



**KENYA ELECTRICITY GENERATING
COMPANY LIMITED**

KGN-SOLAR-01-2013

**TENDER FOR SUPPLY AND INSTALLATION
AUTOMATIC WEATHER STATIONS FOR
SOLAR RESOURCE ASSESSMENT**

**Kenya Electricity Generating Company Ltd
Stima Plaza, Kolobot Road, Parklands
P.O BOX 47936, 00100
NAIROBI.**

Website: www.kengen.co.ke

APRIL 2013

**TENDER FOR SUPPLY AND INSTALLATION OF AUTOMATIC WEATHER STATIONS
FOR SOLAR RESOURCE ASSESSMENT**

INVITATION TO TENDER

The Company invites sealed tenders for supply and installation of **Seven (7)** number Automatic weather stations. The equipment will be installed in Malindi, Lamu, Gitaru and Turkwel Power Stations, Garissa, Magadi, and South Horr for solar resource assessment.

Interested firms may obtain further information from, and inspect the tender documents at the offices of **Supply Chain Manager**, Tel (254)(020)3666000, Fax (254)(020)3666200, Email: pkimemia@kengen.co.ke; jnjeru@kengen.co.ke; cc; ckiara@kengen.co.ke.

Where the tender document may be obtained upon payment of a non-refundable fee of **Kshs. 5,000.00** paid in cash or through banker's cheque at any KenGen finance office, the document can be viewed and downloaded from website www.kengen.co.ke and **payment evidence Must be submitted with tender document.** Bidders who downloaded the tender document from the website **must forward their particulars immediately for records and any other tender clarification and addenda** and will be required to pay a reduced fee of **Kshs. 3,000.00.**

The tenderer shall furnish as part of the tender, a Tender Security of **US\$ 2,500.00 (United States Dollars two thousand five hundred only)** or equivalent amount in any other freely convertible currency, and must be submitted in a plain sealed envelop and marked "**TENDER FOR SUPPLY AND INSTALLATION AUTOMATIC WEATHER STATIONS FOR SOLAR RESOURCE ASSESSMENT (KGN-SOLAR-01-2013**" to: -

**Company Secretary/Legal and Corporate Affairs Director,
Kenya Electricity Generating Company Limited,
7th Floor, Stima Plaza Phase III,
Kolobot Road, Parklands,
P.O. Box 47936-00100
NAIROBI, KENYA**

On or before: **27th May 2013 at 2.00 p.m.**

Tenders will be opened on **27th May 2013 at 2.30 p.m.** in the presence of tenderers' representatives who choose to attend in the Executive Room, 7th Floor, Stima Plaza Phase III.

SUPPLY CHAIN MANAGER

1. INSTRUCTIONS TO TENDERERS

Note: The tenderer must comply with the following instructions and failure to do so will result in rejection of the tender.

GENERAL

1. DEFINITIONS, SOURCE OF FUNDS & SCOPE

1.1 Definitions

- (a) “**Tenderer**” means any person or persons partnership firm or company submitting a sum or sums in the Bills of Quantities in accordance with the Instructions to Tenderers, Conditions of Contract Parts I and II, Specifications, Drawings and Bills of Quantities for the work contemplated, acting directly or through a legally appointed representative.
- (b) “**Approved tenderer or Contractor**” means the tenderer who is approved by the Employer.
- (c) Any noun or adjective derived from the word “**tender**” shall be read and construed to mean the corresponding form of the noun or adjective “**bid**”. Any conjugation of the verb “tender” shall be read and construed to mean the corresponding form of the verb “bid.”
- (d) “**Employer**” means **Kenya Electricity Generating Company Limited** [Herein after also referred as **KenGen** or **Client**]
- (e) “**Employer Representative**” means **The Capital Planning and Strategy Manager or her representative.**

1.2 Source of funds

KenGen proposes to finance the Project from its own funds.

1.3 Scope of Contract

The scope covers site preparation, supply, Installation, testing and commissioning of Automatic Weather Stations in Malindi, Lamu, Garissa, Magadi, Gitaru Power Station, Turkwel Power Station and South Horr. The tenderer will also provide on-site training to three employees on operation and maintenance of the equipment.

N/B Tipping Bucket Rain Gauges will be installed at four sites only **i.e. Malindi, Gitaru Power Station, Turkwel Power Station and South Horr.**

2. ELIGIBILITY AND QUALIFICATION REQUIREMENTS

- 2.1. This invitation to tender is open to all tenderers who are manufacturers or authorized suppliers of the equipment tendered for.
- 2.2. To be eligible for award of Contract, the tenderer shall provide evidence satisfactory to the Employer of their eligibility and of their capability and adequacy of resources to effectively carry out the subject Contract. To this end, the tenderer shall be required to submit the following information:-
- (a) Details of experience and past performance of the tenderer on the works of a similar nature within the past five years and details of current work on hand and other contractual commitments.
 - (b) The qualifications and experience of key personnel proposed for administration and execution of the contract, both on and off site.
 - (c) Major items of construction plant and equipment proposed for use in carrying out the Contract.
 - (d) Details of subcontractors to whom it is proposed to assign any portion of the Contract and for whom authority will be requested for such subletting.
 - (e) A draft Program of Works in the form of a bar chart and Schedule of Payment which shall form part of the Contract if the tender is accepted. Any change in the Program or Schedule shall be subjected to the approval of the Employers Representative.
 - (f) Details of any current litigation or arbitration proceedings in which the Tenderer is involved as one of the parties.
 - (g) A proof in form of certificate, from the original manufacturer of the system giving authority to the tender to resell and install, commission, offer guaranties over the Equipment.

2.3. Joint Ventures

Tenders submitted by a joint venture of two or more firms as partners shall comply with the following requirements:-

- (a) The tender, and in case of a successful tender, the Form of Agreement, shall be signed so as to be legally binding on all partners.
- (b) One of the partners shall be nominated as being in charge; and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners.
- (c) The partner in charge shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint venture and the entire execution of the Contract including payment shall be done exclusively with the partner in charge.

- (d) All partners of the joint venture shall be liable jointly and severally for the execution of the Contract in accordance with the Contract terms, and a relevant statement to this effect shall be included in the authorization mentioned under (b) above as well as in the Form of Tender and the Form of Agreement (in case of a successful tender).
- (e) A copy of the agreement entered into by the joint venture partners shall be submitted with the tender.

3. Cost of Tendering

The tenderer shall bear all costs associated with the preparation and submission of his tender and the Employer will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

4. Site Visit

- 4.1. The tenderer is advised to visit and examine the Site and its surroundings and obtain for himself on his own responsibility, all information that may be necessary for preparing the tender and entering into a contract. The costs of visiting the Site shall be the tenderer's own responsibility.
- 4.2. The tenderer and any of his personnel or agents will be granted permission by the Employer to enter the premises and lands for the purpose of such inspection, but only upon the express condition that the tenderer, his personnel or agents, will release and indemnify the Employer from and against all liability in respect of, and will be responsible for personal injury (whether fatal or otherwise), loss of or damage to property and any other loss, damage, costs and expenses however caused, which but for the exercise of such permission, would not have arisen.
- 4.3. The tenderers must contact the employer representative to agree on the site visit arrangements.

A representative of the Employer will be available to meet the intending tenderers at the Site.

Tenderers must provide their own transport and accommodation where necessary.

Each tenderer shall complete the Certificate of Tenderer's Visit to the Site, whether he in fact visits the Site at the time of the organized site visit or by himself at some other time.

- 4.4. Site visit is voluntary and tenderers will not be penalised for not participating in the site visit during tender evaluation.

TENDER DOCUMENTS

5. Tender Documents

- 5.1. The Tender documents comprise the documents listed here below and should be read together with any Addenda issued in accordance with Clause 7 of these instructions to tenderers.
- a) Invitation to Tender
 - b) Instructions to Tenderers
 - c) General Conditions of Contract
 - d) Special Conditions of Contract
 - e) Schedule of Requirements
 - f) Technical Specifications
 - g) Tender Form and Bills of Quantities
 - h) Tender Security Form
 - i) Form of Agreement
 - j) Form of Performance Security
 - k) Form of Advance payment Bank Guarantee
 - l) Manufacturer Authorization Form
 - m) Confidential Business Questionnaire form
- 5.2. The tenderer is expected to examine carefully all instructions, conditions, forms, terms, specifications and drawings/pictures in the tender documents. Failure to comply with the requirements for tender submission will be at the tenderer's own risk. Pursuant to clause 24 of Instructions to Tenderers, tenders which are not substantially responsive to the requirements of the tender documents will be rejected.

6. Clarification of Tender Documents

- 6.1. A prospective tenderer requiring any clarification of the tender documents may notify the Employer in writing or by e-mail or facsimile at the Employer's mailing address indicated in the Invitation to Tender. The Employer will respond in writing to any request for clarification which he receives earlier than 14 days prior to the deadline for the submission of tenders. Written copies of the Employer's response (including the query but without identifying the source of the inquiry) will be sent to all prospective tenderers who have purchased the tender documents.

7. Amendment of Tender Documents

- 7.1. At any time prior to the deadline for submission of tenders the Employer may, for any reason, whether at his own initiative or in response to a clarification requested by a prospective tenderer, modify the tender documents by issuing Addenda.
- 7.2. Any Addendum will be notified in writing or by email or facsimile to all prospective tenderers who have purchased the tender documents and will be binding upon them.

- 7.3. If during the period of tendering, any circular letters (tender notices) shall be issued to tenderers by, or on behalf of, the Employer setting forth the interpretation to be placed on a part of the tender documents or to make any change in them, such circular letters will form part of the tender documents and it will be assumed that the tenderer has taken account of them in preparing his tender. The tenderer must promptly acknowledge any circular letters he may receive.
- 7.4. In order to allow prospective tenderers reasonable time in which to take the Addendum into account in preparing their tenders, the Employer may, at his discretion, extend the deadline for the submission of tenders.

PREPARATION OF TENDERS

8. Language of Tender

- 8.1. The tender and all correspondence and documents relating to the tender exchanged between the tenderer and the Employer shall be written in the English language. Supporting documents and printed literature furnished by the tenderer with the tender may be in another language provided they are accompanied by an appropriate translation of pertinent passages in the above stated language. For the purpose of interpretation of the tender, the English language shall prevail.

9. Documents Comprising the Tender

- 9.1. The tender to be prepared by the tenderer shall comprise: the Form of Tender and Appendix thereto, a Tender Security, the Priced Bills of Quantities and Schedules, the information on eligibility and qualification, the Technical Details of offered equipment, and any other materials required to be completed and submitted in accordance with the Instructions to Tenderers embodied in these tender documents. The Forms, Bills of Quantities and Schedules provided in the tender documents shall be used without exception.

10. Tender Prices

- 10.1. All the insertions made by the tenderer shall be made in INK and the tenderer shall clearly form the figures. The relevant space in the Form of Tender and Bills of Quantities shall be completed accordingly without interlineations or erasures except those necessary to correct errors made by the tenderer in which case the erasures and interlineations shall be initialed by the person or persons signing the tender.
- 10.2. A price or rate shall be inserted by the tenderer for every item in the Bills of Quantities whether the quantities are stated or not items against which no rate or price is entered by the tenderer will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bills of Quantities.

