



KENYA ELECTRICITY GENERATING COMPANY PLC

KGN-SONDU-10-2018

**TENDER FOR SUPPLY OF DCS HARDWARE FOR
SANGÓRO POWER STATION.**

(OPEN NATIONAL)

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

Website: www.kengen.co.ke

November, 2018

Tender for Supply of DCS Hardware for Sang'oro Power Station

Following the Executive Order No.2 of 2018 issued by the Presidency

1. **THAT** effective the 1st of July 2018, all Public Procuring Entities shall maintain and continuously **update and publicize** (through the websites of the Public Procuring Entity, e-Citizen, Public Procurement Regulatory Authority platforms, public notice boards and/or official government publications):
 - Full Particulars of the awarded Bidder (Supplier, Contractor or Consultant);
 - Specification of goods and services, scope and schedule of works and contract value;
 - Technical and financial capacity of the awarded bidder (Supplier, Contractor or Consultant) and summary of reasons for the award;
 - Award Date and Contract Period;
 - Current market price of the specific goods, works or service, as well as price guidelines as published by the Public Procurement Regulatory Authority with regard to that specific item (*where applicable*);

2. In furtherance to above, the list of the awarded suppliers/contracts/consultants shall include the following information:

- Name of Supplier
- Registration Details (ID/Registration/Incorporation Number
- PIN Number
- List of Directors, Shareholders and Beneficial Owners (in case of a company)
- Name of Proprietor (for sole Proprietor and Business name)
- Name of Partners (for Partnerships)
- Business Contacts Information (telephone and email address)
- Postal address
- Physical address
- Tax Compliance Status
- Business Permit/License Number
- County of operation

In compliance to the executive order, the above details shall form part of mandatory requirement in the tender documents submitted.

SECTION I INVITATION TO TENDER

The Company invites sealed tenders from eligible candidates for the **Supply of DCS Hardware for Sang'oro Power Station** whose specifications are detailed in the Tender Document.

Interested eligible candidates may obtain further information from and inspect the Tender Documents during official working hours starting at the date of advert at the office of:

Supply Chain Director

Tel: (254) (020) 3666000

Email: tenders@kengen.co.ke; Cc dgichobi@kengen.co.ke; dkorir@kengen.co.ke

The document can be viewed and downloaded from the website www.kengen.co.ke and www.suppliers.treasury.go.ke. Bidders who download the tender document from the website **are advised to forward their particulars to facilitate any subsequent tender clarifications and addenda**. Downloaded copies are free of charge.

Bidders are advised from time to time to be checking the website for any uploaded further information on this tender

There will be a **mandatory site visit** on **22nd November 2018 as from 10.00am** at Kamburu and Gitaru Power Stations as explained elsewhere in this document

Tender must be submitted in a plain sealed envelope and clearly marked **KGN-SONDU-10-2018 "TENDER FOR SUPPLY OF DCS HARDWARE FOR SANGÓRO POWER STATION"** and addressed to:

**Company Secretary & Legal Affairs Director
Kenya Electricity Generating Company PLC
10th Floor, KenGen Pension Plaza 2,
Kolobot Road, Parklands
P O Box 47936 - 00100
NAIROBI, KENYA**

On or before: **4th December 2018 at 2.00 p.m.**

Tenders will be opened on **4th December 2018 at 2.30 p.m.** in the presence of the candidates' representatives who choose to attend at KenGen Pension Plaza 2, Tender Opening Room, Ground Floor.

KenGen adheres to high standards of integrity in its business operations.

Report any unethical behavior immediately to any of the provided anonymous hotline service.

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

SUPPLY CHAIN DIRECTOR

Tender for Supply of DCS Hardware for Sang'oro Power Station

SECTION II

INSTRUCTIONS TO TENDERERS

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2.1 **Eligible Tenderers**

- 2.1.1 This Invitation for Tenders is open to all tenderers eligible as described in the Invitation to Tender. Successful tenderers shall complete the supply of goods by the intended completion date specified in the technical Requirements (Section V).
- 2.1.2 The procuring entity's employees, committee members, board members and their relative (spouse and children) are not eligible to participate in the tender.
- 2.1.3 Tenderers shall provide the qualification information statement that the tenderer (including all members of a joint venture and subcontractors) is not associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Procuring entity to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods under this Invitation for tenders.
- 2.1.4 Tenderers shall not be under a declaration of ineligibility for corrupt and fraudulent practices.

2.2 **Eligible Goods**

- 2.2.1 All goods to be supplied under the contract shall have their origin in eligible source countries.
- 2.2.2 For purposes of this clause, "origin" means the place where the goods are mined, grown, or produced. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially-recognized product results that is substantially different in basic characteristics or in purpose or utility from its components
- 2.2.3 The origin of goods is distinct from the nationality of the tenderer.

2.3 **Cost of Tendering**

- 2.3.1 The Tenderer shall bear all costs associated with the preparation and submission of its tender, and the procuring entity, will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

2.3.2 The price to be charged for the tender document collected from the Procuring Entity shall not exceed Kshs.1,000/=. Downloaded copies are free of charge.

2.3.3 All firms found capable of performing the contract satisfactorily in accordance with the set prequalification criteria shall be prequalified.

2.4. The Tender Document

2.4.1 The tender document comprises the documents listed below and addenda issued in accordance with clause 2.6 of these instructions to Tenderers

- (i) Invitation to Tender
- (ii) Instructions to tenderers
- (iii) General Conditions of Contract
- (iv) Special Conditions of Contract
- (v) Schedule of requirements
- (vi) Technical Specifications
- (vii) Tender Form and Price Schedules
- (viii) Tender Security Form
- (ix) Contract Form
- (x) Performance Security Form
- (xi) Manufacturer's Authorization Form
- (xii) Confidential Business Questionnaire

2.4.2 The Tenderer is expected to examine all instructions, forms, terms, and specifications in the tender documents. Failure to furnish all information required by the tender documents or to submit a tender not substantially responsive to the tender documents in every respect will be at the tenderers risk and may result in the rejection of its tender.

2.5 Clarification of Documents

2.5.1 A prospective tenderer requiring any clarification of the tender document may notify the Procuring entity in writing or by post at the entity's address indicated in the Invitation to Tender. The Procuring entity will respond in writing to any request for clarification of the tender documents, which it receives not later than **seven (7) days prior to the deadline for the submission of tenders**, prescribed by the procuring entity. Written copies of the Procuring entities response (including an explanation of the query but without identifying the source of inquiry) will be sent to all prospective tenderers that have received the tender document.

(IN THE CASE OF OPEN INTERNATIONAL TENDER 10 DAYS)

2.5.2 The procuring entity shall reply to any clarifications sought by the tenderer **within 7 days** of receiving the request to enable the tenderer to make timely submission of its tender.

2.5.3 Kamburu and Gitaru power stations have a replica of what this tender is intended to achieve. **A mandatory site visit for** tenderers to familiarize themselves with the expected scope will take place at both Kamburu and Gitaru power stations on **22nd November 2018 as from 10.00am.**

2.6 **Amendment of Documents**

2.6.1 **At any time prior** to the deadline for submission of tenders, the Procuring entity, for any reason, whether at its own initiative or in response to a clarification requested by a prospective tenderer, may modify the tender documents by amendment.

(IN THE CASE OF OPEN INTERNATIONAL TENDER 5 DAYS PRIOR TO TENDER CLOSURE)

2.6.2 All prospective candidates that have received the tender documents will be notified of the amendment in email and will be binding on them.

2.6.3 In order to allow prospective tenderers reasonable time in which to take the amendment into account in preparing their tenders, the Procuring entity, at its discretion, may extend the deadline for the submission of tenders.

2.7 **Language of Tender**

2.7.1 The tender prepared by the tenderer, as well as all correspondence and documents relating to the tender exchange by the tenderer and the Procuring entity, shall be written in English language, provided that any printed literature furnished by the tenderer may be written in another language provided they are accompanied by an accurate English translation of the relevant passages in which case, for purposes of interpretation of the tender, the English translation shall govern.

2.8 **Documents Comprising of Tender**

2.8.1 The tender prepared by the tenderers shall comprise the following components:

- (a) A tender form and a Price Schedule completed in accordance with paragraph 2.9, 2.10 and 2.11 below

- (b) documentary evidence established in accordance with paragraph 2.1 that the tenderer is eligible to tender and is qualified to perform the contract if its tender is accepted;
- (c) documentary evidence established in accordance with paragraph 2.2 that the goods and ancillary services to be supplied by the tenderer are eligible goods and services and conform to the tender documents; and
- (d) tender security furnished in accordance with paragraph 2.14

2.9 Tender Forms

2.9.1 The tenderer shall complete the Tender Form and the appropriate Price Schedule furnished in the tender documents, indicating the goods to be supplied, a brief description of the goods, their country of origin, quantity, and prices.

2.10 Tender Prices

2.10.1 The tenderer shall indicate on the appropriate Price Schedule the unit prices and total tender price of the goods it proposes to supply under the contract

2.10.2 Prices indicated on the Price Schedule shall include all costs including taxes, insurances and delivery to the premises of the entity.

2.10.3 Prices quoted by the tenderer shall be fixed during the Tender's performance of the contract and not subject to variation on any account. A tender submitted with an adjustable price quotation will be treated as non-responsive and will be rejected, pursuant to paragraph 2.22

2.10.4 The validity period of the tender shall be **90 days** after the date of opening of the tender.

2.11 Tender Currencies

2.11.1 Prices shall be quoted in Kenya Shillings unless otherwise specified in the Appendix to Instructions to Tenderers.

2.12 Tenderers Eligibility and Qualifications

2.12.1 Pursuant to paragraph 2.1. the tenderer shall furnish, as part of its Tender, documents establishing the tenderers eligibility to tender and

Its qualifications to perform the contract if its tender is accepted.

2.12.2 The documentary evidence of the tenderers eligibility to tender shall establish to the Procuring entity's satisfaction that the tenderer, at the time of submission of its tender, is from an eligible source country as defined under paragraph 2.1

2.12.3 The documentary evidence of the tenderers qualifications to perform the contract if its tender is accepted shall be established to the Procuring entity's satisfaction;

- (a) that, in the case of a tenderer offering to supply goods under the contract which the tenderer did not manufacture or otherwise produce, the tenderer has been duly authorized by the goods' Manufacturer or producer to supply the goods.
- (b) that the tenderer has the financial, technical, and production capability necessary to perform the contract;
- (c) that, in the case of a tenderer not doing business within Kenya, the tenderer is or will be (if awarded the contract) represented by an Agent in Kenya equipped, and able to carry out the Tenderer's maintenance, repair, and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications.

