tenderer's JV Member Name: _____

Sub-contractor's Name² (as per ITT 34): _____

ITT No. and title: _____

All Sub-contractors for key activities must complete the information in this form as per ITT 34 and Section III, Evaluation and Qualification Criteria, Sub-Factor 4.2.

1. Key Activity No One: -

		Information			
Contract Identification					
Award date					
Completion date					
Role in Contract		Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount		Kenya Shilling			
Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year		Total quantity in the contract (i)	Percentage participation (ii)		Actual Quantity Performed (i) x (ii)
Year 1					
Year 2					
Year 3					
Year 4					
Procuring Entity's Name:					
Address: Telephone/fax number E-mail:					

2 Activity No. Two

3.

²If applicable

OTHER FORMS

5. FORM OF TENDER

INSTRUCTIONS TO TENDERERS

i) *The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address.*

ii) *All italicized text is to help Tenderer in preparing this form.*

iii) *Tenderer must complete and sign CERTIFICATE OF INDEPENDENT TENDER DETERMINATION and the SELF DECLARATION OF THE TENDERER attached to this Form of Tender.*

iv) *The Form of Tender shall include the following Forms duly completed and signed by the Tenderer.*

- *Tenderer's Eligibility- Confidential Business Questionnaire*
- *Certificate of Independent Tender Determination*
- *Self-Declaration of the Tenderer*

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

Request for Tender No.: *[insert identification]*

Name and description of Tender *[Insert as per ITT]*

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

To: Lake Victoria South Water Works Development Agency

Dear Sirs,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above-named Works, we, the undersigned offer to construct and complete the Works and remedy any defects therein for the sum of Kenya Shillings *[Amount in figures]* _____
_____ Kenya Shillings *[amount in words]* _____.

The above amount includes foreign currency amount (s) of *[state figure or a percentage and currency]* *[figures]* _____ *[words]* _____.

The percentage or amount quoted above does not include provisional sums, and only allows not more than two foreign currencies.

2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Project Manager's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Special Conditions of Contract.

3. We agree to adhere by this tender until _____ *[Insert date]*, and it shall remain binding upon us and may be accepted at any time before that date.

4. Unless and until a formal Agreement is prepared and executed this tender together with your written acceptance thereof, shall constitute a binding Contract between us. We further understand that you are not bound to accept the lowest or any tender you may receive.

5. We, the undersigned, further declare that:

i) ***No reservations:*** We have examined and have no reservations to the tender document, including Addenda issued in accordance with ITT 28;

ii) ***Eligibility:*** We meet the eligibility requirements and have no conflict of interest in accordance with ITT 3 and 4;

iii) ***Tender-Securing Declaration:*** We have not been suspended nor declared ineligible by

the Procuring Entity based on execution of a Tender-Securing or Proposal-Securing Declaration in the Procuring Entity's Country in accordance with ITT 19.8;

iv) Conformity: We offer to execute in conformity with the tendering documents and in accordance with the implementation and completion specified in the construction schedule, the following Works: *[insert a brief description of the Works]*;

v) Tender Price: The total price of our Tender, excluding any discounts offered in item 1 above is: *[Insert one of the options below as appropriate]*

vi) 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]*;

vii) Discounts: The discounts offered and the methodology for their application are:

viii) The discounts offered are: *[Specify in detail each discount offered.]*

ix) The exact method of calculations to determine the net price after application of discounts is shown below: *[Specify in detail the method that shall be used to apply the discounts]*;

x) Tender Validity Period: Our Tender shall be valid for the period specified in TDS 18.1 (as amended, if applicable) from the date fixed for the Tender submission deadline specified in TDS 22.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

xi) Performance Security: If our Tender is accepted, we commit to obtain a Performance Security in accordance with the Tendering document;

xii) One Tender Per Tender: We are not submitting any other Tender(s) as an individual Tender, 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 3.4, other than alternative Tenders submitted in accordance with ITT 13.3;

xiii) Suspension and Debarment: We, along with any of our subcontractors, suppliers, Project Manager, 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 Public Procurement Regulatory Authority or any other entity of the Government of Kenya, or any international organization.

xiv) 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 3.8]*;

xv) Commissions, gratuities, fees: We have paid, or will pay the following commissions, gratuities, or fees with respect to the tender 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.")

xvi) 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;

xvii) Not Bound to Accept: We understand that you are not bound to accept the lowest evaluated cost Tender, the Most Advantageous Tender or any other Tender that you may receive;

xviii) 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;

xix) 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.

xx) 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.

xxi) We, the Tenderer, have completed fully and signed 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.
- 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 person signing the Tender]*

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]*

Date signed _____ day of _____, _____

Notes

* *In the case of the Tender submitted by 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 to be attached with the Tender.*

A. TENDERER'S ELIGIBILITY- CONFIDENTIAL BUSINESS QUESTIONNAIRE

Instruction to Tenderer

Tenderer is instructed to complete the particulars required in this Form, *one form for each entity if Tenderer 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	Reference Number of the Tender	
3	Date and Time of Tender Opening	
4	Name of the Tenderer	
5	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.
6	Current Trade License Registration Number and Expiring date	
7	Name, country and full address (<i>postal and physical addresses, email, and telephone number</i>) of Registering Body/Agency	
8	Description of Nature of Business	
9	Maximum value of business which the Tenderer handles.	
10	State if Tenders Company is listed in stock exchange, give name and full address (<i>postal and physical addresses, email, and telephone number</i>) of state which stock exchange	

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
1				
2				
3				

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 Lake Victoria South Water Works Development Agency who has/have 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 controls, is 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 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 such 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 complete, current and accurate as at the date of submission.

Full _____ Name
 Title _____ or _____ Designation

(Signature)

(Date)

B. 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 tenders] 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].

C. 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. LVSWWDA/T/36/2025 - 2026 for Construction of West Karachuonyo Water Supply Project -Phase II- Electromechanical Works -Lot II 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 LVSWWDA/T/4/2025 - 2026 for Construction of West Karachuonyo Water Supply Project -Phase II- Electromechanical Works -Lot II *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 Lake Victoria South Water Works Development Agency 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 Lake Victoria South Water Works Development Agency
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's Official Stamp

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.....
mail.....

.....
Name of the
Firm/Company.....
...

Date.....
(Company Seal/ Rubber Stamp where applicable)

Witness

Name
Sign..... Date.....

D. APPENDIX 1- FRAUD AND CORRUPTION

(Appendix 1 shall not be modified)

1. Purpose

2. 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.

3. Requirements

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.

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.

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 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.

7. FORM OF TENDER SECURITY - DEMAND BANK GUARANTEE

Beneficiary:

Request for Tenders No:

Date:

TENDER GUARANTEE No.:

Guarantor: __

1. We have been informed that _____ (hereinafter called "the Applicant") has submitted or will submit to the Beneficiary its Tender (hereinafter called "the Tender") for the execution of _____
2. under Request for Tenders No. _____ ("the ITT").
3. Furthermore, we understand that, according to the Beneficiary's conditions, Tenders must be supported by a Tender guarantee.
4. 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 thereto provided by the Applicant, (i) has failed to execute the contract agreement, or (ii) has failed to furnish the Performance.
5. 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.
6. 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)]

FORM OF TENDER SECURITY (TENDER BOND)

[The Surety shall fill in this Tender Bond Form in accordance with the instructions indicated.]

BOND NO. _____

1. BY THIS BOND *[name of tenderer]* as Principal (hereinafter called "the Principal"), and *[name, legal title, and address of surety]*, **authorized to transact business in** *[name of country of Procuring Entity]*, as Surety (hereinafter called "the Surety"), are held and firmly bound unto *[name of Procuring Entity]* as Obligee (hereinafter called "the Procuring Entity") in the sum of *[amount of Bond]**[amount in words]*, for the payment of which sum, well and truly to be made, we, the said Principal and Surety, bind ourselves, our successors and assigns, jointly and severally, firmly by these presents.

2. WHEREAS the Principal has submitted or will submit a written Tender to the Procuring Entity dated the _____ day of _____, 20____, for the supply of *[name of Contract]* (hereinafter called the "Tender").

3. NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal:
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 Surety 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. The Surety hereby agrees that its obligation will remain in full force and effect up to and including the date 30 days after the date of expiration of the Tender Validity Period set forth in the Principal's Letter of Tender or any extension thereto provided by the Principal.

5. IN TESTIMONY WHEREOF, the Principal and the Surety have caused these presents to be executed in their respective names this _____ day of _____ 20_____.

Principal: _____ Surety: _____
Corporate Seal (where appropriate)

(Signature)
(Printed name and title)

(Signature)
(Printed name and title)

TENDER-SECURING DECLARATION FORM

[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 [insert number of months or years] starting on [insert 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

Appendix to Tender

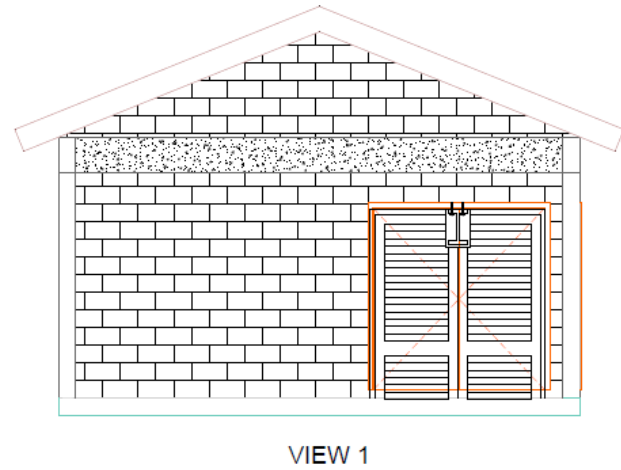
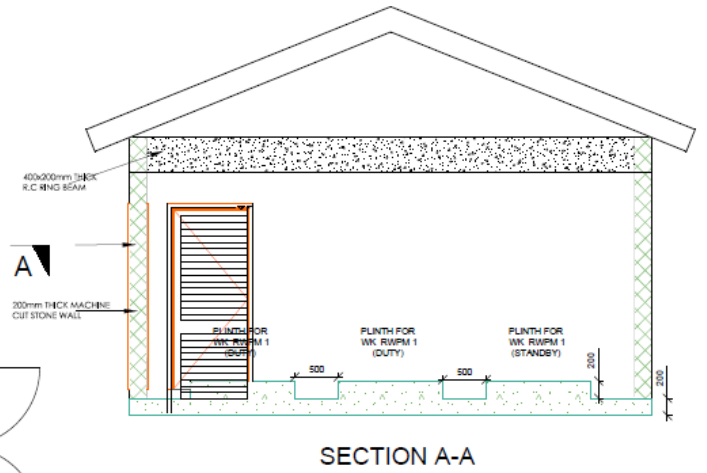
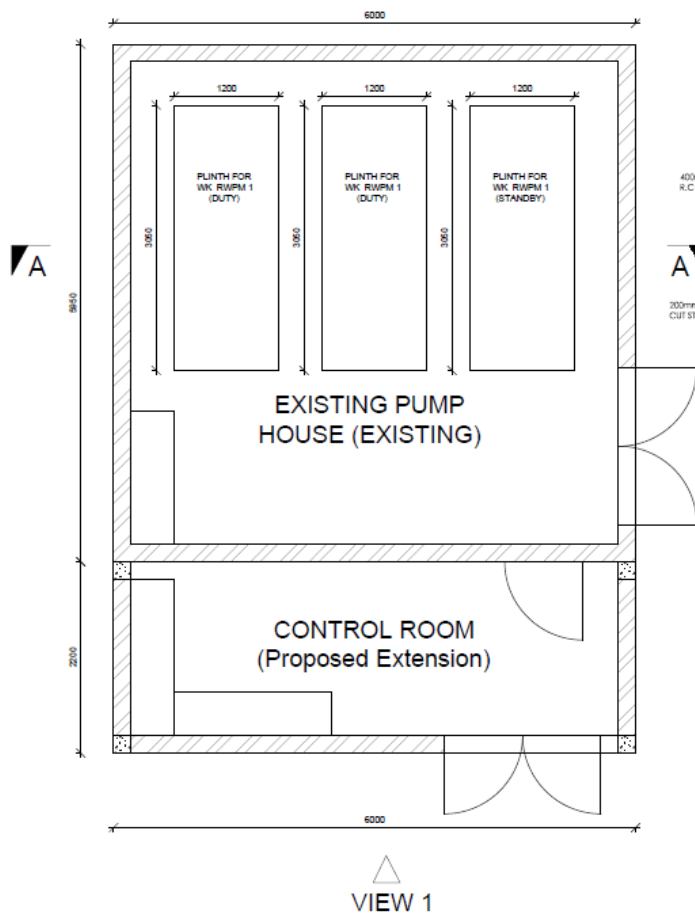
Schedule of Currency requirements

Summary of currencies of the Tender for Construction of West Karachuonyo Water Supply Project -Phase II- Electromechanical Works -Lot II

Name of Currency	Amount Payable
Local Currency:	Accepted Contract Price
Foreign Currency No. 1	
Foreign Currency No. 2	
Foreign Currency No. 3	
Provisional Sum expressed in local currency	

PART II - WORK REQUIREMENTS

SECTION V – DRAWINGS



RAW WATER PUMPING STATION LAYOUT



WATER TREATMENT PLANT LAYOUT



SECTION VI - TECHNICAL SPECIFICATIONS

1.1. GENERAL

This specification is to be read in conjunction with the drawings which are issued with it. Bills of quantities shall be the basis of all additions and omissions during the progress of the works.

1.2. STANDARD OF MATERIALS

Where the material and equipment are specifically described and named in the Specification followed by approved equal, they are so named or described for the purpose of establishing a standard to which the sub-contractor shall adhere.

Should the Sub-contractor install any material not specified herein before receiving approval from the proper authorities, the Engineer shall direct the Sub-contractor to remove the material in question immediately. The fact that this material has been installed shall have no bearing or influence on the decision by the Engineer.

All materials condemned by the Engineer as not approved for use, are to be removed from the premises and suitable materials delivered and installed in their place at the expense of the Sub-contractor. All materials required for the works shall be new and the best of the respective kind and shall be of a uniform pattern.

1.3. WORKMANSHIP

The workmanship and method of installation shall conform to the best standard practice. All work shall be performed by a skilled tradesman and to the satisfaction of the Engineer. Helpers shall have qualified supervision.

Any work that does not in the opinion of the Engineer conform to the best standard practice will be removed and reinstated at the Sub-contractors expense.

Permits, Certificates or Licenses must be held by all tradesmen for the type of work; in which they are involved where such permits, certificates or licenses exist under Government legislation.

1.4. PROCUREMENT OF MATERIALS

The sub-contractor is advised that no assistance can be given in the procurement or allotment of any materials or products to be used in and necessary for the construction and completion of the work.

Sub-contractors are warned that they must make their own arrangements for the supply of materials and/or products specified or required.

1.5. SHOP DRAWINGS

Before manufacture or Fabrication is commenced the sub-contractor shall submit Two copies of detailed drawings of all control pillars, meter cubicles, medium voltage switchboards including their components showing all pertinent information including sizes, capacities, construction details, etc, as may be required to determine the suitability of the equipment for the approval of the Engineer. Approval of the detailed drawings shall not relieve the sub-contractor of the full responsibility of errors or the necessity of checking the drawings himself or of furnishing the materials and equipment and performing the work required by the plans and specifications.

1.6. RECORD DRAWINGS

These diagrams and drawings shall show the completed installation including sizes, runs and arrangements of the installation. The drawings shall be to scale not less than 1:50 and shall include plan views and section.

The drawings shall include all the details which may be useful in the operation, maintenance or subsequent modifications or extensions to the installation.

Three sets of diagrams and drawings shall be provided, all to the approval of the Engineer.

One coloured set of line diagrams relating to operating and maintenance instructions shall be framed and mounted in a suitable location.

1.7. REGULATIONS AND STANDARDS

All work executed by the contractor shall comply with the current edition of the "Regulations" for the Electrical Equipment of Buildings, issued by the Institution of Electrical Engineers, Electric Power Act, Kenya Bureau of Standards (KEBS), Institution of Electrical Engineers (I.E.E) Wiring Regulations, Current recommendation of CCITT and CCIR, and with the Regulations of the Local Electricity Authority and the Communications Authority of Kenya (CA)

Where the two sets of regulations appear to conflict, they shall be clarified with the Engineers. All materials used shall comply with relevant Kenya Bureau of Standards Specification.

1.8. SETTING OUT WORK

The sub-contractor at his own expenses; is to set out works and take all measurements and dimensions required for the erection of his materials on site; making any modifications in details as may be found necessary during the progress of the works, submitting any such modifications or alterations in detail to the Engineer before proceeding and must allow in his Tender for all such modifications and for the provision of any such sketches or drawings related thereto.

1.9. POSITIONS OF ELECTRICAL PLANT AND APPARATUS

The routes of cables and approximate positions of switchboards etc, as shown on the drawings shall be assumed to be correct for purpose of Tendering, but exact positions of all electrical Equipment and routes of cables must be agreed on site with the Engineer before any work is carried out.

1.10. MCB DISTRIBUTION PANELS AND CONSUMER UNITS

All cases of MCB Panels and consumer units shall be constructed in heavy gauge sheet with hinged covers. Removable undrilled gland plates shall be provided on the top and bottom of the cases. Miniature circuit breakers shall be enclosed in moulded plastic with the tripping mechanism and arc chambers separated and sealed from the cable terminals.

The operating dolly shall be tripfree with a positive movement in both make and break position. Clear indication of the position of the handle shall be incorporated.

The tripping mechanism shall be on inverse characteristic to prevent tripping in temporary overloads and shall not be affected by normal variation in ambient temperature.

A locking plate shall be provided for each size of breaker; A complete list of circuit details on typed cartridge paper glued to stiff cardboards and covered with a sheet of perspex, and held in position with four suitable fixings, shall be fitted to the inner face of the lids of each distribution panel. The appropriate MCB ratings shall be stated on the circuit chart against each circuit in use: Ivorine labels shall be secured to the insulation barriers in such a manner as to indicate the number of the circuits shown on the circuit chart.

Insulated barriers shall be fitted between phases, and neutrals in all boards, and to shroud live parts.

Neutral cables shall be connected to the neutral bar in the same sequence as the phase cables are connected to the MCB's. This shall also apply to earth bars when installed.

1.11. FUSED SWITCHGEAR AND ISOLATORS

All fused switchgear and isolators whether mounted on machinery, walls or industrial panels shall conform to the requirements of KS 04 – 226 PART: 1: 1985.

All contacts are to be fully shrouded and are to have a breaking capacity on manual operations as required by KS 04 – 182: 1980.

Fuse links for fused switches are to be of high rupturing capacity cartridge type, conforming to KS 04 – 183: 1978. 112

Isolators shall be load breaking/fault making isolators.

Fused switches and isolators are to have separate metal enclosures. Mechanical interlocks are to be provided between the door and main switch operating mechanism so arranged that the door may not be opened with the switch in the 'ON' position. Similarly; it shall not be possible to close the switch with the door open except that provision to defeat the mechanical interlock and close the switch with the door in the open position for test purposes. The 'ON' and 'OFF' positions of all switches and isolators shall be clearly indicated by a mechanical flag indicator or similar device. In T.P & N fused switch units, bolted neutral links are to be fitted.

1.12. CONDUITS AND CONDUIT RUNS

Conduit systems are to be installed so as to allow the loop-in system of wiring:

All conduits shall be black rigid super high impact heavy gauge class 'A' PVC in accordance with KS 04 – 179: 1988 and IEE Regulations. No conduit less than 20mm in diameter shall be used anywhere in this installation.

Conduit shall be installed buried in plaster work and floor screed except when run on wooden or metal surface when they will be installed surface supported with saddles every 600mm. Conduit run in chases shall be firmly held in position by means of substantial pipe hooks driven into wooden plugs.

The Sub-contractors attention is drawn to the necessity of keeping all conduits entirely separate from other piping services such as water and no circuit connections will be permitted between conduits and such pipes. All conduits systems shall be arranged wherever possible to be self-draining to switch boxes and conduit outlet points for fittings:

The systems, when installed and before wiring shall be kept plugged with well-fitting plugs and when short conduit pieces are used as plugs, they shall be doubled over and tied firmly together with steel wire; before wiring all conduit systems shall be carried out until the particular section of the conduit

installation is complete in every respect.

The sets and bends in conduit runs are to be formed on site using appropriate size bending springs and all radii of bends must not be less than 2.5 times the outside diameter of the conduit. No solid or inspection bends, tees or elbows will be used.

Conduit connections shall either be by a demountable (screwed up) assembly or adhesive fixed and water tight by solution. The tube and fittings must be clean and free of all grease before applying the adhesive. When connections are made between the conduit and switch boxes, circular or non-screwed boxes, care shall be taken that no rough edges of conduit stick out into the boxes.

Runs between draw in boxes are not to have more than two right angle bends or their equivalent. The sub-contractor may be required to demonstrate to the Engineers that wiring in any particular run is easily withdrawable and the sub-contractor may, at no extra cost to the contract; be required to install additional draw-in boxes required. If conduit is installed in straight runs in excess of 6000mm, expansion couplings as manufactured by Egatube shall be used at intervals of 6000mm.

Where conduit runs are to be concealed in pillars and beams, the approval of the Structural Engineer, shall be obtained. The sub-contractor shall be responsible for marking the accurate position of all holes chases etc, on site, or if the Engineer so directs, shall provide the Main Contractor with dimensional drawings to enable him to mark out and form all holes and chases. Should the sub-contractor fail to inform the main contractor of any inaccuracies in this respect they shall be rectified at the sub-contractors expense.

It will be the Sub-contractors responsibility to ascertain from site, the details of reinforced concrete or structural steelwork and check from the builder's drawings the positions of walls, structural concrete and finishes. No reinforced concrete or steelwork may be drilled without first obtaining the written permission of the Structural Engineer.