- 2.1 The prices and unit rates in the Bills of Quantities are to be the full [all-inclusive] value of the work described under the items, including all costs and expenses which may be necessary and all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based. All duties, taxes and other levies payable by the Contractor under the Contract, as of 30 days prior to the deadline for submission of tenders, shall be included in the tender price submitted by the Tenderer.

Each price or unit rate inserted in the Bills of Quantities should be a realistic estimate for completing the activity or activities described under that particular item and the tenderer is advised against inserting a price or rate against any item contrary to this instruction.

Every rate entered in the Bills of Quantities, whether or not such rate is associated with a quantity, shall form part of the Contract. The Employer shall have the right to call for any item of work contained in the Bills of Quantities, and such items of work to be paid for at the rate entered by the tenderer and it is the intention of the Employer to take full advantage of unbalanced low rates.

- 10.3. The rates and prices quoted by the Tenderer shall not be subject to any adjustment during the performance of the Contract.

11. Currencies of Tender and Payment

- 11.1. Tenders shall be priced in freely Convertible currency.

12. Tender Validity

- 12.1. The tender shall remain valid and open for acceptance for a period of ninety days (90) days from the specified date of tender opening or from the extended date of tender opening (in accordance with clause 7.4 here above) whichever is the later.
- 12.2. In exceptional circumstances prior to expiry of the original tender validity period, the Employer may request the tenderer for a specified extension of the period of validity. The request and the responses thereto shall be made in writing or by cable, telex or facsimile. A tenderer may refuse the request without forfeiting his Tender Security. A tenderer agreeing to the request will not be required nor permitted to modify his tender, but will be required to extend the validity of his Tender Security correspondingly.

13. Tender Security

- 13.1. The tenderer shall furnish as part of his tender, a Tender Security of **US\$ 2,500.00 (United States Dollars two thousand five hundred only)** or equivalent amount in any other freely convertible currency.

13.2. The unconditional Tender Security shall be denominated in Kenya Shillings or in another freely convertible currency, and shall be in the form of a bank guarantee or a bank draft issued by a reputable bank in Kenya or abroad in the form provided in the tender document or in another form acceptable to Kenya Electricity Generating Company.

The Tender Security shall be valid for thirty (30) days beyond the tender validity period.

13.3. Any tender not accompanied by an acceptable Tender Security will be rejected by the Employer as **non-responsive**.

13.4. The Tender Security of unsuccessful tenderers will be returned as promptly as possible but not later than twenty eight (28) days after concluding the Contract execution and after a Performance Security has been furnished by the successful tenderer. The Tender Security of the successful tenderer will be returned upon the tenderer executing the Contract and furnishing the required Performance Security.

13.5. The Tender Security may be forfeited:

- (a) if a tenderer withdraws his tender during the period of tender validity: or
- (b) in the case of a successful tenderer, if he fails
 - I. to sign the Agreement, or
 - II. to furnish the necessary Performance Security
- (c) if a tenderer does not accept the correction of his tender price pursuant to clause 26.

14. Alternative Offers

The tenderer shall not submit any alternative offers unless they are specifically required in the tender documents.

Only one tender may be submitted by each tenderer. Any tenderer who fails to comply with this requirement will be disqualified

15. Pre-Tender Meeting (Not Applicable)

16. Format and Signing of Tenders

16.1. The tenderer shall prepare his tender as outlined in clause 9 above and mark appropriately one set "ORIGINAL" and the other "COPY". The tenderer shall supply **One ORIGINAL** and **Three COPIES**.

16.2. The copy of the tender and Bills of Quantities shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign

on behalf of the tenderer. Proof of authorization shall be furnished in the form of the written power of attorney which shall accompany the tender. All pages of the tender where amendments have been made shall be initialed by the person or persons signing the tender.

- 16.3. The complete tender shall be without alterations, interlineations or erasures, except as necessary to correct errors made by the tenderer, in which case such corrections shall be initialed by the person or persons signing the tender.

SUBMISSION OF TENDERS

17. Sealing and Marking of Tenders

- 17.1. The tenderer shall seal the original and copy of the tender in separated envelopes, duly marking the envelopes as “ORIGINAL” and “COPY”. The envelopes shall then be sealed in an outer envelope. The tender shall supply One ORIGINAL and two COPIES.
- 17.2. The inner and outer envelopes should be plain and sealed. The tender shall be submitted to the undersigned in a plain sealed envelope bearing the following inscription:

**The Company Secretary/Legal & Corporate Affairs Director
Kenya Electricity Generating Company Ltd
Stima Plaza, Phase III
Kolobot Road, Parklands
P.O. Box 47936 -00100
NAIROBI**

**“TENDER FOR SUPPLY AND INSTALLATION OF AUTOMATIC
WEATHER STATION FOR SOLAR RESOURCE ASSESSMENT”**

- 17.3. The inner envelopes shall each indicate the name and address of the tenderer to enable the tender to be returned unopened in case it is declared “late”, while the outer envelope shall bear no mark indicating the identity of the tenderer.
- 17.4. If the outer envelope is not sealed and marked as instructed above, the Employer will assume no responsibility for the misplacement or premature opening of the tender. A tender opened prematurely for this cause will be rejected by the Employer and returned to the tenderer.

18. Deadline for Submission of Tenders

- 18.1. Tenders must be received by the Employer at the address specified in clause 17.2 and on the date and time specified in the Letter of Invitation, subject to the provisions of clause 7.4, 18.2 and 18.3.

Tenders delivered by hand must be in the office of the Employer before the deadline for Tender submission.

Proof of posting will not be accepted as proof of delivery and any tender delivered after the above stipulated time, from whatever cause arising will not be considered.

- 18.2. The Employer may, at his discretion, extend the deadline for the submission of tenders through the issue of an Addendum in accordance with clause 7, in which case all rights and obligations of the Employer and the tenderers previously subject to the original deadline shall thereafter be subject to the new deadline as extended.
- 18.3. Any tender received by the Employer after the prescribed deadline for submission of tender will be returned unopened to the tenderer.

19. Modification and Withdrawal of Tenders

- 19.1. The tenderer may modify or withdraw his tender after tender submission, provided that written notice of the modification or withdrawal is received by the Employer prior to prescribed deadline for submission of tenders.
- 19.2. The tenderer's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions for the submission of tenders, with the inner and outer envelopes additionally marked "MODIFICATION" or "WITHDRAWAL" as appropriate.
- 19.3. No tender may be modified subsequent to the deadline for submission of tenders.
- 19.4. No tender may be withdrawn in the interval between the deadline for submission of tenders and the period of tender validity specified on the tender form. Withdrawal of a tender during this interval will result in the forfeiture of the Tender Security.
- 19.5. Subsequent to the expiration of the period of tender validity prescribed by the Employer, and the tenderer having not been notified by the Employer of the award of the Contract or the tenderer does not intend to conform with the request of the Employer to extend the tender validity, the tenderer may withdraw his tender without risk of forfeiture of the Tender Security.

20. Tender Submissions.

The following must be included in the Tender Submission:-

1. Tender Security
2. Manufacturer's authorisation for major components of the equipment
- 3.
4. Tender questionnaire duly completed.
5. Confidential business questionnaire duly completed

6. Power of Attorney in case of Joint Ventures
7. CVs of key personnel.
8. References for similar jobs carried out in the last five years.
9. Audited accounts for the last three years
10. Proof of purchase of tender documents
11. Joint Venture agreement where applicable
12. Details of subcontractors
13. Schedule of ongoing works.
14. All information showing compliance to specifications
15. Duly Completed Bills of Quantities for each site. The total price on the BoQ for each site shall be inclusive all taxes and levies.
16. Tender's technical capability

TENDER OPENING AND EVALUATION

21. Tender Opening

- 21.1 The Employer will open the tenders in the presence of the tenderers' representatives who choose to attend at the time and location indicated in the Letter of Invitation to Tender. The tenderers' representatives who are present shall sign a register evidencing their attendance.
- 21.2 Tenders for which an acceptable notice of withdrawal has been submitted, pursuant to clause 19, will not be opened.
- 21.3 At the tender opening, the Employer will announce the tenderer's names, total tender price, tender price modifications and tender withdrawals, if any, the presence of the requisite Tender Security and such other details as the Employer, at his discretion, may consider appropriate. No tender shall be rejected at the tender opening except for late tenders.
- 21.4 The Employer shall prepare minutes of the tender opening including the information disclosed to those present.
- 21.5 Tenders not opened and read out at tender opening shall not be considered further for evaluation, irrespective of the circumstances.

EVALUATION AND COMPARISON OF TENDERS

22. Process to be Confidential

- 22.1 After the public opening of tenders, information relating to the examination, clarification, evaluation and comparisons of tenders and recommendations concerning the award of Contract shall not be disclosed to tenderers or other persons not officially concerned with such process until the award of Contract is announced.
- 22.2 Any effort by a tenderer to influence the Employer in the process of examination, evaluation and comparison of tenders and decisions concerning award of Contract may result in the rejection of the tenderer's tender.

23. Clarification Tenders

- 23.1 To assist in the examination, evaluation and comparison of tenders, the Employer may ask tenderers individually for clarification of their tenders, including breakdown of unit prices. The request for clarification and the response shall be in writing or by e-mail or facsimile, but no change in the price or substance of the tender shall be sought, offered or permitted except as required to confirm the correction of arithmetical errors discovered by the employer during the evaluation of the tenders in accordance with clause 24.
- 23.2 No Tenderer shall contact the Employer on any matter relating to his tender from the time of tender opening to the time the Contract is awarded. If the tenderer wishes to bring additional information to the notice of the Employer, he shall do so in writing.

EVALUATION CRITERIA

24. Preliminary examination of bids submissions

- 24.1 Prior to the detailed evaluation of tenders, the Employer shall carry out a preliminary evaluation to determine completeness of the submissions to enable detailed assessment for responsiveness. This examination shall be based on the following submitted documents.
1. Forms of tender
 2. Tender Security
 3. Manufacturer's authorisation for authorised suppliers.
 4. Tender questionnaire duly completed.
 5. Confidential business questionnaire duly completed
 6. CVs of key personnel.
 7. Audited accounts for the last three years
 8. Proof of purchase of tender documents
 9. Power of Attorney in case of Joint Ventures

10. Joint Venture agreement where applicable

25. Technical Evaluation

- 25.1. Technical evaluation shall be carried out only on tenders determined to be substantially responsive to the tender requirements during preliminary examination in clause 24.1 above.
- 25.2. This evaluation will examine documents listed under clause 20 for compliance to specifications as stipulated in the tender document covering , but not limited to the following :-

1. The qualification and experience of key personnel.

The Applicant and the suppliers must have suitably qualified personnel to fill the position of a project manager and Installation, testing and commissioning Engineer/Technician who should have experience of at least 5 years in similar works.