2.13 Goods Eligibility and Conformity to Tender Documents

2.13.1 Pursuant to paragraph 2.2 of this section, the tenderer shall furnish, as part of its tender documents establishing the eligibility and conformity to the tender documents of all goods which the tenderer proposes to supply under the contract

2.13.2 The documentary evidence of the eligibility of the goods shall consist of a statement in the Price Schedule of the country of origin of the goods and services offered which shall be confirmed by a certificate of origin issued at the time of shipment.

2.13.3 The documentary evidence of conformity of the goods to the tender documents may be in the form of literature, drawings, and data, and shall consist of:

- (a) a detailed description of the essential technical and performance characteristic of the goods;

- (b) a list giving full particulars, including available source and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for a period of two (2) years, following commencement of the use of the goods by the Procuring entity (*if applicable*); and
- (c) a clause-by-clause commentary on the Procuring entity's Technical Specifications demonstrating substantial responsiveness of the goods and service to those specifications, or a statement of deviations and exceptions to the provisions of the Technical Specifications.

2.13.4 For purposes of the documentary evidence to be furnished pursuant to paragraph 2.13.3(c) above, the tenderer shall note that standards for workmanship, material, and equipment, as well as references to brand names or catalogue numbers designated by the Procurement entity in its Technical Specifications, are intended to be descriptive only and not restrictive. The tenderer may substitute alternative standards, brand names, and/or catalogue numbers in its tender, provided that it demonstrates to the Procurement entity's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

2.14 Tender Security

2.14.1 The tenderer shall furnish, as part of its tender, a tender security for the amount specified in the Appendix to Invitation to Tenderers.

2.14.2 The tender security shall be in the amount of **Ksh 300,000.00**

2.14.3 The tender security is required to protect the Procuring entity against the risk of Tenderer's conduct which would warrant the security's forfeiture, pursuant to paragraph 2.14.7

2.14.4 The tender security shall be denominated in Kenya Shillings or in another freely convertible currency, and shall be in the form of an on-demand bank guarantee issued by a reputable bank located in Kenya or where the bank is located abroad, it must have a local correspondent bank.

The Tender Security may also be in the form of an on-demand guarantee issued by a reputable insurance company approved by the Authority and in the form provided in the tender documents or another form acceptable to the Procuring entity.

The tender security must be valid for at least thirty (30) days beyond the validity of the tender.

2.14.5 Any tender not secured in accordance with paragraph 2.14.1 and 2.14.3 will be rejected by the Procuring entity as non-responsive, pursuant to paragraph 2.22

2.14.6 Unsuccessful Tenderer's tender security will be discharged or returned as promptly as possible, but not later than thirty (30) days after the expiration of the period of tender validity prescribed by the Procuring entity.

2.14.7 The successful Tenderer's tender security will be discharged upon the tenderer signing the contract, pursuant to paragraph 2.27 and furnishing the performance security, pursuant to paragraph 2.28

2.14.8 The tender security may be forfeited:

(a) if a tenderer withdraws its tender during the period of tender validity specified by the procuring entity on the Tender Form; or

(b) in the case of a successful tenderer, if the tenderer fails:

(i) to sign the contract in accordance with paragraph 2.27

or

(ii) to furnish performance security in accordance with paragraph 2.28

2.15 **Validity of Tenders**

2.15.1 Tenders shall remain valid for **90 days after** the date of tender opening prescribed by the Procuring entity, pursuant to paragraph 2.18. A tender valid for a shorter period shall be rejected by the Procuring entity as non responsive.

2.15.2 In exceptional circumstances, the Procuring entity may solicit the Tenderer's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The tender security provided under paragraph 2.14 shall also be suitably extended. A tenderer may refuse the request without forfeiting its tender security. A tenderer granting the request will not be required nor permitted to modify its tender.

2.16 **Format and Signing of Tender**

2.16.1 The Tenderer shall prepare **two copies of the tender**, clearly marking each “**ORIGINAL TENDER**” and “**COPY OF TENDER**,” as appropriate. In the event of any discrepancy between them, the original shall govern.

2.16.2 The original and all copies of the tender shall be typed or written in indelible ink and shall be signed by the tenderer or a person or persons duly authorized to bind the tenderer to the contract. **The latter authorization shall be indicated by written power-of-attorney accompanying the tender. All pages of the tender, except for un-amended printed literature, shall be initialed by the person or persons signing the tender.**

2.16.3 The tender shall have no interlineations, erasures, or overwriting 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.

2.17 Sealing and Marking of Tenders

2.17.1 The Tenderer shall seal the original and each copy of the tender in separate envelopes, duly marking the envelopes as “**ORIGINAL**” and “**COPY**.” The envelopes shall then be sealed in an outer envelope.

2.17.2 The inner and outer envelopes shall:

(a) Be addressed to the Procuring entity at the address given in the Invitation to Tender:

(b) Bear, tender number and name in the Invitation for Tenders and the words, “**DO NOT OPEN BEFORE**,” the **4th December 2018 at 2.00 p.m.**

2.17.3 The inner envelopes shall also indicate the name and address of the tenderer to enable the tender to be returned unopened in case it is declared “late”.

2.17.4 If the outer envelope is not sealed and marked as required by paragraph 2.17.2, the Procuring entity will assume no responsibility for the tender’s misplacement or premature opening.

2.18 Deadline for Submission of Tenders

2.18.1 Tenders must be received by the Procuring entity at the address specified under paragraph 2.17.2 no later than **4th December 2018 at 2.00 p.m.**

2.18.2 The Procuring entity may, at its discretion, extend this deadline for the submission of tenders by amending the tender documents in accordance with paragraph 2.6, in which case all rights and obligations of the Procuring entity and candidates previously subject to the deadline will therefore be subject to the deadline as extended

2.19 Modification and Withdrawal of Tenders

2.19.1 The tenderer may modify or withdraw its tender after the tender's submission, provided that written notice of the modification, including substitution or withdrawal of the tenders, is received by the Procuring Entity prior to the deadline prescribed for submission of tenders.

2.19.2 The Tenderer's modification or withdrawal notice shall be prepared, sealed, marked, and dispatched in accordance with the provisions of paragraph 2.17. A withdrawal notice may also be sent by cable, telex but followed by a signed confirmation copy, postmarked no later than the deadline for submission of tenders.

2.19.3 No tender may be modified after the deadline for submission of tenders.

2.19.4 No tender may be withdrawn in the interval between the deadline for submission of tenders and the expiration of the period of tender validity specified by the tenderer on the Tender Form. Withdrawal of a tender during this interval may result in the Tenderer's forfeiture of its tender security, pursuant to paragraph 2.14.7

2.19.5 The procuring entity may at any time terminate procurement proceedings before contract award and shall not be liable to any person for the termination.

2.19.6 The procuring entity shall give prompt notice of the termination to the tenderers and on request give its reasons for termination within 14 days of receiving the request from any tenderer.

2.20 Opening of Tenders

2.20.1 The Procuring entity will open all tenders in the presence of tenderers' representatives who choose to attend, at **4th December 2018 at 2.30 p.m.** And in the location specified in the Invitation to Tender.

The tenderers' representatives who are present shall sign a register evidencing their attendance.

2.20.2 The tenderers' names, tender modifications or withdrawals, tender prices, discounts and the presence or absence of requisite tender security and such other details as the Procuring entity, at its discretion, may consider appropriate, will be announced at the opening.

2.20.3 The Procuring entity will prepare minutes of the tender opening.

2.21 Clarification of Tenders

2.21.1 To assist in the examination, evaluation and comparison of tenders the Procuring entity may, at its discretion, ask the tenderer for a clarification of its tender. The request for clarification and the response shall be in writing, and no change in the prices or substance of the tender shall be sought, offered, or permitted.

2.21.2 Any effort by the tenderer to influence the Procuring entity in the Procuring entity's tender evaluation, tender comparison or contract award decisions may result in the rejection of the tenderers' tender.

2.22 Preliminary Examination

2.22.1 The Procuring entity will examine the tenders to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the tenders are generally in order. Refer to instructions to tenderers reference 2.24

2.22.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantify, the unit price shall prevail, and the total price shall be corrected. If the candidate does not accept the correction of the errors, its tender will be rejected, and its tender security forfeited. If there is a discrepancy between words and figures the amount in words will prevail

2.22.3 The Procuring entity may waive any minor informality or non-conformity or irregularity in a tender which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any tenderer.

2.22.4 Prior to the detailed evaluation, pursuant to paragraph 2.23 the Procuring entity will determine the substantial responsiveness of each tender to the tender documents. For purposes of these paragraphs, a substantially responsive tender is one, which conforms to all the terms and conditions of the tender documents without material deviations. The Procuring entity's determination of a tender's responsiveness is to be based on the contents of the tender itself without recourse to extrinsic evidence.

2.22.5 If a tender is not substantially responsive, it will be rejected by the Procuring entity and may not subsequently be made responsive by the tenderer by correction of the non-conformity.

2.23 Conversion to Single Currency

2.23.1 Where other currencies are used, the procuring entity will convert these currencies to Kenya Shillings using the selling exchange rate on the date of tender closing provided by the Central Bank of Kenya.

2.24 Evaluation and Comparison of Tenders

2.24.1 The Procuring entity will evaluate and compare the tenders which have been determined to be substantially responsive, pursuant to paragraph 2.22

2.24.2 The tender evaluation committee shall evaluate the tender within 30 days of the validity period from the date of opening the tender.

2.24.3 A tenderer who gives false information in the tender document about its qualification or who refuses to enter into a contract after notification of contract award shall be considered for debarment from participating in future public procurement.

2.25 Preference

2.25.1 Preference where allowed in the evaluation of tenders shall not exceed 15%

2.26 Contacting the Procuring entity

2.26.1 Subject to paragraph 2.21 no tenderer shall contact the Procuring entity on any matter related to its tender, from the time of the tender opening to the time the contract is awarded.

2.26.2 Any effort by a tenderer to influence the Procuring entity in its decisions on tender, evaluation, tender comparison, or contract award may result in the rejection of the Tenderer's tender.

2.27 Award of Contract

(a) Post-qualification

2.27.1 In the absence of pre-qualification, the Procuring entity will determine to its satisfaction whether the tenderer that is selected as having submitted the lowest evaluated responsive tender is qualified to perform the contract satisfactorily.

2.27.2 The determination will take into account the tenderer financial, technical, and production capabilities. It will be based upon an examination of the documentary evidence of the tenderers qualifications submitted by the tenderer, pursuant to paragraph 2.12.3 as well as such other information as the Procuring entity deems necessary and appropriate.