The drawings provided with these specifications indicate the appropriate positions only of points and switches, and it shall be the Sub-Contractors responsibility to mark out and centre on site the accurate positions where necessary in consultation with the Architect and the Engineer. The sub-contractor alone shall be responsible for the accuracy of the final position.

1.13. CONDUIT BOXES AND ACCESSORIES

All conduit outlets and junction boxes are to be either malleable iron and of standard circular pattern of the appropriate type to suit saddles being used or super high impact PVC manufactured to KS 04 – 179 : 1983.

Small circular pattern boxes are to be used with conduits up to and including 25mm outside diameter. Rectangular pattern adaptable boxes are to be used for conduits of 32mm outside diameter and larger. For drawing in of cables in exposed runs of conduit, standard pattern through boxes are to be used:

Boxes are to be not less than 50mm deep and of such dimensions as will enable the largest appropriate number of cables for the conduit sizes to be drawn in without excessive bending.

Outlet boxes for lighting fittings are to be of the loop-in type where conduit installation is concealed and the sub-contractor shall allow one such box per fitting, except where fluorescent fittings are specified when two such boxes per fitting shall be fitted flush with ceiling and if necessary fitted with break joint rings. Pattresses shall be fitted where required to outlets on surface conduit runs.

Adaptable boxes are to of PVC or mild steel (of not less than 12swg) and black enamelled or galvanised finish according to location. They shall be of square or oblong shape location. They shall be of square or oblong shape complete with lids secured by four 2 BA brass roundhead screws; No adaptable box shall be less than 75mm x 75mm x 50mm or larger than 300mm x 300mm x 75mm and shall be adequate in depth in relation to the size of conduit entering it. Conduits shall only enter boxes by means of conduit bushes.

1.14. LABELS

Labels fitted to switches and fuseboards;-

(i) Shall be Ivorine engraved black on white.

(ii) Shall be secured by R.H brass screws of same manufacturing throughout. (iii) Shall be indicated on switches:-

a) Reference number of switch

b) Special current rating

c) Item of equipment controlled

(iv) Shall indicate on MCB panels

a) Reference number

b) Type of board, i.e; lighting, sockets, etc,

c) Size of cable supplying panel

d) where to isolate feeder cable

(v) Shall be generally not less than 75mm x 50mm.

1.15. EARTHING

The earthing of the installation shall comply with the following requirements;-

(i) It shall be carried out in accordance with the appropriate sections of the current edition of the Regulations, for the Electrical Equipment of Buildings issued by Institute of Electrical Engineers of Great Britain.

(ii) At all main distribution panels and main service positions a 25mm x 3mm minimum cross sectional area Copper tape shall be provided and all equipment including the lead sheath and armouring of cables, distribution boards and metal frames shall be bonded thereto.

(iii) The earth tape in Sub-clause (ii) shall be connected by means of a copper tape or cable of suitable cross sectional area to an earth electrode which shall be a copper earth rod (see later sub-clause).

(iv) All tapes to be soft high conductivity copper, untinned except where otherwise specified and where run underground on or through walls, floors, etc., it shall be served with corrosion resisting tape or coated with corrosion compound and braided

(v) Where the earth electrode is located outside the building a removable test link shall be provided inside the building as near as possible to the point of entry to the tape, for isolating the earth electrode for testing purposes.

(vi) Earthing of sub-main equipment shall be deemed to be satisfactory where the sub-main cables are M.I.C.S. or conduit with separate earth wire, and installation is carried out in accordance with the figures stated in the current edition of the I.E.E Regulations.

(vii) Where an earth rod is specified (see Sub-clause (iii)) it shall be proprietary manufacture, solid hand drawn copper of 15mm diameter driven into the ground to a minimum depth of 3.6M. It shall be made up to 1.2m sections with internal screw and socket joints and fitted with hardened steel tip and driving cap.

(viii) Earth plates will not be permitted

(ix) Where an earth rod is used the earth resistance shall be tested in the manner described in the current edition of the IEE Regulations, by the Sub-Contractor in the presence of the Engineer and the Sub-Contractor shall be responsible for the supply of all test equipment.

(x) Where copper tape is fixed to the building structure it shall be by means of purpose made non-ferrous saddles which space the conductor away from the structure a minimum distance of 20mm. Fixings, shall be made using purpose made plugs; No fixings requiring holes to be drilled through the tape will be accepted.

(xi) Joints in copper tape shall be tinned before assembly riveted with a minimum of two copper rivets and seated solid.

(xii) Where holes are drilled in the earth tape for connection to items of equipment the effective cross sectional area must not be less than required to comply with the IEE regulations.

(xiii) Bolts, nuts and washers for any fixing to the earth tape must be of non-ferrous material.

(xiv) Attention is drawn to the need for the earthing metal parts of lighting fittings and for bonding ball joint suspension in lighting fittings.

1.16. CABLES AND FLEXIBLE CORDS

All cables used in this Sub-Contract shall be manufactured in accordance with the current appropriate Kenya standard Specification which are as follows:-	P.V.C. Insulated Cables and Flexible Cords ---	Ks 04-192:1988
	P.V.C Insulated Armoured Cables - Armouring of Electric cables ---	Ks 04-194:1990 Ks 04-290:1987

The successful Sub-Contractor will, at the Engineers discretion be required to submit samples of cables for the Engineers approval; the Engineer reserves the right to call for the cables of an alternative manufacture without any extra cost being incurred.

P.V.C. insulated cables shall be 500/1000 volt grade. No cables smaller than 1.5mm² shall be used unless otherwise specified. The installation and the finish of cables shall be as detailed in later clauses. The colour of cables shall conform to the details stated in the "Cable Braid and insulation Colours" Clause.

1.17. ARMoured P.V.C. INSULATED AND SHEATHED CABLES:

Shall be 600/1000 volt grade manufactured to Ks 04-194:1988 and Ks 04-187/188 with copper stranded conductors.

The wire armour of the cable shall be used wholly as an earth continuity conductor and the resistance of the wire armour shall have a resistance not more than twice of the largest current carrying conductor of the cable.

P.V.C./S.W.A./P.V.C. cables shall be terminated using "Telecom" "B" type or approved equal or approved equal glands and a P.V.C. tapered sleeve shall be provided to shroud each gland.

1.18. CABLE SUPPORTS, MARKERS AND TILES

All PVC/SWA/PVC cables run inside the building shall be fixed in rising ducts or on ceilings by means of die cast cable hooks or clamps, of appropriate size to suit cables, fixed by studs and back nuts to their channel sections.

Alternatively, fixing shall be by BICC claw type cleating system with die-cast cleats and galvanised mild steel back straps or similar approved equal method. For one or two cables run together the cleats shall be fixed a special channel section supports or backstraps described above which shall in turn be secured to walls or ceilings of ducts by rawbolts.

In excessively damp or corrosive atmospheric conditions special finishes may be required and the Sub-contractor shall apply to the Engineer for further instructions before ordering cleats and channels for such areas.

The above type of hooks and clamps and channels or cleats and blackstraps shall also be used for securing cables in vertical ducts.

Cables supports shall be fixed at 600mm maximum intervals, the supports being supplied and erected under this Sub-contract. Saddles shall not be used for supporting cables nor any other type of fixing other than one of the two methods described above or other system which has received prior approval of the Engineer;

Cables are to be kept clear of all pipe work and the Sub-contractor shall work in close liaison with other services Sub-contractors.

The Sub-Contractor shall include for the provision of fixing of approved type coloured slip on cables end markers to indicate permanently the correct phase and neutral colours on all ends.

Provision shall be made for supplying and fixing approved non-corrosive metal cable markers to be attached to the outside of all PVC/SWA/PVC cables at 15mm intervals indicating cable size and distinction.

Where PVC/SWA/PVC cables are outside the building they shall be laid underground 750mm deep with protecting concrete interlocking cover tiles laid over which shall be provided and laid under this Sub-contract.

All necessary excavations and reinstatement of ground including sanding or trenches will be carried out by the Sub-Contractor, unless otherwise stated.

1.19. PVC INSULATED CABLES

Shall be of non-braided type as CMA reference 6491 x 600/1000/1000 volt grade cables, or equal approved.

PVC cables shall conform to the details of the "Cables and Flexible cords" and "Cable Braid and Insulation Colours" clauses.

1.20. HEAT RESISTING CABLES

Final connections to cookers, water heaters, etc., shall be made using butyl rubber insulated cable as CMA reference 610 butyl (Single core 600/1000 Volt).

This type of cable shall be used in all instances where a temperature exceeding 100°F, but not exceeding 150°F is likely to be experienced. Final connections to all lighting fittings (and other equipment where a temperature in excess of 150°C likely to be experienced) shall be made using silicon rubber insulated cable or equal and approved.

1.21. FLEXIBLE CORDS

Shall be in accordance with the "Cable and Flexible Cords" clause. No cord shall be less than 24/0.2mm in size unless otherwise specified.

Circular white twin TRS flex shall be used for plain pendant fittings up to 100 watts. For all other types of lighting fittings the flexible cable shall be silicone rubber insulated.

No polythene insulated flexible cable shall be used in any lighting fitting or other appliance (see "Heat Resisting Cables" Clause 30).

1.22. CABLE ENDS AND PHASE COLOURS

All cable ends connected up in switchgear, MCB panels etc., shall have the insulation carefully cut back and the ends sealed with Hellerman rubber slip on cable end markers.

The markers shall be of appropriate phase colour for switch and all other live feeds to the details of the "Cable Insulation Colours" clause. Black cable with black end markers shall only be used for neutral cables.

1.23. CABLE INSULATION COLOURS

Unless otherwise stated in later clauses the insulation colours shall be in accordance with the following table.

Where other systems are installed the cable colours shall be in accordance with the details stated in the

appropriate clause.

1. SYSTEM INSULATION COLOUR CABLE END MARKER

- 1) Main and Sub-Main
 - a) Phase Red Red
 - b) Neutral Black Black
- 2) Sub-Circuits Single Phase
 - a) Phase Red Red
 - b) Neutral Black Black

1.24. SUB-CIRCUIT WIRING

For all lighting and sockets wiring shall be carried out in the “looping in” system and there shall be no joints whatsoever. No lighting circuits shall comprise more than 20 points when protected by 10A MCB. Cables with different cross-section area of copper shall not be used in combination.

Lighting circuits P.V.C. cable.

- (i) 1.5mm² for all lighting circuits indicated on the drawing. Power circuits P.V.C cable (minimum sizes).
- (ii) 2.5mm² for one, two or three 5Amp sockets wired in parallel.
- (iii) 2.5mm² for one 15Amp socket.
- (iv) 2.5mm² for maximum of ten switched 13 Amp sockets wired from 30 Amp MCB.

The wiring sizes for lighting circuits and sockets are shown on the drawings. In such cases, the sizes shown on the drawings shall prevail over the sizes specified.

Wiring sizes for other appliances shall be shown on the drawing or specified in later clauses of this specification.

1.25. SPACE FACTOR

The maximum number of cables that may be accommodated in a given size of conduit or trunking or duct is not to exceed the number in Tables B.5 and B.6 or as stated in Regulation B.91, B.117 and B.118 of the I.E.E Regulations whichever is appropriate.

1.26. INSULATION

The insulation resistance to earth and between poles of the whole wiring system, fittings and lumps, shall not be less than the requirements of the latest edition of the I.E.E Regulations. Complete tests shall be made on all circuits by the Sub-contractor before the installations are handed over.

A report of all tests shall be furnished by the Sub-Contractor to the Engineer. The Engineer will then check test with his own instruments if necessary.

1.27. LIGHTING SWITCHES

These shall be mounted flush with the walls, shall be contained in steel or alloy boxes and shall be of the gangs' ratings and type shown in the drawings. They shall be as manufactured by M.K. Electrical Ltd., or other equal and approved to KS 04 – 247: 1988

1.28. SOCKETS AND SWITCHED SOCKETS

These shall be flush pattern in steel/pvc box and shall be of the gangs and type specified in the drawings. They shall be 13- Amp, 3-pin, shuttered, switched and as manufactured by “M.K. Electrical Co. Ltd.”, or other approved equal to KS 04 – 246: 1987

1.29. FUSED SPUR BOXES

These shall be flush, D.P switched as in steel/pvc box and of type and make specified in the drawings complete with pilot light and as manufactured by “M. K. Electrical Company Ltd”, or other approved equal. KS 04 – 247: 1988

1.30. COOKER OUTLETS

These shall be flush mounted with 13-A switched socket outlet and neon indicator Lamps.

The cooker control units shall be as manufactured by “M.K. Electrical Company Ltd”, or other approved equal KS 04 – 247: 1988

1.31. CONNECTORS

Shall be specified in the drawings and appropriate rating. These shall be fitted at all conduit box lighting point outlets for jointing of looped P.V.C cables with flexible cables of specified quality.

1.32. LAMP HOLDERS

Shall be of extra heavy H.O skirted and shall be provided for every specified lighting fitting and shall be B.C., E.S., or G.E.S as required. All E.S. and G.E.S. holders shall be heavy brass type (except for plain pendants where the reinforced bakelite type shall be used). The screwed cap of the E.S and G.E.S. holders shall be connected to the neutral.

Where lampholders are supported by flexible cable, the holders shall have “cord grip” arrangements and in the case of metal shades earthing screws shall be provided on each of the holders. The Sub-Contractor must order the appropriate type of holder when ordering lighting fittings, to ensure that the correct types of holders are provided irrespective of the type normally supplied by the manufacturers.

1.33. LAMPS

All lamps shall be suitable for normal stated supply voltage and the number and sizes of lamps detailed on the drawings shall be supplied and fixed. The Sub-Contractor must verify the actual supply voltage with the supply authority before ordering the lamps.

Tungsten filament lamps shall be manufactured in accordance with KS 04 – 112:1978 for general service lamps and KS 04 – 307:1985 for lamps other than general services. Tubular fluorescent lamps shall comply with KS 04 – 464:1982

Pearl lamps shall be used in all fittings unless otherwise specified.

1.34. LIGHTING FITTINGS AND STREET LIGHTING LANTERNS

This Sub-Contract shall include for the provision, handling charges, taking the delivery, safe storage, wiring (including internal wiring) assembling and erecting of all lighting fittings shown on the drawings. All fittings and pendants shall be fixed to the conduit boxes with brass R/H screws. These to be in line with metal finish of fittings. The lighting fittings are detailed for the purpose of establishing a high standard of finish and under no circumstances will substitute fittings be permitted.

In case of rectangular shaped ceiling fittings, the extreme ends of the fittings shall be secured to suitable support in addition to the central conduit box fittings. Supports shall be provided and fixed by the Sub-Contractor.

The whole of the metal work of each lighting fittings shall be effectively bonded to earth. In the case of ball and/or knuckle joints short lengths of flexible cable shall be provided, bonded to the metal work on either side of the joints. If the above provisions are not made by the manufacturers -, the Sub-contractor shall include cost of additional work necessary in his tender. See “Flexible Cords” clause for details of internal wiring of lighting fittings. Minimum size of internal wiring shall be 20/0.20mm (23/0067). Each lighting fitting shall be provided with number type and size of lamps as detailed on the drawings. It is to be noted that some fittings are suspended as shown on the drawings.

Where two or more points are shown adjacent to each other on the drawings, e.g socket outlet and telephone outlet, they shall be lined up vertically or horizontally on the centre lines of the units concerned.

Normally, the units shall be lined up on vertical centre lines, but where it is necessary to mount units at low level they shall be lined up horizontally.

1.35. POSITIONS OF POINTS AND SWITCHES

Although the approximate positions of all points are shown on the drawings, enquiry shall be made as to the exact positions of all M.C.B panels, lighting points, socket outlets etc, before work is actually commenced. The Sub-contractor must approach the Architect with regard to the final layout of all lights on the ceiling and walls.

The Sub-contractor must consult with the Engineer in liaison with the Clerk of Works, or the General Foreman on site regarding the positions of all points before fixing any conduit etc. The Sub-Contractor shall be responsible for all alterations made necessary by the non-compliance with the clause.

1.36. STREET/SECURITY OUTDOOR LIGHTING COLUMNS:

The column shall be at a minimum of 225mm in the ground on 75mm thick concrete foundations and the pole upto 150mm shall be surrounded with concrete. The top bracket and plain section of the columns shall be common to and interchangeable with all brackets with maximum mismatching tolerance of 3mm between any pole and bracket. After manufacture and before erection the columns shall be treated with an approved mordant solution which shall be washed off and the whole allowed to dry. Thereafter, the columns shall be painted with one undercoat and two coats of gloss paint to an approved colour. All columns shall be complete with fused cut-outs.

1.37. TIMING CONTROL SWITCH

These shall be installed where shown on the drawings. Photocell timing control circuits which will operate ‘on’ with a specified level of darkness and ‘off’ with a given level of light. The initial adjustment will be done with approval of the Electrical Engineer.

1.38. WIRING SYSTEM FOR STREET LIGHTING

Cables shall be as indicated on the drawings, and shall be laid in a cable trench 450mm deep along the road sides and 600mm deep across the roads and 900mm away from the road kerb or 1500mm away from the edges of the road. 'Loop-in' and 'Loop-out' arrangement shall be used at every pole. Wiring to the lanterns on each pole shall be with 1.5mm² PVC twin insulated and sheathed cable with earth wire shall be laid at least 600mm below the finished road level on a compact bed of murrum at least 50mm thick and covered with a concrete surrounded 150mm thick.

1.39. METAL CONTROL PILLAR

These shall be metal clad and fabricated as per contract drawings and specification. The Sub-Contractor shall supply, install, test and commission control pillars including supplying, fixing connecting switchgears as detailed on the appropriate drawings.

1.40. CURRENT OPERATED EARTH LEAKAGE CIRCUIT BREAKER

Current operated earth leakage circuit breaker shall conform to B.S.S. 4293:68 rated at 240 volts D.P. 50 cycles

A.C. Mains.

The breaker shall be provided with test switch and fitted in weather proof enclosure for surface mounting. The rated load current and earth fault operating current shall be as specified in the drawings. These shall be as manufactured by Crabtree, Siemens or other equal and approved.

1.41. M.V. SWITCHBOARD AND SWITCHGEAR

The switchboard shall be manufactured in accordance with KS04-226 which co-ordinates the requirements for electrical power switchgear and associated apparatus. It is not intended that this K.S. should cover the requirements for specified apparatus for which separate Kenyan Standard exist. All equipment and material used in the switchboard shall be in accordance with the appropriate Kenya Standard.

The switchboard shall comprise the equipment shown on the drawings together with all current transformers, auxiliary fuses, labels, small wiring and interconnections necessary for the satisfactory operation of the switchboard.

The Switchboard shall be of the flush fronted, enclosed, metal clad type with full front or rear access as called for in the particular specifications, suitable for indoor use, sectionalized as necessary to facilitate transport and erection. The maximum height of the switchboard is to be approximately 2.0 metres. A suitable connection chamber containing all field terminals shall be provided at the top or bottom of the switchboard as appropriate.

Before manufacture, the Sub-Contractor shall submit to the consulting Engineer for approval of detailed drawings showing the layout, construction and connection of the switchboard. All bus-bars and bus-bar connections shall consist of high conductivity copper and be provided in accordance with KS 04-226: 1985. The bus-bars shall be clearly marked with the appropriate phase and neutral colours which should be red, yellow, blue for the phases and black for neutral. The bus-bars shall be so arranged in the switchboard that the extensions to the left and right may be made in the future with ease should the need arise.

Small wiring, which will be neatly arranged and cleated, shall be executed in accordance with B.S. 158 and the insulation of the wiring shall be coloured according to the phase or neutral connection.

Switches and fuse switches, shall be in strict accordance with KS04-183:1978 Class 2 switches. Means of locking the switch in the "OFF" position shall be provided.

All fuse switches shall comply with KS04-183:1978, PARTS 2 and 3 a fault rating at least equal to the fault rating of the switchboard in which they are installed. Cartridge fuse links to KS 04-183:1978 category A.C. 46, class Q1 and fusing factor not exceeding 1.5 shall be supplied with each fused switch. Mounting arrangements shall be such that individual complete fuse switches may be disconnected and withdrawn when necessary without extensive dismantling work.

When switches are arranged in their formation all necessary horizontal and vertical barriers shall be provided to ensure segregation from adjacent units. Means of locking the switch in the "OFF" position shall be provided.

1.42. STEEL CONDUITS AND STEEL TRUNKING

Conduits shall be of heavy gauge class "B" welded to Standard specification KS 04-180:1985. In no case will conduit smaller than 20mm diameter be used on the works. Conduits installed within buildings shall be black enamelled finish except where specified otherwise. Where installed externally or in damp conditions they shall be galvanised. Conduit fittings, accessories or equipment used in conjunction with galvanised conduits shall also be galvanised or otherwise as approved by the service engineer.

Metal trunking shall be fabricated from mild steel of not less than 18 swg. All sections of trunking shall be rigidly fixed together and attached to the framework or fabric or the building at intervals of not less

than 1.2m. Joint trunking shall not overhang fixing points by more than 0.5m.

All trunking shall be made electrically continuous by means of 25 x 3mm copper links across each joint and where the trunking is galvanised, the links shall be made by galvanised flat iron strips.

All trunking fittings (i.e. Bends, tees, etc) shall leave the main through completely clear of obstructions and continuously open except through walls and floors at which points suitable fire resisting barriers shall be provided as may be necessary. The inner edge of bends and tees shall be chamfered where cables larger than 35mm² are employed.

Where trunking passes through ceilings and walls the cover shall be solidly fixed to 150mm either side of ceilings and floors and 50mm either side of walls.

Screws and bolts securing covers to trunking or sections of covers together shall be arranged so that damage to cables cannot occur either when fixing covers or when installing cables in the trough.

Where trunking is used to connect switchgear of fuseboards, such connections shall be made by trunking fittings manufactured for this purpose and not by multiple conduit couplings.

Where vertical sections of trunking are used which exceed 4.5m in length, staggered tie off points shall be provided at 4.5m intervals to support the weight of cables.

Unless otherwise stated, all trunking systems shall be painted as for conduit.

Where a wiring system incorporates galvanised conduit and trunking, the trunking shall be deemed to be galvanised unless specified otherwise.