2. The experience of the firm:

The Tenderer (or in the case of a Joint Venture the lead Partner) shall meet the following minimum criteria:

- Total annual turnover of minimum average of USD 300,000.00. Equivalent per year expressed as total volume of manufacturing/erection works performed in each of the last three years.
- Liquid assets and/or evidence of access to or availability of credit facilities of no less than USD 150,000.00 Equivalent.
- Performance as contractor in the execution of at least three projects for installation of electronic equipment for wind or solar resource assessment or for telecommunications in the last 5 years.
- The supplier shall provide the names and addresses of the clients who have purchased these equipment, and the names, telephone and telefax numbers of a senior manager employed by each client from whom references can be obtained in the English language.

3. Deviations from specifications:

Variations, deviations and other factors, which are in excess of the requirements of the tender documents or otherwise result in the accrual of unsolicited benefits to the Employer, shall not be taken into account in tender evaluation.

4. Financial Position:

The Applicant should demonstrate that he has access to, or has available, liquid assets, unencumbered real assets, line of credit, and other financial means sufficient to meet the contracts cash flow for a period of 6 months, estimated as USD 150,000.00 equivalent, net of the Applicant's commitments for other contracts.

5. Audited accounts for the last three (3) years

The audited balance sheets for the last five years for all the participating contractors/sub-contractors in the contracts should be submitted and must demonstrate the soundness of the Applicant's financial position, showing long-term profitability. Where necessary, the Employer will make inquiries with the Applicant's bankers.

6. Litigation History

The Tenderer including each of the participating contractors/sub-contractors in the contracts should provide accurate information on any litigation or arbitration resulting from contracts completed or under execution by the contractors over the last five years. A consistent history of awards against the Applicant or any partner of a joint venture may result in failure of the application.

7. Project overview

The tenderer shall present in the tender document and submit drawings to show how the various components are integrated in the proposal.

8. Scope of works / Implementation plan

The tenderer shall clearly present a description covering the design, supply, installation & commissioning, training, methodology of integration into existing plant and an implementation program.

9. Compliance to technical specifications:

The tenderer shall provide information that demonstrates compliance with the technical specifications. More particularly the tenderer shall avail to the Employer the following:-

- Specification of product to be used/ installed inclusive of functions offered.
- Illustrative drawings/ sketches and schematics

10. Software and other necessary licenses.

26. Price Evaluation

Correction of Errors

Tenders determined to be substantially responsive shall be checked by the Employer for any arithmetic errors in the computations and summations. Errors will be corrected by the

Employer as follows:

- (a) Where there is a discrepancy between the amount in figures and the amount in words, the amount in words will govern.
- (b) Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will prevail, unless in the opinion of the Employer, there is an obvious typographical error, in which case adjustment will be made to the entry containing that error.
- (c) In the event of a discrepancy between the tender amount as stated in the Form of Tender and the corrected tender figure in the main summary of the Bill of Quantities/Quotation, the amount as stated in the Form of Tender shall prevail.
- (d) The amount stated in the tender will be adjusted in accordance with the above procedure for the correction of errors and, with concurrence of the tenderer, shall be considered as binding upon the tenderer. If the tenderer does not accept the corrected amount, the tender may be rejected and the Tender Security may be forfeited in accordance with clause 13.

Conversion to Single Currency

- 25.1. For comparison of tenders, the tender price shall first be broken down into the respective amounts payable in various currencies.
- 25.2. The Employer will convert the amounts in various currencies in which the tender is payable to Kenya Shillings at the Central Bank of Kenya selling rates on the tender closing date.

AWARD OF CONTRACT

27. Award

- 27.1. Subject to clause 27.2, the Employer will award the Contract after negotiations to the tenderer whose tender is determined to be responsive to the tender documents and who has offered the lowest evaluated tender price and possessing the capability and resources to effectively carry out the Contract Works.
- 27.2. The Employer reserves the right to accept or reject any tender, and to annul the tendering process and reject all tenders, at any time prior to award of Contract, without thereby incurring any liability to the affected tenderers or any

obligation to inform the affected tenderers of the grounds for the Employer's action.

- 27.3. The employer reserves the right at the time of contract award to increase or decrease the quantity of goods originally specified in the schedule of requirements /Bills of Quantities without any change in unit price or other terms and conditions.

28. Notification of Award

- 28.1. Prior to the expiration of the period of tender validity prescribed by the Employer, the Employer will notify the successful tenderer in writing that his tender has been accepted. This letter (hereinafter and in all Contract documents called "Letter of Award") shall name the sum (hereinafter and in all Contract documents called "the Contract Price") which the Employer will pay to the Contractor in consideration of the execution and completion of the Works as prescribed by the Contract.

The unsuccessful tenderers will simultaneously be notified that their offers were not accepted.

- 28.2. Notification of award and the Tenderers acceptance thereof will constitute the formation of the Contract.
- 28.3. Within thirty [30] days of receipt of the form of Contract Agreement from the Employer, the successful tenderer shall sign the form and return it to the Employer together with the required Performance Security.

29. Performance Guarantee

- 29.1. Within twenty one (21) days of receipt of the notification of award from the Employer, the successful tenderer shall furnish the Employer with a Performance Security in form of an On Demand Bank Guarantee of **10% of contract price**, , which shall remain valid until end of defects clearance period.
- 29.2. The Performance Security to be provided by the successful tenderer shall be an unconditional Bank Guarantee issued at the tenderer's option by an established and a reputable Bank approved by the Employer and located in the Republic of Kenya, or a foreign bank through a correspondent bank located in Kenya and shall be divided into two elements namely, a performance security payable in foreign currencies (based upon the Central Bank of Kenya exchange rates on the date of tender closing) and a performance security payable in Kenya Shillings. The value of the two securities shall be in the same proportions of foreign and local currencies as the quoted amount
- 29.3. Failure of the successful tenderer to lodge the required Performance Security shall constitute a breach of Contract and sufficient grounds for the annulment of the award and forfeiture of the Tender Security and any other remedy under the Contract the Employer may award the Contract to the next ranked tenderer.

30. Advance Payment

An advance payment, if approved by the Employer, shall be made under the Contract against an advance payment guarantee of a similar amount. The Advance Payment Guarantee shall be denominated in the proportion and currencies as the tender price. For each currency, a separate guarantee shall be issued. The guarantee shall be issued by a bank located in the Republic of Kenya, or a foreign bank through a correspondent bank located in the Republic of Kenya, in either case subject to the approval of the Employer. The advance payments shall not exceed 15% of the contract value.

31. Fraudulent and Corrupt Practices

The Employer observes the highest standard of ethics during the tendering and execution of contracts such as this. In pursuance of this policy:

- (a) For the purposes of this provision, the following definitions are provided:
 - (i) “corrupt practice” means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution; and

“fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer, and includes collusive practice among Tenderers (prior to or after Tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.
- (b) The Employer will reject a proposal for award if it determines that the Tenderer recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question.
- (c) The Employer will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for a contract.

2. CONDITIONS OF CONTRACT

1. Definitions

1.1 In this Contract, except where context otherwise requires, the following terms shall be interpreted as indicated;

“Bills of Quantities” means the priced and completed Bill of Quantities forming part of the tender [where applicable].

“Schedule of Rates” means the priced Schedule of Rates forming part of the tender [where applicable].

“The Completion Date” means the date of completion of the Works as certified by the Employer’s Representative.

“The Contract” means the agreement entered into by the Employer and the Contractor as recorded in the Agreement Form and signed by the parties.

“The Contractor” refers to the person or corporate body whose tender to carry out the Works has been accepted by the Employer.

“The Contractor’s Tender” is the completed tendering document submitted by the Contractor to the Employer.

“The Contract Price” is the price stated in the Letter of Acceptance which is deemed to be inclusive of all applicable taxes.

“Days” are calendar days; **“Months”** are calendar months.

“A Defect” is any part of the Works not completed in accordance with the Contract.

“The Defects Liability Certificate” is the certificate issued by Employer’s Representative upon correction of defects by the Contractor.

“The Defects Liability Period” is the period named in the Appendix to Conditions of Contract and calculated from the Completion Date.

“Drawings” include calculations and other information provided or approved by the Employer’s Representative for the execution of the Contract.

“The Employer” refers to Kenya Electricity Generating Company Limited (KenGen), Stima Plaza, Kolobot Road, Parklands, P.O. Box 47936-00100, Nairobi, KENYA, including its authorized representatives, successors and assigns.

“Equipment” is the Contractor’s machinery, vehicles etc brought temporarily to the Site for the execution of the Works.

“Site” means location in Kenya where Automatic Weather Stations will be installed under the contract.

“Materials” are all supplies, including consumables, used by the Contractor for incorporation in the Works.

“Employer’s Representative” is the Capital Planning & Strategy Manager or her appointee.

“Specification” means the Specification of the Works included in the Contract.

“Commencement Date” is the date when the Contractor shall commence execution of the Works.

“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.

“Temporary works” are works designed, constructed, installed, and removed by the Contractor which are needed for execution of the Works.

“A Variation” is an instruction given by the Employer’s Representative which varies the Works.

“The Works” are supply, installation, testing and commissioning of Automatic Weather Stations at the specified Sites.

2. Contract Documents

2.1 The following documents shall constitute the Contract documents and shall be interpreted in the following order of priority;

- (1) Agreement;
- (2) Employer’s Notification of Award and Letter of Acceptance;
- (3) Particular Conditions of Contract;
- (4) General Condition of Contract
- (5) Specifications;
- (6) Drawings;
- (7) Bills of Quantities or Schedule of Rates [whichever is applicable]; and
- (8) Contractor’s Tender.

3. Performance Security

- 3.1 Within thirty (30) days of receipt of the notification of Contract award, the successful tenderer shall furnish the Employer with the performance security where applicable in the amount specified in Special Conditions of Contract.
- 3.2 The proceeds of the performance security shall be payable to the Employer as compensation for any loss resulting from the Tenderer's failure to complete its obligations under the Contract.
- 3.3 The performance security shall be denominated in the currency of the contract, or in a freely convertible currency acceptable to the Employer and shall be in the form of Cash.
 - a) Bank guarantee
 - b) Such insurance guarantee approved by the Authority
 - c) Letter of credit
- 3.4 The performance security will be discharged by the Employer and returned to the Tenderer not late than thirty (30) days following the date of completion of the Tenderer's performance obligations under the Contract, including any warranty obligations, under the Contract.

4. Employer's Representative's Decisions

- 4.1 Except where otherwise specifically stated, the Employer's Representative will decide on contractual matters between the Employer and the Contractor in the role representing the Employer.

5. Works, Language and Law of Contract

- 5.1 The Contractor shall procure, install and commission the Works in accordance with the Contract documents. The Works may commence on the Commencement Date and shall be carried out in accordance with the Program submitted by the Contractor, as updated with the approval of the Employer's Representative, and complete them by the Intended Completion Date.
- 5.2 The language of the Contract and the law governing the Contract shall be English and the Laws of the Republic of Kenya respectively.