2.27.3 A positive determination will be a prerequisite for award of the contract to the tenderer. A negative determination will result in rejection of the Tenderer's tender, in which event the Procuring entity will proceed to the next lowest evaluated tender to make a similar determination of that Tenderer's capabilities to perform satisfactorily.

(b) Award Criteria

2.27.4 The Procuring entity will award the contract to the successful tenderer(s) whose tender has been determined to be substantially responsive and has been determined to be the lowest evaluated tender, provided further that the tenderer is determined to be qualified to perform the contract satisfactorily.

(c) Procuring entity's Right to Vary quantities

2.27.5 The Procuring entity reserves the right at the time of contract award to increase or decrease the quantity of goods originally specified in the

Schedule of requirements without any change in unit price or other terms and conditions

(d) **Procuring entity's Right to accept or Reject any or All Tenders**

2.27.6 The Procuring entity reserves the right to accept or reject any tender, and to annul the tendering process and reject all tenders at any time prior to contract award, without thereby incurring any liability to the affected tenderer or tenderers or any obligation to inform the affected tenderer or tenderers of the grounds for the Procuring entity's action

2.27.7 KenGen may at its own discretion conduct due diligence on the eligible bidders to establish their ability to perform the contract.

2.28 Notification of Award

2.28.1 Prior to the expiration of the period of tender validity, the Procuring entity will notify the successful tenderer in writing that its tender has been accepted.

2.28.2 The notification of award will constitute the formation of the Contract but will have to wait until the contract is finally signed by both parties

2.28.3 Upon the successful Tenderer's furnishing of the performance security pursuant to paragraph 2.28, the Procuring entity will promptly notify each unsuccessful Tenderer and will discharge its tender security, pursuant to paragraph 2.14

2.29 Signing of Contract

2.29.1 At the same time as the Procuring entity notifies the successful tenderer that its tender has been accepted, the Procuring entity will send the tenderer the Contract Form provided in the tender documents, incorporating all agreements between the parties.

2.29.2 The parties to the contract shall have it signed within **fifteen (15) days** from the date of notification of contract award unless there is an administrative review request.

2.29.3 Within **fifteen (15) days** of receipt of the Contract Form, the successful tenderer shall sign and date the contract and return it to the Procuring entity.

2.30 Performance Security

2.30.1 Within **fifteen (15) days** of the receipt of notification of award from the Procuring entity, the successful tenderer shall furnish the performance security in accordance with the Conditions of Contract, in the Performance Security Form provided in the tender documents, or in another form acceptable to the Procuring entity.

2.30.2 Failure of the successful tenderer to comply with the requirements of paragraph 2.27 or paragraph 2.28 shall constitute sufficient grounds for the annulment of the award and forfeiture of the tender security, in which event the Procuring entity may make the award to the next lowest evaluated Candidate or call for new tenders.

2.31 Corrupt or Fraudulent Practices

2.31.1 The Procuring entity requires that tenderers observe the highest standard of ethics during the procurement process and execution of contracts when used in the present regulations, the following terms are defined as follows;

- (i) “corrupt practice” means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and
- (ii) “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 Procuring entity, and includes collusive practice among tenderer (prior to or after tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the Procuring entity of the benefits of free and open competition;

2.31.2 The procuring entity 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.

2.31.3 Further a tenderer who is found to have indulged in corrupt or fraudulent practices risks being debarred from participating in public procurement in Kenya.

Appendix to Instructions to Tenderers

The following information regarding the particulars of the tender shall complement supplement or amend the provisions of the instructions to tenderers. Wherever there is a conflict between the provision of the instructions to tenderers and the provisions of the appendix, the provisions of the appendix herein shall prevail over those of the instructions to tenderers

INSTRUCTIONS TO TENDERERS REFERENCE	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
Eligibility	<i>This tender is Open National tender.</i>
Site visit	<p>Site visit; Kamburu and Gitaru power stations have a replica of what this tender is intended to achieve. A mandatory site visit for tenderers to familiarize themselves with the expected scope will take place at both Kamburu and Gitaru power stations on 22nd November 2018 as from 10.00 a.m.</p>
Clarification Request	<p>Bidders should send clarification request to tenders@kengen.co.ke and copy to dgichobi@kengen.co.ke; dkorir@kengen.co.ke and must be received at least 5days prior to tender closure. The employer will upload all the clarifications/addendum on the website</p>
Tender Security	Tender security of value Ksh 300,000.00 must be furnished in the form of cash/bank guarantee /approved insurance companies/Letter of Credit valid for at least 30days beyond tender validity
Tender validity	Tender validity is 120days
No of copies	The Tenderer shall prepare two copies of the tender , clearly marking each “ ORIGINAL TENDER ” and “ COPY OF TENDER ,” as appropriate. In the event of any discrepancy between them, the original shall govern
Tender Closure	Tender closes on 4th December 2018 at 2.00 p.m. And will be opened on 4th December 2018 at 2.30 p.m. in the presence of bidders representative who choose to attend
EXECUTIVE ORDER NO.2	<p>As per executive order no 2. Effective 1st July 2018 all Public Procuring Entities shall maintain and continuously update and publicize through the website of the Public procuring Entity ,e-Citizen ,Public Procurement Regulatory Authority platforms, public notice boards and /official Government publications. In compliance to the above the following list shall be a mandatory requirement :</p> <ol style="list-style-type: none"> i. Name of supplier ii. Registration details (ID/Registration/Incorporation Number) iii. PIN Number iv. List of directors, shareholders and beneficial owners(in case of a company) v. Name of proprietor (for sole proprietor and business name) vi. Name of partners (for partnerships)

	<p>vii. Business contact information (Telephone and Email Address)</p> <p>viii. Postal Address</p> <p>ix. Physical address</p> <p>x. Tax compliance status</p> <p>xi. Business permit /License number</p> <p>xii. County of operations</p>
Evaluation Requirements	<p>The following shall be the evaluation Criteria</p> <p>A) Mandatory Requirements</p> <ul style="list-style-type: none"> ➤ <i>Duly completed tender form</i> ➤ <i>Duly completed price schedule</i> ➤ <i>Valid Tax Compliance Certificate for local suppliers.</i> ➤ <i>Valid Tender Security of Ksh 300,000.00</i> ➤ <i>Duly filled and signed Mandatory confidential business questionnaire</i> ➤ <i>Certificate of incorporation</i> ➤ <i>Certified Audited financial accounts from 2015 to 2017</i> ➤ <p>B) Technical Evaluation Requirements</p> <ul style="list-style-type: none"> ➤ <i>Minimum average annual turnover of KES 20,000,000.00 calculated as total certified payments received for contracts in progress or completed, within the last three (3) years (2015-2017).</i> ➤ <i>Full compliance and response to all items in the bill of quantities.</i> ➤ <i>Duly completed technical specifications schedule</i> ➤ <i>Duly Signed and Stamped Manufacturer's authorization for all specified items</i> ➤ <i>Duly signed Warranty as specified in the technical specifications</i> ➤ <i>Product brochures and technical data sheets as detailed in the technical specifications.</i> ➤ <i>Copies of duly signed completion certificates for works or duly certified delivery notes and invoices for goods supplied under three similar scope of projects.</i> ➤ <i>Signed completion certificates for three similar projects</i> ➤ <i>Work program in tabulated or Gantt chart format</i> ➤ <i>Bidder has manufacturer authorization of goods stated in the tender document</i> ➤ <i>Experience under contracts in the role of supplier, for at least the last 5 [five] years prior to the application submission deadline, and with activity in each year (bidder to provide Copies of duly signed completion certificates for works or duly certified delivery notes and invoices for goods supplied under three similar scope of projects as proof)</i> ➤ <i>The bidder MUST have assembled and supplied similar equipment at least thrice in the last 2 years (bidder to provide Copies of duly signed completion certificates for works or duly certified delivery notes and invoices for goods supplied under three similar scope of</i>

	<p>projects as proof).</p> <ul style="list-style-type: none"> ➤ <i>The Technical Evaluation will be based on compliance with the technical specifications set out in Section V of this tender document. This will follow a “PASS/FAIL” scoring technique on the various parameters outlined in the schedule of technical specifications in Section V.</i> ➤ <i>The delivery period must not exceed four (4) months after signing of the contract.</i> ➤ <i>The work program shall be pragmatic and detailed for the entire Scope of work.</i> <p>C)Financial Evaluation</p> <ul style="list-style-type: none"> ➤ <i>This will take into account the bidder’s tender price after subjecting the bid to preliminary and technical evaluation.</i> ➤ <i>The financial evaluation will also take into account, in addition to the tender price and the price of incidental services, the following factors:</i> <ul style="list-style-type: none"> (a) <i>deviations in payment schedule from that specified in the Special Conditions of Contract;</i> (b) <i>the cost of components, maintenance, and service</i> <p><i>At the conclusion of the financial evaluation, KenGen will seek to establish the substantially responsive tender that will be determined to be the lowest evaluated, provided further that the tenderer is determined to be qualified to perform the</i></p> <ul style="list-style-type: none"> ➤ <i>Contract satisfactorily.</i>
	<p><i>KenGen may at its own discretion conduct due diligence on the eligible bidders to establish their ability to perform the contract</i></p>

SECTION III:

GENERAL CONDITIONS OF CONTRACT

Table of Clauses

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3.1 **Definitions**

3.1.1 In this Contract, the following terms shall be interpreted as indicated:-

- (a) “The Contract” means the agreement entered into between the Procuring entity and the tenderer, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- (b) “The Contract Price” means the price payable to the tenderer under the Contract for the full and proper performance of its contractual obligations
- (c) “The Goods” means all of the equipment, machinery, and/or other materials, which the tenderer is required to supply to the Procuring entity under the Contract.
- (d) “The Procuring entity” means the organization purchasing the Goods under this Contract.
- (e) “The Tenderer” means the individual or firm supplying the Goods under this Contract.