The number of cables to be installed in trunking shall be such as to permit easy drawing in without damage to the cables, and shall in no circumstances be such that a space factor of 45% is exceeded.

Conduit and trunking shall be mechanically and electrically continuous. Conduit shall be tightly screwed between the various lengths so that they butt at the socketed joints. The internal edges of conduit and all fittings shall be smooth, free from burrs and other defects.

Oil and any other insulating substance shall be removed from the screw threads; where conduits terminate in fuse-gear, distribution boards, adaptable boxes, non-spouted switchboxes, etc., they shall, unless otherwise stated, be connected thereto by means of smooth bore male brass bushes, compression washers and sockets. All exposed threads and abrasions shall be painted using an oil paint for black enameled tubing and galvanizing paint for galvanised tubing immediately after the conduits are erected. All bends and sets shall be made cold without altering the section of the conduit.

The inner radius of the bend shall not be less than four (4) times the outside diameter of the conduit. Not more than two right angle bends will be permitted without the inter-position of a draw-in-box. Where straight runs of conduit are installed, draw-in-boxes shall be provided at distances not exceeding 15m. No tees, elbows, sleeves, either of inspection or solid type, will be permitted.

Conduit shall be swabbed out prior to drawing in cables, and they shall be laid so as to drain of all condensed moisture without injury to end connections.

Conduits and trunking shall be run at least 150mm clear of hot water and steam pipes, and at least 75mm clear of cold water and other services unless otherwise approved by the services engineer.

All boxes shall conform to KS 04 – 668: 1986, to be of malleable iron, and black enamelled or galvanised according to the type of conduit specified. All accessory boxes shall have threaded brass inserts.

Box lids where required shall be heavy gauge metal, secured by means of zinc plated or cadmium plated steel screws.

All adaptable boxes and lids of the same size shall be interchangeable.

Boxes used on surface work are to be tapped or drilled to line up with the conduit fixed in distance type saddles allowing clearance between the conduit and wall without the need for setting the conduit.

Where used in conjunction with mineral insulated copper sheathed cable, galvanised boxes shall be used and painted after erection.

Draw-in boxes in the floors are generally to be avoided but where they are essential they must be grouped in positions approved by the services engineer and covered and by the suitable floor traps, with non-ferrous trays and covers.

The floor trap covers are to be recessed and filled in with a material to match the floor surface.

The Sub-contractor must take full responsibility for the filling in of all covers, but the filling in material will be supplied and the filling carried out by the main building contractor.

Where buried in the ground outside the building the whole of the buried conduit is to be painted with two coats of approved bitumastic composition before covering up.

Where run on the surface, unpainted fittings and joints shall be painted with two coats of oil bound enamel applied to rust and grease free metalwork.

1.43. TESTING ON SITE

The Sub-contractor shall conduct during and at the completion of the installation and, if required, again at the expiration of the maintenance period, tests in accordance with the relevant section of the current edition of the Regulations for the electrical equipment of buildings issued by the I.E.E of Great Britain, the Government Electrical Specification and the Electric Supply Company's By-Laws.

(a) Tests shall be carried out to prove that all single pole switches are installed in the 'live' conductor.

(b) Tests shall be carried out to prove that all socket outlets and switched socket outlets are connected to the 'live' conductor in the terminal marked as such, and that each earth pin is effectively bonded to the earth continuity system. Tests shall be carried out to verify the continuity of all conductors of each 'ring' circuit.

(c) Phase tests shall be carried out on completion of the installation to ensure that correct phase sequence is maintained throughout the installation. Triplicate copies of the results of the above tests shall be provided within 14 days of the witnessed tests and the Sub-contractor will be required to issue to the service engineer the requisite certificate upon completion as required by the regulations referred to above.

(d) Any faults, defects or omissions or faulty workmanship, incorrectly positioned or installed parts of the installation made apparently by such inspections or tests shall be rectified by the Sub-contractor at his own expense.

(e) The Sub-contractor shall provide accurate instruments and apparatus and all labour required to carry out the above tests. The instruments and apparatus shall be made available to the services engineer to enable him to carry out such tests as he may require.

(f) The Sub-contractor shall generally attend on other contractors employed on the project and carry out such electrical tests as may be necessary.

(g) The Sub-contractor shall test to the services engineer's approval and as specified elsewhere in this specification or in standards and regulations already referred to, all equipment, plant and apparatus forming part of the works and before connecting to any power or other supply and setting to work.

(h) Where such equipment, etc., forms part of or is connected to a system whether primarily or of an electrical nature or otherwise (e.g. air conditioning system) the Sub-contractor shall attend on and assist in balancing, regulating testing and commissioning, or if primarily an electrical or other system forming part of works, shall balance, regulate, test and commission the system to the service engineer's approval.

1.44 MECHANICAL SPECIFICATION

1.44.1 General

This section specifies the general requirement for plant, equipment and materials forming part of the Sub-contract Works and shall apply except where specifically stated elsewhere in the Specification or on the Contract Drawings.

1.44.2 Quality of Materials

All plant, equipment and materials supplied as part of the Subcontract Works shall be new and of first class commercial quality, shall be free from defects and imperfections and where indicated shall be of grades and classifications designated herein.

All products or materials not manufactured by the Subcontractor shall be products of reputable manufacturers and so far as the provisions of the Specification is concerned shall be as if they had been manufactured by the Sub-contractor.

Materials and apparatus required for the complete installation as called for by the Specification and Contract

Drawings shall be supplied by the Sub-contractor unless mention is made otherwise.

Materials and apparatus supplied by others for installation and connection by the Subcontractor shall be carefully examined on receipt. Should any defects be noted, the Subcontractor shall immediately notify the Engineer.

Defective equipment or that damaged in the course of installation or tests shall be replaced as required to the approval of the Engineer.

1.45 SOLAR POWER GENERATION PLANT

1.45.1 SPV Crystalline Modules

1.45.1.1 SPV Mono crystalline modules of 72- or 60-cell with minimum 16.3% efficiency.

Solar modules offered shall be

- i. Tier-1 Manufacturer of Kenya or international company
- ii. Certified as per IEC 61215 / IS114286
- iii. Qualify IEC 61730- Part -1: PV Module Safety Qualification Part -1 Requirement for Construction.
- iv. Qualify IEC 61730- Part -2: PV Module Safety Qualification Part -2 Requirements for Testing.

1.45.1.2 SPV modules shall be used in highly corrosive atmosphere throughout their life time so they must qualify IEC 61701.

1.45.1.3 Solar PV Module design shall conform to following requirement:

- i) Weatherproof, DC rated MC4 connector and a lead cable coming out as a part of the module, making connections easier and secure, not allowing any loose connections.
- ii) Resistant to water ingress, abrasion, hail impact, humidity, sea water & other harsh environmental factors for the worst situation at site.

1.45.1.4 Module rating is considered under standard test conditions; however Solar Modules shall be designed to operate and perform under site conditions including high temperature, dusty conditions, high humidity and corrosive atmosphere.

1.45.2 Identification and Traceability

1.45.2.1 Each PV module shall have Nameplate tag. The following information must be mentioned in the Nameplate used on each module. This can be inside or outside the laminate, but must be able to withstand harsh environmental conditions.

- i. Name of the manufacturer of SPV module.
- ii. Name of the manufacturer of Solar cells.
- iii. Month and year of the manufacturer (separately for solar cell and module).
- iv. Country of origin (separately for solar cell and module).
- v. I-V curve for the module.
- vi. Peak wattage, I_m , V_m and PF for the module.
- vii. Unique Serial No and Model No of the module.
- viii. Date and year of obtaining IEC SPV module qualification certificate
- ix. Name of the test lab issuing IEC certificate
- x. Other relevant information on traceability of solar cell and module as per ISO 9001 and ISO 14001

1.45.3 Warranties for Modules

1.45.3.1 Product Warranty

1.45.3.1.1 The manufacturer should warrant the solar module(s) to be free from the defects and/or failures specified below for a period not less than ten (10) years from the date of sale to the original customer ("Employer")

- i) Defects and /or failures due to manufacturing.
- ii) Defects and/or failures due to quality of materials.
- iii) Non-conformity to specifications due to faulty manufacturing and/ or inspection processes.

1.45.3.2 Performance Warranty

1.45.3.2.1 The predicted electrical degradation of power generated not exceeding 20% of the minimum rated power over the 25-year period and not more than 10% after ten years period of the full rated original output.

1.45.3.2.2 Bidder shall provide data sheet for solar PV module (under standard testing condition) along with their offer as per guaranteed technical particular (Bid Response sheet -1).

1.45.4 Module Mounting Structure (MMS)

1.45.4.1 The MMS to be used for mounting the SPV modules shall be as under:

- i) Fixed-tilt type
- ii) Azimuth: 0° True South/North as per site location
- iii) Tilt angle: 10° tilt angle shall be provided for all sites with adequate spacing to prevent inter-row shading.

1.45.4.2 Structure shall comply with IEC 61215/61646.

1.45.4.3 The mounting steel structure and its galvanizing shall be as per standards listed in Table 2 above

1.45.4.4 The mounting structure shall be suitably designed for mechanical and electrical installation. It shall support SPV modules at a given orientation, absorb and transfer the mechanical loads along with applicable wind loads to the base properly.

1.45.4.5 While designing of MMS additional care is needed to ensure that the material size used is capable to withstand the wind forces generated on account of heavy wind speed of respective sea wind zone. MMS with documented results of wind tunnel testing and resonant frequency dampening are preferred.

1.45.4.6 To reduce the pressure on structure and foundation, clear spacing between two adjacent modules shall be sufficient to allow wind passage.

1.45.4.7 The minimum clearance between the lower edge of the modules and developed ground level shall be adequately elevated above relevant flood plain. Minimum 1000mm and to employers approval

1.45.4.8 For ground-mounted systems, contractor has to choose suitable foundation design(s) depending on soil conditions, geographical condition, regional wind speed, bearing capacity, slope stability etc.

1.45.4.9 The structure shall be designed to allow replacement of any module.

1.45.4.10 Nuts & bolts, supporting structures including module mounting structures shall have to be adequately protected against all climatic conditions prevailing in the area.

1.45.4.11 All fasteners shall be of stainless steel of grade SS 304 or suitable equivalent. The mounting structure shall be grounded properly using maintenance-free earthing kit.

1.45.4.12 The mounting structure & foundation shall be designed to withstand applicable speed of wind zone of the applicable site as given in relevant International/Kenya wind load codes /standards. Suitable fastening arrangement such as grouting and clamping should be provided to secure the installation against the specific wind speed. The contractor shall ensure that the design has been certified by a recognized lab/ institution in this regard and submit the same to Employer.

1.45.5 PV Inverter

1.45.5.1 SPGP shall be either DC- or AC-coupled as per the lists provided in Tables 2A-2K.

1.45.5.2 The efficiency of the Inverter shall be more than 97% at full load.

1.45.5.3 Supply Voltage and Variation

- i) Supply voltage Single phase, 230V AC
- ii) Voltage variation (+10% to – 10%),
- iii) Frequency variation 50+/-1.5 Hz
- iv) Total harmonic voltage distortion less than 3% to synchronize with standard /local grid.

1.45.5.4 The inverter shall have high overload capacity. The Bidder should specify the overload capacity in the bid.

1.45.5.5 String inverter(s)/ Central inverter(s) as per design shall be of requisite numbers having equal to total AC capacity as per requirement of each site at a suitable DC/AC ratio as specified for the inverter.

1.45.5.6 Maximum Power Point Tracker (MPPT) shall be integrated into the inverter to maximize energy drawn from the solar PV array. MPPT shall be microprocessor/micro controller based to minimize power losses and maximize energy utilization. The details of working mechanism of MPPT shall be mentioned by the Bidder in its proposal. The MPPT unit shall be integrated in to the inverter or conform to IEC 62093 for design qualification.

1.45.5.7 Inverter should comply with IEC 61683 for efficiency and measurements and should comply with IEC 60068-2 for environmental testing.

1.45.5.8 The inverter shall be capable of controlling power factor dynamically and be equipped with components required to support reactive power.

1.45.5.9 The Inverters shall be designed for continuous, reliable power supply as per specification and shall have internal protection arrangement against any sustained fault in the feeder line and against lightning strikes in the feeder line.

1.45.5.10 The inverter shall have the required protection arrangements against earth leakage faults. Specifically, the inverter shall be single phase power conditioning unit using static solid-state components.

1.45.5.11 The inverter shall be suitably designed for parallel operation. Each solid-state electronic device shall have to be protected to ensure long life of the inverter as well as smooth functioning of the inverter.

1.45.5.13 The inverter must have the feature to work in tandem with other similar inverters and be able to be successively & automatically switched “ON” and “OFF” based on solar radiation variations during the day.

1.45.5.14 Degree of protection of the indoor inverter shall be at least IP-54 and that of outdoor at least IP-65.

1.45.5.15 The system should be capable of providing all the data including that of SPV energy meter and inverter to the central software on IEC-104 protocol. All the equipment/hardware/software for complying with the same will be in the Bidder’s scope.

1.45.5.16 Communication interface shall be an integral part of inverter and shall be suitable to be connected to local data monitoring system and also remotely via the web.

1.45.5.17 The inverter shall have the capability to store data for at least 6 months.

1.45.5.18 Inverter front panel, supplemental metering, or remote monitoring interface shall be provided with display or remote monitoring of the following:

- i) DC power input
- ii) DC input voltage
- iii) DC current
- iv) AC output power
- v) AC voltage
- vi) AC current

1.45.5.19 Both AC & DC lines shall have suitable fuses, surge arrestors and contactors to allow safe start up and shut down of the system. Fuses used in the DC circuit should be DC rated.

1.44.5.20 Protections required in Inverter

- i) Input side disconnection switch
- ii) Ground fault monitoring
- iii) DC reverse polarity protection
- iv) DC over voltage / current limitation protection
- v) AC short circuit protection
- vi) AC over voltage / current limitation protection
- vii) DC and AC side surge protection (Metal Oxide Varistor (MOV) built-in)
- viii) Any other protection in view of battery.
- ix) Anti-islanding protection

1.45.5.21 The inverter shall include appropriate self-protective and self-diagnostic features to protect itself and the PV array from damage in the event of inverter component failure or from parameters – beyond the inverter’s safe operating range due to internal or external causes.

1.45.5.22 Inverter shall go to shutdown/standby mode, with its contacts open, under the following conditions before attempting an automatic restart after an appropriate time delay.

- i) When the power available from the PV array is insufficient to supply the losses of the inverter, the inverter shall go to standby/shutdown mode
- ii) The inverter control shall prevent excessive cycling of shut down during insufficient solar irradiance.

1.45.5.24 Operation outside the limits of power quality as described in the technical data sheet should cause the inverter to disconnect the grid. Additional parameters requiring automatic disconnection are

- i) Neutral voltage displacement
- ii) Over current
- iii) Earth fault
- iv) And reverse power

In each of the above cases, tripping time should be low enough to protect the inverter.

1.45.5.25 Internal surge protection shall consist of three MOV type surge-arrestors connected from positive and negative terminals to earth (via Y arrangement).

1.45.6 Battery Inverter/ Charger

1.45.6.1 SPGP shall be either DC- or AC-coupled as per the lists provided in Tables 2A-2K.

1.45.6.2 The efficiency of the Inverter shall be more than 95% at full load.

1.45.6.3 Supply Voltage and Variation

- i) Nominal Input VDC 48 V
- ii) Supply voltage Single phase, 230V AC
- iii) Voltage variation (+5% to – 5%)
- iv) Frequency variation 50+/-1.5 Hz
- v) Total harmonic voltage distortion less than 3% to synchronize with standard /local grid.

1.45.6.4 The inverter shall have high overload capacity. The Bidder should specify the overload capacity in the bid.

1.45.6.5 Battery Inverter/charger to be bi-directional with power factor capability of at least 0.80 lagging to 0.80 leading.

1.45.6.6 Inverters to have pure sinewave output waveform.

1.45.6.7 Inverter should comply with IEC 61683 for efficiency and measurements and should comply with IEC 60068-2 for environmental testing.

1.45.6.8 The inverter shall be capable of controlling power factor dynamically and be equipped with components required to support reactive power.

1.45.6.9 The Inverters shall be designed for continuous, reliable power supply as per specification and shall have internal protection arrangement against any sustained fault in the feeder line and against lightning strikes in the feeder line.

1.45.6.10 The inverter shall have the required protection arrangements against earth leakage faults. Specifically, the inverter shall be single phase power conditioning unit using static solid-state components.

1.45.6.11 The inverter shall be suitably designed for parallel operation. Each solid-state electronic device shall have to be protected to ensure long life of the inverter as well as smooth functioning of the inverter.

1.45.6.12 Degree of protection of the indoor inverter shall be at least IP-54 and that of outdoor at least IP-65.

1.45.6.13 The system should be capable of providing all the data including that of SPV energy meter and inverter to the central software on IEC-104 protocol. All the equipment/hardware /software for complying with the same will be in the Bidder's scope.

1.45.6.14 Communication interface shall be an integral part of inverter and shall be suitable to be connected to local data monitoring system and also remotely via the web.

1.45.6.15 The inverter shall have the capability to store data for at least 6 months.

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- i) DC power input
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- iii) DC current
- iv) AC output power
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- vi) AC current

1.45.6.17 Both AC & DC lines shall have suitable fuses, surge arrestors and contactors to allow safe start up and shut down of the system. Fuses used in the DC circuit should be DC rated.

1.45.6.18 Protection required in Inverter

- i) Input side disconnection switch
- ii) Ground fault monitoring
- iii) DC reverse polarity protection

- iv) DC over voltage / current limitation protection
- v) AC short circuit protection
- vi) AC over voltage / current limitation protection
- vii) DC and AC side surge protection (Metal Oxide Varistor (MOV) built-in
- viii) Any other protection in view of battery.
- ix) Anti-islanding protection

1.45.6.19 The inverter shall include appropriate self-protective and self-diagnostic features to protect itself from damage in the event of inverter component failure or from parameters beyond the inverter's safe operating range due to internal or external causes.

1.45.6.20 Operation outside the limits of power quality as described in the technical data sheet should cause the inverter to disconnect the grid. Additional parameters requiring automatic disconnection are

- i) Neutral voltage displacement
- ii) Over current
- iii) Earth fault
- iv) And reverse power

In each of the above cases, tripping time should be low enough to protect the inverter.

1.45.6.21 Internal surge protection shall consist of three MOV type surge-arrestors connected from positive and negative terminals to earth (via Y arrangement).

1.45.7 Battery Energy Storage System (BESS)

1.45.7.1 Supply of Battery Energy Storage System (BESS) with Lithium-ion Battery pack conforming to IEC standards with warranty of 10 years, 3000 cycles minimum. Complete in all respects as under and confirming to Employer's Requirement & technical specification, consisting of

- i) Lithium-ion Battery Power Packs for required energy capacity, or equivalent as per approved design, minimum 80% Depth of Discharge (DOD). Batteries should be capable of at least C/4 charge and discharge rate
- ii) Enclosures conforming to IP54 for Indoor /IP65 or better for outdoor.
- iii) All accessories for correct installation, foundation, connection, controls, and operation of BESS.

1.45.7.2 Batteries are charged by Battery Inverter / Charger. Thus, batteries charging mechanism should be part of the BESS.

1.45.7.3 The BESS must allow minimum 80% of Depth of Discharge in all installations as Lithium ion shall be used.

1.45.7.4 Warranted number of cycles for the BESS for lithium Ion battery systems at the supplier recommended depth of discharge should not be less than 3,000 cycles at 80% DOD.

1.45.7.5 Guaranteed minimum service life of Lithium Ion BESS shall be minimum 10 years with warranty of 10 years. If due to any reason battery requires to be replaced, then the Contractor is to replace the same in warranty period without any extra cost to the Employer.

1.45.7.6 Load demand requirement of each site, design concept of BESS, Inverter rating, Battery rating etc. elaborated in Tables 2A to 2K. Contractor should submit the detailed drawing for approval demonstrating the meeting of load requirements of consumers for each community facility.

1.45.7.7 There shall be no environmental hazards caused due to:

- i) Improper use and maintenance of the battery bank.
- ii) Improper disposal of batteries at the time of replacement.
- iii) Any manufacturing defects.

1.45.7.8 All technical and other details pertaining to the storage cells shall be supplied including but not limited to the following:

- i) Rated voltage and ampere-hour capacity of each storage cell as the rated discharge rate,
- ii) Permitted maximum DOD,
- iii) Self-discharge rate,
- iv) Cycle life of the storage cell and the anticipated life (in years) of the battery bank.
- v) Total number of storage cells in use.
- vi) Details on cell interconnections, if any
- vii) Charging system used for battery

1.45.7.9 The system should allow for the load current to be supplied at the same time as the battery charging current, whether AC- or DC- coupled.

1.45.7.10 Contractor shall submit (in 4 sets) complete design and expected performance of BESS calculations, drawings, reports and data for approval of the Employer during detailed engineering. The design of BESS with critical parameters such as response time discharge duration, Depth of discharge, frequency of discharge, cycle life, round trip cycle efficiency performance degradation, self-discharge characteristics, short time discharge rating, transient response characteristics, auxiliary system requirement etc. shall be included in the detailed engineering.

1.45.7.11 Suitable fire protection system shall be designed for BESS in line with IEC or international norms regulation as applicable and system requirement considering project site.

Detailed hazard analysis and risk mitigation strategy shall be provided along with bid documents.