6. Safety, Temporary works and Discoveries

- 6.1 The Contractor shall be responsible for design of temporary works and shall obtain approval of third parties to the design of the temporary works where required.
- 6.2 The Contractor shall be responsible for the safety of all activities on the Site.
- 6.3 Anything of historical or other interest or significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor

shall notify the Employer's Representative of such discoveries and carry out the Employer's Representative's instructions for dealing with them.

- 6.4 The Contractor shall be responsible for accommodation of his staff which shall not be within the Employer's establishment. The security and safety of materials and equipment's on site shall be the Contractor's responsibility.

7. Work Program and Sub-contracting

- 7.1 Within seven (7) days after Site possession date, the Contractor shall submit to the Employer's Representative for approval a program showing the general methods, arrangements, order and timing for all the activities in the Works.
- 7.2 The Contractor may sub-contract the Works (but only to a maximum of 25 percent of the Contract Price) with the approval of the Employer's Representative. However, he shall not assign the Contract without the approval of the Employer in writing. Sub-contracting shall not alter the Contractor's obligations.

8. The site

- 8.1 The Employer shall give possession of all parts of the Site to the Contractor.
- 8.2 The Contractor shall allow the Employer's Representative and any other person authorised by the Employer's Representative, 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.

9. Instructions

- 9.1 The Contractor shall carry out all instructions of the Employer's Representative, which are in accordance with the Contract.

10. Extension of Completion Date

- 10.1 The Employer's Representative shall extend the Completion Date if an occurrence arises which makes it impossible for completion to be achieved by the Intended Completion Date. The Employer's Representative shall decide whether and by how much to extend the Completion Date.
- 10.2 For the purposes of this clause, the following occurrences shall be valid for consideration;

Delay by: -

- (a) force majeure, or
- (b) reason of any exceptionally adverse weather conditions, or
- (c) reason of civil commotion, strike or lockout affecting any of the trades employed upon the Works or any of the trades engaged in the preparation,

manufacture or transportation of any of the goods or materials required for the Works, or

- (d) reason of the Employer's Representative's instructions issued under these Conditions, or
- (e) reason of the contractor not having received in due time necessary instructions, drawings, details or levels from the Employer's Representative for which he specifically applied in writing on a date which having regard to the date for Completion stated in the appendix to these Conditions or to any extension of time then fixed under this clause was neither unreasonably distant from nor unreasonably close to the date on which it was necessary for him to receive the same, or
- (f) delay on the part of artists, tradesmen or others engaged by the Employer in executing work not forming part of this Contract, or
- (g) reason of delay by statutory or other services providers or similar bodies engaged directly by the Employer, or
- (h) reason of opening up for inspection of any Work covered up or of the testing or any of the Work, materials or goods in accordance with these conditions unless the inspection or test showed that the Work, materials or goods were not in accordance with this Contract, or
- (i) reason of delay in appointing a replacement Employer's Representative, or
- (j) reason of delay caused by the late supply of goods or materials or in executing Work for which the Employer or his agents are contractually obliged to supply or to execute as the case may be, or
- (k) delay in receiving possession of or access to the Site.

11. Management Meetings

- 11.1 A Contract management meeting shall be held regularly and attended by the Employer's Representative and the Contractor. Its business shall be to review the plans for the remaining Work. The Employer's Representative shall record the business of management meetings and provide copies of the record to those attending the meeting and the Employer. The responsibility of the parties for actions to be taken shall be decided by the Employer's Representative either at the management meeting or after the management meeting and stated in writing to all who attend the meeting.
- 11.2 Any notice given by one party to the other pursuant to this contract shall be sent to the other party by post, facsimile or e-mail and confirmed to the other party's address specified in the Special Conditions of Contract.

12. Defects

- 12.1 The Employer's Representative shall inspect the Contractor's work and notify the Contractor of any defects that are found. Such inspection shall not affect the Contractor's responsibilities. The Employer's Representative may instruct the

Contractor to search for a defect and to uncover and test any Work that the Employer's Representative considers may have a defect. Should the defect be found, the cost of uncovering and making good shall be borne by the Contractor. However if there is no defect found, the cost of uncovering and making good shall be treated as a variation and added to the Contract Price.

- 12.2 The Employer's Representative shall give notice to the Contractor of any defects before the end of the Defects Liability Period, which begins at Completion Date, and is defined in the Appendix to Conditions of Contract.
- 12.3 Every time notice of a defect is given, the Contractor shall correct the notified defect within the length of time specified by the Employer's Representative's notice. If the Contractor has not corrected a defect within the time specified in the Employer's Representative's notice, the Employer's Representative will assess the cost of having the defect corrected by other parties and such cost shall be treated as a variation and be deducted from the Contract Price.

13. Bills of Quantities/Schedule of Rates

- 13.1 The Bills of Quantities/Schedule of Rates shall contain items for the construction, installation, testing and commissioning of the Work to be done by the Contractor. The Contractor will be paid for the quantity of the Work done at the rates in the Bills of Quantities/Schedule of Rates for each item. Items against which no rate is entered by the Tenderer will not be paid for when executed and shall be deemed covered by the rates for other items in the Bills of Quantities/Schedule of Rates.
- 13.2 Where Bills of Quantities do not form part of the Contract, the Contract Price shall be a lump sum (which shall be deemed to have been based on the rates in the Schedule of Rates forming part of the tender) and shall be subject to re-measurement after each stage.

14. Variations

- 14.1 The Contractor shall provide the Employer's Representative with a quotation for carrying out the variations when requested to do so. The Employer's Representative shall assess the quotation and shall obtain the necessary authority from the Employer before the variation is ordered.
- 14.2 If the Work in the variation corresponds with an item description in the Bill of Quantities/Schedule of Rates, the rate in the Bill of Quantities/Schedule of Rates shall be used to calculate the value of the variation. If the nature of the Work in the variation does not correspond with items in the Bill of Quantities/Schedule of Rates, the quotation by the Contractor shall be in the form of new rates for the relevant items of Work.
- 14.3 If the Contractor's quotation is unreasonable, the Employer's Representative may order the variation and make a change to the Contract Price, which shall be based on the Employer's Representative's own forecast of the effects of the variation on the Contractor's costs.

15. Payment Certificates and Final Account

- 15.1 (i) Progress Payment shall be based on the value of the works completed but shall not be less than 20% of the total contract price, excluding contingency, up to a maximum of 95% of the total Contract Amount. Payment will be made to the account of the contractor and will be done according to the payment terms stated in the Special Conditions of Contract.
- (ii) After defects liability period, the final 5% of Contract Price shall be paid.
- 15.2 Upon deciding that Works included in a particular stage are complete, the Contractor shall submit to the Employer's Representative his application for payment. The Employer's Representative shall check, adjust if necessary and certify the amount to be paid to the Contractor within 14 days of receipt of the Contractor's application. The Employer shall pay the Contractor the amounts so certified within 45 days of the date of issue of each Interim Certificate. The Employer shall have the right to withhold tax on payments to the contractor, where applicable and issue the contractor with withholding tax certificates.
- 15.3 The Contractor shall supply the Employer's Representative with a detailed final account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Employer's Representative shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 30 days of receiving the Contractor's account if it is correct and complete. If it is not, the Employer's Representative shall issue within 45 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 Employer's Representative shall decide on the amount payable to the Contractor and issue a Final Payment Certificate. The Employer shall pay the Contractor the amount so certified within 45 days of the issue of the Final Payment Certificate.

16. Insurance

- 16.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Commencement Date until the date issue of the Taking over Certificate of works. The insurance cover shall appropriately cover against, among other risks, personal injury; loss of or damage to the Works, materials and plant; and loss of or damage to property.

17. Liquidated Damages

- 17.1 The Contractor shall pay liquidated damages to the Employer at the rate 0.5 per cent of the Contract price per day for each day that the actual Completion Date is later than the Intended Completion Date, up to a maximum of 5%, except in the case of any of the occurrences listed under clause 9.2. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

18. Completion and Taking Over

- 18.1 Upon satisfactory completion of the Works at each site and after performing functional tests, and confirming that the equipment is operating as intended, the Employer's Representative shall issue a Certificate of Completion of the Works at that site.

The Employer shall take over the Site and the Works within seven days of the Employer's Representative issuing a Certificate of Completion.

19. Termination

- 19.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract. These fundamental breaches of Contract shall include, but shall not be limited to, the following;

- (a) the Contractor stops Work for fourteen (14) days continuously without reasonable cause or authority from the Employer's Representative;
- (b) the Contractor is declared bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (c) a payment certified by the Employer's Representative is not paid by the Employer to the Contractor within thirty (30) days after the expiry of the payment periods stated in sub clauses 14.2 and 14.3 here above.
- (d) the Employer's Representative 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.

- 19.2 If the Contract is terminated, the Contractor shall stop Work immediately, and leave the Site as soon as reasonably possible. The Employer's Representative shall immediately thereafter arrange for a meeting for the purpose of taking record of the Works executed and materials, goods, equipment and temporary buildings on Site.

20. Payment Upon Termination

- 20.1 The Employer may employ and pay other persons to carry out and complete the Works and to rectify any defects and may enter upon the Works and use all materials on Site, plant, equipment and temporary works.

- 20.2 The Contractor shall, during the execution or after the completion of the Works under this clause, remove from the Site as and when required within such reasonable time as the Employer's Representative may in writing specify, any temporary buildings, plant, machinery, appliances, goods or materials belonging to him, and in default thereof, the Employer may (without being responsible for any loss or damage) remove and sell any such property of the Contractor, holding the proceeds less all costs incurred to the credit of the Contractor.

20.3 Until after completion of the Works under this clause, the Employer shall not be bound by any other provision of this Contract to make any payment to the Contractor, but upon such completion as aforesaid and the verification within a reasonable time of the accounts therefore the Employer's Representative shall certify the amount of expenses properly incurred by the Employer and, if such amount added to the money paid to the Contractor before such determination exceeds the total amount which would have been payable on due completion in accordance with this Contract, the difference shall be a debt payable to the Employer by the Contractor; and if the said amount added to the said money be less than the said total amount, the difference shall be a debt payable by the Employer to the Contractor.

21. Corrupt Gifts and Payments of Commission

21.1 The Contractor shall not:

- (a) Offer or give or agree to give to any person in the service of the Employer any gifts or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract with the Employer or for showing or forbearing to show favour or disfavour to any person in relation to this or any other contract with the Employer.
- (b) Any breach of this Condition by the Contractor or by anyone employed by him or acting on his behalf (whether with or without the knowledge of the Contractor) shall be an offence under the Laws of Kenya.

22. Settlement of Disputes

22.1 Any dispute between the Parties as to matters arising pursuant to this Contract or its interpretation that cannot be settled amicably within thirty (30) days after receipt by one Party of the other Party's request for such amicable settlement shall be referred for settlement by a single arbitrator. The Arbitrator shall be agreed upon by the Parties within thirty days (30) days of the notification of a dispute by either party to the other and in default of agreement as to the single arbitrator the same shall be appointed by the Chairman for the time being of the Institute of the Chartered Arbitrators of Kenya (Kenya Chapter). Every award made under this Clause shall be expressed to be made under the Arbitration Act 1995 or other Act or Acts for the time being in force in Kenya in relation to arbitration.

