



**GHANA GRID COMPANY
LIMITED**

**INTERNATIONAL COMPETITIVE
TENDER**

FOR THE

**SUPPLY OF GROUNDING/STATION
SERVICE TRANSFORMERS**

TENDERING DOCUMENT

TENDER No: GR/GGCL/GD/0004/2020

**ISSUED BY
GHANA GRID COMPANY LIMITED
FINANCE DEPARTMENT
P. O. BOX CS 7979
TEMA – GHANA**

APRIL, 2020

Summary Description

PART 1 – TENDERING PROCEDURES

Section I: Instructions to Tenderers (ITT)

This Section provides relevant information to help Tenderers prepare their Tenders. Information is also provided on the submission, opening, and evaluation of Tenders and on the award of Contracts.

Section II. Tender Data Sheet (TDS)

This Section consists of provisions that are specific to this procurement and that supplement the information or requirements included in Section I, Instructions to Tenderers.

Section III. Evaluation and Qualification Criteria

This Section contains the criteria to determine the lowest evaluated Tender and the qualifications of the Tenderer to perform the contract.

Section IV: Tender Forms

This Section contains the forms for the **Tender Submission Sheet, Price Schedules, Tender Security, and the Manufacturer’s Authorization** to be submitted with the Tender.

Section V. Eligible Countries

This Section contains information regarding eligible countries.

PART 2 – SUPPLY REQUIREMENTS

Section VI. Schedule of Requirements

This Section contains the List of Goods and Related Services, the Delivery and Completion Schedules, the Technical Specifications and the Drawings that describe the Goods and Related Services to be procured.

PART 3 – CONTRACT

Section VII. General Conditions of Contract (GCC)

This Section contains the general clauses to be applied in all contracts.

Section VIII. Special Conditions of Contract (SCC)

This Section contains clauses specific to each contract that modify or supplement Section VII, General Conditions of Contract.

Section IX: Contract Forms

This Section contains the form for the **Agreement**, which, once completed, incorporates any corrections or modifications to the accepted Tender relating to amendments permitted by the Instructions to Tenderers, the General Conditions of Contract, and the Special Conditions of Contract.

The forms for **Performance Security** and **Advance Payment Security**, when required, shall only be completed by the successful Tenderer after contract award.

GHANA GRID COMPANY LIMITED

TENDER FOR SUPPLY OF VARIOUS GOODS

INTERNATIONAL COMPETITIVE BIDDING

The Ghana Grid Company Limited (GRIDCo) of the Republic of Ghana invites sealed tenders for the supply of the under-listed items.

Details of the proposed supply are:

BID NUMBER	CONTRACT NAME	BID SALE PRICE
GR/GGCL/GD/0004/2020	Supply of Grounding/Station Service Transformers	US\$200.00

1. Detailed specifications and quantities for the various items are provided in the Bidding documents.
2. Bidding is open to eligible private, public or government-owned legal entities.
3. Bidding documents in English may be purchased from the **FINANCE DEPARTMENT (PROCUREMENT UNIT), GHANA GRID COMPANY LIMITED, LOCATED TWO (2) KILOMETERS OFF TEMA MOTORWAY ROUNDABOUT TO AFLAO ROAD, (CLOSE TO TEMA STEEL WORKS) upon the payment of a nonrefundable fee of US\$200.00.** The method of payment will be by cash or by certified cheque issued in the name of the Ghana Grid Company Limited
4. Bids would be on sale between **0900 hrs to 1500 hrs (local time)** each working day from **April 29, 2020 to June 8, 2020.**
5. Bidders shall submit with each Tender, a **Tender Security** in United States Dollars as stated in the bidding document or its equivalent in Ghana cedi.
6. Completed Bids must be addressed to:

**THE DIRECTOR,
FINANCE DEPARTMENT,
GRIDCo,
P. O. BOX CS7979,
TEMA**

and delivered to the **CONFERENCE ROOM, GRIDCo HEAD OFFICE, GHANA GRID COMPANY LIMITED, LOCATED 2 KILOMETERS OFF TEMA MOTORWAY ROUNDABOUT TO AFLAO ROAD, (CLOSE TO THE TEMA STEEL WORKS)** by **12:00 noon (local time) on Monday, June 8, 2020.**

Interested Bidders may also obtain information from the address above and on:
Telephone Nos.: +233-303-308892, Fax: +233-303-303325,
Email: gridcprocurement@gridcogh.com

7. Bidders may, if they so wish, be present at the public opening of the various Bids which would be held at the **CONFERENCE ROOM, GRIDCo HEAD OFFICE, GHANA GRID COMPANY LIMITED, LOCATED 2 KILOMETERS OFF TEMA MOTORWAY ROUNDABOUT TO AFLAO ROAD, (CLOSE TO THE TEMA STEEL WORKS)** immediately after the close of bids by **12:00 noon (local time) on Monday, June 8, 2020.**

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PART 1 – Tendering Procedures

Section I. Instructions to Tenderers

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Section I. Instructions to Tenderers

General

Scope of Tender

- 1.1 In support of the Invitation for Tenders (IFT) indicated in the Tender Data Sheet (TDS), the Purchaser, as indicated in the TDS, issues these Tender Documents for the supply of Goods and Related Services incidental thereto as specified in Section VI, Schedule of Requirements. The name, identification, and number of lots of the International Competitive Tendering (ICT) are provided in the TDS.
- 1.2 Throughout these Tender Documents:
 - (a) the term “in writing” means communicated in written form with proof of receipt;
 - (b) if the context so requires, singular means plural and vice versa; and
 - (c) “day” means calendar day.

Source of Funds

- 2.1 The Procurement Entity (hereinafter called “Purchaser”) named in the **Tender Data Sheet** shall fund this procurement from part of its budgetary allocation toward the realization of the project named in the TDS.
- 2.2 Payments will be made only at the request of the Purchaser and upon approval by a designated official of the Republic of Ghana in accordance with the terms and conditions of the contract agreement between the Purchaser and the Supplier (hereinafter called the Contract Agreement), and will be subject in all respects to the Financial Administration Act, 2003 (Act 654) of the Republic of Ghana. No party other than the Supplier shall derive any rights from the Contract Agreement or have any claim to the funds.

Corrupt Practices

- 3.1 The Government of Ghana (GOG) requires that all Procurement Entities as well as Tenderers, Suppliers, Contractors and Consultants participating in contracts financed from the public funds of the Republic of Ghana, adhere to the highest ethical standards, both during the tendering process and throughout the execution of such contracts. The list of definitions set forth below involves the most common types of corrupt practices, but is not exhaustive. For this reason, the Public Procurement Board will

also consider claims of similar nature involving alleged acts of corruption, in accordance with the established procedure.

- (a). “Bribery” means the act of unduly offering, giving, receiving or soliciting anything of value to influence the process of procuring goods or services, selecting consultants, or executing contracts.
- (b). “Extortion” or “Coercion” means the act attempting to influence the process of procuring goods or services, selecting consultants, or executing contracts by means of threats of injury to person, property or reputation.
- (c). “Fraud” means the misrepresentation of information or facts for the purpose of influencing the process of procuring goods or services, selecting consultants, or executing contracts, to the detriment of the Procurement Entity/Purchaser or other participants.
- (d). “Collusion” is an agreement between tenderers designed to result in tenders at artificial prices that are not competitive.

3.2 If, in accordance with the administrative procedures of the Public Procurement Board, it is demonstrated that a government/public official, or anyone acting on his or her behalf, and/or a Tenderer in a procurement process or supplier/contractor during the execution of the contract carried out in connection with a project financed from the public funds of the Republic of Ghana has committed corrupt practices, the Public Procurement Board or the appropriate Tender review Board will:

- (a). reject a proposal to award a contract in connection with the respective procurement process; and/or
- (b). declare a firm and/or its personnel directly involved in corrupt practices, temporarily or permanently ineligible to be awarded future contracts financed from the public funds of the Republic of Ghana.