3.2 **Application**

3.2.1 These General Conditions shall apply in all Contracts made by the Procuring entity for the procurement installation and commissioning of equipment

3.3 **Country of Origin**

3.3.1 For purposes of this clause, “Origin” means the place where the Goods were mined, grown or produced.

3.3.2 The origin of Goods and Services is distinct from the nationality of the tenderer.

3.4 **Standards**

3.4.1 The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications.

3.5 Use of Contract Documents and Information

- 3.5.1 The tenderer shall not, without the Procuring entity's prior written consent, disclose the Contract, or any provision therefore, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the Procuring entity in connection therewith, to any person other than a person employed by the tenderer in the performance of the Contract.
- 3.5.2 The tenderer shall not, without the Procuring entity's prior written consent, make use of any document or information enumerated in paragraph 3.5.1 above
- 3.5.3 Any document, other than the Contract itself, enumerated in paragraph 3.5.1 shall remain the property of the Procuring entity and shall be returned (all copies) to the Procuring entity on completion of the Tenderer's performance under the Contract if so required by the Procuring entity

3.6 Patent Rights

- 3.6.1 The tenderer shall indemnify the Procuring entity against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof in the Procuring entity's country

3.7 Performance Security

- 3.7.1 Within **fifteen (15) days** of receipt of the notification of Contract award, the successful tenderer shall furnish to the Procuring entity the performance security in the amount specified in Special Conditions of Contract.
- 3.7.2 The proceeds of the performance security shall be payable to the Procuring entity as compensation for any loss resulting from the Tenderer's failure to complete its obligations under the Contract.
- 3.7.3 The performance security shall be denominated in the currency of the Contract, or in a freely convertible currency acceptable to the Procuring entity and shall be in the form of a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in Kenya or abroad,

acceptable to the Procuring entity, in the form provided in the tender documents.

3.7.4 The performance security will be discharged by the Procuring entity and returned to the Candidate not later 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

3.8 Inspection and Tests

3.8.1 The Procuring entity or its representative shall have the right to inspect and/or to test the goods to confirm their conformity to the Contract specifications. The Procuring entity shall notify the tenderer in writing in a timely manner, of the identity of any representatives retained for these purposes.

3.8.2 The inspections and tests may be conducted in the premises of the tenderer or its subcontractor(s), at point of delivery, and/or at the Goods' final destination. If conducted on the premises of the tenderer or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Procuring entity.

3.8.3 Should any inspected or tested goods fail to conform to the Specifications, the Procuring entity may reject the equipment, and the tenderer shall either replace the rejected equipment or make alterations necessary to make specification requirements free of costs to the Procuring entity.

3.8.4 The Procuring entity's right to inspect, test and where necessary, reject the goods after the Goods' arrival shall in no way be limited or waived by reason of the equipment having previously been inspected, tested and passed by the Procuring entity or its representative prior to the equipment delivery.

3.8.5 Nothing in paragraph 3.8 shall in any way release the tenderer from any warranty or other obligations under this Contract.

3.9 Packing

3.9.1 The tenderer shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract.

3.9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract

3.10 Delivery and Documents

3.10.1 Delivery of the Goods shall be made by the tenderer in accordance with the terms specified by Procuring entity in its Schedule of Requirements and the Special Conditions of Contract

3.11 Insurance

3.11.1 The Goods supplied under the Contract shall be fully insured against loss or damage incidental to manufacturer or acquisition, transportation, storage, and delivery in the manner specified in the Special conditions of contract.

3.12 Payment

3.12.1 The method and conditions of payment to be made to the tenderer under this Contract shall be specified in Special Conditions of Contract

3.12.2 Payments shall be made promptly by the Procuring entity as specified in the contract

3.13 Prices

3.13.1 Prices charged by the tenderer for goods delivered and services performed under the Contract shall not, with the exception of any price adjustments authorized in Special Conditions of Contract, vary from the prices by the tenderer in its tender.

3.13.2 Contract price variations shall not be allowed for contracts not exceeding one year (12 months)

3.13.3 Where contract price variation is allowed, the variation shall not exceed 25% of the original contract price.

3.13.4 Price variation request shall be processed by the procuring entity within 30 days of receiving the request.

3.14. Assignment

3.14.1 The tenderer shall not assign, in whole or in part, its obligations to perform under this Contract, except with the Procuring entity's prior written consent

3.15 Subcontracts

3.15.1 The tenderer shall notify the Procuring entity in writing of all subcontracts awarded under this Contract if not already specified in the tender. Such notification, in the original tender or later, shall not relieve the tenderer from any liability or obligation under the Contract

3.16 Termination for default

3.16.1 The Procuring entity may, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the tenderer, terminate this Contract in whole or in part

- (a) if the tenderer fails to deliver any or all of the goods within the period(s) specified in the Contract, or within any extension thereof granted by the Procuring entity
- (b) if the tenderer fails to perform any other obligation(s) under the Contract
- (c) if the tenderer, in the judgment of the Procuring entity has engaged in corrupt or fraudulent practices in competing for or in executing the Contract

3.16.2 In the event the Procuring entity terminates the Contract in whole or in part, it may procure, upon such terms and in such manner as it deems appropriate, equipment similar to those undelivered, and the tenderer shall be liable to the Procuring entity for any excess costs for such similar goods.

3.17 Liquidated Damages

3.17.1. If the tenderer fails to deliver any or all of the goods within the period(s) specified in the contract, the procuring entity shall, without prejudice to its other remedies under the contract, deduct from the contract prices liquidated damages sum equivalent to 0.5% of the delivered price of the

delayed items up to a maximum deduction of 10% of the delayed goods. After this the tenderer may consider termination of the contract.

3.18 Resolution of Disputes

3.18.1 The procuring entity and the tenderer shall make every effort to resolve amicably by direct informal negotiation and disagreement or dispute arising between them under or in connection with the contract

3.18.2 If, after thirty (30) days from the commencement of such informal negotiations both parties have been unable to resolve amicably a contract dispute, either party may require adjudication in an agreed national or international forum, and/or international arbitration.

3.19 Language and Law

3.19.1 The language of the contract and the law governing the contract shall be English language and the Laws of Kenya respectively unless otherwise stated.

3.20 Force Majeure

3.20.1 The tenderer shall not be liable for forfeiture of its performance security or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

3.21 Taxes

3.21.1 "Taxes" means all present and future taxes, levies, duties, charges, assessments, deductions or withholdings whatsoever, including any interest thereon, and any penalties and fines with respect thereto, wherever imposed, levied, collected, or withheld pursuant to any regulation having the force of law and "Taxation" shall be construed accordingly.

3.21.2 Local Taxation

Nothing in the Contract shall relieve the Contractor and/or his Sub-Contractors from their responsibility to pay any taxes, statutory contributions and levies that may be levied on them in Kenya in

respect of the Contract. The Contract Price shall include all applicable taxes and shall not be adjusted for any of these taxes.

3.21.3 The Contractor shall be deemed to be familiar with the tax laws in the Employer's Country and satisfied themselves with the requirements for all taxes, statutory contributions and duties to which they may be subjected during the term of the Contract.

3.21.4 In instances where discussions are held between the Employer and the Contractor regarding tax matters, this shall not be deemed to constitute competent advice and hence does not absolve the Contractor of their responsibility in relation to due diligence on the tax issue as per 3.21.2 above.

Tax Deduction

3.21.5 If the Employer is required to make a tax deduction by Law, then the deduction shall be made from payments due to the Contractor and paid directly to the Kenya Revenue Authority. The Employer shall upon remitting the tax to Kenya Revenue Authority furnish the Contractor with the relevant tax deduction certificates.

3.21.6 Where the Contractor is paid directly by the Financiers and the Employer is not able to deduct tax, then the Contractor will be required to pay the tax deduction to Kenya Revenue Authority in the name of the Employer and furnish the Employer with an original receipt thereof as evidence of such payment. In absence of the said evidence, the Employer will not process any subsequent payments to the Contractor.

Tax Indemnity

3.21.7 The Contractor shall indemnify and hold the Employer harmless from and against any and all liabilities, which the Employer may incur for any reason of failure by the Contractor to comply with any tax laws arising from the execution of the Contract whether during the term of the Contract or after its expiry.

3.21.8 The Contractor warrants to pay the Employer (within fourteen (14) days of demand by the Employer), an amount equal to the loss, liability or cost which the Employer determines has been (directly or indirectly) suffered by the Employer for or on account of the Contractor's Tax liability arising from the Contract.

3.21.9 Where the amount in 3.21.8 above remains unpaid after the end of the fourteen (14) days moratorium, the Employer shall be entitled to compensation for financing charges.

SECTION IV

SPECIAL CONDITIONS OF CONTRACT

- 4.1. Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, between the GCC and the SCC, the provisions of the SCC herein shall prevail over these in the GCC.
42. Special conditions of contract as relates to the GCC

REFERENCE GCC	OF	SPECIAL CONDITIONS OF CONTRACT
3.7.5		<i>performance security shall be 10% of the contract price</i>
3.7.6		<i>The supplier shall be required to expressly confirm that the goods supplied shall be under the warranty specified in section V: Technical specifications.</i>
3.11.1- Insurance		<i>Proof of Insurance shall be provided to KenGen on demand</i>
3.10.11 -Delivery Terms		<i>Terms of delivery shall be as per incoterms 2010, for international bidders shall be DAP, for local bidders shall be DDP.</i> <i>Indicate terms of payment depending on Whether local or overseas.</i> <i>Credit period 30/45/60 days</i> <i>Letter of Credit terms for Local and Overseas suppliers</i>
3.18		<i>Arbitration where necessary shall be by the Chartered Institute of Arbitrators Kenya Chapter or other International body.</i>

SECTION V

TECHNICAL SPECIFICATIONS

1.0 GENERAL

1.1 Introduction

Sang'oro is a 21.2MW hydro power station and was commissioned in July 2012. It is located approximately 60km from Kisumu town off Kisumu Homabay road. The plant runs on a Distributed control system that interfaces all the auxiliary subsystems for overall plant control and supervision. The plant can also be remotely monitored and controlled from sondu power station.

The DCS platform comprises of Logic controllers (PLC), computers for operator stations (OPS), data servers, touch panels and application software.

Due to various challenges experienced over the years, KenGen have undertaken the task of re-engineering the control system to mitigate downtime and elongate the plant's life.

1.2 Scope

The overall goal of this tender is to procure and assemble the specified equipment and to be **delivered to Sang'oro power station located in Kisumu county**. The complete assembly shall be used to re-engineer the **Distributed Control System (DCS)**. To achieve this objective therefore, the devices must be configured to meet the required performance and functionalities. The contractor shall:

- a) Assemble two servers in the 22 U Cabinet, and configure the 4-port KVM switch so as to switch between the two servers and use a common monitor keyboard and the pointing device. Install PDU and carry out all the necessary electrical wiring in the cabinet. Blank the open spaces in the server cabinets with standard blank covers
- b) Install a 48 port patch panel in the 22 U server cabinet and terminate short patch cords to the Cisco switches.
- c) Assemble two sets of two workstations in the 14 U Cabinets and configure the two with the 2-port KVM switch such that it'll be possible to switch from one workstation to the other and share the two displays with each workstation at a time. Install PDU and carry out all the necessary electrical wiring in the cabinet.