3. SPECIAL CONDITIONS OF CONTRACT

REFERENCE TO GCC	SPECIAL CONDITIONS OF CONTRACT
1.	<p>The site for installation of Automatic Weather Stations are Magadi, Gitaru Power Station, Garissa, Malindi, Lamu, Turkwel Power Station and South Horr.</p> <p>The Employer's representative is the Capital Planning and Strategy Manager or her designate.</p>
3.1	The amount of performance security is 10% contract price from a reputable bank approved by the employer
5.1	<p>The Commencement Date of the Works shall be the date indicated in the Letter of Award, subject to conditions precedent to commencement set out during contract negotiations.</p> <p>The Intended Completion Date for the whole of the Works shall be Three (3) Month from Commencement Date.</p>
11.2	<p>The address of the Employer for notices is:</p> <p>The Company Secretary, Kenya Electricity Generating Company Ltd, Stima Plaza Phase III, Kolobot Road, Parklands, P.O. Box 47936-00100 Nairobi, KENYA. Telephone: +254-20-3666000 Fax: +254-20-248848</p> <p>The address of the Contractor for notices is: <i>(Insert Address)</i></p>
12.2	The Defects Liability Period shall be 180 days.
15.1 (i)	<p>Payment will become due and payable after successful installation and commissioning of the weather station at each individual site.</p> <p>The accounts are:</p> <p style="padding-left: 40px;">for foreign currency: <i>[insert account]</i></p> <p style="padding-left: 40px;">for local currency: <i>[insert account]</i></p>

4. SCHEDULE OF REQUIREMENTS AND PRICE / BILL OF QUANTITIES

The Tenderer, in compliance with this tender, shall complete all the price schedules as tabulate in this section. The contract price shall include the cost of supply, installation, testing and commissioning.

The data logger, sensors and the operational computer should have at least 2 years warranty.

<u>No.</u>	<u>ITEM/ DESCRIPTION</u>	<u>Country of Origin</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
1.	DATA LOGGER		7		
2.	DATA COMMUNICATION - from AWS site to KenGen Head Office (GSM GPRS/CDMA Communication compatible with Supplied AWS)		7		
3.	AUTOMATIC WEATHER STATION SYSTEM ENCLOSURE		7		
4.	POWER SUPPLY 1. DC power supply: • battery e • Battery charger, wiring and accessories 2. Solar Panel 3. Back –up Batteries		7		
5.	ANEMOMETERS		8		
6.	WIND VANES		8		
7.	AIR TEMPERATURE AND RELATIVE HUMIDITY SENSORS (With Radiation Shield plus housing):		8		
8.	SOLAR RADIATION SENSORS (PYRANOMETER)		8		
9.	BAROMETRIC PRESSURE SENSOR		8		
10.	TIPPING BU CKET RAIN GAUGE (for Malindi, South Horr, Gitaru and Turkwel Power station sites only)		2		
11.	10m LATTICE MAST COMPLETE WITH ALL THE MOUNTING HARDWARE AND ACCESSORIES (Plus 2m lightning and ground rods)		7		
12.	• OPERATION LAPTOP with all the necessary software Keyboard: Spill-resistant keyboard with numeric keypad and with external mouse To be supplied with operation manual. Should have (2) year Warranty		1		

13.	Cost site preparation, fencing, guard shelter, local transportation, accommodation, installation and commissioning in seven locations in Kenya, i.e. Magadi, Gitaru Power station, Garissa, Malindi, Lamu, Turkwel Power Station and South Horr.				
14.	Onsite training for 5 KenGen Staff.		1		
15.	AWS Documentation (Hardcopy and Softcopy) Including: <ul style="list-style-type: none"> ▪ 2 sets of technical manuals in English ▪ 2 sets of Operators manuals in English ▪ 2 sets of Installation and Maintenance Manuals in English 		2		
16.	TOTAL				

BILLS OF QUANTITIES

BILL NO. 1 General

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE KSHS.	AMOUNT KSHS.
1.0	Spare Parts (Sensors) (a) anemometer (b) Wind Vane (c) Air temperature and Relative Humidity (d) Barometric Pressure (e) Pyranometer	Sum	One of Each.		
1.1	AWS Documentation (Hardcopy and Softcopy) Including: <ul style="list-style-type: none"> ▪ 2 sets of technical manuals in English ▪ 2 sets of Operators manuals in English 	Sum			
1.2	Operational Laptop <ul style="list-style-type: none"> ▪ Network ready; ▪ In built data reception and transmission software (to Operational Laptop) Software for data in World Meteorological Organization (WMO) format.	Sum			
	<u>SUB-TOTAL</u>				
	Add 5% contingency				
	TOTAL for Magadi				

BILL NO. 2**SCHEDULE FOR SUPPLY AND INSTALLATION OF
AUTOMATIC WEATHER STATION AT MAGADI**

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE KSHS.	AMOUNT KSHS.
1.0	Site mobilisation for installation, comprising site preparation, transportation of materials and personnel, accommodation of personnel and provision of equipment and material.	Sum	-	-	
1.1	Demobilization of equipment and personnel	Sum	-	-	
1.2	Cost for the site survey, investigations and detailed foundation designs.	Sum	-	-	
1.3	Supply and installation of foundation materials.	Sum	-	-	
1.4	Supply of 10m lattice mast complete with guy stays as detailed on the drawing.	Sum	-	-	
1.5	Installation of 10m lattice mast complete with guy stays as detailed on the drawing.	Sum	-	-	
1.6	Painting of mast with primer and two coats of reflective paint	Sum	-	-	
1.7	Chain link 2m high fence with metallic posts for an area measuring 10 m X 10m and a gate 2 m x 1m (Height x Width) with a padlock.				
1.8	Supply of logger, sensors and accessories as per the technical specifications for this site.				
1.9	Installation of logger, sensors and accessories, per site	Sum	-	-	
	<u>SUB-TOTAL</u>				
	Add 5% contingency				
	TOTAL for Magadi				

BILL NO. 3**SCHEDULE FOR SUPPLY AND INSTALLATION OF
AUTOMATIC WEATHER STATION AT GITARU**

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE KSHS.	AMOUNT KSHS.
1.0	Site mobilisation for installation, comprising site preparation, transportation of materials and personnel, accommodation of personnel and provision of equipment and material.	Sum	-	-	
1.1	Demobilization of equipment and personnel	Sum	-	-	
1.2	Cost for the site survey, investigations and detailed foundation designs.	Sum	-	-	
1.3	Supply and installation of foundation materials.	Sum	-	-	
1.4	Supply of 10m lattice mast complete with guy stays as detailed on the drawing.	Sum	-	-	
1.5	Installation of 10m lattice mast complete with guy stays as detailed on the drawing.	Sum	-	-	
1.6	Painting of mast with primer and two coats of reflective paint	Sum	-	-	
1.7	Chain link 2m high fence with metallic posts for an area measuring 10 m X 10m and a gate 2 m x 1m (Height x Width) with a padlock.				
1.8	Supply of logger, sensors and accessories as per the technical specifications for this site.				
1.9	Installation of logger, sensors and accessories, per site	Sum	-	-	
	<u>SUB-TOTAL</u>				
	Add 5% contingency				
	TOTAL for Gitaru				

BILL NO. 4**SCHEDULE FOR SUPPLY AND INSTALLATION OF
AUTOMATIC WEATHER STATION AT GARISSA**

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE KSHS.	AMOUNT KSHS.
1.0	Site mobilisation for installation, comprising site preparation, transportation of materials and personnel, accommodation of personnel and provision of equipment and material.	Sum	-	-	
1.1	Demobilization of equipment and personnel	Sum	-	-	
1.2	Cost for the site survey, investigations and detailed foundation designs.	Sum	-	-	
1.3	Supply and installation of foundation materials.	Sum	-	-	
1.4	Supply of 10m lattice mast complete with guy stays as detailed on the drawing.	Sum	-	-	
1.5	Installation of 10m lattice mast complete with guy stays as detailed on the drawing.	Sum	-	-	
1.6	Painting of mast with primer and two coats of reflective paint	Sum	-	-	
1.7	Chain link 2m high fence with metallic posts for an area measuring 10 m X 10m and a gate 2 m x 1m (Height x Width) with a padlock.				
1.8	Supply of logger, sensors and accessories as per the technical specifications for this site.				
1.9	Installation of logger, sensors and accessories, per site	Sum	-	-	
2.0	Supply and erection of a security guards shelter	Sum	-	-	
	<u>SUB-TOTAL</u>				
	Add 5% contingency				
	TOTAL for Garissa				

BILL NO. 5**SCHEDULE FOR SUPPLY AND INSTALLATION OF
AUTOMATIC WEATHER STATION AT MALINDI**

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE KSHS.	AMOUNT KSHS.
1.0	Site mobilisation for installation, comprising site preparation, transportation of materials and personnel, accommodation of personnel and provision of equipment and material.	Sum	-	-	
1.1	Demobilization of equipment and personnel	Sum	-	-	
1.2	Cost for the site survey, investigations and detailed foundation designs.	Sum	-	-	
1.3	Supply and installation of foundation materials.	Sum	-	-	
1.4	Supply of 10m lattice mast complete with guy stays as detailed on the drawing.	Sum	-	-	
1.5	Installation of 10m lattice mast complete with guy stays as detailed on the drawing.	Sum	-	-	
1.6	Painting of mast with primer and two coats of reflective paint	Sum	-	-	
1.7	Chain link 2m high fence with metallic posts for an area measuring 10 m X 10m and a gate 2 m x 1m (Height x Width) with a padlock.				
1.8	Supply of logger, sensors and accessories as per the technical specifications for this site.				
1.9	Installation of logger, sensors and accessories, per site	Sum	-	-	
2.0	Supply and erection of a security guards shelter	Sum	-	-	
	<u>SUB-TOTAL</u>				
	Add 5% contingency				
	TOTAL for Malindi				

BILL OF QUANTITIES

BILL NO. 6

SCHEDULE FOR SUPPLY AND INSTALLATION OF AUTOMATIC WEATHER STATION AT LAMU

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE KSHS.	AMOUNT KSHS.
1.0	Site mobilisation for installation, comprising site preparation, transportation of materials and personnel, accommodation of personnel and provision of equipment and material.	Sum	-	-	
1.1	Demobilization of equipment and personnel	Sum	-	-	
1.2	Cost for the site survey, investigations and detailed foundation designs.	Sum	-	-	
1.3	Supply and installation of foundation materials.	Sum	-	-	
1.4	Supply of 10m lattice mast complete with guy stays as detailed on the drawing.	Sum	-	-	
1.5	Installation of 10m lattice mast complete with guy stays as detailed on the drawing.	Sum	-	-	
1.6	Painting of mast with primer and two coats of reflective paint	Sum	-	-	
1.7	Chain link 2m high fence with metallic posts for an area measuring 10 m X 10m and a gate 2 m x 1m (Height x Width) with a padlock.				
1.8	Supply of logger, sensors and accessories as per the technical specifications for this site.				
1.9	Installation of logger, sensors and accessories, per site	Sum	-	-	
2.0	Supply and erection of a security guards shelter	Sum	-	-	
	<u>SUB-TOTAL</u>				
	Add 5% contingency				
	TOTAL for Lamu				