3.3 The Tenderer shall disclose any commissions or fees that may have been paid or are to be paid to agents, representatives, or commission agents with respect to the tendering process or

execution of the contract. The information disclosed must include the name and address of the agent, representative, or commission agent, the amount and currency, and the purpose of the commission or fee. The information must be included in the Tender Submission Sheet. Furthermore, Tenderers shall be aware of the provision stated in Sub-Clause 3.2 and Sub-Clause 35.1 (c) of the General Conditions of Contract.

3.4 Any communication between the Tenderer and the Purchaser related to matters of alleged fraud or corruption must be made in writing

Eligible Tenderers

4.1 A Tenderer may be a private, public or government-owned legal entity, subject to ITT Sub-Clause 4.4, or any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a Joint Venture (JV). In the case of a JV:

- (a) all parties to the JV shall be jointly and severally liable; and
- (b) A JV shall nominate a Representative who shall have the authority to conduct all businesses for and on behalf of any and all the parties of the JV during the Tendering process and, in the event the JV is awarded the Contract, during contract execution.

4.2 A Tenderer, and all parties constituting the Tenderer, shall have the nationality of an eligible country, in accordance with Section V, Eligible Countries. A Tenderer shall be deemed to have the nationality of a country if the Tenderer is a citizen or is constituted, incorporated, or registered and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.

4.3 A Tenderer shall not have a conflict of interest. All Tenderers found to have conflict of interest shall be disqualified. Tenderers may be considered to have a conflict of interest with one or more parties in this Tendering process, if they:

- (a) have controlling shareholders in common; or
- (b) receive or have received any direct or indirect subsidy from any of them; or
- (c) have the same legal representative for purposes of this

tender; or

- (d) participated as a consultant in the preparation of the design or technical specifications of the goods and related services that are the subject of the tender.
- (e) are or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation for Tenders; or

(f) submit more than one Tender in this Tendering process, except for alternative offers permitted under ITT Clause 13.

4.4 A Tenderer that is under a declaration of ineligibility by the Public Procurement Board in accordance with ITT Clause 3, at the date of the deadline for Tender submission or thereafter, shall be disqualified.

4.5 Government-owned enterprises shall be eligible only if they can establish that they are legally and financially autonomous and operate under commercial law.

4.6 Tenderers shall provide such evidence of their continued eligibility satisfactory to the Purchaser, as the Purchaser shall reasonably request.

4.7 Tenderers of an eligible country may be excluded if:

- (a) as a matter of law or official regulation, Ghana prohibits commercial relations with that country, provided that the Public Procurement Board is satisfied that such exclusion does not preclude effective competition for the supply of goods or related services required; or
- (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Ghana prohibits any import of goods from that country or any payments to persons or entities in that country.

**Eligible Goods and
Related Services**

5.1 All goods and related services to be supplied under the Contract shall have as their country of origin an eligible country as specified in Section V, Eligible Countries, of this Tender

Document.

- 5.2 For purposes of this Clause, the term “goods” includes commodities, raw material, machinery, equipment, and industrial plants; and “related services” includes services such as insurance, installation, training, and initial maintenance.
- 5.3 The term “country of origin” means the country where the goods have been mined, grown, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its imported components.
- 5.4 The nationality of the firm that produces, assembles, distributes, or sells the goods shall not determine their origin.
- 5.5 Unless otherwise specified in the TDS, a Tenderer that does not manufacture or produce the Goods it offers to supply shall submit the Manufacturer’s Authorization using the form included in Section V, Tender Forms to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply these goods in Ghana.

Contents of Tender Document

Sections of Tender Document

- 6.1 The Tender Document consists of Parts 1, 2, and 3, which include all the Sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITT Clause 8.

PART 1 Tendering Procedures

- Section I. Instructions to Tenderers (ITT)
- Section II. Tender Data Sheet (TDS)
- Section III. Evaluation and Qualification Criteria
- Section IV. Tender Forms
- Section V. Eligible Countries

PART 2 Supply Requirements

- Section VI. Schedule of Requirements

PART 3 Contract

- Section VII. General Conditions of Contract (GCC)
- Section VIII. Special Conditions of Contract (SCC)
- Section IX. Contract Forms

6.2 The Invitation for Tenders issued by the Purchaser is part of the Tender Documents.

6.3 The Purchaser is not responsible for the completeness of the Tender Documents and their addenda, if they were not obtained directly from the Purchaser.

6.4 The Tenderer is expected to examine all instructions, forms, terms, and specifications in the Tender Documents. Failure to furnish all information or documentation required by the Tender Documents, may result in the rejection of the Tender.

Clarification of Tender Documents

7.1 A prospective Tenderer requiring any clarification of the Tender Document shall contact the Purchaser in writing at the Purchaser's address indicated in the TDS. The Purchaser will respond in writing to any request for clarification, provided that such request is received no later than twenty-one (21) days prior to the deadline for submission of Tenders. The Purchaser shall forward copies of its response to all those who have acquired the Tender Document directly from it, including a description of the inquiry but without identifying its source. Should the Purchaser deem it necessary to amend the Tender Document as a result of a clarification, it shall do so following the procedure under ITT Clause 8 and Sub-Clause 24.2.

Amendment of Tender Documents

8.1 At any time prior to the deadline for submission of Tenders, the Purchaser may amend the Tender Documents by issuing addenda.

8.2 Any addendum issued shall be part of the Tender Documents and shall be communicated in writing to all who have obtained the Tender Documents directly from the Purchaser.

8.3 To give prospective Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Purchaser may, at its discretion, extend the deadline for the submission of Tenders, pursuant to ITT Sub-Clause 24.2

Preparation of Tenders

- Cost of Tendering** 9.1 The Tenderer shall bear all costs associated with the preparation and submission of its Tender, and the Purchaser shall not be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering process.
- Language of Tender** 10.1 The Tender, as well as all correspondence and documents relating to the Tender exchanged by the Tenderer and the Purchaser, shall be written in the language specified in the TDS. Supporting documents and printed literature that are part of the Tender may be in another language provided they are accompanied by an accurate translation of the relevant passages into the language specified in the TDS, in which case, for purposes of interpretation of the Tender, such translation shall govern.
- Documents
Comprising the
Tender** 11.1 The Tender shall comprise the following:
- (a) Tender Submission Sheet and the applicable Price Schedules, in accordance with ITT Clauses 12, 14, and 15;
 - (b) Tender Security, in accordance with ITT Clause 21;
 - (c) alternative Tenders, if permissible, in accordance with ITT Clause 13;
 - (d) written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordance with ITT Clause 22;
 - (e) documentary evidence in accordance with ITT Clause 16 establishing the Tenderer's eligibility to Tender, including the Tenderer Information Sheet and, when applicable, the Party to JV Information Sheet using the forms furnished in Section IV, Tender Forms;
 - (f) documentary evidence in accordance with ITT Clause 17, that the Goods and Related Services to be supplied by the Tenderer are of eligible origin;
 - (g) documentary evidence in accordance with ITT Clauses 18 and 30, that the Goods and Related Services conform to the Tender Documents;
 - (h) documentary evidence in accordance with ITT Clause 19 establishing the Tenderer's qualifications to perform the contract if its Tender is accepted; and