1.45.7.12 BESS conforming to International Safety and Electrical Standards shall be Complete in all respect consisting of:

- i) Battery inverter/charger for supply voltage as per clause 4.6 above, wave type sinusoidal.
- ii) Complete with programmable control and regulation parameters, protection system, control system, surge protection system etc.
- iii) Site Master Controller System. Charge controller for DC coupled systems.
- iv) Requisite numbers of battery pack, the combination of which shall equal or exceed the estimated capacity shown in design characteristics in this document, with Min. 80 % DOD,
- v) Enclosures conforming to IP54 for Indoor /IP65 or better for outdoor.
- vi) All accessories and connection for correct installation and operation of BESS.
- vii) All cables for inter connection with main AC distribution board.
- viii) Support structure to keep battery at a suitable clearance level from ground to take care of water flooding etc. The design shall be submitted to the employer before its implementation. Test certificate and test reports as per IEC62133, IEC61959 and IEC 61960 or other international equivalent standard applicable to battery technology shall be submitted for approval of the Employer. All other test certificate and test reports as per international standards and norms for BESS shall be submitted for approval of the Employer during submission of detailed engineering.

1.45.8 Lightning & Over Voltage Protection

1.45.8.1 The SPGP shall be provided with lightning and over voltage protection connected to proper earth pits. Earthing pits shall be measured to have an earthing resistance of 1Ω or less at the time of installation. If this level cannot be obtained with the soil at the facility, then soil conditioning (engineered backfill) shall be implemented to improve the earthing resistance within acceptable levels.

1.45.8.2 Lightning mast/conductor, placed at strategic locations, shall be used to protect the arrays against lightning protection. The bidder shall give detailed design showing location of lightning conductor/masts and the protection coverage on array without causing any shadow on the modules to the Employer.

1.45.8.3 All designs shall be submitted to the Employer before its implementation.

1.45.8.4 Necessary concrete foundation for holding the lightning conductor in position to be made after giving due consideration to maximum wind speed and maintenance requirement at site in future.

1.45.8.5 The lightning conductor shall be earthed through Galvanized Iron (GI) flat strips and connected to earth pits per applicable International Standards. Each lightning conductor shall be fitted with individual earth pit as per required Standards including accessories.

1.45.8.6 Design calculations, technical specification and requisite test reports of lightning mast conforming to international standards along with detailed write up in 4 sets shall be provided for approval to the Employer.

1.45.9 Earthing Protection

1.45.9.1 Earthing system shall be in strict accordance with IEC specified in Table 3 and applicable Electricity Rules / Acts and Guidelines for connections.

1.45.9.2 Earthing system network / earth mat shall be of interconnected mesh as per IEC requirements/specifications. The earth conductors shall be free from pitting, laminations, rust, scale and other electrical or mechanical defects.

1.45.9.3 Metallic frame of all electrical equipment shall be earthed by two separate and distinct connections to earthing system, each of 100% capacity, with the exception of solar panels, for which alternate means of code-compliant earthing shall be admissible if integrated with racking design.

1.45.9.4 Metallic sheaths / screens, and armor of multi-core cables shall be earthed at both ends.

Metallic sheaths and armor of single core cables shall be earthed at switchgear end only unless otherwise approved.

1.45.9.5 Each continuous laid lengths of cable tray shall be earthed at minimum two places to earthing system, the distance between earthing points shall not exceed 30 meters. Wherever earth mat is not available, necessary connections shall be done by driving an earth electrode in the ground.

1.45.9.6 Neutral connections and metallic conduits/pipes shall not be used for the equipment earthing.

1.45.9.7 Lightning protection system down conductors shall be terminated to separate earth electrodes & not be connected to other earthing conductors.

1.45.9.8 Connections between earth leads and equipment shall normally be of bolted type. Contact surfaces shall be thoroughly cleaned before connections. Equipment bolted connections after being tested and checked shall be painted with anti-corrosive paint / compound.

1.45.9.9 Back filling material to be placed over buried conductors shall be free from stones and harmful mixtures. Back filling shall be placed in layers of 150 mm.

1.45.9.10 Earth pit shall be constructed as per IEC standard specified in Table 3. Minimum spacing between electrodes shall be 2000 mm. Earth pits shall be treated with salt and charcoal/chemical Powder Earthing.

1.45.9.11 Earth resistance at earth terminations shall be measured and recorded. All equipment required for testing shall be furnished by successful bidder.

1.45.9.12 Each array structure of the SPGP yard/shed shall be grounded properly as per standard. The Array Structure is to be connected to earth pits as per standards. Junction boxes shall be connected to the main earthing conductor/electrode.

1.45.9.13 The arrays shall be in protected zone of lightning arrester/spheres by installation of suitable lightning surge diverters/arrestors. The earth electrodes for the same shall have to be completely separate from the plant/array earthing.

1.45.9.14 All metal casing/shielding of the plant shall be thoroughly grounded in accordance with applicable electricity act/rules/guidelines. Total earthing system installation shall be in strict accordance with the latest editions of Electricity Rules, relevant Standards and code of practices and the local statutory authority regulations.

1.45.9.15 Necessary test point provision shall be made for bolted isolating joints of each earthing pit for periodic checking of earth resistance.

1.45.9.16 All non-current carrying metal parts shall be earthed with two separate and distinct earth continuity conductors to an efficient earth electrode.

1.45.9.17 Earthing Design and Layout

i) The successful bidder shall submit Design along with drawings showing the location of lightning arresters and protection zones to cover all arrays against lightning for approval from Employer.

ii) The earth mesh system design shall be submitted for approval of Employer.

iii) Total plant earthing system shall be designed to give an earth resistance of less than 1 ohm all along the earth mesh.

iv) Earthing conductors in outdoor areas shall be buried 1.5 to 2M below finished graded level and these buried conductors shall be brought 500 mm above ground level for making tap connections to the equipment.

v) All the electrodes shall be as per EPRA standards/specifications.

1.45.10 Charge Controller

1.45.10.1 The bidder shall provide, integrate, install, configure, and commission a Charge Controller to manage and coordinate the performance of SPGP and BESS.

1.45.10.2 The Charge Controllers shall be MPPT.

1.45.10.3 The Charge Controller input voltage is 48VDC

1.45.10.4 Output currents for the Charge Controllers for each site are given in Tables 2A-2K

1.45.10.5 The charge Controller should have a display for voltage and current for load and solar.

The display should also be able to display other parameters.

1.45.10.6 The Charge controller should be protected against short circuits, over currents and reverse connection.

1.45.10.7 The charge controller must have programmable settings for all voltage set points. These set points must be adjusted by the installer to match the temperature-adjusted battery charging and discharging curves in the anticipated ambient temperatures at the location of the batteries.

1.45.10.8 The Charge Controller should provide a low voltage disconnect to prevent over discharging the battery array, and consistent with the settings and specifications of the battery warranty and prudent operational practices.

1.45.10.9 The Charge Controller must provide a high voltage disconnect to prevent over-charging the battery array, and consistent with the settings and specifications of the battery warranty and prudent operational practices.

1.45.10.10 The Charge Controller should either have an automated equalization charge cycle or should allow for manual override by the operator for the ability to perform periodic equalization charge cycles

1.45.10.11 The Charge Controller must have programmable settings for the maximum current for both charging and discharging. These set points must be adjusted by the installer to match the temperature-adjusted C-Rates for charging and discharging within the battery warranty.

1.45.10.12 If the battery array has its own protection system or Battery Management System (BMS), then the Charge Controller should integrate with the BMS to ensure coordinated protection of the battery array.

1.45.10.13 The Charge Controller should have multiple operating modes, for example Charge, Discharge, Float, Standby, which can be clearly communicated to the user via a Graphical User Interface (GUI), on-screen display, Bluetooth, wired connection, etc. System voltages, control settings, and set points should also be communicated via the on-screen display or equivalent user interface.

1.45.10.14 The Charge Controller should be protected from the battery system with DC over-current protection, breaker(s) and/or fuse(s).

1.45.10.15 The Charge Controller shall be accessible and configurable both remotely and on-site.

1.45.11 Cables

1.45.11.1 Cables & Wiring

1.45.11.1.1 All instruments and panel wiring shall be of heat resisting and self-extinguishing type in compliance with International Standards. Plastic or porcelain cleats of the limited compression type shall be used for holding wiring runs. All wires shall be suitable for bending to meet the terminal studs at right angles. Metal cases of all apparatus mounted on panels shall be separately earthed by means of copper wire or strips.

1.45.11.1.2 The following color scheme of the wiring shall be used as per standard for three phase systems.

- a) AC three phase circuits:
 - i) No.1 Phase : Red.
 - ii) No.2 Phase : Yellow.
 - iii) No.3 Phase : Blue
 - iv) Neutral conductor : Black
 - v) Connection to earth : Green
- b) D.C. circuits: Grey

1.45.11.2 Cables and Accessories

1.45.11.2.1 Cables of appropriate size to be used in the system shall have the following characteristics:

- i) Shall meet IEC 60227/IS 694, IEC 60502/IS1554 standards
- ii) Temp. Range: -100C to +800C
- iii) Excellent resistance to heat, cold, water, oil, abrasion, Ultraviolet (UV) radiation.
- iv) Flexible.
- v) Sizes of cables between array interconnections, array to junction boxes, junction boxes to inverter etc. shall be so selected to keep the voltage drop (power loss) of the entire solar system to the minimum. The cables (as per IS) should be insulated with a special grade PVC compound formulated for outdoor use.

1.45.11.2.2 All the cables shall conform to the requirements of the related standards and codes for:

- i) DC cable for photovoltaic system
- ii) XLPE / PVC insulated (heavy duty) electric cables for working voltages up to and including 1100V.
- iii) Recommended current ratings
- iv) Low carbon galvanized steel wires, formed wires and tapes for armoring of cables
- v) PVC insulation and sheath
- vi) Cross linked polyethylene insulated PVC sheathed cables
- vii) Conductors for insulated electrical cables and flexible cords.
- viii) Standard test method for density of smoke from the burning or decomposition of plastics.
- ix) Tests on gases evolved during combustion of electric cables.
- x) Tests on electric cables under fire conditions.

1.45.11.2.3 Technical Requirements

- i) The cables shall be suitable for laying on racks, in ducts, trenches, trestles, conduits and underground buried installation with chances of flooding by water.
- ii) All cables of module area if laid on cable trays shall be covered. If cables are to be laid underground, laying shall be as per latest relevant code.
- iii) Cables with copper conductor on DC side & that with aluminum conductor in AC side to be used as power cables shall have tensile strength as per relevant standards.
- iv) Conductors shall be stranded.
- v) Cables with XLPE insulation, PVC sheathed & armored suitable for a continuous conductor temperature of 900C and short circuit conductor temperature of 2500C shall be used.
- vi) PVC insulation shall be suitable for continuous conductor temperature of 700C and short circuit conductor temperature of 1600C.
- vii) Only terminal cable joints shall be accepted. No cable joints to join two cable ends shall be accepted.
- viii) Cables inside the control room shall be laid in suitable Cable Trays of approved type.
- ix) Cable terminations for LT cables shall be made with suitable cable lugs & sockets etc. crimped properly and passed through brass compression type cable glands at the entry and exit point of the cubicles.
- x) The panels' bottoms shall be properly sealed to prevent entry of snakes / lizard etc. inside the panel.
- xi) The terminal end of cables and wires are to be fitted with good quality letter and number ferrules of proper sizes so that the cables can be identified easily.

1.45.11.3 Cable Selection & Sizing

1.45.11.3.1 All LT power cables of sizes more than 90 sq.mm shall be XLPE insulated, PVC sheathed and armored. Cables shall be sized based on the following considerations:

- i) Rated current of the equipment
- ii) DC Cable: Minimum voltage drop in the cable during full load running condition, maximum voltage drop shall be limited to 1% of the rated voltage
- iii) AC Cable: Minimum voltage drop in the cable during full load running condition, maximum voltage drop shall be limited to 2% of the rated voltage

- iv) Short circuit withstand capability.
 - v) De-rating factors for various conditions of installations including the following shall be considered while selecting the cable sizes:
 - a. Variation in ambient temperature for cables laid in air.
 - b. Grouping of cables.
 - c. Variation in ground temperature and soil resistivity for buried cables.
 - d. Cable lengths shall be considered in such a way that straight through cable joints is avoided. Cables shall be armored type if laid in yard area or directly buried.
- 1.45.11.3.2 Cable employed for series connection of PV modules through MC4 connectors shall be of 4 / 6 sq mm size subject to voltage drop value within acceptance.

1.45.11.4 Cable Constructional Features

1.45.11.4.1 1.1 kV Grade Cables:

- i) 1.1 KV grade XLPE power cables on AC side shall have compacted aluminum conductor, XLPE insulated, armored, inner & outer PVC sheathed conforming to EPRA requirements/standards.
- ii) Withstanding 90 OC continuous conductor temperature and 250 OC during short circuit, inner sheathed with heat resistant elastomeric compound, nylon cord reinforced, outer- sheathed with heat resistant, oil resistant and flame-retardant heavy-duty elastomeric compound conforming to KEBS standards.
- iii) Cables laid in trenches and using Galvanized Cable trays of adequate strength shall be on structural (Mild Steel) supports.

1.45.11.4.2 Control Cables

- i) 1.1 KV Grade control Cables shall have stranded copper conductor, PVC insulated with appropriate grade shall be used for all control cables required for the SPGF. The cables shall be terminated using Cu. Lugs of adequate cross section area with miller insulation between each pair and tinned copper screening.
- ii) Control cables shall have minimum conductor cross-section of 1.5Sq.mm.

1.45.11.4.3 DC Side Cables

- i) DC cables in the plant shall be with Copper conductors to be used between
 - a) Module to Modules inter connections
 - b) Strings to String Combiner Box
 - c) String Combiner Boxes (SCBs) / Array Junction Boxes (AJBs) to DC
 - d) Distribution Board (DCDB) & or SCBs / AJBs to Inverters
- ii) Their guiding factor selected cables shall be the current carrying capacity after the considered reduction factors which shall be higher than 1.25 times of I_{sc} under STC as per IEC 60364-7-712 and the annual energy yield loss is less than 1% as per prevailing norms and to be considered in the Energy Yield Estimation analysis.
- iii) The selected cables for the community facility shall be
 - a. 1 Core, 4 Sq mm copper conductor (Electrolytic Tinned Copper IEC 60228, Class 5) or higher size, rated 600/1000V AC, as per module manufacturer recommendations for module to module interconnection (normally comes along with modules). The cable shall be solar grade cables with UV and weather resistant protected cables suitable for outdoor applications and confirming to TUV: 2 PfG 1169 / 08.2007.
 - b. 1 Core, 6 Sq mm copper conductor (Electrolytic Tinned Copper IEC 60228, Class 5) rated 600/1000V AC, solar grade cable with UV and weather resistant protected cables suitable for outdoor application according to TUV: 2 PfG 1169/ 08.2007, Ethylene propylene rubber (EPR) insulation with Ethylene-vinyl acetate (EVA) outer sheath or higher size as per approved design shall be used for cable joining the string to string combiner box (called as Home run cables).
 - c. 1.1 kV grade, single core with copper conductor, XLPE insulation, armored, with inner & outer PVC sheaths. The cable connecting the SCBs and inverters / DCDB shall be suitable underground laying and shall be 90 -120 sq.mm or more in size
 - d. Cables of appropriate size to be used in the system shall have the following characteristics:
 - i) Temp. Range –10 OC to +80 OC.
 - ii) Excellent resistance to Heat, Fire, oil, cold, water, abrasion, UV radiation.
 - iii) Flexible Cabling on DC side of the system shall be as short as possible to minimize the voltage drop in the wiring
- iv) All parts shall be corrosion resistant.

1.45.11.4.4 Low Tension (LT) Cables

1.1 kV Grade, Al. conductor PVC armored cables in AC Side shall be used for all LT power cables between control cubicles, Motor Control Centres (MCC), respective feeders, etc. These cables shall be laid on structural supports and using galvanized cable trays of adequate strength. The cable shall be terminated using Al. Lugs of adequate cross section area.

1.45.12 Danger Boards/Plates

1.45.12.1 Danger boards/ plates should be provided as per grid codes and requirements/specifications and must be affixed at various appropriate locations for safety of personnel.

1.45.13 Construction

1.45.13.1 The installation shall be carried out by an electrical contractor holding a valid license as required by the Government Authorities.

1.45.13.2 The contractor shall provide necessary drawings and documents required by statutory authorities and obtain the approval before taking up erection. It shall be the sole responsibility of the contractor to obtain safety certificates / approvals from local statutory authorities.

1.45.13.3 Any modification in the equipment or installation that may be demanded by the inspecting authorities shall be carried out by the contractor at no additional cost to the Employer.

1.45.13.4 In accordance with the specific installation instruction as per the manufacturers drawings or as directed by Employer, the successful Bidder shall unload, assemble, erect, install, test, commission and hand over all electrical equipment included in this contract.

1.45.13.5 Erection materials including all consumables, tools, testing instruments or any other equipment required for successful commissioning shall be arranged by the successful Bidder in a timely manner.

1.45.13.6 Clearing the site after completion, for ground-mounted systems, of erection as well as regular clearance of unwanted materials from site, returning excess materials supplied by Employer back to Employer's stores shall also be included under this scope of work.

1.45.13.7 All equipment and instruments, indoor and outdoor, shall be marked with Numbers and provided with suitable danger boards as per local electricity codes and standards before commissioning.

1.45.13.8 The contractor shall touch up the surface with paint of same shade for equipment, which are scratched and / or damaged during transportation and erection before commissioning.

1.45.13.9 The contractor shall employ skilled and semi-skilled labourers for erection, testing and commissioning as required. All the electricians, cable jointers, wiremen, welders and others employed shall possess valid certificates / licenses recognized by relevant authorities.

1.45.13.10 The contractor shall set up his own facilities at site at allocated place to undertake fabrication/assembly jobs etc.

1.45.14 Civil works

The Contractor shall carry out civil works as called for in scope of work:

1.45.14.1 Pertaining to electrical equipment like foundation for modules structures in ground mounted SPGP or roof support grid for roof mounted SPGP.

1.45.14.2 Foundations and Structural Support of equipment, AC Distribution Boards (ACDB), DC boards, Inverters and associated trenches etc.

1.45.14.3 Enclosures for batteries, Inverter and other accessories.

1.45.14.4 Fencing

1.45.14.5 All minor civil works such as fixing of foundation bolts, cutting holes in walls, chipping of floor and ceiling etc. and making good the same after installation of the equipment.

1.45.14.6 All applicable foundations for equipment under scope of work and required to complete the associated work for SPGP only.

1.45.14.7 During erection, care is to be taken to see that painting does not peel off at any place and if so, it has to be given a 'Touch-up' after erection by the contractor.

1.45.14.8 Detailed Topographical Survey & Geotechnical Investigation of plant area

The turnkey contractor shall be responsible for detailed geotechnical investigation and topographical survey at required locations for the purposes of foundation design.

1.45.14.9 Land Development for site activities

The contractor is responsible for making the site ready by clearing of bushes, felling of trees (if required), leveling of ground and any associated earthworks (wherever required) etc. for commencing the SPGP.

1.45.14.10 Any other civil works advised by Employer for completion of the work related to SPGP has to be carried out without any extra charges.

1.45.15 Earthing Testing after Installation

1.45.15.1 Tests to ensure continuity of all earth connections.

1.45.15.2 Tests to obtain earth resistance of the complete network by using earth tester. The test values obtained shall be within the limits.

1.45.16 Preparation of the Equipment for Commissioning

1.45.16.1 After completion of the installation at site and for the preparation of plant commissioning, the contractor shall check all the equipment and installation in accordance with the agreed standards, latest relevant code of practices of Kenyan Standards and specific instructions furnished by the particular equipment suppliers.

1.45.16.2 Checks required to be made on all equipment and installations at site shall comprise, but not be limited to the following:

a. Physical inspection of Modules for removal of any foreign bodies, external defects, such as damaged/ loose connection in Junction Boxes & inverters etc. loose foundation bolts etc.

b. Check for the free movement of mechanism for the circuit – breaker, rotating parts of the rotating machines and devices.

- c. Check for tightness of all cable joints and bus bar termination ends as well as earth connections in the main earthing network.
- d. Check for clearance of live bus bars and connectors from the metal enclosure.
- e. Check for proper alignment of all the modules etc.
- f. Continuity checks in case of power and control cables.
- g. Checking of all mechanical and electrical interlocks including tripping of breakers using manual operation of relay.
- h. Checking of alarm and annunciation circuits by manual actuation of relevant relays.
- i. Check and calibrate devices requiring field adjustment/calibration like adjustment of relay setting etc.
- j. Check for proper connection to earth network of all non-current carrying parts of the equipment and installation.

1.45.16.3 The relevant tests shall be carried out in accordance with relevant IEC of latest issue.

1.45.16.4 The tests which are to be carried out on the equipment shall include, but not be limited to, the testing of all electrical equipment as well as the system as a whole. This shall be carried out to ensure that the equipment and its components are in satisfactory condition and will successfully perform its functional operations. The inspection of the equipment shall be carried out to ensure that all materials, workmanship and installations conform to the following:

- i) Completeness of installation.
- ii) Each pole to earth insulation resistance test.

1.45.16.5 Cables

- i) Insulation resistance test shall be conducted by megger for cables rated up to 1.1kV grade.
- ii) All 1.1 kV cables shall be subjected to high voltage test after joining and terminating but before commissioning as per relevant standards.
- iii) In each test, the metallic sheath/screen/armor should be connected to earth.
- iv) Continuity of all the cores, correctness of all connections as per wiring diagram, correctness of polarity and phasing of power cables and proper earth connection of cable glands, cable boxes, armor and metallic sheath, shall be checked.

1.45.17 Testing & Commissioning

1.45.17.1 The testing and commissioning for all electrical equipment at site shall be according to the procedures listed below:

1.45.17.2 All electrical equipment shall be tested, installed and commissioned in accordance with the latest relevant standards and code of practices published by Kenyan Standards wherever applicable and stipulations made in relevant general specifications.

1.45.17.3 Accepted design, engineering and construction standards, as well as accepted code of practices and stipulations made in the relevant general specifications.

1.45.17.4 The contractor in the presence of representative / Consultant of Employer shall carry out all tests using his own calibrated instruments, testing equipment as well as qualified testing personnel.

1.45.17.5 The results of all tests shall conform to the specification requirements as well as any specific performance data, guaranteed during finalization of the contract.