BILL NO. 7**SCHEDULE FOR SUPPLY AND INSTALLATION OF
AUTOMATIC WEATHER STATION AT SOUTH HERR**

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE KSHS.	AMOUNT KSHS.
1.0	Site mobilisation for installation, comprising site preparation, transportation of materials and personnel, accommodation of personnel and provision of equipment and material.	Sum	-	-	
1.1	Demobilization of equipment and personnel	Sum	-	-	
1.2	Cost for the site survey, investigations and detailed foundation designs.	Sum	-	-	
1.3	Supply and installation of foundation materials.	Sum	-	-	
1.4	Supply of 10m lattice mast complete with guy stays as detailed on the drawing.	Sum	-	-	
1.5	Installation of 10m lattice mast complete with guy stays as detailed on the drawing.	Sum	-	-	
1.6	Painting of mast with primer and two coats of reflective paint	Sum	-	-	
1.7	Chain link 2m high fence with metallic posts for an area measuring 10 m X 10m and a gate 2 m x 1m (Height x Width) with a padlock.				
1.8	Supply of logger, sensors and accessories as per the technical specifications for this site.				
1.9	Installation of logger, sensors and accessories, per site	Sum	-	-	
2.0	Construction of security guards shelter at the new site	Sum	-	-	
	<u>SUB-TOTAL</u>				
	Add 5% contingency				
	TOTAL for South Herr				

BILL NO. 8**SCHEDULE FOR SUPPLY AND INSTALLATION OF
AUTOMATIC WEATHER STATION AT TURKWEL POWER
STATION**

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	RATE KSHS.	AMOUNT KSHS.
1.0	Site mobilisation for installation, comprising site preparation, transportation of materials and personnel, accommodation of personnel and provision of equipment and material.	Sum	-	-	
1.1	Demobilization of equipment and personnel	Sum	-	-	
1.2	Cost for the site survey, investigations and detailed foundation designs.	Sum	-	-	
1.3	Supply and installation of foundation materials.	Sum	-	-	
1.4	Supply of 10m lattice mast complete with guy stays as detailed on the drawing.	Sum	-	-	
1.5	Installation of 10m lattice mast complete with guy stays as detailed on the drawing.	Sum	-	-	
1.6	Painting of mast with primer and two coats of reflective paint	Sum	-	-	
1.7	Chain link 2m high fence with metallic posts for an area measuring 10 m X 10m and a gate 2 m x 1m (Height x Width) with a padlock.				
1.8	Supply of logger, sensors and accessories as per the technical specifications for this site.				
1.9	Installation of logger, sensors and accessories, per site	Sum	-	-	
2.0	Supply and erection of a security guards shelter	Sum	-	-	
	<u>SUB-TOTAL</u>				
	Add 5% contingency				
	TOTAL for Turkwel				

5. TECHNICAL SPECIFICATIONS

6.1 OVERALL REQUIREMENTS OF AWS SYSTEMS TO BE SUPPLIED

6.1.1 Mast and Ground Preparation

- a) The tenderer shall Supply, Transport and Install Automatic Weather Stations on 10 m Lattice mast at each of the seven (7) sites with different ground conditions. All the steel used in the construction including guy wire shall comply to BS EN 10 025 grade. Welding shall be in accordance with BS EN ISO 1011.
- b) The Mast should have the necessary supports and accessories for mounting the sensors.
- c) Include the cost for design of foundations, supply of foundation materials, Transport, installation, and labour in the Tender price.
- d) The mast should have a 2 meters lightning rod at the top and a Ground rod for protection that will be installed up to 2 meters deep in the ground and the three legs of the tower will be connected to a common ground rod. The lightening protection supplied should be complete with cables, mounting brackets and accessories.
- e) construct a chain link fence around the weather station on metallic posts measuring approximately 10m x 10m square and shall be provided with a metal gate measuring 2 m x 1m (Height by Width) and shall be provided with a padlock and 3 keys for each site in all the sites.
- f) Provide standard temporary security shelters for security guards in Lamu, South Horr and Malindi.

The sites are described in the following table.

SCHEDULE	SITE	LOCATION
1	<u>Magadi</u>	Tata Chemicals Ltd
2	<u>Gitaru</u>	KenGen, Gitaru Power Station
3	<u>Garissa</u>	Kenya Broadcasting Corporation Compound Repeater Station
4	<u>Malindi</u>	Fundisa Primary School
5	<u>Lamu</u>	KenGen Compound
6	<u>South Horr</u>	Kawap Primary School
7	<u>Turkwel</u>	Turkwel Power Station

6.1.2 Automatic Weather Station (AWS)

- a) The AWS equipment should incorporate state-of-the-art technology and provide capability for unattended operation for at least one year at remote places using a 12V single sealed maintenance-free battery, rechargeable through a solar panel. All equipment should comply with World Metrological Organization Standards and should be suitable for outdoor applications. The AWS must be housed in weather-proof enclosure and shall meet all specified environmental specifications.
- b) The chassis/enclosure should withstand hostile environment and its moulding should be completely sealed by suitable gasketing to avoid penetration of moisture, salinity etc.
- c) AWS system should have in-built memory of storing data for at least 12 months period.
- d) PCMCIA memory card slot or any other commercially available latest technology memory device for data retrieval and transfer of set up of the system. All set up and configuration files should be transferable through the solid state memory device to the data logger and vice versa.
- e) The system should have inbuilt test facility to monitor and display the configuration and functions of various subsystems including present and past data.
- f) Two RS-232, one RS-485 and one USB port are to be provided. The ports are to be used for programming and data retrieval, thus making the system fully compatible with a Personal Computer (PC) / Laptop, as and when required.
- g) The sensors along with the accessories and facilities, shall be fully compatible with the data logger and transmission system specified below (**Clause 6.2.2**).
- h) The bidders shall enclose ORIGINAL copies of latest technical literature with their technical bids in respect of all the sensors being offered. The features which are mentioned in the literature enclosed with the bid but are not being quoted as part of the current system shall be clearly brought out in the bid. In the event of failure of the bidder to explicitly mention any such exclusion, it shall be taken as inclusion of all the features mentioned in the bid as a part of the supply and the bidder shall have to provide all such features/ accessories without claim for any extra cost to the purchaser.
- i) The supply of the sensors includes cables for connecting the sensors to the data logger.
- j) All the accessories, tools and fixtures required for the installation and dismounting / remounting of the equipment shall be treated as a part of the supply for each type of sensors. Such kits should be supplied with the main AWS systems. Details of each item should be mentioned and quoted in the bid.
- k) Instrument supplied should be suitable for Kenya which lies across the equator.

6.2 TECHNICAL SPECIFICATION OF AWS SYSTEMS TO BE SUPPLIED

6.2.1 AWS SITE PREPARATION

The bidder shall prepare the AWS site according to the details given below in different parts of Kenya. It is to be ensured that KenGen's representative is present at the site at the time of site preparation / installation and official commissioning of the AWS site. All cabling in the AWS site should be concealed/underground using suitable GI/steel piping /conduits.

a) AWS enclosure

Area of the AWS enclosure should be ideally 10 m x 10 m.

b) Fencing for the AWS site

- (i) The height of the fencing for the AWS site enclosure must be 2.0 metres from the ground level.
- (ii) Fencing angle should be of size 50mm x 50mm x 6mm and pre coated with red-oxide. Length of the angle shall be 2.8 metres i.e. (2.0m above ground level + 0.8 m below ground level).
- (iii) The fencing angles should have a concrete foundation that is 300mm x 300mm x 600mm (length x width x depth).
- (iv) Two MS angles must be used diagonally at each of the four corner angles of the site. The angles can be attached (with welding or the other appropriate means) from the middle of the existing corner angle to the ground. The depth of the support will remain the same as of main angle.
- (v) Distance between each fencing angle should be not more than **3 m**.

c) Chainlink

Dimensions of GI Chainlink : 3 inches x 3 inches and of Gauge :10 (3 mm diameter).
GI chainlink mesh must be stretched and welded/fixd properly on the fencing angles.

d) Gate

- (i) Dimensions: 2 m x 1 m x 6 mm (Height x Width x Thickness) with Suitable locking facility with 3 keys for safety purposes is mandatory. Standard rust-proof locks shall be used.
- (ii) The gate must be fabricated by Mild Steel (MS) Angles whose dimensions should be minimum 40mm x 40mm x 6mm.

(iii) Gate should have proper support of MS angles with additional support of crossed MS angles.

(iv) Make sure that tower foundation and the gate are in a straight line.

(vi) Gate and MS Angle must be well painted with silver colour.

e) Tower Foundation

Dimensions: 3.5 ft x 3.5 ft (length x width) and 5 ft deep. The raised platform of the foundation must be 2.0 ft. above the ground level.

f) Rain Gauge foundation

The Rain gauge foundation must be of dimensions 1.5 ft x 1.5 ft (length x width) and 3 ft deep. The raised platform should be six inches above the ground level. The base plate of rain gauge should be 1.0 ft. above ground level.

g) Anchor Rod and Guy rope

The foundation for the Anchor Rod which holds the guy rope must be of dimensions 1.0 ft x 1.0 ft (length x width) at the ground level and 3 feet deep.

h) Proportions for concrete foundations

Concrete pillar foundations for the AWS tower, fencing angle, anchor rod should be made in the volumetric mixing proportions as follows:

a) Concrete foundation : 1 (Cement) : 2 (Sand)

b) Fine plastering : 4 (Cement) : 1 (Sand)

c) Concrete Pillar must be cemented to achieve smooth finish above the ground level.

d) After 8 hours, these foundations should be cured with water at least 3 times a day for four days.

i) Security Guard Shelter

A standard temporary movable guard shelter, commonly used by security firms in Kenya should be provided.

j) Local Earthing

Local earthing shall be installed as specified in **Clause 6.1.1 (d)** above.

k) Painting

The AWS tower should be painted with 2 coats primer and two coats of reflective paint. The fencing angles and gate should be properly painted in silver colour to avoid rusting.

6.2.2 DATA LOGGER

The system shall have an integrated microprocessor based data acquisition and storage system having adequate hardware configuration and software support to serve as an interface between sensors and the communication link to perform tasks stated below:

- a) The system shall automatically collect the observations from attached sensors, process the same and store them into its memory as per the pre programmed procedure at every full hour UTC and data shall be transmitted to a remote laptop computer through mobile telephony (GPRS or CDMA).
- b) Providing necessary electrical power to the sensors and conversion of electrical output signals from the sensors into engineering values based on calibration equations stored in the memory. Full compatibility with all types of sensors provided in the packages shall be mandatory.
- c) Storage of observed data along with time for all the parameters in the memory. Memory capacity to retain at least one year's data is required. Data shall be available even if the power supply to the system has failed (RAM Backup battery) for one year.
- d) The stored data shall be retrievable via serial port to a PC/laptop and a PCMCIA card or any other compact and commercially available solid state memory device.
- e) The system should compute the data so that the user can receive hourly and daily data.
- f) The system should be capable of continuous updating of the values of sensed weather parameters and post processing the instantaneous values into average values over a specified period of time for transmission to the remote laptop computer.
- g) Management of AWS transmitter to optimize the battery consumption.
- h) The system shall provide a complete health status of the battery, transmitter and other components.
- i) The system shall have a weather-proof housing.