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- (i) any other document required in the TDS.
- Tender Submission Sheet and Price Schedules**
- 12.1 The Tenderer shall submit the Tender Submission Sheet using the form furnished in Section IV, Tender Forms. This form must be completed without any alterations to its format, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.
- 12.2 The Tenderer shall submit the Price Schedules for Goods and Related Services, according to their origin as appropriate, using the forms furnished in Section IV, Tender Forms
- Alternative Tenders**
- 13.1 Unless otherwise indicated in the TDS, alternative Tenders shall not be considered.
- Tender Prices and Discounts**
- 14.1 The prices and discounts quoted by the Tenderer in the Tender Submission Sheet and in the Price Schedules shall conform to the requirements specified below.
- 14.2 All lots and items must be listed and priced separately in the Price Schedules. If a Price Schedule shows items listed but not priced, their prices shall be assumed to be included in the prices of other items. Lots or items not listed in the Price Schedule shall be assumed not to be included in the Tender, and provided that the Tender is substantially responsive, the corresponding adjustment, as appropriate, shall be applied in accordance with ITT Sub-Clause 31.3.
- 14.3 The price to be quoted in the Tender Submission Sheet, in accordance with ITT Sub-Clause 12.1(c), shall be the total price of the Tender, excluding any discounts offered.
- 14.4 The Tenderer shall quote any unconditional discounts and indicate the method for their application in the Tender Submission Sheet, in accordance with ITT Sub-Clause 12.1(d).
- 14.5 The terms EXW, CIF, CIP, and other similar terms shall be governed by the rules prescribed in the current edition of Incoterms, published by The International Chamber of Commerce, at the date of the Invitation for Tenders or as specified in the TDS.
- 14.6 Prices indicated on the respective Price Schedule Form included in Section IV, Tender Forms, shall be entered separately, when appropriate, in the following manner:

-
- (a) For Goods to be supplied from inside Ghana:
- (i) the price of the goods quoted EXW (ex works, ex factory, ex warehouse, ex showroom, or off-the-shelf, as applicable), including all customs duties and sales and other taxes already paid or payable:
 - (A) on the components and raw material used in the manufacture or assembly of goods quoted ex works or ex factory;
 - or**
 - (B) on the previously imported goods of foreign origin quoted ex warehouse, ex showroom, or off-the-shelf.
 - (ii) any Ghanaian sales and other taxes which will be payable on the goods if the contract is awarded to the Tenderer.
 - (iii) the price for inland transportation, insurance, and other local services required to convey the goods to their final destination, if specified in the TDS.
- (b) For Goods to be supplied from outside Ghana:
- (i) the price of the goods shall be quoted CIF named port of destination, or CIP border point, or CIP named place of destination, in Ghana, as specified in the TDS. In quoting the price, the Tenderer shall be free to use transportation through carriers registered in any eligible countries. Similarly, the Tenderer may obtain insurance services from any eligible source country.
 - (ii) the price of the goods quoted FOB port of shipment (or FCA, as the case may be), if specified in the TDS.
 - (iii) the price of goods quoted CFR port of destination (or CPT as the case may be), if specified in the TDS.
 - (iv) the price for inland transportation, insurance, and other local services required to convey the goods from the port of entry to their final destination, if specified in the TDS.
- (c) for Related Services, other than inland transportation and

other services required to convey the goods to their final destination, whenever such Related Services are specified in the Schedule of Requirements:

- (i) the price of each item comprising the Related Services inclusive of;
- (ii) all custom duties, sales and other similar taxes applicable in Ghana, payable on the Related Services, if the Contract is awarded to the Tenderer.

14.7 The disaggregation of price components in accordance with ITT Sub-Clause 14.6 shall be solely for the purpose of facilitating the comparison of Tenders by the Purchaser. This shall not in any way limit the Purchaser's right to contract on any of the terms offered.

14.8 Prices quoted by the Tenderer shall be fixed during the Tenderer's performance of the Contract and not subject to variation on any account, unless otherwise specified in the TDS. A Tender submitted with an adjustable price quotation shall be treated as non-responsive and shall be rejected, pursuant to ITT Clause 30. However, if in accordance with the TDS, prices quoted by the Tenderer shall be subject to adjustment during the performance of the Contract, a Tender submitted with a fixed price quotation shall not be rejected, but the price adjustment shall be treated as zero.

14.9 If so indicated in ITT Sub-Clause 1.1, Tenders shall be invited for individual contracts (lots) or for any combination of contracts (packages). Unless otherwise indicated in the TDS, prices quoted shall correspond to 100 % of the items specified for each lot and to 100% of the quantities specified for each item of a lot. Tenderers wishing to offer any price reduction for the award of more than one Contract shall specify in their Tender the price reductions applicable to each package or, alternatively, to individual Contracts within the package. Price reductions shall be submitted in accordance with ITT Sub-Clause 14.4, provided the Tenders for all lots are submitted and opened at the same time.

Currencies of Tender

15.1 For Goods and Related Services that the Tenderer will supply from inside Ghana the prices shall be quoted in Cedis (¢), indexed to any convertible currency, unless otherwise specified in the TDS.

15.2 For Goods and Related Services that the Tenderer will supply from outside Ghana, prices shall be expressed in the currency of any eligible country. If the Tenderer wishes to be paid in a

combination of amounts in different currencies, it may quote its price accordingly but use no more than three currencies.

Documents
Establishing the
Eligibility of the
Tenderer

- 16.1 To establish their eligibility in accordance with ITT Clause 4, Tenderers shall:
- (a) complete the eligibility declarations in the Tender Submission Sheet, included in Section IV, Tender Forms; and
 - (b) if in accordance with ITT sub-Clause 4.1, the Tenderer is an existing or intended JV, it must submit the Tenderer Information Sheet and a copy of the JV Agreement, or a letter of intent to enter into such an Agreement. The respective document shall be signed by all legally authorized signatories of all the parties to the existing or intended JV, as appropriate.

Documents
Establishing the
Eligibility of the
Goods and Related
Services

- 17.1 To establish the eligibility of the Goods and Related Services in accordance with ITT Clause 5, Tenderers shall complete the country of origin declarations in the Price Schedule Forms, included in Section IV, Tender Forms.

Documents
Establishing the
Conformity of the
Goods and Related
Services

- 18.1 To establish the conformity of the Goods and Related Services to the Tender Documents, the Tenderer shall furnish as part of its Tender the documentary evidence that the goods conform to the technical specifications and standards specified in Section VI, Schedule of Requirements.
- 18.2 The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item by item description of the essential technical and performance characteristics of the Goods and Related Services, demonstrating substantial responsiveness of the Goods and Related Services to the technical specification, and if applicable, a statement of deviations and exceptions to the provisions of the Schedule of Requirements.
- 18.3 The Tenderer shall also furnish a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for a period to be specified in the **Tender Data Sheet**, following commencement of the use of the goods by the Purchaser.
- 18.4 Standards for workmanship, process, material, and equipment, as

well as references to brand names or catalogue numbers specified by the Purchaser in the Schedule of Requirements, are intended to be descriptive only and not restrictive. The Tenderer may offer other standards of quality, brand names, and/or catalogue numbers, provided that it demonstrates, to the Purchaser's satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Schedule of Requirements.

Documents
Establishing the
Qualifications of
the Tenderer

19.1 To establish its qualifications to perform the Contract, the Tenderer shall submit the evidence indicated for each qualification criterion specified in Section III, Evaluation and Qualification Criteria.

Period of Validity of
Tenders

20.1 Tenders shall remain valid for the period specified in the TDS after the Tender submission deadline date prescribed by the Purchaser. A Tender valid for a shorter period shall be rejected by the Purchaser as non-responsive.

20.2 In exceptional circumstances, prior to the expiration of the Tender validity period, the Purchaser may request Tenderers to extend the period of validity of their Tenders. The request and the responses shall be made in writing. If a Tender security is requested in accordance with ITT Clause 21, it shall also be extended for a corresponding period. A Tenderer may refuse the request without forfeiting its Tender security. A Tenderer granting the request shall not be required or permitted to modify its Tender, except as provided in ITT Sub-Clause 20.3.