1.45.18 Housing enclosures for equipment

1.45.18.1 The bidder is to provide suitable well ventilated and weather proof housing enclosures as per his optimized design for each SPGP to house indoor type equipment – Inverters, batteries, charge controllers, solar energy export meter etc. The housing enclosures shall be designed to the appropriate size as per equipment requirements. Minimum area shall be 6 square metres.

1.45.18.2 It shall consist of concrete foundation; the walling shall be masonry or pre-fabricated steel panels. The designs shall be subject to employer approval.

1.45.18.3 The enclosure should contain appropriate indoor lighting.

1.45.18.4 The enclosure shall have a main door with minimum height of 2100mm and with restricted access. It shall also have aluminium/steel casement windows complete with burglar proof bars.

1.45.18.5 Suitable fire protection system shall be designed for the enclosure in line with IEC or international norms regulation as applicable and system requirement considering project site.

1.45.18.6 The bidder is to supply complete civil lay out plan, elevation, details of each amenity, trenches and structural foundation detailed applicable designs for approval, complete with associated design calculations. Bidders are also required to consider aesthetics while designing.

After design review and approval by Employer or his representative, construction shall commence.

1.45.19 Fencing

1.45.19.1 The contractor shall provide chain link fencing with concrete posts around the perimeter of the demarcated area. Warning plates/danger plates etc. shall be provided in sufficient numbers all around the fencing as per safety requirements. The contractor will take prior approval of design from Employer.

1.45.19.2 Barbed wire shall be installed in 3no. wires above the chainlink fabric on supporting arms facing outwards from site at 45 degree angles.

1.45.19.3 The fence shall also include a double gate (one leaf for normal traffic, and the other to remain closed by means of a drop bolt locking into centre rest)

1.45.19.4 Materials for the chainlink fence

Fabric: ASTM A 392, 2 000 mm high, 3.8 mm diameter (No. 9 gauge) steel wire, 50 mm diamond pattern, twisted and barbed finish at top, knuckled wires at bottom, zinc coated.

Pipes: ASTM A 120, steel pile, hot-dipped zinc coated after welding, diameter and weight size as shown on drawings, unthreaded ends, free from burrs.

Fence fittings: ASTM F 626, hot-dipped zinc coated according to ASTM A 123.

Barbed wire: ASTM A 121, 2.51 mm diameter wire in strand (No.12-1/2 gauge), 2 strands with 4-point barbs spaced at 125 mm, Class 3 zinc coating.

Bottom wires: 5 mm (No. 6 gauge) steel wire, 500 g/m² zinc coating. This shall be surrounded by a concrete beam (C20) as shown on the drawings.

Fence fittings: ASTM F 626, steel tension bars and bands, nuts and bolts, weather proof tops of commercial aluminium alloy, malleable cast iron, or rolled or pressed steel, cast iron and steel fittings hot-dipped galvanised with 500 g/m² according to ASTM A123.

1.45.20 Solar Export Energy Meter

1.45.20.1 Export Energy meter system to measure solar generation, complete with CT, PT (where applicable) set shall be as per Requirements/specifications of EPRA (as per clause 5.3.7 and 5.3.8) and shall be installed at power plant end, in line with Grid code.

1.45.21 Design, Drawings for Electrical & Civil works (Drawing Section)

1.45.21.1 Submission of Drawings by contractor for Approvals

The Contractor shall submit design /drawings /design Calculations/data Sheets as applicable for each SPGP within 30days from the date of award for approval of Employer. The timely approval of design and drawings are of essence for timely completion of work.

1.45.22. Service Cables and Internal Wiring for Community Facilities

1.45.22.1 Scope of Internal Wiring

1.45.22.1.1 The bidder's scope includes design, supply, installation and commissioning of limited internal wiring.

1.45.22.1.2 Design work shall incorporate all necessary survey work, Customer premises picking, geo-referencing, obtaining & filling customer information as prescribed in a customer information template and updating of LVSWWDA Facility Data Base (FDB) to ensure all additional network is appropriately digitized. At project completion, "As Built Drawings" shall be used to permanently update the FDB.

1.45.22.1.3 Designs shall be approved by the employer. Four (4) physical files shall be availed to help in supervision. Soft copies of the designs shall also be submitted to the employer.

1.45.22.1.4 Each design file shall bear LVSWWDA's Design & Construction System (DCS) reference number and full costing into a Capital Works Authority (CWA) job to facilitate online tracking and eventual commissioning in FDB and final capitalization into assets.

1.45.22.1.5 The contractor shall be expected to be informed by the outcome of the design process of quantities to buy for certain materials that are difficult to predict.

1.45.22.2 Internal Wiring for Community Facilities

1.45.22.2.1 Contractor will carry out internal wiring for the main building of the community facility for 5 lighting points and 2 sockets in compliance with local codes and standards.

1.45.22.2.2 Lighting Fixtures

Type - 2 ft LED linear tube type with reflector fitted

Power rating - 11 - 20 watts

Operating Voltage range - 220-240V AC

Ballast Type - Electronic

Power Factor of ballast/light assembly - 0.8

Colour Rendering Index - 80 or Better

Start to Full Brightness - 0 to 5 seconds

Lamp Lumen Maintenance - Good

Efficacy (lumens/watt) - 60

Warranty - 1 year

NB: Ordinary Tungsten and Compact Fluorescent Lamps will NOT be considered

(Attach detailed technical specifications)

1.45.22.2.3 Switched Sockets

1.45.22.2.3.1 These shall be flush pattern in steel/pvc box and shall be of the gang type.

1.45.22.2.3.2 They shall be 13- Amp, 3-pin, shuttered, switched approved as per KS 04 – 246: 1987

1.45.22.2.3.3 For all lighting and sockets wiring shall be carried out in the "looping in" system and there shall be no joints whatsoever

1.45.22.2.3.4 Sub-circuit wiring

(i) Lighting circuits P. V.C. cable 1.5mm² for all lighting circuits

(ii) Power circuits P.V.C cable (minimum sizes): 2.5mm² for all socket wiring.

1.45.22.3 Specifications for Service Cables, Meters, Accessories and other items

1.45.22.3.1 25mm² 4C Aluminum cables

The technical specification for 25mm² 4C Aluminum cables shall comply with EPRA standard specification document no. KP1/3CB/TSP/05/001 (Attached as Appendix 3)

1.45.22.3.2 16mm² Single Phase PVC Insulated Single Phase Concentric Aluminum Cables (Low Voltage)

The technical specification for PVC insulated single phase concentric aluminum cables (Low Voltage) shall comply with EPRA standard specification document no. KP1/3CB/TSP/05/004

1.45.22.3.3 Earthing Rods

The technical specification for Earthing Rods and their connectors shall comply with EPRA standard specification document no. KP1/3CB/TSP/06/031-1 (Attached as Appendix 3)

1.45.22.3.4 Low Voltage Fuse Cut-Out

The technical specification for LV fuse cut-out shall comply with EPRA standard specification document no. KP1/6C.1/13/TSP/11/023 and KP1/6C.1/13/TSP/11/022

1.45.22.3.5 Meter Box

The Bidder shall provide a Meter box for each installation (Community Facility) suitable for housing the customer energy meter and withstanding climatic conditions. The design (drawings and technical details) of the Meter box shall be submitted to the employer for approval before manufacture commences.

1.45.22.3.6 Metering system

For customer meters:

- i) On site, meter boxes must be sealable-EPRA standard.
- ii) Customers` contracting data and installation certificates to be availed to EPRA.
- iii) After meter installations, all meters and meter boxes must be sealed with serialized twist tights which conforms with EPRA standards.
- iv) Meter installation technician to fill and submit IIR – Installation inspection report.

1.45.22.3.7 Single-Phase Static Meters for Active Energy

The technical specification for Single Phase Static Meters for active energy shall comply with EPRA standard specification document no. TSP 14.11 (Attached as Appendix 3)

1.45.22.3.8 Current and Potential Transformer Connected Meters

The technical specification for Current and Potential Transformer Connected Meters shall comply with EPRA standard specification document no. KP1/6C/4/1/TSP/14/020

APPENDIX TO GENERAL SPECIFICATIONS OF MATERIALS AND WORKS

The electrical sub-contractor shall comply with the following:-

1. Government Electrical Specifications No. 1 and No. 2.
2. All requirements of Kenya Power Company Limited, and Communications Authority of Kenya (CA).

SECTION V- PARTICULAR SPECIFICATIONS

1.0 LOCATION OF SITE

The site of the rehabilitation works is at West Karachuonyo Water Treatment Plant, West Karachuonyo sub county Kenya.

2.0 DESCRIPTION OF THE WORKS

The works to be carried out under this sub-contract comprise supply, installation, testing and commissioning of the following:-

a) Electrical Works

This shall include Fabrication at factory, Factory Acceptance tests, delivery, installation conduiting, cabling, fittings and accessories.

b) Auxilliary civil works

This shall include rehabilitation of the existing raw water pump house

c) Lightning and Protection

This shall include Copper tape, arrestors, spike and rod, clamps, earth mat/ grid

3.0 MATERIALS FOR THE WORKS

Materials shall be as specified in General Specifications and in the Bills of Quantities of this document which shall be read in conjunction with contract drawings. Alternative materials shall be accepted only after approval by the Project Manager.

4.0 BROCHURES FOR LV PANEL

For consideration and qualification tenderers shall, at their own cost, provide coloured manufacturer's brochures detailing technical literature and specifications where applicable.

5.00 MINIMUM TECHNICAL SPECIFICATION FOR ELECTRICAL FITTINGS

a) MINIMUM TECHNICAL SPECIFICATION FOR LED LIGHT FITTINGS

- Power factor ≥ 0.9
- Operating voltage range 130-300 V ac
- Operating frequency range 45-55 Hz
- Operating hours $\geq 25,000$ hrs
- Colour Temperature ≥ 4000 K
- THD $< 15\%$

Attach technical brochures to access compliance with specification.

SECTION VII- BILLS OF QUANTITIES

Preambles

1. The method of measurement of completed work for payment shall be in accordance with Civil Engineering Standard Methods of Measurement, Fourth Edition (CESMM4).

2. The Site for Construction of West Karachuonyo Water Supply Project -Phase II- Electromechanical Works -Lot II is West Karachuonyo Water Treatment Plant Lake intake point, WTP & Booster pump station in Homa Bay County.

The Contractor shall visit the site and acquaint itself with its nature and position, the nature of the ground, substrata and other local conditions, positions of existing power, water and other services, access roads or any other limitations that might affect his cost or progress. No claim for extras shall be considered on account of lack of knowledge in this respect.

3. The Contractor shall obtain the Project Manager's approval on the siting of all temporary buildings, spoil heaps, temporary access path, and storage of materials. The Contractor shall also obtain the Project Manager approval and direction regarding the use of any materials found on the Site.

4. The drawings used in the preparation of these Bills of Quantities can be inspected at the offices of the Procuring Entity or Procuring Entity's Representative during normal working hours. Two sets of the Working Drawings shall be provided to the contractor but additional copies shall be provided at a cost to be determined by the Engineer.

5. The Contractor shall allow for the payment of all bank charges in connection with the procurement of Bank Guarantees and stamp charges in connection with this contract Agreement.

6. The Contractor shall carry out the various sections of the Works in such an order as the Project Manager May direct. The Procuring Entity reserves the right to occupy the Works by sections on completion provided that such occupation is considered to be both practical and reasonable and will not interfere with the Works. The Contractor shall allow any costs associated with such occupation.

7. The main Contractor will be fully responsible for paying his Sub-Contractor but the Procuring Entity reserves the right in very exceptional circumstances to make such payments direct in the interests of the project where the completion thereof might be jeopardized by any dispute or vicariousness between the Contractor and the Sub- Contractor involve.

8. The Contractor shall complete and deliver the Works in the period inserted in the Form of Tender as his time for completion of the Works from the date for Possession, to be agreed with the Engineer. The Contract Period is presumed to have been calculated making due allowance for seasonal inclement weather conditions. No claim for extension of time due to the normal inclement weather for this area shall be entertained.

9. The Contractor shall, upon receiving instructions to proceed with the Works, draw up a Programme and Progress Chart setting out the order in which the Works are to be carried out, with the appropriate dates thereof. This Chart shall be agreed with the Project Manager and no deviation from the order set out in it will be permitted without the written consent of the Engineer. The Contractor will be responsible for arranging the above Programme with all his sub-Contractors and Specialties. The Contractor shall allow in his rates for carrying out this exercise, and for updating it as required.

10. The Contractor shall arrange for photographs of the Site to be taken by a professional photographer approved by the Engineer. The Photographs shall provide a record of the Site and adjacent are as prior to the commencement of the Works and shall cover such portion of the works in progress and completion as the Project Manager shall direct. All prints shall be full plate size, unmounted, and marked on the reverse side with the date of exposure, identification

reference and brief description. The copyright of all photographs shall be vested in the Procuring Entity. The negatives and four prints from each negative shall be delivered to the Project Manager within two weeks of exposure.

11. Figured dimensions are to be followed in preference to dimensions scaled from the Drawings, but whenever possible dimensions are to be taken on the Site or from the buildings. Before any work is commenced by Sub- Contractors or Specialist Firms, dimensions must be checked on the site comparable dimensions shown on the drawings. The Contractor shall be responsible for the accuracy of such dimensions.

12. Prior to commencement of any work the Contractor is to ascertain from the relevant Authorities the exact position, depth and level of all existing electric cables, waterpipes or other services in the area and he shall make whatever provisions may be required by the Authorities concerned for the support and protection of such services. Any damage or disturbance caused to any services shall be reported immediately to the Architect and the relevant Authority and shall be made good to their satisfaction at the Contractor's expense. Where appropriate the Contractor shall open up the ground in advance of the main work by hand digging, if necessary, to locate precisely the position and details of the services which are likely to affect his operations.

13. The Contractor shall include in his prices for the transport of materials, workmen, etc./, to and from the site of the proposed works, at such hours and by such route as are permitted by the Authorities.

14. The Contractor will be required to make good, at his own expense and damage he may cause to the present road surface and pavements within or beyond the boundary of the Site, during the period of the works. All existing paths, storm water channels, etc., that may be destroyed or damaged during the progress of the Works shall be reinstated by the Contractor to the satisfaction of the Engineer.

15. The Contractor is to allow for complying with all instructions and regulations of the Police Authorities.

16. All water shall be fresh, clean and pure, free from earthly, vegetable or organic matter, acid or alkaline substance in solution. The Contractor shall provide at his own risk and cost all water for use in connection with the Works, (including works of sub-contractors). If need be, he shall make arrangements with the Local Water Authority for the installation of a separate meter for all water used by him throughout the Contract and pay all cost and fees in connection therewith. He shall also provide temporary storage tanks and tubing, etc., as may be necessary, and clear away at completion.

17. The Contractor shall provide all artificial lighting and power for his own use on the Works, (including Sub – Contractor's) including all temporary connections, wiring, fittings, etc., and clearing away on completion. The Contractor shall pay all fees and obtain all permits in connection there with.

18. The Contractor shall constantly keep on the Works a Literate English-speaking Agent or Representative, competent and experienced in the kind of work involved, who shall give his whole time to the superintendence of the works. (Including works of sub – contractors). Such Agent or Representative shall receive on behalf of the Contractor directions and instruction from the Engineer, and such directions and instructions shall be deemed to be given to the contractor in accordance with the Conditions of Contract. The Agent shall not be replaced without the specific approval of the Engineer.

19. The Contractor shall ensure that the safety of his work people and all authorized visitors to the site are protected at all times. In particular, there shall be the proper provision of guard-rails to scaffolding, protection against falling materials, tools on site, dust, nail and other sharp objects. The site shall be kept tidy and clear of dangerous rubbish. The Project Manager shall be empowered to suspend work on site should it be considered this condition is not being observed and no claim arising from such suspension will be allowed.

20. The areas available to the Contractor for work yards, offices and other facilities shall be

directed by the Project Manager and any existing features to remain shall be protected from damage throughout the Contract Period and handed back in good condition when they are vacated at the end of the Contract. If additional areas are required, the contractor shall source them at own cost.

21. The Contractor shall give the Project Manager reasonable notice of the intention to set out or take levels for any part of the Works so that arrangements may be made for checking the work. The accuracy of setting out and leveling shall be within the tolerances specified in the Specifications or on the Drawings. The checking of setting out or leveling by the Project Manager shall not relieve the Contractor of his duties or responsibilities under the Contract.

22. The Contractor must take steps necessary to safe guard and shall be held fully responsible for any damage caused to existing and adjacent property, including buildings that are not a subject of demolition. He shall make good at his own cost damage to persons and property caused there on, and he shall indemnify the Procuring Entity against any loss or claim that may arise.

23. The Contractor shall take such steps and exercise such care and diligence as to minimize nuisance arising from dust, noise or any other cause to the occupiers of the existing and adjacent property. He must provide such temporary and special screens and tarpaulins or gummy bags, hoarding, barriers, warning signs etc. as he considers necessary and sufficient for the protection of the existing and adjacent property and or prevention of nuisance etc. as directed by Engineer.

24. The Contractor's attention is drawn to the standards levy order which was amended on 15th October 1998. Legal notice No.154 of 1998. The Contractor is required to pay a monthly level of 0.2% of his factory price of construction works with effect from January 1999. Tenderer shall allow for this in the build-up of his rates.

25. The Contractor shall provide temporary sheds, offices washrooms, sanitary, accommodation and other temporary buildings for the use of the contractor and sub-contractors, including lighting furniture equipment and attendance.

26. Contractor shall provide/build labor camp sites to be agreed with the Engineer. Labor camps shall be complete with sanitary accommodation and fencing gates.

27. The Contractor must provide the necessary toilet facilities to the requirement and satisfaction of the Health Authorities and maintain the same in a thoroughly clean and sanitary condition and pay all conservancy fees during the period of the Works and remove when no longer required.

28. The Contractor shall provide at his own risk and cost all watching and lighting as necessary to safeguard the Works, Plant and materials against damage and theft.

29. The Contractor shall provide all necessary hoists, tackle, plant, equipment, vehicles, tools and appliances of every description for the due and satisfactory completion of the Works and shall remove the same on completion. All such plant, tools and equipment shall comply with all regulations in force throughout the period of the Contract and shall be altered or adopted during the Contract period as may be necessary to comply with any amendments in or additions to such regulations.

30. Provide, erect and maintain all necessary scaffolding, sufficiently strong and efficient for the due performance of the works, including Sub-Contract Works, provide special scaffolding as required by Sub-Contractors, alter and adopt all scaffolding as and when required during the Works, and remove on completion. No scaffolding is measured here in after and the Contractor must allow in his rates for this.

31. The Contractor shall take all necessary precautions such as temporary fencing, hoarding fans, planked footways, guard-rails gantries screen, etc., for the safe custody of the Works, materials and public protection and adjacent properties.

32. Cover up all and protect from damage, including damage from inclement weather, all finished work and unfixed materials, including that of Sub-Contractors, etc., to the satisfaction of the Project Manager until the completion of the Contract.
33. The Contractor shall, after completion of the works, at his own expense, remove and clear away all surplus excavated demolition materials, plant, rubbish and unused materials and shall leave the whole of the Site and Works in a clean and tidy state to the satisfaction of the Engineer, sheds, camps, etc. Particular care shall be taken to leave clean all floors and windows and to remove all paint and cement all rubbish and dirt as it accumulates. The Contractor is to find his own dump and shall pay all charges in connection there with.
34. Concrete test cubes shall be prepared in a set of three, as described including testing fees, labor and materials, making molds, transport, handling, etc. Allow in your rates for making at least four cubes on each occasion, from different batches; the concrete being taken from the point of deposit.
35. The Contractors shall furnish at the earliest possible opportunity before work commences, and at his own cost, any samples of materials and workmanship that may be called for by the Project Manager for the approval or rejection, and any further samples in the case of rejection, until such samples are approved by the Engineer. Such samples, when approved, shall be the minimum standard for the work to which they apply. The procedure for submitting samples of materials for testing or approval and the method of marking for identification shall be as laid down by the Engineer. The Contractor shall allow in his Tender for such samples and tests, including those in connection with his Sub-Contractors work.
36. The Contractors attention is drawn to the Finance Bill of the year 2000/2001 on withholding tax on contractual payment section 35(7) (i)(ii) which became effective on 1st August 2000. A 3% withholding tax will be applicable to all interim payments for work done in respect of building or civil works. The contractor shall allow for any costs arising resulting there from in the build-up of rates.
37. Blasting will only be allowed with the express permission of the Architect in writing. All blasting operations shall be carried out at the Contractor's sole risk and cost, in accordance with any Government regulations in force for the time being, and any special regulations laid down by the Project Manager governing the use and storage of explosives.
38. The National Construction Authority is a state corporation established under the national construction authority Act No.14 of 2011. The broad Mandate of the Authority is to oversee the construction industry and coordinate its development. The National Construction Authority Regulations 2014 with an effective date of 6th June 2014, regulation 25, - Allow 0.5% of the tender sum/contract sum for construction levy.
39. The Contractor attention is drawn to Finance Bill of 1993 where VAT was introduced in all contracts for construction services. The tenderer is also drawn to VAT Act Cap 476 clause 19(9). The tenderer must allow for VAT 1.19 as instructed elsewhere.
40. The contractor shall allow and pay for all insurance to cover risks and indemnities required Items 17 and 18 of the Conditions of contract and also specified in the Special Conditions of Contract.