The Data logger should have the following characteristics:

- a) Should have in-built Display
- b) Data archiving at user defined interval in World Meteorological Organization (WMO) format.
- c) Capable of data storage above 1Gb or more or store data for at least 6 months.
- d) Integrated power management
- e) System configuration interface by user; onsite or remotely.
- f) Interface for connection to a computer on site.
- g) Capable of handling both Data packet radio service (DPRS) through GSM network and General Packet Radio Service (GPRS) to send data to a mobile device and upload data to the internet.

6.2.3 DATA COMMUNICATION

a) AWS site to KenGen Head Office

GSM GPRS/CDMA Communication compatible with Supplied Automatic Weather Station

Including:

- Two Programmable Dual-Band GSM (900/1800MHz) modules with General Packet Radio Service (GPRS) support capable of Subscriber Identity Module (SIM) Support
- SIM cards with Data Services enabled
- dual band directional Yagi antenna or equivalent
- All necessary adaptation cables and accessories
- Enclosure with mounting accessories

6.2.4 BASIC AUTOMATIC WEATHER STATION SYSTEM ENCLOSURE

- Waterproof, steel
- Fitted with data logger
- Houses the battery pack
- Houses the charging system
- Houses the necessary communication interface.

6.2.5 POWER SUPPLY

DC power supply:

- battery inside System Box, capable of sustaining system for at least 1 week without charge
 - Battery charger, wiring and accessories
 - Solar Panel (not more than 8*8”) capable of supplying the basic AWS configuration and associated data collection and transmission modules.
2. AC power supply Adapter from 220-240V 50Hz capable of supplying the Basic AWS configuration.

6.2.6 INDIVIDUAL SENSOR SPECIFICATIONS:

The sensors will be installed in all the 7 sites apart from the **tipping bucket rain gauges** which will be installed in **Gitaru and Turkwel Power Stations**.

1. Wind Speed Sensor

- (a) Range 0 to 50 m/s
- (b) Gust Survival 50 m/s
- (c) Accuracy ± 0.2 m/s
- (d) Resolution 0.2 m/s or better
- (e) Sensor Type 3-Cup
- (f) Threshold 0.5 m/s or less
- (g) 10m Cable

2. Wind Direction

- (a) Range 0 to 359 deg.
- (b) Accuracy $\pm 0.3\%$ or better
- (c) Resolution 5deg. or better
- (d) Threshold 0.5 m/s or less

- The wind sensors should withstand pressures like from small birds or they should have a bird perch.

3. Air Temperature and Relative Humidity Sensors (With Radiation Shield plus housing):

(a) Air temperature

Should have the following minimum specifications:

- (a) Range -10 to 60°C
- (b) Accuracy ± 0.3 °C.
- (c) Resolution ± 0.5 °C.

(b) Relative Humidity

Should have the following minimum specifications:

- (a) Range 10% to 100%
- (b) Accuracy $\pm 5\%$
- (c) Resolution 5%

4. Solar Radiation Sensors:

Should have ISO/WMO Classification -1st Class with the the following minimum specifications:

- (a) Range 0 to 2000W/m²
- (b) Spectral Range 310 to 2800 nm
- (c) Sensitivity (nominal) 15 μ v/W/m²
- (d) Temperature Range -10 to 60°C
- (e) Calibration Traceability WRR

5. Barometric Pressure Sensors:

Should have the following minimum specifications:

- (a) Operating altitude: sea level to 3000 m;
- (b) Range 600 to 100hPa
- (c) Accuracy: $\pm 0.25\%$ of full scale)

6. Tipping Bucket Rain Gauges (To be installed in Gitaru and Turkwel Power Stations):

Should have the following minimum specifications:

- (a) Range: 0 mm to 200 mm per hour;
- (b) Accuracy: $\pm 4\%$ up to 200 mm; and
- (c) Sensitivity: 0.2 mm.

6.2.7. TEN (10) METRE LATTICE MAST (COMPLETE WITH ALL THE MOUNTING HARDWARE AND ACCESSORIES).

Including:

- Pole Mast 10m
- Foundation Set
- Equilateral triangle Guy Wire Set
- Tower and guy should withstand winds of up to 50m/s
- 2m lightning and ground rods

6.2.8. OPERATION LAPTOP

- a. Network ready;
- b. In built data reception and transmission software
- c. Software for data communication to an Automatic Message switching system in WMO format.

- **Minimum Specifications**

Processor

Processor Type: Intel® Core™ i7
Speed: 2.6 GHz
Level Cache Size: 4MB
Front Bus speed: 1333MHz

Graphics

Graphics: NVIDIA Quadro FX 1800M graphics
with 1 GB dedicated GDDR5 video memory

Memory

Installed RAM: 4GB
RAM Type: DDR3 SDRAM
RAM expandable to: 8GB

Storage devices

Hard Drive Capacity: 320GB 7200rpm
Controller Type: SATA
Optical drive: DVD+/-RW SuperMulti DL LightScribe

Display

Display Size: 15.6" diagonal LED-backlit FHD anti-glare
Display Technology: TFT active matrix
Resolution: 1680 *1050

Networking (On board)

Data Link Protocol: Gigabit LAN 10/100/1000Mbps
Wireless: Intel Centrino® Ultimate-N 6300 (3x3) 802.11a/b/g/n

Ports and Connectivity(In-built)

USB Ports: 6
TV- out port: 1
PC Card Slots: 1
Firewire Port: 1
Wireless: 1
Bluetooth 2.1: 1
VGA Video Out Ports: 1
RJ-45: 1

Keyboard

Keyboard: Spill-resistant keyboard with numeric keypad and with external mouse
To be supplied with operation manual and Should have (2) year Warranty

6.2.9 SPARE PARTS (SENSORS)

(a) anemometer

- (b) Wind Vane**
- (c) Air temperature and Relative Humidity**
- (d) Barometric Pressure**

6.2.10 ONSITE TRAINING FOR 5 KENGEN STAFF.

6.2.11 AWS DOCUMENTATION (HARDCOPY AND SOFTCOPY)

Including:

- 2 sets of technical manuals in English
- 2 sets of Operators manuals in English
- 2 sets of Installation and Maintenance Manuals in English

6. STANDARD FORMS

INTRODUCTION

The following standard forms must be completed in their entirety by the Tenderer at the time of tendering.

The Performance Security and Bank Guarantee for Advance Payment forms are samples and shall only be completed by the Approved Tenderer.

The Tenderer shall enter in the spaces on the tender form and Bills of Materials, the appropriate unit of currency to which he has tendered.

1. Tender Questionnaire
2. Confidential Business Questionnaire
3. Qualification Information
4. Key Personnel Capability
5. Schedule Of Completed Works of Similar Nature And Complexity
6. Schedule Of Ongoing Projects
7. Litigation History
8. Tender Form
9. Tender Security Form
10. Contract Form
11. Performance Security Form
12. Manufacturer's Authorization Form
13. Details Of Sub-Contractors

1. TENDER QUESTIONNAIRE

Please fill in block letters.

1. Full names of tenderer

.....

2. Full address of tenderer to which tender correspondence is to be sent (unless an agent has been appointed below)

.....

3. Telephone number (s) of tenderer

.....

4. E-mail and Fax address of tenderer

.....

5. Name of tenderer's representative to be contacted on matters of the tender during the tender period

.....

6. Details of tenderer's nominated agent (if any) to receive tender notices. This is essential if the tenderer does not have his registered address in Kenya (name, address, telephone, telex)

.....

.....

Signature of Tenderer

Make copy and deliver to: _____ (*Name of Employer*)

2. CONFIDENTIAL BUSINESS QUESTIONNAIRE

You are requested to give the particulars indicated in Part 1 and either Part 2 (a), 2 (b) or 2(c) and 2(d) whichever applies to your type of business.

You are advised that it is a serious offence to give false information on this Form.

Part 1 – General

Business Name

Location of business premises; Country/Town.....

Plot No..... Street/Road

Postal Address..... Tel No.....

Nature of Business.....

Current Trade Licence No..... Expiring date.....

Maximum value of business which you can handle at any time: K. pound.....

Name of your bankers.....

Branch.....

Part 2 (a) – Sole Proprietor

Your name in full..... Age.....

Nationality..... Country of Origin.....

Citizenship details

Part 2 (b) – Partnership

Give details of partners as follows:

	Name in full	Nationality	Citizenship Details	Shares
1
2
3

Part 2(c) – Registered Company:

Private of public

State the nominal and issued capital of the company-

Nominal Kshs.....

Issued Kshs.....

Give details of all directors as follows:

Name in full. Nationality. Citizenship Details*. Shares.

1.....

2.....

3.....

4.....

Part 2(d) – Interest in the Firm:

Is there any person/persons in.....(*Name of Employer*) who has interest in this firm? Yes/No(*Delete as necessary*)

I certify that the above information is correct.

.....
(*Title*)

.....
(*Signature*)

.....
(*Date*)

3. QUALIFICATION INFORMATION

1. Individual Tenderers or Individual Members of Joint Ventures

1.1 Constitution or legal status of tenderer (attach copy or Incorporation Certificate);
Place of registration: _____

Principal place of business _____

Power of attorney of signatory of tender _____

1.2 Total annual volume of similar work performed in the last ten years

Year	Volume	
	Currency	Value

1.3 Work performed as Main Contractor on works of a similar nature and volume over the last five years. Also list details of work under way or committed, including expected completion date.

Project name	Name of client and contact person	Type of work performed and year of completion	Value of Contract
_____	_____	_____	
_____	_____	_____	
_____	_____	_____	

1.4 Major items of Contractor's Equipment proposed for carrying out the Works. List all information requested below.

Item of Equipment	Description, Make and age (years)	Condition (new, good, poor) and number available	Owned, leased (from whom?), or to be purchased (from whom?)
_____	_____	_____	
_____ (etc	_____	_____	
.)	_____	_____	

- 1.5 Qualifications and experience of key personnel proposed for administration and execution of the Contract. Attach biographical data.

Position	Name	Years of experience (general)	Years of experience in proposed position
Project Manager			
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
(etc.)			

- 1.6 Financial reports for the last five years: balance sheets, profit and loss statements, auditor's reports, etc. List below and attach copies.

- 1.7 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List below and attach copies of supportive documents.

- 1.8 Name, address and telephone, telex and facsimile numbers of banks that may provide reference if contacted by the Employer.

- 1.9 Statement of compliance with the requirements of Clause 1.2 of the Instructions to Tenderers.

- 1.10 Proposed program (work method and schedule) for the whole of the Works.