- d) Assemble four servers in the 42 U cabinet, and configure the 8-Port KVM switch and the console kit so that all can work in harmony leaving provisions for other servers to be added in the cabinet in future. Install PDU and carry out all the necessary electrical wiring in the cabinet. Blank the open spaces in the server cabinets with standard blank covers
- e) Install a 48 port patch panel in the 42 U server cabinet and terminate short patch cords to the Cisco switches (two switches in the 42U and the 22U cabinets)
- f) Provide all the necessary Operating system software licenses, device datasheets and associated utilities and software(s).
- g) Supply necessary accessories to be used with two workstations and a 2-port KVM switch such that it'll be possible to switch from one workstation to the other and share the two displays with each workstation at a time
- h) Provide and assemble the GPS equipment in the 22 U and 42U cabinets and all associated accessories.
- i) Cascade the two Cisco switches both in 22U and 42U cabinets using fiber patch codes terminated with appropriate connectors.
- j) Supply two workstations, two servers and a Cisco switch separately as spares.
- k) Supply two engineering laptops complete with carrying bags and all the associated accessories.
- l) Label the ports and network cables to identify the connected devices appropriately in the Network with cable tags marked with indelible ink.
- m) Supply tools and accessories as detailed in the technical specifications.
- n) Supply a color laser printer with all the associated accessories.
- o) As- Built drawings of the cabinets' assembly, wiring schematics and user manuals for all the components supplied both in hard and soft copies.
- p) Deliver to site the assembled cabinets and other equipment.

1.3 General Technical requirements

KenGen has adequate internal capacity to re-engineer the Distributed Control System (DCS) to enhance operations and mitigate the current challenges. To achieve this however, various materials whose minimum specifications are shown below have been identified.

It is KenGen's expectations that the equipment and/or devices will meet international standards and of high quality as outlined below. Similarly, the workmanship during the assembly shall be of proven quality.

The control system shall be designed to ensure continuity of operation under all working conditions and to facilitate inspection, maintenance and repairs. All reasonable precautions shall be taken in the design of equipment to ensure safety of personnel concerned with the operation and maintenance of the equipment.

All components shall be adequately rated/sized for their most onerous duty and the specified ambient temperature. Due account shall be taken of any heat generated by the equipment therein and the components shall be appropriately selected, rated or de-rated as necessary to suit the most onerous operating temperature within the equipment.

All equipment/components to be supplied should have spares available for the next 10 years after installation.

1.4 Engineering Services

The Contractor shall assemble, wire and deliver complete products herein referred to as server and workstation cabinets with specifications as outlined elsewhere in this document. The three cabinets shall meet the stated size and quality, and will comprise of the following:

22U server cabinet

- Two rack mount servers installed with windows 2012R2 Operating system
- One 4-port KVM switch
- One 24 inch LED monitor
- A keyboard
- Mouse
- Power distribution units
- 48-port patch panel
- 1 GPS system
- Two 24-port Cisco switches of 3850 series or higher
- One rack mount power inverter

42 U Server Cabinet

- Two rack mount servers installed with windows 2012R2 Operating system
- One 8-port KVM switch
- Rack mount keyboard and monitor
- 48-port patch panel
- 1 GPS system
- Two 24-port Cisco switches of 3850 series or higher
- One Rack mount power inverter
- Power distribution units

14U workstation cabinet

- one 14 U workstation

- One 2-port KVM Switch
- Two workstations
- Two 24 inch display Units
- Power Distribution Units

Other items to be supplied in this scope shall include:

- Two separate engineering Laptops
- Two servers, two workstations and one Cisco switch as spares
- Network cable repair maintenance toolkit
- Three rolls Cat 6 network cables

The STP patch cables to be used between the patch panel and the switches shall be of cat 6 standard.

1.5 Electrical Works

The contractor shall carry out all the internal data networks and electrical works related to the 14U, 22U and 42 U cabinets before delivery to site.

2.0 Drawings and Data to be supplied by the Contractor after Tender Award

2.1 Dimensions

All drawings are to be dimensioned using metric units. All documentation shall be provided in English language.

2.2 General Instructions

Before assembly of the servers and the associated devices in both panels, the client shall verify that the devices meet the minimum requirements.

The servers and the workstations will be installed with the Operating system as outlined in the server and workstation technical specifications.

Similarly, after the assembly of the servers, work stations and the associated devices in each server and workstation cabinets, **the procuring entity will carry out factory verification and necessary acceptance test after which consent to deliver the finished product to site will be issued.**

2.3 Requirements

2.3.1 The successful bidder shall prepare a work program in the submitted bid which will form a part of the contract.

2.3.2 After all items of the work have been manufactured and assembled; complete sets of prints and softcopies of the AS BUILT drawings shall be furnished as indicated below:

- 1 Set Complete set of Soft copies [reproducible in the original software and PDF]

4 set complete set of robust, well bound prints

3.0 Technical specifications schedule

3.1 Rack Mount servers

Description	Minimum requirements	Bidders Offer
Form factor	Rack	
Operating system	Windows 2012 server R2	
Processor manufacturer	Intel	
Processor type	Xeon Gold	
Number of processors installed	2	
Processor model	6148 (16-Core, 2.1 GHz, 120W)	
Processor speed	2.4 Ghz	
Memory	64 GB RDIMM DR 2666 MT/s (2x 32 GB)	
Storage Controller type	12GB/s SAS	
Internal storage	8 SFF Chassis (upgradeable to 24 SFF front)	
Input voltage	120V AC ; 240 V AC	
PCI express Slots	6 total: 3-slots (x8, x16, x8 with m.2) as standard, plus 3 PCIe (x8, x16, x8)	
Network Controller	Embedded 4-Port 1GbE, plus HPE Ethernet 25 Gb 2-port 631FLR Adapter (817709-B21)	
Ethernet technology	Gigabit Ethernet	
Power supply	2x 800W HPE FlexSlot power supply	
Maximum power supply	800W	
Number of external 2.5'' bays	8	
Rack height	2U	
Warranty	3 years parts, 3 years labor, and 3 years onsite service (3/3/3) warranty.	

3.2 8 Port KVM switch

Description	Minimum requirements	Bidders offer
Interface provided	RJ-45	
Connector Type Qty	2	
Connector Type	Keyboard (USB)	
Connector Type	Mouse (USB)	
Keyboard Mouse Interface	USB	
KVM Local Users Qty	1 local user	
Server Connection Via Twisted Pair	CAT5	
Rack Mounting Kit	Included	
Features	On-Screen Display	
Form Factor	Rack-mountable	
Ports Qty	8	
Stackable	Cascadable	
Subcategory	KVM	
Networking Subtype	KVM	
Networking Type	KVM switch	
Frequency Required	50/60 Hz	
Nominal Voltage	AC 120/230 V	
Power supply Type	Internal power supply	
Depth	6.5''	
Height	1.7 ''	
Weight	4.5 lbs	
Width	17.2''	
Port Qty	8	
Port Type	KVM	
Warranty	3 years	

3.3 48 Port Patch panel

Description	Minimum specs	Bidders offer
Color	Black	
Connector A	RJ45 Female	
Connector B	110 Punch Down	
Ports	48	
RMU	2U	
Category Rating	CAT6	

3.4 Cisco catalyst C3850-24XU-S Switch

Description	Minimum Requirements	Bidders Offer
Model	C3850-24XU-S	
Device Type	Switch - 24 ports - L3 - managed - stackable	
Subtype	Gigabit Ethernet	
Ports	24 x 10/100/1000 (UPOE)	
Uplink ports	2x 1000 base x fibre optic	
Power Over Ethernet	UPOE	
PoE Budget	580	
Perfomance	Switching capacity: 92 Gbps Stacking bandwidth: 480 Gbps Forwarding performance (64-byte packet size): 460 Mpps	
Capacity	IPv4 routes: 24000 NetFlow entries: 24000 Switched virtual interfaces (SVIs): 1000 Virtual interfaces (VLANs): 4000	
Jumbo frame Support	9198 bytes	
Authentication Method	Kerberos, RADIUS, Secure Shell (SSH), TACACS+	
Flash Memory	2 GB	
MAC Address Table Size	32000 entries	
Form Factor	desktop, rack-mountable	
Stackable	stackable	
Advanced Switching	Layer 3	
Features	802.1x authentication, ARP inspection, Dynamic Trunking Protocol (DTP) support, Energy Efficient Ethernet, Link Aggregation Control Protocol (LACP), Multiple Spanning Tree Protocol (MSTP) support, PIM snooping, Port Aggregation Protocol (PAgP) support, Quality of Service (QoS), Rapid Per-VLAN Spanning Tree Plus (PVRST+),	

	Remote Switch Port Analyzer (RSPAN), SSH support, ARP support, Shaped Round Robin (SRR), Syslog support, Trivial File Transfer Protocol (TFTP) support, Uni-Directional Link Detection (UDLD), VLAN Trunking Protocol (VTP), Virtual Route Forwarding-Lite (VRF-Lite), Virtual Routing and Forwarding (VRF), Weighted Tail Drop (WTD), radio resource management (RRM), Access Control List (ACL) support, Bridge protocol data unit (BPDU), Cisco StackPower technology, Cisco StackWise-480 technology, Control plane protection (CoPP), DHCP snooping, DHCP support	
Compliant Standards	9198 bytes	
Ports Qty	24	
Manageable	Yes	
Routing Protocol	EIGRP, RIP-1, RIP-2, RIPng	
PoE Budget	580	
Remote Management Protocol	CLI, RMON 1, RMON 2, SNMP 1, SNMP 2c, SNMP 3, SSH, TFTP, Telnet	
Power Over Ethernet (PoE)	UPOE	
Power Provided	1100 Watt	
Nominal Voltage	AC 120/230 V	
Frequency Required	50 - 60 Hz	
Camera installed size	2 GB	
Power Redundancy	optional	
Power Redundancy Scheme	1+1 (with optional power supply)	
Compliant Standards	CISPR 22 Class A, CISPR 24, EN 61000-3-2, NOM, EN 61000-3-3, EN55024, EN50082-1, EN 61000-6-1, EN 61000-4-4, EN 61000-4-2, EN 61000-4-3, EN 61000-4-6,	