20.3 In the case of fixed price contracts, if the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial Tender validity, the Contract price shall be adjusted as specified in the request for extension. Tender evaluation shall be based on the Tender Price without taking into consideration the above correction.

Tender Security

21.1 Unless otherwise specified in the TDS, the Tenderer shall furnish as part of its Tender, a Tender security in original form and in the amount specified in the TDS.

21.2 The Tender security shall be denominated in the currency of the Tender or in another freely convertible currency, and shall:

- (a) at the Tenderer's option, be in the form of either a certified check, or a bank guarantee from a banking institution, or a bond issued by an insurance or bonding

institution;

- (b) be issued by a reputable institution from an eligible country, and acceptable to the Purchaser whose acceptance may not be unreasonably withheld;
- (c) be substantially in accordance with one of the forms of Tender security included in Section IV, Tender Forms, or other form approved by the Purchaser prior to Tender submission;
- (d) be payable promptly upon written demand by the employer in the case of the conditions listed in ITT Clause 21.5 are invoked;
- (e) be submitted in its original form; copies will not be accepted;
- (f) remain valid for a period of 28 days beyond the original validity period of Tenders, or beyond any period of extension subsequently requested under ITT Clause 20.2;

21.3 If a Tender Security is required in accordance with ITT Sub-Clause 21.1, any Tender not accompanied by a substantially responsive Tender security in accordance with ITT Sub-Clause 21.2, shall be rejected by the Purchaser as nonresponsive.

21.4 The Tender security of unsuccessful Tenderers shall be returned as promptly as possible upon the successful Tenderer's furnishing of the performance security pursuant to ITT Clause 44.

21.5 The Tender security may be forfeited:

- (a) if a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer on the Tender Submission Sheet, except as provided in ITT Sub-Clause 20.2; or
- (b) if the successful Tenderer fails to:
 - (i) sign the Contract in accordance with ITT Clause 43;
 - (ii) furnish a performance security in accordance with ITT Clause 44.

21.6 The Tender Security of a JV must be in the name of the JV that submits the Tender. If the JV has not been legally constituted at the time of Tendering, the Tender Security shall be in the names of all future partners as named in the letter of intent mentioned in

ITT Sub-Clause 16.1.

Format and Signing of Tender

- 22.1 The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT Clause 11 and clearly mark it “ORIGINAL.” In addition, the Tenderer shall submit copies of the Tender, in the number specified in the TDS and clearly mark them “COPY.” In the event of any discrepancy between the original and the copies, the original shall prevail.
- 22.2 The original and all copies of the Tender shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Tenderer. This authorization shall consist of a written authorization and shall be attached to the Tenderer Information Sheet included in Section IV Tender Forms. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Tender, except for unamended printed literature, shall be signed or initialed by the person signing the Tender.
- 22.3 Any interlineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Tender.

Submission and Opening of Tenders

Sealing and Marking of Tenders

- 23.1 The Tenderer shall enclose the original and each copy of the Tender, including alternative Tenders, if permitted in accordance with ITT Clause 13, in separate sealed envelopes, duly marking the envelopes as “ORIGINAL” and “COPY.” These envelopes containing the original and the copies shall then be enclosed in one single envelope.
- 23.2 The inner and outer envelopes shall:
- (a) Bear the name and address of the Tenderer;
 - (b) be addressed to the Purchaser in accordance with ITT Sub-Clause 24.1;
 - (c) bear the specific identification of this Tendering process indicated in ITT 1.1 and any additional identification marks as specified in the TDS; and
 - (d) bear a warning not to open before the time and date for Tender opening, in accordance with ITT Sub-Clause 24.1.
- 23.3 If all envelopes are not sealed and marked as required, the Purchaser will assume no responsibility for the misplacement or

	premature opening of the Tender.
Deadline for Submission of Tenders	<p>24.1 Tenders must be received by the Purchaser at the address and no later than the date and time indicated in the TDS.</p> <p>24.2 The Purchaser may, at its discretion, extend the deadline for the submission of Tenders by amending the Tender Documents in accordance with ITT Clause 8, in which case all rights and obligations of the Purchaser and Tenderers previously subject to the deadline shall thereafter be subject to the deadline as extended.</p>
Late Tenders	<p>25.1 The Purchaser shall not consider any Tender that arrives after the deadline for submission of Tenders, in accordance with ITT Clause 24. Any Tender received by the Purchaser after the deadline for submission of Tenders shall be declared late, rejected, and returned unopened to the Tenderer.</p>
Withdrawal, Substitution, and Modification of Tenders	<p>26.1 A Tenderer may withdraw, substitute, or modify its Tender after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITT Sub-Clause 22.2, (except that no copies of the withdrawal notice are required). The corresponding substitution or modification of the Tender must accompany the respective written notice. All notices must be:</p> <ul style="list-style-type: none"> (a) submitted in accordance with ITT Clauses 22 and 23 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” or “MODIFICATION;” and (b) received by the Purchaser prior to the deadline prescribed for submission of Tenders, in accordance with ITT Clause 24. <p>26.2 Tenders requested to be withdrawn in accordance with ITT Sub-Clause 26.1 shall be returned unopened to the Tenderers.</p> <p>26.3 No Tender may be withdrawn, substituted, or modified in the interval between the deadline for submission of Tenders and the expiration of the period of Tender validity specified by the Tenderer on the Tender Submission Sheet or any extension thereof.</p>
Tender Opening	<p>27.1 The Purchaser shall conduct the Tender opening in the presence of Tenderers’ designated representatives who choose to attend, and at the address, date and time specified in the TDS.</p>

27.2 First, envelopes marked “WITHDRAWAL” shall be opened and read out and the envelope with the corresponding Tender shall not be opened, but returned to the Tenderer. No Tender withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Tender opening. Next, envelopes marked “SUBSTITUTION” shall be opened and read out and exchanged with the corresponding Tender being substituted, and the substituted Tender shall not be opened, but returned to the Tenderer. No Tender substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Tender opening. Envelopes marked “MODIFICATION” shall be opened and read out with the corresponding Tender. No Tender modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Tender opening. Only envelopes that are opened and read out at Tender opening shall be considered further.

27.3 All other envelopes shall be opened one at a time, reading out: the name of the Tenderer and whether there is a modification; the Tender Prices, including any discounts and alternative offers if permitted; the presence of a Tender security, if required; and any other details as the Purchaser may consider appropriate. Only discounts and alternative offers read out at Tender opening shall be considered for evaluation. No Tender shall be rejected at Tender opening except for late Tenders, in accordance with ITT Sub-Clause 25.1.

27.4 The Purchaser shall prepare a record of the Tender opening that shall include, as a minimum: the name of the Tenderer and whether there is a withdrawal, substitution, or modification; the Tender Price, per lot if applicable, including any discounts and alternative offers; and the presence or absence of a Tender security, if one was required. The Tenderers’ representatives who are present shall be requested to sign the record. The omission of a Tenderer’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Tenderers.

Evaluation and Comparison of Tenders

Confidentiality

- 28.1 Information relating to the examination, evaluation, comparison, and postqualification of Tenders, and recommendation of contract award, shall not be disclosed to Tenderers or any other persons not officially concerned with such process until information on Contract award is communicated to all Tenderers.
- 28.2 Any effort by a Tenderer to influence the Purchaser in the examination, evaluation, comparison, and post-qualification of the Tenders or Contract award decisions may result in the rejection of its Tender.
- 28.3 Notwithstanding ITT Sub-Clause 28.2, from the time of Tender opening to the time of Contract award, if any Tenderer wishes to contact the Purchaser on any matter related to the Tendering process, it should do so in writing.