2 Joint Ventures

- 2.4 The information listed in 1.1 – 1.10 above shall be provided for each partner of the joint venture.
- 2.5 The information required in 1.11 above shall be provided for the joint venture.
- 2.6 Attach the power of attorney of the signatory (ies) of the tender authorizing signature of the tender on behalf of the joint venture
- 2.7 Attach the Agreement among all partners of the joint venture (and which is legally binding on all partners), which shows that:
 - a) all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;
 - b) one of the partners will be nominated as being in charge, authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint venture; and
 - c) the execution of the entire Contract, including payment, shall be done exclusively with the partner in charge.

4. KEY PERSONNEL CAPABILITIES

Name of tenderer

The date on their experience should be supplied in separate sheets using the form for CV's for each candidate.

1.	Title of position: Project Manager
	Name of candidate:
2.	Title of position: Installation and Commissioning Engineer / Technician
	Name of candidate:

CVS OF KEY PERSONNEL

Name of Tenderer:

Position	Candidate <input type="checkbox"/> Prime <input type="checkbox"/>	
Candidate information	1. Name of candidate	2. Date of birth
	3. Professional qualifications	
Present employment	4. Name of employer	
	Address of employer	
	Telephone	Contract (manager/personnel officer)
	Fax	Telex
	Job title of candidate	Years with present employer

Summarise professional experience over the last 20 years, in reverse chronological order. Indicate particular technical and managerial experience relevant to the Project.

From	To	Company/Project/Position/ Relevant technical and management experience

I certify that the above information is correct.

.....
(Title)

.....
(Signature)

.....
(Date)

**5. SCHEDULE OF COMPLETED WORKS OF SIMILAR NATURE AND COMPLEXITY
CARRIED OUT BY THE TENDERER IN THE LAST FIVE YEARS**

Name of tenderer or partner of a joint venture
--

Use a separate sheet for each contract.

1.	Number of contract
	Name of contract
	Country
2.	Name of employer
3.	Employer address
4.	Nature of works and special features relevant to the contract for which the Applicant wishes to prequalify
5.	Contract role (check one) <input type="checkbox"/> Sole contractor <input type="checkbox"/> Subcontractor <input type="checkbox"/> Partner in a joint venture
6.	Value of the total contract (in specified currencies at completion, or at date of award for current contracts) <div style="display: flex; justify-content: space-around; width: 100%;"> Currency Currency Currency </div>
7.	Equivalent value US\$
8.	Date of award
9.	Date of completion
10	Contract duration (years and months) <div style="text-align: center; margin-top: 5px;"> _____years _____months </div>
11.	Specified requirements ¹

I certify that the above Works were successfully carried out and completed by ourselves.

.....

(Title)

(Signature)

(Date)

6. SCHEDULE OF ONGOING PROJECTS

Current Contract Commitments / Works in Progress

Name of Applicant or partner of a joint venture

Tenderers and each partner to a tender 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.

Name of contract	Name of Client	Total value in US Dollars	Value of outstanding work (current US\$ equivalent)	Estimated completion date
1.				
2.				
3.				
4.				
5.				
6.				

This information is declared to be correct by (Tenderer's authorised representative)

Name.....

Signature.....

Position in the Firm.....

Date.....

OTHER SUPPLEMENTARY INFORMATION

- 1. Financial reports for the last five years, balance sheets, profit and loss statements, auditors' reports etc. List them below and attach copies.

.....
.....
.....

- 2. Name, address , telephone, telex, fax numbers of the Tenderer's Bankers who may provide reference if contacted by the Employer.

.....
.....
.....

I certify that the above information is correct.

.....
Title

.....
Signature

.....
Date

DEVIATION FROM SPECIFICATIONS

Any deviations from specifications shall be clearly indicated and reasons given.

8. TENDER FORM

Date: _____

To: **Kenya Electricity Generating Company**
Stima Plaza Phase III, Kolobot Road, Parklands
P.O. Box 47946-00100,
Nairobi, Kenya.

Gentlemen and/or Ladies:

1. Having examined the tender documents including Addenda nos..... the receipt of which is hereby duly acknowledged, we, the undersigned, offer to **Manufacture, Deliver, Instal, Test and Commission Automatic Weather Stations for Solar Resource Assessment** in conformity with the said tender documents for the sum off.....
.....*[total tender amount in words and figures]* or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Tender.
2. We undertake, if our Tender is accepted, to deliver the goods in accordance with Schedule of Requirements/Bills of Quantities.
3. If our Tender is accepted, we will obtain the guarantee of a bank in a sum equivalent to 10% percent of the Contract Price for the due performance of the Contract, in the form prescribed by Kenya Electricity Generating Company Limited.
4. We agree to abide by this Tender for a period of **90 days** from the date fixed for tender opening of the Instructions to tenderers, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
5. Until a formal Contract is prepared and executed, this Tender, together with your written acceptance thereof and your notification of award shall constitute a binding Contract between us.
6. We understand that you are not bound to accept the lowest or any tender you may receive.
7. We hereby declare that we have not been debarred from any procurement process and shall not engage in any fraudulent or corrupt act with regard to this purchase.

Dated this _____ day of _____ 2013.

[signature]

[in the capacity of]

Duly authorized to sign tender for and on behalf of _____

9. TENDER SECURITY FORM

(To be on Bank's Letterhead)

Whereas..... *[name of the tenderer]*
(hereinafter called "the tenderer") has submitted its tender dated*[date of submission of tender]* for the **Manufacture, Delivery, Installation, Testing and Commissioning of 7 Automatic Weather Stations for Solar Resource Assessment** (hereinafter called "the Tender").....

KNOW ALL PEOPLE by these presents that WE.....
of..... having our registered office at
..... (hereinafter called "the Bank"), are bound unto Kenya Electricity Generating Company (KenGen. hereinafter called "the Procuring entity") in the sum of
.....
for which payment well and truly to be made to the said Procuring entity, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this
____ day of _____ 2013

THE CONDITIONS of this obligation are:

1. If the tenderer withdraws its Tender during the period of tender validity specified by the tenderer on the Tender Form; or
2. If the tenderer, having been notified of the acceptance of its Tender by the Procuring entity during the period of tender validity:
 - (a) fails or refuses to execute the Contract Form, if required; or
 - (b) fails or refuses to furnish the performance security, in accordance with the Instructions to tenderers;

We undertake to pay to the Procuring entity up to the above amount upon receipt of its first written demand, without the Procuring entity having to substantiate its demand, provided that in its demand the Procuring entity will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including thirty (30) days after the period of tender validity, and any demand in respect thereof should reach the Bank not later than the above date.

[signature of the bank]

10. CONTRACT FORM

THIS AGREEMENT made the _____ day of _____ 2013 between **Kenya Electricity Generating Company Limited of Kenya** (hereinafter called “the Procuring entity”) of the one part and..... of..... [*city and country of tenderer*] (hereinafter called “the tenderer”) of the other part:

WHEREAS the Procuring entity invited tenders for certain goods, viz **Manufacture, Delivery, Installation, Testing and Commissioning of 7 Automatic Weather Stations for Solar Resource Assessment** and has accepted a tender by the tenderer for the supply of those goods in the sum of..... [*contract price in words and figures*] (hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
 - (A) ***THE TENDER FORM AND THE PRICE SCHEDULE SUBMITTED BY THE TENDERER;***
 - (B) ***THE SCHEDULE OF REQUIREMENTS/BILL OF QUANTITIES;***
 - (C) ***THE TECHNICAL SPECIFICATIONS;***
 - (D) ***THE GENERAL CONDITIONS OF CONTRACT;***
 - (E) ***THE SPECIAL CONDITIONS OF CONTRACT; AND***
 - (f) **the Procuring entity’s Notification of Award.**
3. In consideration of the payments to be made by the Procuring entity to the tenderer as hereinafter mentioned, the tenderer hereby covenants with the Procuring entity to provide the goods 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 tenderer in consideration of the provision of the goods 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 their respective laws the day and year first above written.

Signed, sealed, delivered by _____ the _____ (for the Procuring entity)

Signed, sealed, delivered by _____ the _____ (for the tenderer)

in the presence of _____

11. PERFORMANCE SECURITY FORM
(To be on Bank's Letterhead)

To: Kenya Electricity Generating Company Limited
Stima Plaza Phase III, Kolobot Road, Parklands
P.O. Box 47936-00100
NAIROBI, KENYA

WHEREAS[*name of tenderer*]
(hereinafter called "the tenderer") has undertaken, in pursuance of Contract
No. _____ [*reference number of the contract*] dated _____ 2013 to **Manufacture,
Deliver, Instal, test and Commission of 7 Automatic Weather Stations** (hereinafter called "the
Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the tenderer shall furnish
you with a bank guarantee by a reputable bank for the sum specified therein as security for
compliance with the Tenderer's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the tenderer a guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the
tenderer, up to a total of.....

[*amount of the guarantee in words and figures*], and we undertake to pay you, upon your first
written demand declaring the tenderer to be in default under the Contract and without cavil or
argument, any sum or sums within the limits of.....

[*amount of guarantee*] as aforesaid, without your needing to prove or to show grounds or reasons
for your demand or the sum specified therein.

This guarantee is valid until the _____ day of _____ 2013.

Signature and seal of the Guarantors

[*name of bank or financial institution*]

[*address*]

[*date*]

N/B This performance security should be in the letterhead of the guaranteeing Bank

12. MANUFACTURER'S AUTHORIZATION FORM
(To be on Manufacturer's letterhead)

To: Kenya Electricity Generating Company Limited
Stima Plaza Phase III, Kolobot Road, Parklands
P.O. Box 47936-00100
NAIROBI, KENYA

WHEREAS

[name of the Manufacturer]

who are established and reputable in **Manufacture, Delivery, Installation, testing and Commissioning of 7 Automatic Weather Stations** having factories
at.....

[address of factory]

do hereby authorize.....

[name and address of Agent]

to submit a tender, and subsequently negotiate and sign the Contract with you against tender
No.....

[reference of the Tender]

for the above goods manufactured by us.

We hereby extend our full guarantee and warranty as per the General Conditions of Contract **for Manufacture, Delivery, Installation, Testing and Commissioning of Turbine Governor System for Turkwel Power Station** offered for supply by the above firm against this Invitation for Tenders.

[Signature for and on behalf of Manufacturer]

Note: This letter of authority should be on the letterhead of the Manufacturer and should be signed by a person competent.

13. DETAILS OF SUB-CONTRACTORS

If the Tenderer wishes to sublet any portions of the Works under any heading, he must give below details of the sub-contractors he intends to employ for each portion.

Failure to comply with this requirement may invalidate the tender.

(1) Portion of Works to be sublet:

(i) Full name of Sub-contractor
and address of head office:

.....

(ii) Sub-contractor's experience
of similar works carried out
in the last 3 years with
Contract value:

.....

.....

(2) Portion of Works to be sublet:

(i) Full name of sub-contractor
and address of head office:

.....

.....

(ii) Sub-contractor's experience
of similar works carried out
in the last 3 years with
contract value:

.....

[Signature of Tenderer)

Date