	CCC, ICES-003 Class A, EN 61000-4-5, FCC CFR47 Part 15, UL 60950-1, IEC 60950-1, EN 60950-1, UL 60950-1 Second Edition, KCC, RoHS, FCC Part 15 A, AS/NZS 3548 Class A, BSMI Class A, CAN/CSA C22.2 No. 60950-1, EN 60950-1 Second Edition, IEC 60950-1 Second Edition, VCCI Class A, KN24, KN22 Class A, EN 300386, AS/NZS CISPR 22, CNS 13438, EN 55022 Class A	
Ports Type	10/100/1000 (UPOE)	
Ports Quantity	24	
Performance Type	forwarding performance (64-byte packet size), stacking bandwidth, switching capacity	
Performance Value	460 Mbps, 480 Gbps, 92 Gbps	
Capacity Type	IPv4 routes, NetFlow entries, switched virtual interfaces (SVIs), virtual interfaces (VLANs)	
Capacity Value	1000, 24000, 4000	
Service included	Advance parts replacement, consulting	
Full contract period	90 days, lifetime	
Response Time	Next business day	
Software Type	Cisco IOS IP Base	
Warranty	4 years parts and labor	

3.5 Work Stations

Description	Minimum Specifications	Bidders offer
General		
Operating system	Windows 10 64 bit	
Processor	Intel® Xeon® E5-2650 v4 (2.2 GHz, 30 MB cache, 12 cores, Intel® vPro™)	
Number of processors	1	
Graphics	NVIDIA® Quadro® M4000 (8 GB)	
Memory	16 GB DDR4-2400 registered	

	SDRAM (2 x 8 GB)	
Memory slots	8 DIMM (with 1 processor) and 16 DIMM (with 2 processors)	
SSD drive	1 TB	
Optical drive	Slim SATA Super Multi DVD writer	
External I/O Ports	4 USB 3.0; 1 combo headset; 1 microphone Front Back Internal 4 USB 3.0; 2 USB 2.0; 1 serial; 2 PS/2; 2 RJ-45; 1 audio line in; 1 audio line out 2 USB 2.0; 1 USB 3.0	
Expansion slots	2 PCIe Gen3 x16; 1 PCIe Gen3 x16 (when 2nd CPU installed); 1 PCIe Gen2 x4 (when 1 CPU installed) OR PCIe Gen3 x8 (when 2nd CPU installed); 1 PCIe Gen3 x8; 1 PCIe Gen3 x4; 1 PCIe Gen2 x1 1 PCIe Gen2 x 4 when 1 CPU is installed. Transforms to PCIe Gen3 x8 when 2nd CPU installed. The PCIe x8 connectors are open ended, allowing a PCIe x16 card to be seated in the slot.	
Energy efficiency	ENERGY STAR® certified	
Audio	Integrated IDT 92HD94 audio	
Form factor	Tower	
Keyboard	USB Keyboard	
Warranty	3 years parts, 3 years labor, and 3 years onsite service (3/3/3) warranty.	

3.6 Engineering Tools (laptops)

Description	Minimum Specs	Bidders Offer
Operating system	Windows 10 Pro 64 bit	
Processor	Intel® Core™ i7-8550U (1.8	

	GHz base frequency, up to 4 GHz with Intel® Turbo Boost Technology, 8 MB cache, 4 cores)	
Graphics	NVIDIA® GeForce® MX150 (2 GB GDDR5 dedicated)	
Display	15.6" diagonal 4K IPS eDP micro-edge BrightView WLED-backlit (3840 x 2160)	
Memory	16 GB DDR4-2133 SDRAM (2 x 8 GB)	
Hard drive	512 GB PCIe® NVMe™ M.2 SSD	
Wireless technology	Intel® 802.11b/g/n/ac (2x2) Wi-Fi® and Bluetooth® 4.2 Combo	
Power supply	90 W AC power adapter	
Battery	6-cell, 79.2 Wh Li-ion	
Battery life	Up to 12 hours and 45 minutes	
Video playback battery life	Up to 11 hours and 30 minutes	
Battery recharge time	Supports battery fast charge: 50% in 30 minutes	
External I/O ports	1 Thunderbolt™ 3 (Data Transfer up to 40 Gb/s, DP1.2, HP Sleep and Charge); 1 USB 3.1 Type-C™ Gen 1 (Data Transfer up to 5 Gb/s, DP1.2, HP Sleep and Charge); 1 USB 3.1 Gen 1 (HP Sleep and Charge); 1 HDMI; 1 headphone/microphone combo	
Expansion slots	1 multi-format SD media card reader	

Energy efficiency	ENERGY STAR® certified; EPEAT® Silver registered	
Webcam	HP Wide Vision FHD IR Camera with integrated dual array digital microphone	
Audio	Bang & Olufsen, dual speakers	
Special features	Supports active stylus compliant with Microsoft Ink	
Color	Dark ash silver	
Pointing device	HP Imagepad with multi-touch gesture support	
Keyboard	Full-size island-style backlit keyboard	
warranty	3 years parts and labor	

3.7 Integrated flat-panel monitor and keyboard with touchpad (KVM console kit) for the 42 U server panel.

Description	Minimum requirements	Bidders offer
Display size	43.9 cm (17.3 inch)	
Display type	Flat panel, active matrix-TFT LCD	
Viewable image size	43.9 cm (17.3 inch) diagonal	
Resolution	1440 x 900 (WXGA+) (recommended for maximum performance) 640 x 480 (VGA) through 1280 x 1024 (SXGA)	
Monitor input	Plugs into a standard VGA connector; does not require a special graphics adapter card	
Keyboard with touchpad	Three-button touchpad with scroll bar	
Power supply	12v DC/36 Watt	
Scroll keys	Four scroll keys (inverted T)	
Response time	<16ms	

Brightness	>187 (cd/m ²)	
Contrast ratio	>500:1	
Input rating	90 to 264 VAC, 47 to 63 Hz	
Power consumption	<36w	
Warranty	3 years	

3.8 42 U Server cabinet specifications

Description	Minimum	Bidders Offer
42U graphite Rack	42U graphite Rack	
Colour	Graphite Metallic	
Dimensions (HxDxW)	<ul style="list-style-type: none"> • Height: 79" • Width: 24" • Width for Server Mount: 19" • Depth w/doors: 41" <p>Total Cabinet Area 78.7 x 39.69 x 24 in/ 2,000 x 1,008.17 x 612.77 mm</p>	
Front door	Perforated	
Rear door	Split And perforated	
Side panels	Included	
Cable egress in rack	included	
Depth of rails	29"	
Width for server mount	19"	
Power distribution units	Modular PDU control unit in: (1x) C20,16A,240V out Out: (2x) c19,240V	
Key	Two included	

3.9 22 U Server Cabinet Specifications

Description	Minimum	Bidders Offer
22U graphite Rack	22U graphite Rack	
Colour	Graphite Metallic	
Dimensions (HxDxW)	<ul style="list-style-type: none"> • Height: 48" • Width: 24" • Width for Server Mount: 19" • Depth w/doors: 41" 	

From door	Perforated	
Rear door	Split And perforated	
Side panels	Included	
Cable egress in rack	included	
Depth of rails	29''	
Width for server mount	19''	
Power distribution units	Modular PDU control unit in: (1x) C20,16A,240V out Out: (2x) c19,240V	
Key	Two included	

3.10 14 U OPS Panel specifications

Description	Minimum	Bidders Offer
14U graphite Rack	14U graphite Rack	
Color	Graphite Metallic	
Dimensions (HxDxW)	<ul style="list-style-type: none"> • Height: 28.5" • Width: 23.6" • Width for Server Mount: 19" • Depth w/doors: 39.69" 	
From door	Perforated	
Rear door	Split And perforated	
Side panels	Included	
Width for server mount	19''	
Power distribution units	Modular PDU control unit in: (1x) C20,16A,240V out Out: (2x) c19,240V	
Key	Two included	

3.11 2-Port KVM switch

Description	Minimum specifications	Bidders offer
Computer Connections	2	
Port Selection	Hotkey, Pushbutton	
USB Port / Audio Port Selection	Hotkey	
Console Ports	2 x USB Type A Female (White) 2 x HDB-15 Female (Blue) 1 x Mini Stereo Jack Female (Green) 1 x Mini Stereo Jack Female (Pink)	
KVM Ports	2 x SPHD-15 Male (Yellow) 2 x SPHD-15 Female (Green)	
USB Hub	2 x USB Type A Female (White)	
Firmware Upgrade	1 x RJ-11 Female (Black)	
Power	1 x DC Jack (Black)	
Switches Selected	2 x Pushbutton	
LEDs USB Link	2 (Green)	
LEDs On Line /Selected	2 (Orange)	
Keyboard / Mouse	USB	
Video	2048 x 1536; DDC2B	
Scan Interval	1-99 seconds	
Power Consumption	DC5V, 1.25W	
Housing	Metal	
Weight	0.82 kg (1.81 lb)	
Dimensions (L x W x H)	21.00 x 8.80 x 5.55 cm (8.27 x 3.46 x 2.19 in.)	
Warranty	3 years	

3.12 Rack mount pure sine wave inverter power supply unit

Description	Minimum requirements	Bidders offer
General	Overall rating 1000VA, 110VDC to 240VAC converter	

Output power	<ul style="list-style-type: none"> • Continuous output power: $\geq 750W$ • Max power output (3min): $\geq 800W$ • Surge rating: $\geq 2000W$ 	
AC output	<ul style="list-style-type: none"> • Output waveform: Pure Sine Wave (THD < 3%) • Output voltage: $240V \pm 3\%$ • Frequency: 50Hz • Rated output current: 4A 	
DC Input	<ul style="list-style-type: none"> • Nominal input voltage: 110VDC • Maximum input voltage: $\geq 130VDC$ • Minimum input voltage: $\leq 88VDC$ • Fused 	
AC input in bypass mode	<ul style="list-style-type: none"> • Input voltage: 240VAC • Input AC Circuit breaker: 10A • Synchronous AC transfer: required • Transfer switch: 10A • Transfer time: Inverter to Mains AC < 10ms • Transfer time: Mains AC to Inverter < 20ms 	
Efficiency	<ul style="list-style-type: none"> • Efficiency (full load): >90% • No Load Current Draw: <1A • Stand-By Current Draw: <0.2A 	
Protection functions	<ul style="list-style-type: none"> • Overload • Short Circuit 	

	<ul style="list-style-type: none"> • Reverse Polarity (Fuse) • Over Temperature • Battery Over/Under Voltage • AC Input Circuit Breaker 	
LED's	<ul style="list-style-type: none"> • AC load level • battery level • mains supply status 	
Connections	screwed	
Cooling	Load controlled cooling fan	
Mounting	Rack type	
warranty	4 years	

3.13 GPS system

Description	Minimum Specifications	Bidders offer
Display	LC-display, 2 x 40 characters, with backlight	
Control elements	Eight push buttons to set up basic network parameters and to change receiver settings	
Status info	Four bicolor LEDs showing status of: <ul style="list-style-type: none"> - reference time - time service - network - alarm 	
Frequency outputs	10 MHz via female BNC connector, TTL into 50 Ohm Accuracy depends on oscillator (standard: TCXO), look at oscillator options	
Pulse outputs	Pulse Per Second (PPS), TTL level, pulse width: 200ms	
Accuracy of pulse outputs	Depends on oscillator option: < ±250ns (TCXO, OCXO LQ) < ±100ns (OCXO MQ, OCXO HQ, OCXO DHQ)	
Interface	Two independent serial RS232-interfaces, menu configurable (in case of RDT models without internal receiver - the serial interfaces will be used as reference input).	