Clarification of Tenders

- 29.1 To assist in the examination, evaluation, comparison and post-qualification of the Tenders, the Purchaser may, at its discretion, ask any Tenderer for a clarification of its Tender. Any clarification submitted by a Tenderer in respect to its Tender and that is not in response to a request by the Purchaser shall not be considered. The Purchaser's request for clarification and the response shall be in writing. No change in the prices or substance of the Tender shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Purchaser in the evaluation of the Tenders, in accordance with ITT Clause 31.

Responsiveness of Tenders

- 30.1 The Purchaser's determination of a Tender's responsiveness is to be based on the contents of the Tender itself.
- 30.2 A substantially responsive Tender is one that conforms to all the terms, conditions, and specifications of the Tender Documents without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:
- (a) affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
 - (b) limits in any substantial way, inconsistent with the Tender Documents, the Purchaser's rights or the Tenderer's obligations under the Contract; or
 - (c) if rectified would unfairly affect the competitive position

of other Tenderers presenting substantially responsive Tenders.

30.3 If a Tender is not substantially responsive to the Tender Documents, it shall be rejected by the Purchaser and may not subsequently be made responsive by the Tenderer by correction of the material deviation, reservation, or omission.

**Non-conformities,
Errors, and
Omissions**

31.1 Provided that a Tender is substantially responsive, the Purchaser may waive any non-conformities or omissions in the Tender that do not constitute a material deviation.

31.2 Provided that a Tender is substantially responsive, the Purchaser may request that the Tenderer submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Tender related to documentation requirements or waive such minor deviations or omissions. Such omission shall not be related to any aspect of the price of the Tender. Failure of the Tenderer to comply with the request may result in the rejection of its Tender.

31.3 Provided that the Tender is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis:

(a) if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;

(b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and

(c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

31.4 If the Tenderer that submitted the lowest evaluated Tender does not accept the correction of errors, its Tender shall be disqualified and its Tender security shall be returned.

Preliminary

32.1 The Purchaser shall examine the Tenders to confirm that all

Examination of Tenders	documents and technical documentation requested in ITT Clause 11 have been provided, and to determine the completeness of each document submitted. If any of these documents or information is missing, the offer shall be rejected.
Examination of Terms and Conditions; Technical Evaluation	<p>33.1 The Purchaser shall examine the Tender to confirm that all terms and conditions specified in the GCC and the SCC have been accepted by the Tenderer without any material deviation or reservation.</p> <p>33.2 The Purchaser shall evaluate the technical aspects of the Tender submitted in accordance with ITT Clause 18, to confirm that all requirements specified in Section VI, Schedule of Requirements of the Tender Documents have been met without any material deviation or reservation.</p> <p>33.3 If, after the examination of the terms and conditions and the technical evaluation, the Purchaser determines that the Tender is not substantially responsive in accordance with ITT Clause 30, the Purchaser shall reject the Tender.</p>
Conversion to Single Currency	34.1 For evaluation and comparison purposes, the Purchaser shall convert all Tender prices expressed in the amounts in various currencies into a single currency, using the selling exchange rate established by the source and on the date specified in the TDS.
Domestic Preference	35.1 Unless otherwise specified in the TDS, domestic preference shall be a factor in Tender evaluation in accordance with the procedures outlined in Section III of this Tender Document.
Evaluation of Tenders	<p>36.1 The Purchaser shall evaluate each Tender that has been determined to be substantially responsive.</p> <p>36.2 To evaluate a Tender, the Purchaser shall only use all the factors, methodologies and criteria defined in the TDS and in Section III, Evaluation and Qualification Criteria. No other criteria or methodology shall be permitted.</p> <p>36.3 To evaluate a Tender, the Purchaser shall consider the following:</p> <ul style="list-style-type: none"> (a) the Tender price as quoted in accordance with clause 14; (b) price adjustment for correction of arithmetic errors in accordance with ITT Sub-Clause 31.3; (c) price adjustment due to discounts offered in accordance with ITT Sub-Clause 14.4; (d) as indicated in the TDS, the applicable factors of

evaluation amongst those set out in Section III, Evaluation and Qualification Criteria;

- (e) adjustments due to the application of a margin of preference, in accordance with ITT Clause 35 if applicable.

36.4 The Purchaser's evaluation of a Tender will exclude and not take into account:

- (a) In the case of Goods manufactured in Ghana or Goods of foreign origin already located in Ghana, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the Tenderer;
- (b) in the case of Goods to be supplied from outside Ghana, customs duties and other similar import taxes and other duties and taxes which will be payable on the goods if the contract is awarded to the Tenderer;
- (c) in the case of Related Services, customs duties and sales and other similar taxes that will be payable on the Related Services if the contract is awarded to the Tenderer; and
- (d) any allowance for price adjustment during the period of execution of the contract, if provided in the Tender.

36.5 The Purchaser's cost evaluation of a Tender may require the consideration of other factors, in addition to the Tender Price quoted in accordance with ITT Clause 14. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the Goods and Related Services. The effect of the factors selected, if any, shall be expressed in monetary terms to facilitate comparison of Tenders, unless otherwise specified in Section III, Evaluation and Qualification Criteria. The factors to be used and the method of application shall be indicated in the TDS from amongst those set out in Section III, Evaluation and Qualification Criteria.

36.6 If so indicated in the TDS, this Tender Document shall allow Tenderers to quote separate prices for one or more lots, and shall allow the Purchaser to award one or multiple lots to more than one Tenderer. The methodology of evaluation to determine the lowest-evaluated lot combinations, including any discounts offered in the Tender Submission Sheet, as appropriate, is specified in Section III, Evaluation and Qualification Criteria.

Comparison of

37.1 The Purchaser shall compare all substantially responsive Tenders

Tenders	to determine the lowest-evaluated Tender, in accordance with ITT Clause 36.
Postqualification of the Tenderer	<p>38.1 The Purchaser shall determine to its satisfaction whether the Tenderer that is selected as having submitted the lowest evaluated and substantially responsive Tender is qualified to perform the Contract satisfactorily.</p> <p>38.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer’s qualifications submitted by the Tenderer, pursuant to ITT Clause 19, to clarifications in accordance with ITT Clause 29 and the qualification criteria indicated in Section III, Evaluation and Qualification Criteria. Factors not included in Section III shall not be used in the evaluation of the Tenderer’s qualification.</p> <p>38.3 An affirmative determination shall be a prerequisite for award of the Contract to the Tenderer. A negative determination shall result in disqualification of the Tender, in which event the Purchaser shall proceed to the next lowest evaluated Tender to make a similar determination of that Tenderer’s capabilities to perform satisfactorily.</p>
Purchaser’s Right to Accept Any Tender, and to Reject Any or All Tenders	39.1 The Purchaser 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 Tenderers.

Award of Contract

Award Criteria	40.1 The Purchaser shall award the Contract to the Tenderer whose offer has been determined to be the lowest evaluated Tender and is substantially responsive to the Tender Documents, provided the Tenderer is qualified to perform the Contract satisfactorily.
Purchaser’s Right to Vary Quantities at Time of Award	41.1 At the time the Contract is awarded, the Purchaser reserves the right to increase or decrease the quantity of Goods and Related Services originally specified in Section VI, Schedule of Requirements, provided this does not exceed the percentages indicated in the TDS, and without any change in the unit prices or other terms and conditions of the Tender and the Tender Documents.