BILL OF QUANTITIES

Note : All Rates Quoted are VAT inclusive

WEST KARACHUONYO WATER SUPPLY PROJECT -PHASE II- ELECTROMECHANICAL WORKS - LOT II		
BILL OF QUANTITIES		
GRAND SUMMARY		
No.	Item Description	Amount (Ksh)
1	BILL NO. 1; PRELIMINARY AND GENERAL ITEMS	-
2	BILL NO. 2;RAW WATER PUMP STATION EM WORKS	-
3	BILL NO. 3; CLEAR WATER PUMP STATION EM WORKS	-
4	BILL NO. 4; BOOSTER PUMP STATION EM WORKS	-
5	BILL NO.5 :REHABILITATION OF INTAKE, TREATMENT WORKS AND BOOSTER STATION	-
6	SUB-TOTAL (A)	-
7	ADD 5% CONTINGENCIES	-
8	SUB TOTAL (B)	-
9	ADD 0.03% CAPACITY BUILDING LEVY	-
10	TOTAL	-

WEST KARACHUONYO WATER SUPPLY PROJECT -PHASE II- ELECTROMECHANICAL WORKS - LOT II

BILL NO. 1 PRELIMINARY AND GENERAL ITEM

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Kshs)	AMOUNT (Kshs)
-	-				
	<u>CLASS A: GENERAL ITEMS.</u>				
-	-				
	<u>A1: Contractual Requirements</u>				
A120.1	Allow for provision of Insurance of Works in accordance with Clause 18 of the General Conditions of Contract.	sum	1		-
A120.2	Allow for provision of Third Party Insurance (including Employer's Property) all in accordance with Clause 18 of the General Conditions of Contract.	sum	1		-
A120.3	Allow for provision of Insurance against Accident to Workmen in accordance with Clause 18 of the General Conditions of Contract.	sum	1		-
	<u>A22: Vehicles</u>				
A221.1	Allow a P.C. Sum of Kshs. 500,000/- Maintaining a project vehicle to be used by the Resident Engineer and his staff. The running cost above to include for vehicle insurance, fuels, lubricants, servicing, hire and any other related running costs	PC Sum	1	500,000.00	500,000
A221.2	Add% for profit, administration, attendance upon, overheads, etc. for Items A221.1 and A221.1 (b) above.	%			-
	<u>Communication</u>				
A222.1	P.C. Sum of Kshs. 50,000 for provision of communication facilities and services (telephone, email, fax, postal, courier services, etc.) for the Project / Site Offices and the Supervision Staff.	month	10	5,000.00	50,000
A222.2	Add% for profit, administration, attendance upon, overheads, etc. for Item A222.1 above.	%			-
A250.2	Allow provision for Inspection and Witness Testing of centrifugal Pumps, Solar Modules and Control Equipment at manufacturer's premises by the Employer, Engineer and their representatives.	sum	1	200,000.00	200,000
A260	Test Running of the Scheme during Commissioning of the project; in accordance with Clause 137 of the Technical Specifications.	month	1	100,000.00	100,000
A261	Allow provision for Operator training and submission of O&M Manuals	LS	1	50,000.00	50,000
A261.1	Add% for profit, administration, attendance upon, overheads, etc. for Items A250.2, A260 & A261 above.	%			-
A279.1	Establishment of Project Signboards, including removal after completion of project.	nr	2		-
	<u>A3: Method Related Charges.</u>				
-	-				

A3	Contractor's Camp and Storage Yard: Allow for establishment of the Contractor's Camp(s), Offices, Storage Yard and other facilities including mobilization, demobilization and removal on Completion. Include for all equipment, temporary measures, machines, tools, materials, facilities for workers, water and electricity supply etc. all as specified for execution of the Works, for the entire Contract Period. Note: The Employer has no <u>available land</u> to offer for Contractor's Camp, storage of materials and preparation of concrete etc. Identification and procurement of suitable area of land for Contractor's Camp whether rented or purchased is the responsibility of the Contractor. <u>Details of proposed land where the Contractor will establish his camp(s) to be submitted with the Bid.</u>	sum	1		-
	<u>A4: Provisional Sums.</u>				
	-				
A420.5	Allow Provisional Sum of Kshs. 300,000 to cover costs of monthly site meetings	month	10	30,000.00	300,000
A420.6	Allow a Provisional Sum of KShs.500,000 for project supervision by CIT or any other as shall be directed by the Engineer / Employer	Month	10	50,000.00	500,000
A420.7	Add% for profit, administration, attendance upon, overheads, etc. for Items A420.5 and A420.6 above.	%			
	TOTAL BILL 1 CARRIED TO SUMMARY SHEET (VAT Inclusive)				

BILL NO 2: ELECTROMECHANICAL WORKS FOR RAW WATER PUMPING STATION

ITEM	DESCRIPTION	UNIT	QTY	RATE KES	AMOUNT KES
	RAW WATER HIGH LIFT PUMP SET AND ASSOCIATED ACCESSORIES				
	Supply and Deliver to site, install, test and commission the following Electromechanical Equipment, Solar Farm & Accessories				
	Raw Water Pump & Motor				
2.1.1	3 No. (2No.duty and 1 nr. standby) Hybrid powered High Lift multistage centrifugal pump-sets discharging 120 m ³ /hr at a total pressure head of 175 metres. Exposure class IP 55, Insulation Class F. Rate to include Heavy duty MS Base frame	Nr	3		-
	Main LV Board				
2.1.2	Free standing Main Switchboard, Modular Assembly, Form 2B construction, comprising ABB Electric components to comply with IEC 60439 and KSIE 60439 standards. Incomer: 1No. 800A 4 pole; 1No. Digital multimeter type MIM 20 complete with CT's and Control MCB's to indicate Voltage, Current KW,KVA, PF; 1No. Phase Indication lamps, LED Type Red, Yellow & Blue; 1No. Set Busbar rated 800A. External AMF: 1 Set Busbar to connect AMF panel for future Backup Genset rated 320KVA. Outgoing: 1No. MCCB 625A 4Pole – To dual Power Board with busbar Pad to connect 1R-120mm cable; 1No. MCCB 625A 4Pole –Future, 1No. MCCB 63A 4Pole- To Building load; 2No. Spare Spaces; PFC Bank 62.5KVAR to maintain 0.94PF; Free standing 62.5Kvar Power Factor Correction bank, Modular Assembly, Form 1B, IP32 comprising Dry Type ABB breaker & Contactor, Self healing Capacitors to IEC 831 c/w switching contactors, PFC regulator & control breakers.Earthing system shall be TN-S.Rate to include appropriately sized AC voltage stabilizer	LS	1		-
	Dual power LV Board				
2.1.3	Approved Dual/Hybrid Power supply control panel incorporating Mains & Solar power (Grid:3x415 Vac, Solar panel: 800Vdc) with Solar as the main power source. The pumping system shall control and monitor the High lift pump incorporating a dry run protection, overload and over temperature and short circuit protection with integrated MPPT to include provisions for remote control, data logging and protection against reverse polarity via HMI system. The starter shall have on/off switch, status Indicator lamps (ON, standby, OFF). It shall have hybrid capability with option of mains grid power/generator and DC solar power. Earthing system shall be TN-S. Rate to include power supply cabling to the pumps, all accessories & appropriately sized DC voltage stabilizer	Nr.	1		-
2.1.4	75kW 415VAC hybrid solar inverter as VLT AQUA Drive or approved equivalent Chasis Mounted on the Dual Power LV Board	Nr	3		-
	Power Cabling				
	<i>All cabling includes supply, excavate, lay,install ,backfill with soft bed material & test with glands, lugs cable ties, cable trays as required</i>				

	a) Cabling to 3 No. Raw Water Pumps				
2.1.5	3x120 mm ² 4 core copper	M	90		-
2.1.6	3 x 2.5 mm ² 2 core cable	M	90		
2.1.7	3 x 2.5 mm ² 4 core cable to start/stop push button stations	M	90		
	b) DC Cabling from Solar Farm Combiner boxes to Dual LV Board				
2.1.8	1x70 mm ² 1.1kV DC 3 core AL/XLPE/PVC with PE, Armored, Underground Rated	M	300		-
	c) Pump House CU				
2.1.9	6 mm ² 3 core cable	M	30		
	General Auxilliaries				
2.1.10	DN100 Liquidtight flexible non metallic tubing for solar cable protection, Type LFNC-C, UV resistant & waterproof. Rate to include expandable foam at tubing ends	M	300		
2.1.11	DN100 HDPE Schedule 40 electrical conduit. Rate to include expandable foam at tubing ends	M	200		
2.1.12	300mm wide Galvanised steel over head cable rack/tray around the pump house perimeter as directed by the engineer.	m	20		-
2.1.13	Earthing: 4Nox1.2 metre copper earth electrode of internal size 250x 250x250mm depth. The cost shall be inclusive of the materials and construction of the masonry chamber with perforated concrete top cover. The earth electrode shall include wiring of switch gear bonding with a cable of 4.0mm ² of about 5m length.	Ls	1		-
2.1.14	Allow for provision of a priming bypass for all the pumps	Ls	1		-
2.1.15	Allow for provision of Suction & delivery pipework connection to each pump. Rate to include all necessary fittings, pressure gauges & water meter	LS	1		-
2.1.16	Allow for all other necessary electrical fittings, cabling and ancilliaries	Ls	1		-
2.1.17	Concrete Marker Posts marked "HV" for power lines	Nr	10		
	SOLAR FARM				
2.1.17	62 KWp Solar Farm comprising Monocrystalline PV solar modules, to match existing installed Solar Farm at Lake Intake Point, of appropriate capacity to power solar hybrid pumping inverters for the various installed High Lift pump motor as well as all other accessories to complete the system. Provide the information data sheet for Engineers approval. This should include 12 years product and 25 year linear warrant and how implement warranty. The solar farm is an offgrid installation but with complementary KPLC mains. Rate to include provision of monitoring system with GUI to operate/control/ audit generation & utilization of both solar energy & KPLC	W	62000		

2.1.18	Feeder Pillars/combiner boxes for the Solar Farm in 2.1.17 above. Provide the technical specifications data sheet for Engineers approval. This should include 2 years product warranty .	LS	1		-
2.1.19	Appropriate AC/DC cables, cable management and switch gear as per product data sheet and technical specifications. Provide cable sizing details and technical specifications data sheet for Engineers approval	LS	1		-
2.1.20	Aluminium Solar PV Array structure to carry Solar modules supplied in Bill item 3.1.11 above, 2m on the highest side and 1.8 m on the lowest side. Allow for concrete class 15/20 for foundation bases. The minimal depth of foundation n.e 1.2m from the ground surface.	LS	1	-	-
2.1.21	10.00 mm ² Single Copper cable for earthing complete with 4 No. x12.5mm diameter x 1200 mm long copper clad rod, couplings and clamp installed in a 300mmx300mmx300mm earth pit as fuse or equal and approved and covered with 'HATARI' Tiles with 10 metres of cable	Item	1		-
Lighting points at the raw water pump house					
<i>Supply, deliver to site, instal, test & Commission</i>					
2.1.22	Lighting points wired in 2.5 mm ² SC CU cables drawn in concealed 20mm diameter HG P.V.C conduits for one way switching	Nr	5		-
Security Flood lighting					
2.1.23	100 watts insulation class IP65 Solar flood light 3000k lumens as Philips/Thorn on a 6m High Mast(Position as designated by the Engineer). Rate to include installation of 6m High DN100 GS mast	nr	20		-
lighting Fixtures					
Lighting fittings complete with bulbs or tubes as follows:-					
2.1.24	a) 1200mm, 2x 36 Watts LED batten fluorescent fitting as THORN or approved equivalent.	nr	4		-
Socket Outlets and other power points					
2.1.25	13 Amps. Socket outlet points wired ring comprising of 3x2.5 mm sq. single core PVC copper cables drawn in concealed 25mm HG PVC conduits including all accessories.	Nr	2		-
2.1.26	13 Amps. Moulded plate switched socket Twin outlet with neon indicator as BG, CLIPSAL or approved equivalent	Nr	2		-
2.1.27	Allow for all other additional fittings i.e. junctions, wall sockets, wall switches, cabling and Consumer unit	LS	1		-
2.1.28	32 Amps 3 Phase industrial socket wired in 10sq 3C Cu Single cables drawn in concealed 50mm HG PVC conduits including all accessories & supplied from 64A MCCB,	Item	1		-
TOTAL BILL 2 CARRIED TO SUMMARY PAGE (VAT Inclusive)					-

WEST KARACHUONYO WATER SUPPLY PROJECT -PHASE II- ELECTROMECHANICAL WORKS - LOT II

BILL NO 2.1: ELECTROMECHANICAL WORKS FOR CLEAR WATER PUMPING MAIN

ITEM	DESCRIPTION	UNIT	QTY	RATE KES	AMOUNT KES
	CLEAR WATER HIGH LIFT PUMP SET AND ASSOCIATED ACCESSORIES				
	Supply and Deliver to site, install, test and commission the following Electromechanical equipment & Solar Farm Accessories				
	High Lift Pump & Motor				
3.1.1	2 No. (duty and standby) Hybrid powered High Lift multistage centrifugal pump-sets discharging 200 m ³ /hr at a total pressure head of 80 metres. Exposure class IP 55, Insulation Class F. Rate to include Heavy duty MS Base frame	Nr	2		-
	Main LV Board				
3.1.2	Free standing Main Switchboard, Modular Assembly, Form 2B construction, comprising ABB Electric components to comply with IEC 60439 and KSIE 60439 standards. Incomer: 1No. 400A 4 pole; 1No. Digital multimeter type MIM 20 complete with CT's and Control MCB's to indicate Voltage, Current KW,KVA, PF; 1No. Phase Indication lamps, LED Type Red, Yellow & Blue; 1No. Set Busbar rated 400A. External AMF: 1 Set Busbar to connect AMF panel for future Backup Genset rated 110KVA. Outgoing: 1No. MCCB 200A 4Pole – To dual Power Board with busbar Pad to connect 1R-50mm cable; 1No. MCCB 200A 4Pole –Future, 1No. MCCB 63A 4Pole- To Building load; 2No. Spare Spaces; PFC Bank 30KVAR to maintain 0.94PF: Free standing 30Kvar Power Factor Correction bank, Modular Assembly, Form 1B, IP32 comprising Dry Type ABB breaker & Contactor, Self healing Capacitors to IEC 831 c/w switching contactors, PFC regulator & control breakers. Earthing system shall be TN-S. Rate to include appropriately sized AC voltage stabilizer	Nr	1		-
	Dual Power LV Board				
3.1.3	Approved Dual/Hybrid Power supply control panel incorporating Mains & Solar power (Grid:3x415 Vac, Solar panel: 800Vdc) with Solar as the main power source. The pumping system shall control and monitor the High lift pump incorporating a dry run protection, overload and over temperature and short circuit protection with integrated MPPT to include provisions for remote control, data logging and protection against reverse polarity. The starter shall have on/off switch, status Indicator lamps (ON, standby, OFF). It shall have hybrid capability with option of mains grid power/generator and DC solar power . Earthing system shall be TN-S. Rate to include power supply cabling to the pumps, all accessories & appropriately sized DC voltage stabilizer	Nr.	1		-
3.1.4	60kW 415VAC hybrid solar inverter as VLT AQUA Drive or approved equivalent Chassis Mounted on the Dual Power LV Board	Nr	2		-
	Ancillary Supplies (General)				
3.1.5	50 mm ² 4 core copper armoured cable from pumps to control panel c/w glands and all accessories	M	50		-

3.1.6	300mm wide Galvanised steel over head cable rack/tray around the pump house perimeter as directed by the engineer.	m	30		-
3.1.7	Earthing: 4no.x1.2 metre copper earth electrode of internal size 250x 250x250mm depth. The cost shall be inclusive of the materials and construction of the masonry chamber with perforated concrete top cover. The earth electrode shall include wiring of switch gear bonding with a cable of 4.0mm ² of about 5m length.	LS	1		-
3.1.8	Allow for provision of a priming bypass for all the pumps	LS	1		-
3.1.9	Allow for provision of Suction & delivery pipework connection to each pump. Rate to include all necessary fittings, pressure gauges & water meter	LS	1		-
3.1.10	Allow for all other necessary electrical fittings, cabling and ancillaries	LS	1		-
SOLAR FARM					
3.1.11	124 KWp Solar Farm comprising Monocrystalline PV solar modules of appropriate capacity to power solar hybrid pumping inverters for the various installed High Lift pump motor as well as all other accessories to complete the system. Provide the information data sheet for Engineers approval. This should include 12 years product and 25 year linear warrant and how implement warranty. The solar farm is an offgrid installation but with complementary KPLC mains. Rate to include provision of monitoring system with GUI to operate/control/ audit generation & utilization of both solar energy & KPLC	W	124000		-
3.1.12	Feeder Pillars/combiner boxes for the Solar Farm in 3.1.11 above. Provide the technical specifications data sheet for Engineers approval. This should include 2 years product warranty .	LS	1	-	-
3.1.13	Appropriate AC/DC cables, cable management and switch gear as per product data sheet and technical specifications. Provide cable sizing details and technical specifications data sheet for Engineers approval	LS	1	-	-
3.1.14	Aluminium Solar PV Array structure to carry Solar modules supplied in Bill item 3.1.11 above, 2m on the highest side and 1.8 m on the lowest side. Allow for concrete class 15/20 for foundation bases. Minimum depth of foundation n.e 1.2m from the ground surface.	LS	1	-	-
Lighting points					
3.1.15	Allow for rehabilitation of electromechanical works at the existing Pump house	Item	1		-
Security Flood lighting					
3.1.16	100 watts insulation class IP65 Solar flood light 3000k lumens as Philiphs/Thorn (Position as designated by the Engineer). Rate to include installation of 6m High DN100 GS mast	nr	5		-
TOTAL BILL 3 CARRIED TO SUMMARY PAGE (VAT Inclusive)					
					-

WEST KARACHUONYO WATER SUPPLY PROJECT -PHASE II- ELECTROMECHANICAL WORKS - LOT II

BILL NO 4: ELECTROMECHANICAL WORKS FOR BOOSTER STATION

ITEM	DESCRIPTION	UNIT	QTY	RATE KES	AMOUNT KES
	BOOSTER STATION PUMP SET AND ASSOCIATED ACCESSORIES				
	Supply and Deliver to site, install, test and commission the following Electromechanical equipment & Solar Farm Accessories				
	KPLC Power Supply				
4.1.1	Allow Provisional sum KES.2,500,000 for altering/New supply to new Pump house & booster station	Item	1	2,500,000.0 0	2,500,000
4.1.2	Add% for profit, administration, attendance upon, overheads, etc. for Items 4.1.1 above.	%			-
	Booster Pump & Motor				
4.1.3	2no. (duty and standby) Hybrid powered High Lift multistage centrifugal pump-sets discharging 90 m ³ /hr at a total pressure head of 150 metres. Exposure class IP 55, Insulation Class F. Rate to include Heavy duty MS Base frame	Nr	2		-
	Main LV Board				
4.1.4	Free standing Main Switchboard, Modular Assembly, Form 2B construction, comprising ABB Electric components to comply with IEC 60439 and KSIE 60439 standards. Incomer: 1No. 400A 4 pole; 1No. Digital multimeter type MIM 20 complete with CT's and Control MCB's to indicate Voltage, Current KW,KVA, PF; 1No. Phase Indication lamps, LED Type Red, Yellow & Blue; 1No. Set Busbar rated 400A. External AMF: 1 Set Busbar to connect AMF panel for future Backup Genset rated 110KVA. Outgoing: 1No. MCCB 200A 4Pole – To dual Power Board with busbar Pad to connect 1R-50mm cable; 1No. MCCB 200A 4Pole –Future, 1No. MCCB 63A 4Pole- To Building load; 2No. Spare Spaces; PFC Bank 30KVAR to maintain 0.94PF: Free standing 30Kvar Power Factor Correction bank, Modular Assembly, Form 1B, IP32 comprising Dry Type ABB breaker & Contactor, Self healing Capacitors to IEC 831 c/w switching contactors, PFC regulator & control breakers. Earthing system shall be TN-S. Rate to include appropriately sized AC voltage stabilizer	Nr	1		-
	Dual power LV Board				
4.1.5	Approved Dual/Hybrid Power supply control panel incorporating Mains & Solar power (Grid:3x415 Vac, Solar panel: 800Vdc) with Solar as the main power source. The pumping system shall control and monitor the High lift pump incorporating a dry run protection, overload and over temperature and short circuit protection with integrated MPPT to include provisions for remote control, data logging and protection against reverse polarity via HMI interface. The starter shall have on/off switch, status Indicator lamps (ON, standby, OFF). It shall have hybrid capability with option of mains grid power/generator and DC solar power and Power Factor Corection Unit to maintain a PF of 0.94. Earthing system shall be TN-S. Rate to include power supply cabling to the pumps, all accessories & appropriately sized DC voltage stabilizer	Nr.	1		-

4.1.6	60kW 415VAC hybrid solar inverter as VLT AQUA Drive or approved equivalent Chassis Mounted on the Dual Power LV Board	Nr	2		-
	Ancilliary Supplies (General)				
4.1.7	50 mm ² 4 core copper XPPE/SWA/PVC armoured cable, 2 runs, from pumps to control panel c/w glands and all accessories	M	50		-
4.1.8	2.5 mm ² 4 core copper PVC/SWA/PVC armoured cable from pumps to control panel c/w glands and all accessories	M	50		-
4.1.9	300mm wide Galvanised steel over head cable rack/tray around the pump house perimeter as directed by the engineer.	m	20		-
4.1.10	Earthing: 4no x 1.2 metre copper earth electrode of internal size 250x 250x 250mm depth. The cost shall be inclusive of the materials and construction of the masonry chamber with perforated concrete top cover. The earth electrode shall include wiring of switch gear bonding with a cable of 4.0mm ² of about 5m length.	Ls	1		-
4.1.11	Allow for provision of a priming bypass for all the pumps	Ls	1		-
4.1.12	Allow for provision of Suction & delivery pipework connection to each pump. Rate to include all necessary fittings, pressure gauges & water meter	LS	1		-
4.1.13	Allow for all other necessary electrical fittings, cabling and ancillaries	Ls	1		-
	SOLAR FARM				
4.1.14	124 KWp Solar Farm comprising Monocrystalline PV solar modules of appropriate capacity to power solar hybrid pumping inverters for the various installed High Lift pump motor as well as all other accessories to complete the system. Provide the information data sheet for Engineers approval. This should include 12 years product and 25 year linear warrant and how implement warranty. The solar farm is an offgrid installation but with complementary KPLC mains. Rate to include provision of monitoring system with GUI to operate/control/ audit generation & utilization of both solar energy & KPLC	W	124000		-
4.1.15	Feeder Pillars/combiner boxes for the Solar Farm in 4.1.14 above. Provide the technical specifications data sheet for Engineers approval. This should include 2 years product warranty .	LS	1	-	-
4.1.16	Appropriate AC/DC cables, cable management and switch gear as per product data sheet and technical specifications. Provide cable sizing details and technical specifications data sheet for Engineers approval	LS	1	-	-
4.1.17	Aluminium Solar PV Array structure to carry Solar modules supplied in Bill item 4.1.12 above, 2m on the highest side and 1.8 m on the lowest side. Allow for concrete class 15/20 for foundation bases. Minimum depth of foundation n.e 1.2m from the ground surface.	Nr	1	-	-
	Lighting points at the Booster pump house				
	<i>Supply, deliver to site, instal, test & Commission the following</i>				