Optional Output Signals	Additional Output Options:: This LANTIME NTP server comes with many additional outputs options: PPS, 10MHz, programmable pulse outputs (PPS, PPM, PPH, DCF_MARK ...), IRIG modulated and unmodulated time code, T1 / E1 telecom signals, Frequency Synthesizer - to name just a few. Contact us for your specific device configuration.	
Network Interface	Standard: 2 x 10/100 MBit with RJ45 connector <i>Available Options:</i> 2 or 4 x additional 10/100 MBit with RJ45 1 x 10/100 MBit and 1 x 10/100/1000 MBit (1GE) with RJ45 or 1 x 10/100 MBit and 3 x 10/100/1000 MBit (3GE) with RJ45 jack	
Power supply	Standard: 100-240 VAC available DC variants: 100-240 VDC, 12VDC, 24VDC and 48VDC	
Universal Serial Bus (USB) Ports	1x USB Port in front panel: 3xUSB at the back	
Single-Board-Computer	i386 compatible 500Mhz CPU, 128 MB RAM	
Operating System of the SBC	Linux with nano kernel (incl. PPSkit)	
Network protocols OSI Layer 4 (transport layer)	TCP, UDP	
Network protocols OSI Layer 7 (application layer)	TELNET, FTP, SSH (incl. SFTP, SCP), HTTP, HTTPS, SYSLOG, SNMP	
Internet Protocol (IP)	IP v4, IP v6	
Network Auto configuration Support	IPv4: Dynamic Host Configuration Protocol - DHCP (RFC 2131) IPv6: Auto configuration Networking - AUTOCONF	
Network Time Protocol (NTP)	NTP V2 (RFC 1119), NTP v3 (RFC 1305), NTP v4 (RFC 5905) SNTP v3 (RFC 1769), SNTP v4 (RFC 2030) MD5 Authentication and Autokey Key Management	
Time Protocol (TIME)	Time Protocol (RFC 868)	
Daytime Protocol	Daytime Protocol (RFC 867)	

(DAYTIME)		
IEC 61850	Synchronization of IEC 61850 compliant devices by using SNTP	
Hypertext transfer Protocol (HTTP)	HTTP/HTTPS (RC 2616)	
Secure Shell (SSH)	SSH v1.3, SSH v1.5, SSH v2 (OpenSSH)	
Telnet	Telnet (RFC 854-RFC 861)	
Simple Network Management Protocol (SNMP)	SNMPv1 (RFC 1157), SNMPv2c (RFC 1901-1908), SNMP v3 (RFC 3411-3418)	
Form Factor	19" aluminum case (1U) Schroff Multipac	
Scope of supply	Included in delivery is an outdoor antenna incl. mounting kit, pre-assembled antenna cable (50m) (except MRS, TCR and RDT models) and product documentation on USB storage.	
Technical Support	Free lifetime technical support via telephone or e-mail.	
Ambient temperature	0 ... 50°C / 32 ... 122°F	
Humidity	Max. 85%	
Warranty	3 years parts and labor	

3.14 4 port KVM switch

Description	Minimum specs	Bidders offer
Computer Connections	4	
Port Selection	Hotkey	
Console Ports	1 x HDB-15 Female (Blue) 2 x USB Type A Female 1 x 3.5mm Audio Jack Female (Green)	
KVM Ports	x HDB-15 Male (Blue) 4 x USB Type A Male 4 x 3.5mm Audio Jack Male (Green)	
LED Selected	4 (Green)	
Computer Cable Length	1.8 m	
Keyboard / Mouse	USB	
Video	2048 x 1536 @ 60Hz; DDC2B	
Scan Interval	1-99 seconds	
Housing	Plastic	

warranty	3 years	
----------	---------	--

3.15 Cisco ASA 5525-X fire wall.

Description	Minimum Specs	Bidders offer
Form Factor	1 RU, 19-in. rack-mountable	
Rack-mounting options	Brackets included (slide rails optional)	
Dimensions	(H x W x D) 1.67 x 16.7 x 15.6 in. (4.24 x 42.9 x 39.5 cm)	
Weight	13.39 lb (6.07 kg) (AC power supply); 13.7 lb (6.2 kg) (DC power supply)	
Stateful Inspection throughput (max)	2 Gbps	
Stateful Inspection throughput (Multi-Protocol)	1Gbps	
Concurrent Sessions	500,000	
Connections per second	20,000	
Packets/Second (64-byte)	700,000	
VLANs	200	
ASA OS	64-bit	
Next-Generation Firewall Throughput (Multi-Protocol)	650 Mbps	
Next-Generation Firewall Throughput with IPS	300 Mbps	
Cisco Cloud Web Security users	500	
Intrusion Prevention	Yes (no hardware module required)	

Firewall + ASA IPS Throughput	600 Mbps	
Site-to-Site and IPsec IKEv1 Client VPN User Sessions	250	
Cisco AnyConnect or Clientless VPN User Sessions	250	
Bundled SSL VPN User Sessions	2	
Memory (RAM)	8 GB	
Flash	8 GB	
SSD (Solid State Drive)	1 slot, 120 GB MLC SED	
Integrated Network (GE) Ports	6	
Dedicated Management (GE) Port	Yes	
Maximum Network Ports	14	
Interface Card Slots	1	
Interface Card Options	6-port 10/100/1000, 6-port GE SFP SX, LH, LX	
USB 2.0 Ports	2	
Serial Console	1	
Redundant Power	No	
Power Supply Type	AC or DC	
Warranty	At least 3 years parts and labor	

3.16 LaserJet color printer.

Description	Minimum Requirements	Bidders offer
Print speed black	Normal: Up to 20 ppm	
Print speed color	Normal:Up to 20 ppm	

First page out (ready)	Black: As fast as 16 sec Color: As fast as 17 sec	
Print quality black (best)	Up to 600 x 600 dpi	
Print quality color (best)	Up to 600 x 600 dpi	
Print technology	Laser	
Processor speed	540 MHz	
Print languages	HP PCL 6, HP PCL 5, HP postscript level 3 emulation	
Display	2-line, 16-character backlit display	
Connectivity, standard	Hi-Speed USB 2.0	
Connectivity, optional	Jetdirect ew2500 802.11b/g Wireless Print Server J8021A	
Network ready	yes	
Memory	192 MB	
Maximum memory	448 MB	
Internal Storage	None	
Paper handling input, standard	100-sheet Multipurpose tray 250-sheet input tray	
Paper handling input, optional	Optional 500-sheet input tray 3	
Paper handling output, standard	250-sheet face-down output bin	
Maximum output capacity (sheets)	Up to 250	
Duplex printing	Manual (driver support provided)	
Media sizes supported	Tray 1: A3, A4, A5, A6, RA3, SRA3, B4, B5, 10x15 cm envelopes (DL, C5, B5) Tray 2: A3, A4, A5, B4, B5	

	Optional tray 3: A3, A4, B4, B5	
Media sizes, custom	Tray 1: 76 x 127 to 320 x 457 mm; 250-sheet input Tray 2: 148 x 182 to 297 x 432 mm; optional 500-sheet input Tray 3: 148 x 210 to 297 x 432 mm	
Media types	Paper (bond, brochure, coloured, glossy, letterhead, photo, plain, preprinted, prepunched, recycled, rough), cardstock, glossy film, transparencies, labels, envelopes	
Supported media weight	Tray 1: 60 to 220 g/m ² , Tray 2, optional Tray 3: up to 120 g/m ² plain papers, up to 160 g/m ² coated papers	
Power	Input voltage: 220 to 240 VAC (+/- 10%), 50 Hz (+/- 2 Hz), 6 A	
Power consumption	440 watts (active), 30 watts (standby), 4.4 watts (powersave), 0.5 watts (off) Typical Electricity Consumption (TEC): 1.787 kWh/Week	
Operating temperature range	10 to 30° C	
Warranty	1 year	

3.17 Cabinet Power distribution unit and electric wiring specifications

i). Power distribution unit (PDU)

Description	Minimum requirements	Bidders offer
Input voltage	240VAC, 50Hz	
Output voltage	240VAC, 50Hz	
Rated current	32 Amps	
Output connector Qty	16	
Form factor	rack mountable	
Maximum operating	50 °C	

temperature		
Quantity	Two 16 output PDU for the 42 U cabinet	
Quantity	One 8 output PDU for the 22 U cabinet	

ii). Electrical Wiring

Description	Minimum requirements	Bidders offer
Circuit breakers	Two double pole 32 A	
DC circuit breakers	Two double pole 10 A	
Electrical Wiring	2.5 mm ² copper conductor to be used for electrical wiring	
Sockets outlets	Two British type sockets rated 16 A	
Panel fans	Minimum two redundant fans	

3.18 Tools and Accessories

3.18.1 Network cable repair maintenance toolkit

The Network Cable Repair Maintenance Tool Kit should come with the following features and accessories:

- i. Cable Crimper: Suitable for Cat5, Cat5e, and Cat 6 cable with 8P8C plugs.
- ii. Network Cable Tester: That can test correspondingly double-twisted cables 1, 2, 3, 4, 5, 6, 7, 8 and G. Should also judge wrong connection, short circuit and open circuit. 2 9V batteries included.
- iii. Wire Stripper Cutter.
- iv. Wire Punch down Impact Tool.
- v. Multi-Function Wire Stripper and Cutter: Wire stripper built in three blades, strips RG59/58/56/62/63/3V2V/4C/5C coax cables quickly.
- vi. Flat screwdriver.
- vii. Cross screwdriver.
- viii. Four dozens of RJ45 connectors
- ix. Four dozens Crystal head connector sheaths
- x. Four dozens of wall network faceplates
- xi. Four dozens female connector RJ45 modules
- xii. Portable and Convenient Tool bag.