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- Notification of Award**
- 42.1 Prior to the expiration of the period of Tender validity, the Purchaser shall notify the successful Tenderer, in writing, that its Tender has been accepted.
 - 42.2 Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.
 - 42.3 Upon the successful Tenderer's furnishing of the performance security pursuant to ITT Clause 44, the Purchaser will promptly notify the name of the winning Tenderer to each unsuccessful Tenderer and will discharge its tender security, pursuant to ITT Clause 21
 - 42.4 The Purchaser shall promptly respond in writing to any unsuccessful Tenderer who, after notification of award in accordance with ITT Sub-Clause 42.1, requests the Purchaser in writing to explain on which grounds its Tender was not selected.
- Signing of Contract**
- 43.1 Promptly after notification, the Purchaser shall send the successful Tenderer the Agreement and the Special Conditions of Contract.
 - 43.2 Within twenty-eight (28) days of receipt of the Contract, the successful Tenderer shall sign, date, and return it to the Purchaser.
- Performance Security**
- 44.1 Within twenty eight (28) days of the receipt of notification of award from the Purchaser, the successful Tenderer shall furnish the performance security in accordance with the GCC, using for that purpose the Performance Security Form included in Section IX Contract forms.
 - 44.2 Failure of the successful Tenderer to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security. In that event the Purchaser may award the Contract to the next lowest evaluated Tenderer, whose offer is substantially responsive and is determined by the Purchaser to be qualified to perform the Contract satisfactorily or call for new tenders.
- Protests or Claims**
- 45.1 Tenderers may submit a protest or claim to the Purchaser, in writing, at anytime but not later than ten (10) days after they have been informed that they are unsuccessful pursuant to ITT Clause 42.

Section II. Tender Data Sheet

A. General							
ITT 1.1	The number of the Invitation for Tenders is: GR/GGCL/GD/0004/2020						
ITT 1.1	The Purchaser is: GHANA GRID COMPANY LTD (GRIDCo)						
ITT 1.1	<p>The name of the ICT is: SUPPLY OF GROUNDING /STATION SERVICE TRANSFORMERS.</p> <p>The identification number of the ICT is: GR/GGCL/GD/0004/2020</p> <p>The number and identification of lots comprising this ICT is:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 15%;">LOT</th> <th style="width: 55%;">ITEM</th> <th style="width: 30%;">QUANTITY</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>SUPPLY OF GROUNDING /STATION SERVICE TRANSFORMERS</td> <td style="text-align: center;">20 SGLS</td> </tr> </tbody> </table>	LOT	ITEM	QUANTITY	1	SUPPLY OF GROUNDING /STATION SERVICE TRANSFORMERS	20 SGLS
LOT	ITEM	QUANTITY					
1	SUPPLY OF GROUNDING /STATION SERVICE TRANSFORMERS	20 SGLS					
ITT 2.1	The Source of Funds is: INTERNALLY GENERATED						
ITT 2.1	The name of the Project is: SUPPLY OF GROUNDING /STATION SERVICE TRANSFORMERS.						
ITT 5.5	A Tenderer that does not manufacture or produce the goods it offers to supply shall be required to submit with its Tender, the Manufacturer's Authorization using the form included in Section V Tender Forms of the Goods.						
B. Contents of Tender Document							
ITT 7.1	<p>For <u>clarification of Tenders purposes</u> only, the Purchaser's address is:</p> <p>Attention: DIRECTOR, FINANCE Address: P O BOX CS7979 TEMA Floor-Room number: _____ City: TEMA Region: GREATER ACCRA Country: GHANA Telephone: <u>+233 303 308892</u></p>						

	<p>Facsimile number: <u>+233 303 303325</u></p> <p>Electronic mail address: gridcprocurement@gridcogh.com</p>
	C. Preparation of Tenders
ITT 10.1	The language of the Tender is: ENGLISH
ITT 11.1 (i)	<p>The Tenderer shall submit with its Tender the following additional documents:</p> <ol style="list-style-type: none"> 1. LIST OF COMPANIES TO WHOM SIMILAR SUPPLIES HAVE BEEN MADE IN THE PAST THREE YEARS, STATE VALUE, PERIOD OF EXECUTION DETAILS OF SUPPLIES, AND ADDRESS OF COMPANIES THAT PURCHASED THE ITEMS. 2. MANUFACTURER'S AUTHORIZATION
ITT 12.1	The Tenderer shall submit the Tender Submission Sheet using the form furnished in Section IV, Tender Forms. This form must be completed without any alterations to its format, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.
ITT 13.1	Alternative Tenders SHALL NOT be considered.
ITT 14.4	Tenderer shall indicate any unconditional discounts and indicate the method for their application
ITT 14.5	The Incoterms edition is: 2010
ITT 14.6 (a) (iii)	The Tenderer shall quote the price of the inland transportation, insurance, and other local services required to convey the goods to their final destination. If these services are required, they are specified in the Schedule of Requirements.
ITT 14.6 (b) (i)	The price of Goods offered from inside Ghana shall be quoted: IN GHANA CEDIS
ITT 14.6 (b) (ii)	<p>The price of Goods offered from outside Ghana shall be quoted: DDP GRIDCo CENTRAL WAREHOUSE IN UNITED STATES DOLLARS (US\$)</p> <ol style="list-style-type: none"> 1. The price of all imported equipment and Spares shall be deemed to include all transportation and unloading at named place of destination, shipping line and terminal charges. 2. The price shall also include the cost of clearing the items from the port including obtaining the CCVR for the estimation of Customs and

	<p>Import Duties and Taxes, Levies, VAT/NHIL and GETFund imposed by Laws of Ghana which would be paid by the Supplier. The Supplier shall bereimbused for the payment of duites etc based on submission of documents showing evidence of payment made.</p> <p>3. Supplier’s nominated Agent would ensure the clearance of all equipment and spares is done without incurring any demurrage and the cost of clearance shall be borne by the Supplier.</p> <p>Bidders shall inform themselves on their tax obligations in Ghana and information can be found in Internal Revenue Act (IRS) - 2000, Act 592 and Value Added Tax (VAT) -1995, Act 498 and LI 1675 on Taxes and additional information on Ghana Revenue Authority’s website: www.gra.gov.gh.</p>						
ITT 14.6 (b) (iii)	The Price of the Goods to be supplied from outside Ghana shall be quoted DDP GRIDCo CENTRAL WAREHOUSE TEMA IN UNITED STATES DOLLARS (US\$)						
ITT 14.6 (b) (iv)	For Local Tenderers, the Tenderer shall quote the price of inland transportation, insurance, and other local services required to convey the Goods to their final destination.						
ITT 14.8	The prices quoted by the Tenderer shall be fixed						
ITT 14.9	<p>Prices quoted for each lot shall correspond at least to hundred percent (100)% of the item specified for each lot.</p> <p>Prices quoted for each item of a lot shall correspond at least to hundred percent (100) % of the quantities specified for each item of a lot.</p> <p>Tenders that do not meet this requirement shall be rejected. N/A</p>						
ITT 15.1	For Goods and Related Services that the Tenderer will supply from inside Ghana the prices shall be quoted in GHANA CEDIS						
ITT 20.1	The Tender validity period shall be 120 days from the tender closing date						
ITT 21.1	<p>A Tender security shall be required as follows;</p> <table border="1"> <thead> <tr> <th></th> <th>ITEM</th> <th>AMOUNT (US\$)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>SUPPLY OF GROUNDING / STATION SERVICE TRANSFORMERS</td> <td>15,000.00</td> </tr> </tbody> </table>		ITEM	AMOUNT (US\$)	1	SUPPLY OF GROUNDING / STATION SERVICE TRANSFORMERS	15,000.00
	ITEM	AMOUNT (US\$)					
1	SUPPLY OF GROUNDING / STATION SERVICE TRANSFORMERS	15,000.00					