	<i>lighting fixtures</i>				
4.1.18	Lighting points wired in 2.5 mm ² SC CU cables drawn in concealed 20mm diameter HG P.V.C conduits for one way switching	Nr	5		-
	Security Flood lighting				
4.1.19	100 watts insulation class IP65 Solar flood light 3000k lumens as Philiphs/Thorn (Position as designated by the Engineer). Rate to include installation of 6m High DN100 GS mast	nr	10		-
	lighting Fixtures				
	Lighting fittings complete with bulbs or tubes as follows:-				
4.1.20	a) 1200mm, 2x 36 Watts LED batten fluorescent fitting as THORN or approved equivalent.	nr	2		-
	Socket Outlets and other power points				
4.1.21	13 Amps. Socket outlet points wired ring comprising of 3x2.5 mm sq. single core PVCII copper cables drawn in concealed 25mm HG PVC conduits including all accessories.	Nr	2		-
4.1.22	13 Amps. Moulded plate switched socket Twin outlet with neon indicator as BG, CLIPSAL or approved equivalent	Nr	2		-
4.1.23	Allow for all other additional fittings i.e. junctions, wall sockets, wall switches, cabling and Consumer unit	LS	1		-
4.1.24	Concrete Marker Posts marked "HV" for power lines	Nr	4		
	Auxilliary Works				
4.1.25	Allow for concrete rehabilitation works on all the pump houses(Raw water, Treated water & Booster station) for wall entry & exit of pipework & electrical cabling	LS	1.00		
	TOTAL BILL 4 CARRIED TO SUMMARY PAGE SHEET(VAT Inclusive)				-

BILL NO.5 :REHABILITATION OF INTAKE, TREATMENT WORKS AND BOOSTER STATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				Kshs.	Kshs.
	ACCESS ROAD TO INTAKE				
5.01	Clear site and remove debris and trashes for the Access road 4m wide. The rate to include spot gravelling of potholes to make the road accessible.	m	520		-
5.02	Construct a concrete Sleeve for the existing DN 150 Steel Pipeline at the road crossing. The rate to include reinstatement by gravelling over the road crossing	m	6		-
5.03	Provide, fabricate and install fencing (chainlink, concrete posts and barbed wire at interval of 3m and barbed wire of strands @ 300mm spacing at the Intake	m	150		-
5.04	Provide, fabricate and install double Steel Gate with single passage gate within the main gate and install at the locations specified by the Engineer.	nr	1		-
5.05	Supply, fabricate and install steel anchorage columns Square tubes of 150 x150 and 2mm thickness as columns to the Intake Platform	m	80		-
5.06	Supply and install grated steel plate with holes for drainage over the steel columns fixed by bolts to the columns and prepainted with appropriate and approved water resistant paints.	m ²	20		-
5.06	Allow for works under water (atleast 8m depth) taking all safety consideration for workers and operations of the water supply during the works	LS	1		-
5.07	Supply and install guard rail comprising square tubes of DN 50 and square tubes of 60mmx 60mmx 2.5mm	m	80		-
	INTAKE PUMP HOUSE				
	The rate to include supply, fabricate to fit,install and test				
5.02	DN280 Flanged Steel Pipeline 4m	No.	2		-
5.03	DN280 Flanged Steel Pipeline 4m	No.	2		-
5.04	DN280 Double Flanged Long 90degree Bend	No.	2		-
5.05	Supply and install foot valves, DN 280	No.	2		-
5.06	Supply and Install Non Return Valves-DN 250.	No.	1		-
5.07	Supply all material and construct a 1m x 0.5m x 1m Reinforced Concrete thrust block at the Non Return Valve	No.	2		-
5.08	DN280 All Flanged Sluice Valve	No.	2		-
5.09	DN280 Flanged Adapter	No.	4		-
5.10	DN200 "Helix" Water Meter complete with all gasket bolts etc. Rate to include for all associated fittings including 2no reducers	No.	1		-
	PAGE TOTAL CARRIED TO SECTION COLLECTION SHEET				-

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				Kshs.	Kshs.
	Auxilliary Works- Masonry, Paints and Electrical				
5.11	Repair the Plinth Areas around the pumps by screeding and sealing the pit spots to line,level and bevel.	m ²	12		-
5.12	Hack the pump house floor and screed with 40mm thick concrete.	m ²	84		-
5.13	Supply and apply 3 coats of paints to the walls including wood preservative to the timber trusses and girders	m ²	840		-
5.14	Supply and apply 2 double epoxy paint to the pump plinths, mortors and the manifold within the pump house.	LS	1		-
5.15	Repair the windows by replacing the window louvers and wiremesh (support and fine messh) for ventillation and prevention of insects ingress into the pump house	m ²	8		-
5.16	Supply and install translucent iron sheets gauge 26, 2m long on the roofing to enhance the lighting within the pump house. The rate to include careful removal of the existing iron sheets and repair of trusses that may be affected during the works.	No.	4		-
	WATER TREATMENT WORKS				
	Site Clearance				
5.17	Clear site of all the bushes, weeds and debris including removal of boulders and refilling of trenches within the site. Rate to include disposal of the cleared debris.	Ha	1		-
5.18	Demolish the unused Reinforced concrete structures and dispose the debris as instructed by the Engineer.	m ³	185		-
5.19	Supply paint (in 3 coats) all the external surfaces of the buildings; administrative house, residential house, pump house, etc. The rate to include painting of fascia boards and the gate	m ²	454		-
	Chemical House -2No				
5.20	Supply all pipe accessories and fittings and refit to connect the chemical tanks already installed.	No.	4		-
5.21	Repair the ceiling board and paint the chemical house with corrosive resistant paints of approved colours in 3 layers. The rate to include sealing the leaking pints on the roof with bituminous roof sealant.	m ²	80		-
5.22	Construct a timber platform of 1m x2m x0.5m. The timber shall be of minimum thickness 25mm thick.	No.	2		-
	Inlet Channel				
5.23	Raise the height of the Inelt channel by hacking to expose steel reinforcements and fix Reinforcements of T12 and links of T8 and Concrete with RC Class 25/20. Rate to include formworks and supports to give fair finish surface.	m ³	3		-
	PAGE TOTAL CARRIED TO SECTION COLLECTION SHEET				-

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				Kshs.	Kshs.
	Elevated Tank				
5.24	Provide and install the graduated level indicator to the tank	No.	1		-
5.25	Provide and install ball valve, DN 150 for flow. The rate to include all accessories nad fittings	Nr	1		0
5.26	Allow for water tight testing the tank with water for 24 hours dead storage to check for leaks and repair by sealant.	LS	1		0
5.27	Allow for disinfection of the tank with appropriate disinfectant-Hydropchlorite based as approved by the Engineer	LS	1		0
	Floculation Chamber				
5.28	Repair the damaged walls of the chamber including cement slurry.The rate to include repairs on the walls of the chambers including edges.	m ²	120		-
	Sedimentation Tank				
5.29	Repair to the surfaces of the tanks by light concrete works and cement slurry.	m ²	74		-
5.30	Supply, fabricate, install and apply 3 paint coats to the Steel ballustrade, guardrail and handrails. The handrills shall be RHS - 50mmx25mm x 1.5mm of 3 strands.	m	120		-
	Filters				
5.31	Repairs the surfaces of the tfilters by light concrete works and cement slurry.	m ²	48		-
5.32	Supply, fabricate, install to the Steel ballustrade, guardrail and handrails. The handrills shall be RHS - 50mmx25mm x 1.5mm of 3 strands.	m	60		-
5.32	Paint the ballustrade and the handrailsl with three coats of paints	m	60		-
5.32	Remove the disused filter media and dispose as directed by the Engineer.Repair the filtration pipes including the nozzles.Supply and install new filter media of graded sand and gravel and rewash to remove the debris and silt and install in layers as inspected and approved by the Engineer	m ³	64		-
	Filter Gallrey				
5.33	Dismantle, repair and re-align joints of DN 300 flanged Manifold. The repair includes supply of Bolts and rubber gaskets of not less than 3mm including touch painting of the pipeworks after completion.	No.	8		-
5.37	Repair the Screeding on the floor	m ²	96		-
5.38	Supply, Fabricate and install steel guard rail of RHS 40mm Dia at the Filter gallrery and apply 3 coats of paint as directed by the Engineer	m	36		-
5.39	Supply, Fabricate and install a ladder of 2.5m high fastened to the two levels of floors	LS	1		-

5.4	Supply paint and paint the Internal Walls including Ceiling of the Filter gallery Room	m ²	38		-
5.41	Supply and install all materials and cables for lighting the Filter Gellery. The lighting shall be 2 floursecent tubes of 2 feet.	No.	2		-
5.41	Excavate , dismatle and re-align the wastewater flanged steel pipe-DN 300 across the Filter gallery wall. The realignment to include supply and installation of gaskets (3mm thick), Bolts,etc	No.	2		-
	PAGE TOTAL CARRIED TO SECTION COLLECTION SHEET				-

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				Kshs.	Kshs.
	Contact Tank				
	Evacuate the tank and desluge the content of the tank, and pressure clean the tank floor clear of any mud or debris.				
	Rapair the walls of the tank with water sealant coat of double layer approved epoxy resin coat to prevent leakages.				
	Inlet and Outlet Pipes				
5.42	Hack the walls of the RC Tanks and remove the Inlet pipes and weld Stop/anchor plate of 2mm thick of 500Dia around the Pipes.	No	8		-
5.43	Supply and install formwork and all materials around the Inlet points and concrete with Class 25/20 both inside and outside.	m ³	8		-
5.44	Hack the floor of the contact tank, remove the debris and clean out the surfaces with clean water.Repairing leaks on the base of the contact tank by concreting a new seal of 50mm thick concrete with water proof cement and a double coat of approved Epoxy Resin coat to mitigate seepage and leakages.	m2	184		
5.44	Applying waterproofing solution on both slab and wall using Master Seal 501 or equivalent before application of Epoxy.	m2	345		
5.44	Supply and Install DN200 "Helix" Water Meter complete with all gasket bolts etc. Rate to include for all associated fittings	No.	1		-
	Wash Out/Overflow Fittings				
5.45	Excavate, Supply and Install and Backfilll DN 250 UPVC backwash /Overflow Pipe	m	40		-
5.46	Supply all materials and repair the leakage around the Valve and junction chambers around the Contact Tank	No.	6		-
5.47	Suply all material and construct 1.2 x1.2 x 1m Valve Chamber and Meter Chamber for the Gravity Main from the Clear Water Tank)	No.	2		-
5.48	Allow a sum of Kshs 2,500,000 for miscellenous works within the Water Treatment Plant to be expended as directed by the Engineer	LS	1	2,500,000	2,500,000.00
	Scour Fittings				
5.49	DN200Flanged Spigot 90°bend	No.	2		-
5.50	DN200 Double Flanged Pipe Piece 1m long	No.	1		-
5.51	DN200 All Flanged Sluice Valve	No.	1		-
5.52	DN200 Flanged Adapter	No.	1		-
5.53	DN200Flanged Spigot Pipe Piece 1m long	No.	1		-
	PAGE TOTAL CARRIED TO SECTION COLLECTION SHEET				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				Kshs.	Kshs.
	BOOSTER PUMP HOUSE				
	The Works here to include all Excavations, preparations, installations, fittings, realignments and concrete works and backfilling and paint works as Major Repairs/Replacements				
5.54	Supply and Install HDPE DN 200 pipe connecting the Clear Water Tank and the pump House	m	64		-
5.55	DN200 All Flanged 90° bend	No.	4		-
5.56	DN200 Flanged Spigot Pipe Piece 2 long	No.	1		-
5.57	Supply and Install Non Return Valve (NRV) DN 100	No.	2		-
5.58	Supply Epoxy paint and paint the Baseplate of the Pumps. The rate to include fixing of the holding bolts	No.	2		-
5.59	Repair the Pump Platforms and plates including floor screedings and finishing	m ²	36		-
5.60	Supply and paint the inside and outside walls, doors and windows of the pump house	m ²	154		-
5.61	DN75 Flanged Spigot Pipe Piece 1m long	No.	1		-
	100 m3 Masonry Tank				
	Rate to include all excavation works, fittings, accessories, and backfilling				-
5.62	Supply and install DN 200 GI flanged GI pipe	m	30		-
5.63	Supply and install DN 200 Valves	No.	2		-
5.64	Replace scour pipe, DN 200 UPVC Class E	m	60		-
	PAGE TOTAL CARRIED TO SECTION COLLECTION SHEET				-

PART III ~ CONDITIONS OF CONTRACT AND CONTRACT FORMS

SECTION VIII - GENERAL CONDITIONS OF CONTRACT

These General Conditions of Contract (GCC), read in conjunction with the Special Conditions of Contract (SCC) and other documents listed therein, should be a complete document expressing fairly the rights and obligations of both parties.

These General Conditions of Contract have been developed on the basis of considerable international experience in the drafting and management of contracts, bearing in mind a trend in the construction industry towards simpler, more straightforward language.

The GCC can be used for both smaller admeasurement contracts and lump sum contracts.

General Conditions of Contract

A. General

1. Definitions

1.1 Bold face type is used to identify defined terms.

a) **The Accepted Contract Amount** means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.

b) **The Activity Schedule** is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump sum contract. It includes a lump sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.

c) **The Adjudicator** is the person appointed jointly by the Procuring Entity and the Contractor to resolve disputes in the first instance, as provided for in GCC 23.

d) **Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid.

e) **Compensation Events** are those defined in GCC Clause 42 hereunder.

f) **The Completion Date** is the date of completion of the Works as certified by the Project Manager, in accordance with GCC Sub-Clause 53.1.

g) **The Contract** is the Contract between the Procuring Entity and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below.

h) **The Contractor** is the party whose Bid to carry out the Works has been accepted by the Procuring Entity.

i) **The Contractor's Bid** is the completed bidding document submitted by the Contractor to the Procuring Entity.

j) **The Contract Price** is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.

k) **Days** are calendar days; months are calendar months.

l) **Day works** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.

m) **A Defect** is any part of the Works not completed in accordance with the Contract.

n) **The Defects Liability Certificate** is the certificate issued by Project Manager upon correction of defects by the Contractor.

o) **The Defects Liability Period** is the period **named in the SCC** pursuant to Sub-Clause 34.1 and calculated from the Completion Date.

p) **Drawings** means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Procuring Entity in accordance with the Contract, include calculations and other information provided or approved by the Project Manager for the execution of the Contract.

q) **The Procuring Entity** is the party who employs the Contractor to carry out the Works, **as specified in the SCC**, who is also the Procuring Entity.

r) **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

- s) **“In writing” or “written”** means hand-written, type-written, printed or electronically made, and resulting in a permanent record;
- t) The Initial Contract Price is the Contract Price listed in the Procuring Entity's Letter of Acceptance.
- u) **The Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is **specified in the SCC**. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.
- v) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- w) **Plant** is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.
- x) **The Project Manager** is the person **named in the SCC** (or any other competent person appointed by the Procuring Entity and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.
- y) **SCC** means Special Conditions of Contract.
- z) **The Site** is the area of the works as **defined as such in the SCC**.
- aa) **Site Investigation Reports** are those that were included in the bidding document and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- bb) **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.
- cc) **The Start Date** is **given in the SCC**. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.
- dd) **A Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.
- ee) **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.
- ff) **A Variation** is an instruction given by the Project Manager which varies the Works.
- gg) **The Works** are what the Contract requires the Contractor to construct, install, and turn over to the Procuring Entity, **as defined in the SCC**.

2 Interpretation

21 In interpreting these GCC, words indicating one gender include all genders. Words indicating the singular also include the plural and words indicating the plural also include the singular. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.

22 If sectional completion is specified in the SCC, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

23 The documents forming the Contract shall be interpreted in the following order of priority:

- a) Agreement,
- b) Letter of Acceptance,

- c) Contractor's Bid,
- d) Special Conditions of Contract,
- e) General Conditions of Contract, including Appendices,
- f) Specifications,
- g) Drawings,
- h) Bill of Quantities⁶, and
- i) any other document **listed in the SCC** as forming part of the Contract.

⁶In lump sum contracts, delete “Bill of Quantities” and replace with “Activity Schedule.”

3. Language and Law

3.1 The language of the Contract is English Language and the law governing the Contract are the Laws of Kenya.

3.2 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Procuring Entity's Country when

- 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 from that country or any payments to any country, person, or entity in that country.

4. Project Manager's Decisions

4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Procuring Entity and the Contractor in the role representing the Procuring Entity.

5. Delegation

5.1 Otherwise **specified in the SCC**, the Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may revoke any delegation after notifying the Contractor.

6. Communications

6.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.

7. Subcontracting

7.1 The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Procuring Entity in writing. Subcontracting shall not alter the Contractor's obligations.

8. Other Contractors

8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Procuring Entity between the dates given in the Schedule of Other

Contractors, as **referred to in the SCC**. The Contractor shall also provide facilities and services for them as described in the Schedule. The Procuring Entity may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.

9. Personnel and Equipment

9.1 The Contractor shall employ the key personnel and use the equipment identified in its Bid, to carry out the Works or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of key personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.

9.2 If the Project Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

9.3 If the Procuring Entity, Project Manager or Contractor determines, that any employee of the Contractor be determined to have engaged in Fraud and Corruption during the execution of the Works, then that employee shall be removed in accordance with Clause 9.2 above.

10. Procuring Entity's and Contractor's Risks

10.1 The Procuring Entity carries the risks which this Contract states are Procuring Entity's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11. Procuring Entity's Risks

11.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Procuring Entity's risks:

a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to

i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or

ii) negligence, breach of statutory duty, or interference with any legal right by the Procuring Entity or by any person employed by or contracted to him except the Contractor.

b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Procuring Entity or in the Procuring Entity's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

11.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is a Procuring Entity's risk except loss or damage due to

aa) a Defect which existed on the Completion Date,

bb) an event occurring before the Completion Date, which was not itself a Procuring Entity's risk, or

cc) the activities of the Contractor on the Site after the Completion Date.

12. Contractor's Risks

12.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Procuring Entity's risks are Contractor's risks.

13. Insurance

13.1 The Contractor shall provide, in the joint names of the Procuring Entity and the Contractor,

insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles **stated in the SCC** for the following events which are due to the Contractor's risks:

- a) loss of or damage to the Works, Plant, and Materials;
- b) loss of or damage to Equipment;
- c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
- d) personal injury or death.

132 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

133 If the Contractor does not provide any of the policies and certificates required, the Procuring Entity may effect the insurance which the Contractor should have provided and recover the premiums the Procuring Entity has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

134 Alterations to the terms of an insurance shall not be made without the approval of the Project Manager.

135 Both parties shall comply with any conditions of the insurance policies.

14. Site Data

141 The Contractor shall be deemed to have examined any Site Data **referred to in the SCC**, supplemented by any information available to the Contractor.

15. Contractor to Construct the Works

151 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.

16. The Works to Be Completed by the Intended Completion Date

161 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.

17. Approval by the Project Manager

171 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, for his approval.

172 The Contractor shall be responsible for design of Temporary Works.

173 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

174 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.

175 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before this use.

18. Safety

181 The Contractor shall be responsible for the safety of all activities on the Site.

19. Discoveries

19.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Procuring Entity. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.

20. Possession of the Site

20.1 The Procuring Entity shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date **stated in the SCC**, the Procuring Entity shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.

21. Access to the Site

21.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.

22. Instructions, Inspections and Audits

22.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.

22.2 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and sub-consultants to keep, accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.

22.3 The Contractor shall permit and shall cause its subcontractors and sub-consultants to permit, the Procuring Entity and/or persons appointed by the Public Procurement Regulatory Authority 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 Public Procurement Regulatory Authority. The Contractor's and its Subcontractors' and sub-consultants' attention is drawn to Sub-Clause 25.1 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the Public Procurement Regulatory Authority's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Public Procurement Regulatory Authority's prevailing sanctions procedures).

23. Appointment of the Adjudicator

23.1 The Adjudicator shall be appointed jointly by the Procuring Entity and the Contractor, at the time of the Procuring Entity's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Procuring Entity does not agree on the appointment of the Adjudicator, the Procuring Entity will request the Appointing Authority designated in the SCC, to appoint the Adjudicator within 14 days of receipt of such request.

23.2 Should the Adjudicator resign or die, or should the Procuring Entity and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator shall be jointly appointed by the Procuring Entity and the Contractor. In case of disagreement between the Procuring Entity and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority designated in the SCC at the request of either party, within 14 days of receipt of such request.

24. Settlement of Claims and Disputes

24.1 Contractor's Claims

24.1.1 If the Contractor considers itself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with

the Contract, the Contractor shall give Notice to the Project Manager, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 30 days after the Contractor became aware, or should have become aware, of the event or circumstance.

24.1.2 If the Contractor fails to give notice of a claim within such period of 30 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Procuring Entity shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub- Clause shall apply.

24.1.3 The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.

24.1.4 The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Project Manager. Without admitting the Procuring Entity's liability, the Project Manager may, after receiving any notice under this Sub-Clause, monitor the record- keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Project Manager to inspect all these records, and shall (if instructed) submit copies to the Project Manager.