4.0 As- Built documentation:

All documentation shall be in English and shall be handed over to the client's not later than the delivery date.

This documentation shall include but not limited to:-

- i. Operation/User manuals
- ii. Configuration/data sheets
- iii. License certificates
- iv. Warrant certificates

5.0 Technical Clarifications

Any technical clarifications may be sought through the following emails:-

To: dgichobi@kengen.co.ke
cc: fmakau@kengen.co.ke

SECTION VI

PRICE SCHEDULE FOR GOODS

Name of tenderer _____ Tender Number _____ Page _____ of _____

Item	Description	Qty	Unit Price	Total	16% VAT	Total + 16 % VAT
1	22U server cabinet	1				
2	42 U server cabinet	1				
3	14 U work station cabinet	2				
4	Servers	8				
5	2 port KVM switch with the associated accessories	2				
6	8 port KVM switch with the associated accessories	1				
7	4 port KVM switch with the associated accessories	1				
8	Work stations	6				
9	Rack mount Console Kit (keyboard and monitor) together with the associated accessories.	1				
10	48 port patch panel	2				
11	Power distribution units	lot				
12	3850 Cisco switches	5				
13	GPS systems	2				
14	Power Inverters	2				
15	Engineering Laptops	2				
16	Ethernet patch cords	lot				

Item	Description	Qty	Unit Price	Total	16% VAT	Total + 16 % VAT
17	Assembly, wiring, testing and delivery to site.	lot				
18	CAT 6 Ethernet network cable	3 Rolls				
19	Cisco ASA 5520 fire wall	1				
20	Latest VMware software server edition with licenses for all the servers in this scope	8				
21	Color laser printer	1				
22	Network cable repair maintenance toolkit	1				
23	Others (specify)					
Grand Total						
Delivery Period						

Signature of tenderer _____

Note: In case of discrepancy between unit price and total, the unit price shall prevail.

**SECTION VII
STANDARD FORMS**

8.1 FORM OF TENDER

Date _____
Tender No. _____

To: _____

[name and address of procuring entity]

Gentlemen and/or Ladies:

1. Having examined the tender documents including Addenda Nos. *[insert numbers]*, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply, deliver **DCS Hardware for Sang'oro Power Station** in conformity with the said tender documents for the sum of *(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 install and commission the equipment in accordance with the delivery schedule specified in the Schedule of Requirements.

3. If our Tender is accepted, we will obtain the guarantee of a bank in a sum of equivalent to _____ percent of the Contract Price for the due performance of the Contract, in the form prescribed by *(Procuring entity)*.

4. We agree to abide by this Tender for a period of **120 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. This Tender, together with your written acceptance thereof and your notification of award, shall constitute a Contract, between us, subject to signing of the Contract by the parties.

6. We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this _____ day of _____ 20 _____

[signature]

[in the capacity of]

Duly authorized to sign tender for an on behalf of _____

Note: In accordance with **Clause 82** of the **Public Procurement and Asset Disposal Act 2015** **“The tender sum as submitted and read out during the tender opening shall be absolute and final and shall not be the subject of correction, adjustment or amendment in any way by any person or entity.**

8.2 MANDATORY CONFIDENTIAL BUSINESS QUESTIONNAIRE

(Must be filled by all applicants or Tenderers' who choose to participate in this tender)

Name of Applicant(s).....

You are requested to give the particulars in Part 1 and either Part 2 (a), 2 (b) or 2 (c), whichever applies to your type of business. Part 2 (d) to part 2 (i / j) must be filled. You are advised that giving wrong or false information on this Form will lead to automatic disqualification of your tender or termination of your contract or debarment of your firm at your cost.

Part 1 – General

Business Name:.....Certificate of
Incorporation / Registration No.Location of
business premises:
CountryPhysical address
TownBuilding.....
Floor.....Plot No.
Street / RoadPostal Address
Postal / Country Code.....Telephone No's.....
Fax No's.E-mail address
Website
Contact Person (*Full Names*) Direct / Mobile No's.....
Title Power of Attorney (**Yes / No**)
If **yes**, attach written document.
Nature of Business (*Indicate whether manufacturer, distributor, etc*)
.....

(Applicable to Local suppliers only)

Local Authority Trading License No. Expiry Date
KRA PIN No.....
Value of the largest single assignment you have undertaken to date (**US D/KShs**)
.....
Was this successfully undertaken? **Yes / No**.(If **Yes**, attach
reference)
Name (s) of your banker (s)
.....
Branches Tel. No's.

Part 2 (a) – Sole Proprietor (if applicable)

Full names
Nationality..... Country of Origin.....
.....
Company Profile (*Attach brochures or annual reports in case of
public company*)

Part 2 (b) – Partnerships (if applicable)

Give details of partners as follows:

Full Names Nationality Citizenship Details Shares

- 1.
- 2.

Company Profile

Part 2 (c) – Registered Company (if applicable - as per the CR12 form)

Private or public

Company Profile (Attach brochures or annual reports in case of public companies)

State the nominal and issued capital of the Company

Nominal KShs

Issued KShs

List of top ten (10) shareholders and distribution of shareholding in the company. Give details of all directors as follows:-

Full Names Nationality Citizenship Details Shares

1.....

2.....

Part 2 (d) – Debarment

I/We declare that I/We have not been debarred from any procurement process and shall not engage in any fraudulent, corrupt, coercive and obstructive acts with regard to this or any other tender by the KENGEN and any other public or private institutions.

Full Names

Signature

Dated this.....day of2018.

In the capacity of

.....

Duly authorized to sign Tender for and on behalf of

.....

Part 2 (e) – Bankruptcy / Insolvency / receivership.

I/We declare that I/We have not been declared bankrupt or insolvent by the competent Authorities in Kenya and neither are we under receivership:

Full Names

Signature

Dated this.....day of2018.

In the capacity of

.....

Duly authorized to sign Tender for and on behalf of

.....

Part 2 (f) – Criminal Offence

I/We, (Name (s) of Director (s)):-

a)

b)

Have not been convicted of any criminal offence relating to professional conduct or the making of false statements or misrepresentations as to its qualifications to enter into a procurement contract within a period of three (3) years preceding the commencement of procurement proceedings.

Signed

For and on behalf of M/s

.....

In the capacity of

.....
 Dated this.....day of2018.
 Suppliers' / Company's Official Rubber Stamp

Part 2 (g) – Conflict of Interest

I/We, the undersigned state that I / We have no conflict of interest in relation to this procurement:

- a)
- b)

For and on behalf of M/s

.....
 In the capacity of

.....
 Dated this.....day of2018

Suppliers' / Company's Official Rubber Stamp

Part 2 (h) – Interest in the Firm:

Is there any person/persons in KENGEN or any other public institution who has interest in the Firm? Yes/No (*Delete as necessary*)

Institution.....

.....
 (Title) (Signature) (Date)

Part 2(i) – Experience: NOTE: THIS SECTION IS MANDATORY ONLY IF IT FORMS PART OF TECHNICAL EVALUATION. IT'S ALSO NOT NECESSARY FOR ALREADY PRE-QUALIFIED OR DIRECT PROCUREMENT FIRMS. ITS ALSO NOT APPLICABLE FOR AGPO FIRMS TENDERS.

Please list here below similar projects accomplished or companies / clients you have supplied with similar items or materials in **the years prescribed.**

	Company Name	Country	Contract/Order No.	Value	Contact person (Full Names)	E-mail address	Cell phone No.
1							
2							

Part 2 (i or j) – Bank account details:

AGPO firms must provide evidence from their bank that the account to which KenGen shall make payment has a youth or a woman or a PWD listed in the **CR12 form/partnership deed/sole proprietor certificate** as a MANDATORY signatory of that account,- **Sec.157 (11) of PPADA:**

Account No:.....Name of the person(s) in the CR12 form OR in the partnership deed OR in the sole proprietor certificate...../.....

ID No(s):...../.....Signature and stamp of the authorized Banker Representative.....Date.....

Part 2(j or k) – Declaration

I / We, the undersigned state and declare that the above information is correct and that I / We give KENGEN authority to seek any other references concerning my / our company from whatever sources deemed relevant, e.g. Office of the Registrar of Companies, Bankers, etc.

Full names

.....

Signature.....

For and on behalf of M/s

.....

In the capacity of

.....

Dated thisday of

.....2018.

Suppliers' / Company's Official Rubber Stamp

.....

8.3 TENDER SECURITY FORM

(To be on the Banks Letterhead)

WHEREAS [*name of the tenderer*]
(hereinafter called “the tenderer”) has submitted its tender dated
..... [*date of submission of tender*] for **Supply of DCS Hardware
for Sang’oro Power Station**] (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 the **Kenya Electricity
Generating Company PLC** (hereinafter called “the Procuring entity”) in
the sum of for which payment well and truly to be made
to you, the Bank binds itself, its successors, and assigns by these presents.

Sealed with the Common Seal of the said Bank this ____ day of _____ 20

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 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 tender 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*]_____

(Amend accordingly if provided by Insurance Company)

8.4 CONTRACT FORM

THIS AGREEMENT made the _____ day of _____ 20 ____ between [name of **the Employer**] of [country of **the Employer**] (hereinafter called "**the Employer**") of the one part and [name of **the Supplier**] of [city and country of **the Supplier**] (hereinafter called "**the Supplier**") of the other part;

WHEREAS the Employer invited tenders for **Supply of DCS Hardware for Sang'oro Power Station** and has accepted a tender by the tenderer for the supply of 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
 - (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 and Tenderer's Acceptance
 - (g) Applicable addenda and clarifications
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 provisions 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 by _____ the _____ (for the Procuring entity

Signed by _____ the _____ (for the tenderer in the presence of _____

(Amend accordingly if provided by Insurance Company)

8.5 PERFORMANCE SECURITY FORM
(To be on the Banks Letterhead)

To
[*name of Procuring entity*]

WHEREAS [*name of tenderer*] (hereinafter called “the tenderer”) has undertaken , in pursuance of Contract No. _____
_____ [*reference number of the contract*] for dated _____ 20 ____
_____ to **Supply of DCS Hardware for Sang’oro Power Station**
(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:

NOW 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 figure*] 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 you 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 _____ 20 ____

Signed and seal of the Guarantors

[*name of bank or financial institution*]

[*address*]

[*date*]

8.6 MANUFACTURER'S AUTHORIZATION FORM

To *[name of the Procuring entity]*

WHEREAS*[name of the manufacturer]* who are established and reputable manufacturers of *[name and/or description of the goods]* 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 the goods 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 authorized.