ITT 22.1	<p>In addition to the original of the Tender, the number of copies is: THREE (3)</p> <p>All Schedules of Prices shall be submitted in soft on flash drive (1No.) as editable Excel 2007 or 2010 files, showing all basic data and calculations. The printed Schedules in the Original Tender shall prevail in case of discrepancies.</p>
	D. Submission and Opening of Tenders
ITT 23.2 (c)	The inner and outer envelopes shall bear the following additional identification marks: The tender number, closing date and address of tenderer, submission address.
ITT 24.1	<p>For Tender submission purposes only, the Purchaser's address is:</p> <p>Attention: DIRECTOR FINANCE</p> <p>Address: P O BOX CS7979</p> <p>Floor-Room number:</p> <p>City: TEMA</p> <p>Region: GREATER ACCRA</p> <p>Country: GHANA</p> <p>Office Location: TWO KILOMETERS OFF TEMA MOTORWAY ROUNDABOUT TO AFLAO ROAD, (CLOSE TO THE TEMA STEEL WORKS)</p> <p>The deadline for the submission of Tenders is:</p> <p>Date: June 8, 2020</p> <p>Time: 12.00 noon local time</p>
ITT 27.1	<p>The Tender opening shall take place at:</p> <p>Address: GHANA GRID COMPANY LTD</p> <p>Floor/Room number: PROCUREMENT CONFERENCE ROOM</p> <p>City: TEMA</p> <p>Country: GHANA</p>

	<p>Date: June 8, 2020</p> <p>Time: 12.00 noon local time</p> <p>Office Location: TWO KILOMETERS OFF TEMA MOTORWAY ROUNDABOUT TO AFLAO ROAD, (CLOSE TO THE TEMA STEEL WORKS)</p>
	<p>E. Evaluation and Comparison of Tenders</p>
<p>ITT 30.2-30.3, 32.1</p>	<p>PRELIMINARY RESPONSIVENESS</p> <p>Preliminary Tender Evaluation shall be based on the: General responsiveness to the Tender Requirement as spelt out below</p> <ul style="list-style-type: none"> (a) Tender Submission Sheet and the applicable Price Schedules, in accordance with ITT Clauses 12, 14, and 15; (b) Tender Security, in accordance with ITT Clause 21; (c) written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordance with ITT Clause 22; (d) documentary evidence in accordance with ITT Clause 16 establishing the Tenderer's eligibility to Tender, including the Tenderer Information Sheet and, when applicable, the Party to JV Information Sheet using the forms furnished in Section IV, Tender Forms; (e) documentary evidence in accordance with ITT Clause 17, that the Goods and Related Services to be supplied by the Tenderer are of eligible origin; (f) Quotation covering 100% of quantities in each lot in accordance with ITT14.9. N/A (g) Evidence that tenderer purchased the tender document <p style="text-align: center;">ADDITIONAL REQUIREMENT FOR LOCAL SUPPLIERS</p> <ul style="list-style-type: none"> 1. Provision of valid VAT/NHIL Certificate 2. Provision of valid Income Tax Registration Certificate 3. Provision of valid SSNIT Clearance Certificate 4. Company registration certificate <p>The Tenderers shall separate the price components in accordance with ITT Clause ITT 14.6 above will be solely for the purpose of facilitating the comparison of Tenders by the Purchaser.</p>

ITT 33.2	<p>TECHNICAL RESPONSIVENESS</p> <p>(i) Compliance to the technical specifications in Section VI- Technical Specification</p> <p>(ii) Submission of Manufacturer Authorization or Proof that bidder is OEM</p>
ITT 34.1	<p>The currency that shall be used for Tender evaluation and comparison purposes to convert all Tender prices expressed in various currencies into a single currency is: UNITED STATES DOLLARS (US\$)</p> <p>The source of exchange rate shall be: GHANA ASSOCIATION OF BANKERS, AVERAGE INTER BANK EXCHANGE RATE</p> <p>The date for the exchange rate shall be: TENDER CLOSING DATE</p>
ITT 35.1	<p>Domestic preference shall not be a Tender evaluation factor.</p>
ITT 36.3 (d)	<p>COMMERCIAL RESPONSIVENESS</p> <p>The applicable economic factors for evaluation shall be:</p> <p>i. Delivery schedule offered in the tender</p> <p>ii. Validity period offered in the tender</p> <p>The following quantification methods will be applied for deviation in the Payment Schedule:</p> <p>i. Total cost of equipment and materials</p> <p>ii. Deviations in payment schedule from that specified in the Special Conditions of Contract</p> <p>The present value of the price taking into account the terms of payment offered.</p> <p>This shall be determined as follows;</p> $P = P1 + P2 + P3$ <p>Where :</p> <p>P is the present value of price taking into account the terms of payment, at the time of placement of order.</p> <p>P1 is present value of the component of Advance payment requested;</p> <p>P2 is present value of the component of payment to be made immediately upon delivery</p> $= \frac{\text{Amount}}{(1+r/365)^n}$ <p>n is delivery period of goods in days</p>

	<p>r is annual interest rate of the Bank of Ghana on the tender closing date</p> <p>P3 is present value of component of payment to be made x days after delivery.</p> $= \frac{\text{Amount}}{(1+r/365)^{n+x}}$ <p>n is delivery period for goods</p> <p>r is annual interest rate of the Bank of Ghana on the tender closing date</p>
	<p>F. Award of Contract</p>
<p>ITT 41.1</p>	<p>The maximum percentage by which quantities may be increased is: 10%</p> <hr/> <p>The maximum percentage by which quantities may be decreased is: 10%</p>

Section III. Evaluation and Qualification Criteria

This section contains all the factors, methods and criteria that the Purchaser shall use to evaluate a Tender and determine whether a Tenderer has the required qualification. No other factor, method or criteria shall be used.

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1. Evaluation of Economic Factors
2. Evaluation of Multiple Contracts
3. Evaluation of Domestic Preference
4. Post-Qualification

1. Evaluation of Economic Factors

1.1 The Purchaser's evaluation of a Tender will take into account, in addition to the Tender price quoted in accordance with ITT Clause 14.6, one or more of the following factors as specified in the Tender Data Sheet, and quantified in 1.2 below:

- (a) cost of inland transportation, insurance, and other costs within Ghana incidental to delivery of the goods to their final destination (only if the price for these services has not been requested as part of the Tender price as per TDS- ITT 14.6(a)(ii), and ITT 14.6(b)(iv)).
- (b) delivery schedule offered in the Tender;
- (c) deviations in payment schedule from that specified in the Special Conditions of Contract;
- (d) the cost of components, mandatory spare parts, and service;
- (e) the availability in Ghana of spare parts and after-sales services for the equipment offered in the Tender;
- (f) the projected operating and maintenance costs during the life of the equipment;
- (g) the performance and productivity of the equipment offered; and/or
- (h) other specific criteria indicated in the Technical Specifications.

1.2 For factors retained in 1.1 above, one or more of the following quantification methods will be applied, as specified in the Tender Data Sheet:

- (a) *Inland transportation from EXW/port of entry/border point, insurance, and incidentals.*

Inland transportation, insurance, and other incidental costs for delivery of the goods from EXW/port of entry/border point to Project Site named in the Tender Data Sheet will be computed for each Tender by the Purchaser on the basis of published tariffs by the rail or road transport agencies, insurance companies, and/or other appropriate sources. To facilitate such computation, Tenderer shall furnish in its Tender the estimated dimensions and shipping weight and the approximate EXW/CIF (or CIP border point) value of each package. The above cost will be added by the Purchaser to EXW/CIF/CIP border point price.