24.1.5 Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Project Manager, the Contractor shall send to the Project Manager a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:

- a) this fully detailed claim shall be considered as interim;
- b) the Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Project Manager may reasonably require; and
- c) the Contractor shall send a final claim within 30 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Project Manager.

24.1.6 Within 42 days after receiving a Notice of a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Project Manager and approved by the Contractor, the Project Manager shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within the above defined time period.

24.1.7 Within the above defined period of 42 days, the Project Manager shall proceed in accordance with Sub-Clause

24.1.8 [Determinations] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [Extension of Time for Completion], and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.

24.1.9 Each Payment Certificate shall include such additional payment for any claim as has been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.

24.1.10 If the Project Manager does not respond within the timeframe defined in this Clause, either Party may consider that the claim is rejected by the Project Manager and any of the Parties may refer to Arbitration in accordance with Sub-Clause 24.4 [Arbitration].

24.1.11 The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which

the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause 24.3.

242 Amicable Settlement

24.2.1 Where a notice of a claim has been given, both Parties shall attempt to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, the Party giving a notice of a claim in accordance with Sub-Clause 24.1 above should move to commence arbitration after the fifty-sixth day from the day on which a notice of a claim was given, even if no attempt at an amicable settlement has been made.

243 Matters that may be referred to arbitration

24.3.1 Notwithstanding anything stated herein the following matters may be referred to arbitration before the practical completion of the Works or abandonment of the Works or termination of the Contract by either party:

- a) The appointment of a replacement Project Manager upon the said person ceasing to act.
- b) Whether or not the issue of an instruction by the Project Manager is empowered by these Conditions.
- c) Whether or not a certificate has been improperly withheld or is not in accordance with these Conditions.
- e) Any dispute arising in respect of war risks or war damage.
- f) All other matters shall only be referred to arbitration after the completion or alleged completion of the Works or termination or alleged termination of the Contract, unless the Procuring Entity and the Contractor agree otherwise in writing.

244 Arbitration

24.4.1 Any claim or dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with Sub-Clause 24.3 shall be finally settled by arbitration.

24.4.2 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 ninety days of the occurrence or discovery of the matter or issue giving rise to the dispute.

24.4.3 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.

24.4.4 The Arbitrator shall, without prejudice to the generality of his powers, have powers to direct such measurements, computations, tests 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 certificate.

24.4.5 The Arbitrator shall, without prejudice to the generality of his powers, have powers to open up, review and revise any certificate, opinion, decision, requirement or notice and to determine all matters in dispute which shall be submitted to him in the same manner as if no such certificate, opinion, decision requirement or notice had been given.

24.4.6 The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Project Manager, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Project Manager from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.

24.4.7 Neither Party shall be limited in the proceedings before the arbitrators to the evidence, or to the reasons for dissatisfaction given in its Notice of Dissatisfaction.

24.4.8 Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, and the Project Manager shall not be altered by reason of any arbitration being conducted during the progress of the Works.

24.4.9 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.

245 Arbitration with National Contractors

24.5.1 If the Contract is with national contractors, arbitration proceedings 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 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) Architectural Association of Kenya
- ii) Institute of Quantity Surveyors of Kenya
- iii) Association of Consulting Engineers of Kenya
- iv) Chartered Institute of Arbitrators (Kenya Branch)
- v) Institution of Engineers of Kenya

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

246 Alternative Arbitration Proceedings

24.6.1 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.

247 Failure to Comply with Arbitrator's Decision

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

24.7.2 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.

248 Contract operations to continue

24.8.1 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 Contractor any monies due the Contractor.

25 Fraud and Corruption

251 The Government requires compliance with the country's Anti-Corruption laws and its prevailing sanctions policies and procedures as set forth in the Constitution of Kenya and its Statutes.

252 The Procuring Entity requires the Contractor to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding 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.

B. Time Control

26 Program

261 Within the time stated in the SCC, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump sum contract, the activities in the Program shall be consistent with those in the Activity Schedule.

262 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any

changes to the sequence of the activities.

263 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period stated in the SCC. If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount stated in the SCC from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of a lump sum contract, the Contractor shall provide an updated Activity Schedule within 14 days of being instructed to by the Project Manager.

264 The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.

27. Extension of the Intended Completion Date

27.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.

27.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

28. Acceleration

28.1 When the Procuring Entity wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Procuring Entity accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Procuring Entity and the Contractor.

28.2 If the Contractor's priced proposals for an acceleration are accepted by the Procuring Entity, they are incorporated in the Contract Price and treated as a Variation.

29. Delays Ordered by the Project Manager

29.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

30. Management Meetings

30.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

30.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Procuring Entity. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

31. Early Warning

31.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

31.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for

how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

C. Quality Control

32. Identifying Defects

321 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.

33. Tests

331 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.

34. Correction of Defects

341 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the SCC. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

342 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.

35. Uncorrected Defects

351 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.

D. Cost Control

36. Contract Price⁷

361 The Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.

37. Changes in the Contract Price⁸

371 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change. The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Procuring Entity.

372 If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

38. Variations

381 All Variations shall be included in updated Programs⁹ produced by the Contractor.

382 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project

Manager and before the Variation is ordered.

383 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.

384 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a

385 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning

386 If the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in Sub-Clause 39.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work

387 Value Engineering: The Contractor 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.

388 The Procuring Entity may accept the value engineering proposal if the proposal demonstrates benefits that:

- a) accelerate the contract completion period; or
- b) reduce the Contract Price or the life cycle costs to the Procuring Entity; or
- c) improve the quality, efficiency, safety or sustainability of the Facilities; or
- d) yield any other benefits to the Procuring Entity, without compromising the functionality of the Works.

389 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 Contractor 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 Contractor shall be the full increase in the Contract Price.

39. Cash Flow Forecasts

391 When the Program¹¹, is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

40. Payment Certificates

401 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.

402 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.

403 The value of work executed shall be determined by the Project Manager.

404 The value of work executed shall comprise the value of the quantities of work in the Bill of Quantities that have been completed¹².

405 The value of work executed shall include the valuation of Variations and Compensation Events.

406 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

407 Where the contract price is different from the corrected tender price, in order to ensure the contractor is not paid less or more relative to the contract price (which would be the tender price), payment valuation certificates and variation orders on omissions and additions valued based on rates in the Bill of Quantities or schedule of rates 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: $(\text{corrected tender price} - \text{tender price}) / \text{tender price} \times 100$.

41. Payments

41.1 Payments shall be adjusted for deductions for advance payments and retention. The Procuring Entity shall pay the Contractor the amounts certified by the Project Manager within 30 days of the date of each certificate. If the Procuring Entity makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.

41.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.

41.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.

41.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Procuring Entity and shall be deemed covered by other rates and prices in the Contract.

42. Compensation Events

42.1 The following shall be Compensation Events:

d) The Procuring Entity does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1.

e) The Procuring Entity modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.

f) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.

g) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.

h) The Project Manager unreasonably does not approve a subcontract to be let.

i) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.

j) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Procuring Entity, or additional work required for safety or other reasons.

- k) Other contractors, public authorities, utilities, or the Procuring Entity does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.
- l) The advance payment is delayed.
- m) The effects on the Contractor of any of the Procuring Entity's Risks.
- n) The Project Manager unreasonably delays issuing a Certificate of Completion.

422 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

423 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.

424 The Contractor shall not be entitled to compensation to the extent that the Procuring Entity's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.

43. Tax

431 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 30 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC Clause 44.

44. Currency of Payment

441 All payments under the contract shall be made in Kenya Shillings

45. Price Adjustment

451 Prices shall be adjusted for fluctuations in the cost of inputs only if **provided for in the SCC**. If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type specified below applies:

$$P = A + B I_m / I_o$$

where: P is the adjustment factor for the portion
of the Contract Price payable.

A and B are coefficients¹³ **specified in the SCC**, representing the non-adjustable and adjustable portions, respectively, of the Contract Price payable and I_m is the index prevailing at the end of the month being invoiced and I_o is the index prevailing 30 days before Bid opening for inputs payable.

452 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

46. Retention

461 The Procuring Entity shall retain from each payment due to the Contractor the proportion stated in the **SCC** until Completion of the whole of the Works.

462 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance

with GCC 53.1, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected. The Contractor may substitute retention money with an “on demand” Bank guarantee.

47. Liquidated Damages

47.1 The Contractor shall pay liquidated damages to the Procuring Entity at the rate per day stated in the **SCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the SCC. The Procuring Entity may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

47.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC Sub-Clause 41.1.

48. Bonus

48.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day **stated in the SCC** for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.

49. Advance Payment

49.1 The Procuring Entity shall make advance payment to the Contractor of the amounts stated in the **SCC** by the date stated in the **SCC**, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Procuring Entity in amounts and currencies equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.

49.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.

49.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.

50. Securities

50.1 The Performance Security shall be provided to the Procuring Entity no later than the date specified in the Letter of Acceptance and shall be issued in an amount **specified in the SCC**, by a bank or surety acceptable to the Procuring Entity, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 day from the date of issue of the Certificate of Completion in the case of a Bank Guarantee, and until one year from the date of issue of the Completion Certificate in the case of a Performance Bond.

51. Dayworks

51.1 If applicable, the Dayworks rates in the Contractor's Bid shall be used only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.

51.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.

51.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

52 Cost of Repairs

521 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. Finishing the Contract

53. Completion

531 The Contractor shall request the Project Manager to issue a Certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the whole of the Works is completed.

54. Taking Over

541 The Procuring Entity shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.

55. Final Account

551 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.

¹³The sum of the two coefficients A and B should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulae for all currencies, since coefficient A, for the non-adjustable portion of the payments, is a very approximate figure (usually 0.15) to take account of fixed cost elements or other non-adjustable components. The sum of the adjustments for each currency are added to the Contract Price.

56. Operating and Maintenance Manuals

561 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the SCC.

562 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the SCC pursuant to GCC Sub-Clause 56.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount **stated in the SCC** from payments due to the Contractor.

57. Termination

571 The Procuring Entity or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

572 Fundamental breaches of Contract shall include, but shall not be limited to, the following:

- a) the Contractor stops work for 30 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;
- b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 30 days;
- c) the Procuring Entity or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- d) a payment certified by the Project Manager is not paid by the Procuring Entity to the Contractor within 84 days of the date of the Project Manager's certificate;

- e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
- f) the Contractor does not maintain a Security, which is required;
- g) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as **defined in the SCC**; or
- h) if the Contractor, in the judgment of the Procuring Entity has engaged in Fraud and Corruption, as defined in paragraph 2.2 a of the Appendix A to the GCC, in competing for or in executing the Contract, then the Procuring Entity may, after giving fourteen (14) days written notice to the Contractor, terminate the Contract and expel him from the Site.

573 Notwithstanding the above, the Procuring Entity may terminate the Contract for convenience.

574 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

575 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 56.2 above, the Project Manager shall decide whether the breach is fundamental or not.

58. Payment upon Termination

581 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as specified in the SCC. Additional Liquidated Damages shall not apply. If the total amount due to the Procuring Entity exceeds any payment due to the Contractor, the difference shall be a debt payable to the Procuring Entity.

582 If the Contract is terminated for the Procuring Entity's convenience or because of a fundamental breach of Contract by the Procuring Entity, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

59. Property

591 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Procuring Entity if the Contract is terminated because of the Contractor's default.

60. Release from Performance

601 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Procuring Entity or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

SECTION IX - SPECIAL CONDITIONS OF CONTRACT

A. General	
GCC 1.1 (q)	<p>The Procuring Entity is: Lake Victoria South Water Works Development Agency (LVSWWDA)</p> <ul style="list-style-type: none"> • P.O. Box 3325-40100, Kisumu, • Tel: +254 (057) 2025128, • (020) 2157233, • Hotline 020-2463081 <p>Email: info@lvswwda.go.ke</p>
GCC 1.1 (u)	Time for Completion shall be 6 Months
GCC 1.1 (x)	<p>The project Manager is: Senior Manager Water Works and Services</p> <p>Lake Victoria South Water Works Development Agency (LVSWWDA)</p> <ul style="list-style-type: none"> • P.O. Box 3325-40100, Kisumu, • Tel: +254 (057) 2025128, • (020) 2157233, • Hotline 020-2463081 <p>Email: info@lvswwda.go.ke</p>
GCC 1.1 (z)	The sites are located in West Karachuonyo Water Treatment Plant Supply at Lake intake point, WTP & Booster station in Rachuonyo Sub County, Homa Bay County
GCC 1.1 (cc)	The start date shall be the latest date the contractor shall begin execution of the works of the
GCC 1.1 (gg)	<i>The Works shall consist of:</i> PRELIMINARY AND GENERAL ITEMS
	ELECTROMECHANICAL WORKS AT RAW WATER, CLEAR WATER & BOOSTER
	SUPPLY AND INSTALLATION OF SOLAR PV AT PUMP STATION & BOOSTER
	PUMP HOUSES
	REHABILITATION OF INTAKE WORKS, TREATMENT PLANTS & BOOSTER STATION
	Note: Extent of Rehabilitation Works shall be directed on site after exposure of the ground and structures,
GCC 2.2	N/A
GCC 5.1	The Project Manager may delegate any of his duties and authorities.
GCC 8.1	Schedule of other Contractors: N/A

GCC 9.1	<p>Key Personnel</p> <p>GCC 9.1 is replaced with the following: Key Personnel are the Contractor's personnel named in this GCC 9.1 of the Special Conditions of Contract. The Contractor shall employ the Key Personnel and use the equipment identified in its Bid, to carry out the Works or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of Key Personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.</p>
GCC 13.1	<p>The minimum insurance amounts and deductibles shall be:</p> <p>(a) For loss or damage to the Works, Plant, Materials and Contractor's Equipment:</p> <ul style="list-style-type: none"> • Minimum Insurance Amount shall be the Contract Sum plus the value of the Contractor's Plant & Equipment plus Kshs. 2,000,000 for clearance of debris • Maximum Deductible shall be 10% of Each Loss <p>(b) For Personal Injury or death of the Contractor's Employees: Kshs 2,000,000 per occurrence, number of occurrences unlimited. Maximum Deductible Kshs.25, 000.</p>
GCC 14.1	Site Data are: As provided in Part IV: Works Requirements.
GCC 20.1	The Site Possession Date(s) shall be 14 Days from the Commencement Date
GCC 23.1 & GCC 23.2	Appointing Authority for the Adjudicator: Chartered Institute of Arbitrators (Kenya Chapter).
GCC 24.3	Hourly rate and types of reimbursable expenses to be paid to the Adjudicator: As agreed by all parties
B. Time Control	
GCC 26.1	The Contractor shall submit for approval a Program for the Works within 28 days from the date of the Letter of Acceptance.
GCC 26.3	<p>The period between Program updates is 14 days.</p> <p>The amount to be withheld for late submission of an updated Program 1% of Contract Amount</p>
C. Quality Control	
GCC 34.1	The Defects Liability Period is: 12 months.
D. Cost Control	

GCC 38.9	If the value engineering proposal is approved by the Procuring Entity the amount to be paid to the Contractor shall be 25% of the reduction in the Contract Price.
GCC 44.1	The currency of the Procuring Entity's Country is: Kenya Shillings .
GCC 45.1	The Contract not subject to price adjustment in accordance with GCC Clause 45
GCC 46.1	The proportion of payments retained is: 10%
GCC 47.1	The liquidated damages for the whole of the Works are 0.1% per day. The maximum amount of liquidated damages for the whole of the Works is 10% of the final Contract Price.
GCC 48.1	The Bonus for the whole of the Works is Not Applicable
GCC 49.1	The Advance Payments is Not Applicable
GCC 50.1	The Performance Security amount is 10% of the Contract Price
E. Finishing the Contract	
GCC 56.1	The date by which operation and maintenance manuals are required is <i>2 Weeks before site taking over date.</i> The date by which “as built” drawings are required is <i>2 Weeks before site taking over date.</i>
GCC 56.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required in GCC 58.1 is <i>1% of the contract sum</i>
GCC 58.1	The percentage to apply to the value of the work not completed, representing the Procuring Entity’s additional cost for completing the Works, is <i>the current market rate for outsourcing the works plus 15% of the rate as penalty.</i>

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) Procuring Entity: *[insert the name of the Procuring Entity]*
- 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.

SNo	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 (3) 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 Procuring Entity*]

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 (5) 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 (5) 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 Procuring Entity*]

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 info@ppra.go.ke or 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 fourteen (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 Procuring Entity:

Signature: _____	Name: _____
_____	Title/position: _____
_____	Telephone: _____ Email: _____

FORM NO 2: NOTIFICATION OF AWARD - LETTER OF ACCEPTANCE

[letterhead paper of the Procuring Entity] [date]

To: *[name and address of the Contractor]*

This is to notify you that your Tender dated *[date]* for execution of the *[name of the Contract and identification number, as given in the Contract Data]* for the Accepted Contract Amount *[amount in numbers and words] [name of currency]*, as corrected and modified in accordance with the Instructions to Tenderers, is hereby accepted by *(name of Procuring Entity)*.

You are requested to furnish the Performance Security within 30 days in accordance with the Conditions of Contract, using, for that purpose, one of the Performance Security Forms included in Section VIII, Contract Forms, of the Tender Document.

Authorized Signature:

Name and Title of Signatory:

Name of Procuring Entity.....

Attachment: *Contract Agreement*.....

FORM NO 3: CONTRACT AGREEMENT

THIS AGREEMENT made the _____ day of _____, 20_____, between _____ of _____ (hereinafter “the Procuring Entity”), of the one part, and _____ of _____ (hereinafter “the Contractor”), of the other part:

WHEREAS the Procuring Entity desires that the Works known as _____ should be executed by the Contractor, and has accepted a Tender by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Procuring Entity and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. 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 No’s _____ (if any)
 - d) the Special Conditions of Contract
 - e) the General Conditions of Contract;
 - f) the Specifications
 - g) the Drawings; and
 - h) the completed Schedules and any other documents forming part of the contract.
3. In consideration of the payments to be made by the Procuring Entity to the Contractor as specified in this Agreement, the Contractor hereby covenants with the Procuring Entity to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Procuring Entity hereby covenants to pay the Contractor in consideration of the execution and completion of the Works 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.

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 specified above.

Signed and sealed by _____ (for the Procuring Entity)

Signed and sealed by _____ (for the Contractor).

FORM NO. 4 - PERFORMANCE SECURITY

[Option 1 - Unconditional Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: _____ *[insert name and Address of Procuring Entity/*

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 Procuring Entity) _____ (the Procuring Entity 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].

Note: *All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.*

FORM No. 5 - 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 Procuring Entity]*

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 Procuring Entity”) 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 Procuring Entity 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 Procuring Entity to be, in default under the Contract, the Procuring Entity having performed the Procuring Entity'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 Procuring Entity for completing the Contract in accordance with its terms and conditions, and upon determination by the Procuring Entity and the Surety of the lowest responsive Tenderers, arrange for a Contract between such Tenderer, and Procuring Entity 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 Procuring Entity to Contractor under the Contract, less the amount properly paid by Procuring Entity to Contractor; or
- 3) pay the Procuring Entity the amount required by Procuring Entity 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 Procuring Entity named herein or the heirs, executors, administrators, successors, and assigns of the Procuring Entity.

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. 6 - ADVANCE PAYMENT SECURITY

[Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: Lake Victoria South Water Works Development Agency; P.O. Box 3325-40100, Kisumu

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 Construction of West karachuonyo Water Supply Project-Phase II- Electromechanical Works-Lot II (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* _____) *I* 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 Works; 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, 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]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product

FORM NO. 7 - RETENTION MONEY SECURITY

[Demand Bank Guarantee]

[Guarantor letterhead]

Beneficiary: Lake Victoria South Water Works Development Agency; P.O. Box 3325-40100, Kisumu

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 _____ *[insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture]* (hereinafter called "the Contractor") has entered into Contract No. _____ *[insert reference number of the contract]* dated _____ with the Beneficiary, for the Construction of West Karachuonyo Water Supply Project-Phase II-Electromechanical Works-Lot II(hereinafter called "the Contract").

2. Furthermore, we understand that, according to the conditions of the Contract, the Beneficiary retains moneys up to the limit set forth in the Contract ("the Retention Money"), and that when the Taking-Over Certificate has been issued under the Contract and the first half of the Retention Money has been certified for payment, and payment of *[insert the second half of the Retention Money]* is to be made against a Retention Money 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 *[insert amount in figures]* _____ *(insert amount 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 that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or show grounds for your demand or the sum specified therein.

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 second half of the Retention Money as referred to above has been credited to the Contractor on its account number _____ at _____ *[insert name and address of Applicant's bank]*.

5. 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.

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.

FORM NO. 9 BENEFICIAL OWNERSHIP DISCLOSURE FORM

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

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---- 2. Is this right held directly or indirectly?: Direct..... Indirect.....	1. Exercises significant influence or control over the Company body of the Company (tenderer) Yes -----No---- 2. Is this influence or control exercised directly or indirectly? Direct..... .. Indirect..... ...
	National identity card number or Passport number				
	Personal Identification Number (where applicable)	Indirectly ----- % of shares	Indirectly---- -----% of voting rights		
	Nationality				
	Date of birth [dd/mm/yyyy]				
	Postal address				
	Residential address				
	Telephone number				
	Email address				
	Occupation or profession				
2	Full Name	Directly-- ----- %	Directly.....% of voting rights	1. Having the right to appoint a majority of the	1. Exercises significant influence or
	National identity card				

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)
number or Passport number Personal Identification Number (where applicable) Nationality(ies) Date of birth [dd/mm/yyyy] Postal address Residential address Telephone number Email address Occupation or profession		of shares	Indirectly-----% of voting rights	board of the directors or an equivalent governing body of the Tenderer: Yes -- ---No----	control over the Company body of the Company (tenderer) Yes -----No--- ~
		Indirectly ----- % of shares		2. Is this right held directly or indirectly?: Direct.....	2. Is this influence or control exercised directly or indirectly? Direct..... ..
				Indirect.....	Indirect..... ...
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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