- (b) *Delivery schedule.*

- (i) The goods covered under this invitation are required to be delivered (shipped) within an acceptable range of weeks specified in the Schedule of

Requirement. No credit will be given to earlier deliveries, and Tenders offering delivery beyond this range will be treated as nonresponsive. Within this acceptable range, an adjustment per week, as specified in the Tender Data Sheet, will be added for evaluation to the Tender price of Tenders offering deliveries later than the earliest delivery period specified in the Schedule of Requirements.

or

- (ii) The Purchaser requires that the goods under the Invitation for Tenders shall be delivered (shipped) at the time specified in the Schedule of Requirements. The estimated time of arrival of the goods at the Project Site will be calculated for each Tender after allowing for reasonable international and inland transportation time. Treating the Tender resulting in the earliest time of arrival as the base, a delivery “adjustment” will be calculated for other Tenders by applying a percentage, specified in the Tender Data Sheet, of the EXW/CIF/CIP price for each week of delay beyond the base, and this will be added to the Tender price for evaluation. No credit shall be given to early delivery.

or

- (iii) The goods covered under this invitation are required to be delivered (shipped) in partial shipments, as specified in the Schedule of Requirements. Tenders offering deliveries earlier or later than the specified deliveries will be adjusted in the evaluation by adding to the Tender price a factor equal to a percentage, specified in the Tender Data Sheet, of EXW/CIF/CIP price per week of variation from the specified delivery schedule.

(c) *Deviation in payment schedule.*

- (i) Tenderers shall state their Tender price for the payment schedule outlined in the SCC. Tenders will be evaluated on the basis of this base price. Tenderers are, however, permitted to state an alternative payment schedule and indicate the reduction in Tender price they wish to offer for such alternative payment schedule. The Purchaser may consider the alternative payment schedule offered by the selected Tenderer.

or

- (ii) The SCC stipulate the payment schedule offered by the Purchaser. If a Tender deviates from the schedule and if such deviation is considered acceptable to the Purchaser, the Tender will be evaluated by calculating interest earned for any earlier payments involved in the terms outlined in the Tender as compared with those stipulated in this invitation, at the rate per annum specified in the Tender Data Sheet.

(d) *Cost of spare parts.*

- (i) The list of items and quantities of major assemblies, components, and selected spare parts, likely to be required during the initial period of operation specified in the Tender Data Sheet, is annexed to the Technical

Specifications. The total cost of these items, at the unit prices quoted in each Tender, will be added to the Tender price.

or

- (ii) The Purchaser will draw up a list of high-usage and high-value items of components and spare parts, along with estimated quantities of usage in the initial period of operation specified in the Tender Data Sheet. The total cost of these items and quantities will be computed from spare parts unit prices submitted by the Tenderer and added to the Tender price.

or

- (iii) The Purchaser will estimate the cost of spare parts usage in the initial period of operation specified in the Tender Data Sheet, based on information furnished by each Tenderer, as well as on past experience of the Purchaser or other purchasers in similar situations. Such costs shall be added to the Tender price for evaluation.

- (e) *Spare parts and after sales service facilities in Ghana.*

The cost to the Purchaser of establishing the minimum service facilities and parts inventories, as outlined in the Tender Data Sheet or elsewhere in the Tender Documents, if quoted separately, shall be added to the Tender price.

- (f) *Operating and maintenance costs.*

Operating and maintenance costs of the goods will be evaluated in accordance with the criteria specified in the Tender Data Sheet or in the Technical Specifications.

- (g) *Performance and productivity of the equipment.*

- (i) Tenderers shall state the guaranteed performance or efficiency in response to the Technical Specification. For each drop in the performance or efficiency below the norm of 100, an adjustment for an amount specified in the Tender Data Sheet will be added to the Tender price, representing the capitalized cost of additional operating costs over the life of the plant, using the methodology specified in the Technical Specifications.

or

- (ii) Goods offered shall have a minimum productivity specified under the relevant provision in the Technical Specifications to be considered responsive. Evaluation shall be based on the cost per unit of the actual productivity of goods offered in the Tender, and adjustment will be added to the Tender price using the methodology specified in the Technical Specifications.

(h) *Specific additional criteria*

Other specific additional criteria to be considered in the evaluation and the evaluation method shall be detailed in the Tender Data Sheet and/or the Technical Specifications.

2. Evaluation of Multiple Contracts

2.1. Evaluation of Multiple Contracts

Since in accordance with ITT Sub-Clause 36.6 the Purchaser _____ allowed to award one or multiple lots to more than one Tenderer, the following methodology shall _____ be used for award of multiple contracts.

To determine the lowest-evaluated lot combinations, the Purchaser shall:

- (a) evaluate only lots or contracts that include at least the percentages of items per lot and quantity per item as specified in ITT 14.9
- (b) take into account:
 - (i) the lowest-evaluated Tender for each lot that meets the requirement of Evaluation Criteria (EC);
 - (ii) the price reduction per lot and the methodology for their application as offered by the Tenderer in its Tender; and
 - (ii) the contract-award sequence that provides the most optimum economic combination taking into account any limitations due to constraints in supply or execution capacity determined in accordance with the post-qualification criteria, as set in EC Clause 4. Post Qualification

3. Evaluation of Domestic Preference

If the **Tender Data Sheet** so specifies, the Purchaser will grant a margin of preference to goods manufactured in Ghana for the purpose of Tender comparison, in accordance with the procedures outlined in subsequent paragraphs:

Tenders will be classified in one of three groups, as follows:

- (a) **Group A:** Tenders offering goods manufactured in Ghana, for which (i) labor, raw materials, and components from within Ghana account for more than thirty (30) percent of the EXW price; and (ii) the production facility in which they will be

manufactured or assembled has been engaged in manufacturing or assembling such goods at least since the date of Tender submission.

- (b) **Group B:** All other Tenders offering goods from within Ghana.
- (c) **Group C:** Tenders offering goods of foreign origin to be imported by the Purchaser directly or through the Supplier's local Agent.

To facilitate this classification by the Purchaser, the Tenderer shall complete whichever version of the Price Schedule furnished in the Tender Documents is appropriate provided, however, that the completion of an incorrect version of the Price Schedule by the Tenderer will not result in rejection of its Tender, but merely in the Purchaser's reclassification of the Tender into its appropriate Tender group.

The Purchaser will first review the Tenders to confirm the appropriateness of, and to modify as necessary, the Tender group classification to which Tenderers assigned their Tenders in preparing their Tender Forms and Price Schedules.

All evaluated Tenders in each group will then be compared among themselves to determine the lowest evaluated Tender of each group. The lowest evaluated Tender of each group will next be compared with the lowest evaluated Tenders of the other groups. If this comparison results in a Tender from Group A or Group B being the lowest, it will be selected for contract award.

If, as a result of the preceding comparison, the lowest evaluated Tender is from Group C, all Group C Tenders will then be further compared with the lowest evaluated Tender from Group A, after adding to the evaluated Tender price of the imported goods offered in each Group C Tender, for the purpose of this further comparison only:

- (a) the amount of customs duties and other import taxes that a nonexempt importer would have to pay for the importation of goods offered in each Group C Tender;
- or**
- (b) twenty five (25) percent of the CIF (or CIP border point or CIP named place of destination, as the case may be) Tender price of such goods, if the customs duties and taxes exceed twenty five (25) percent of the CIF (or CIP border point or CIP place of destination) price of such goods.

If the Group A Tender in the further comparison is the lowest, it will be selected for award. If not, the lowest evaluated Tender from Group C, as determined from the comparison under ITT Clause 37, will be selected for award.

4. Post-Qualification Criteria

After determining the lowest-evaluated Tender in accordance with ITT Sub-Clause 37.1, the Purchaser shall carry out the post-qualification of the Tenderer in accordance with ITT Clause 38, using only the factors, methods and criteria specified herein, as shown in the following table. Factors not included in this Section shall not be used in the evaluation of the Tenderer's qualification.

4.1 Experience and Technical Capacity

The Tenderer shall furnish documentary evidence to demonstrate that it meets the following experience and capacity requirement.

- a) List of companies or agencies to which similar supplies have been made in the past 3 years. List may include exports to countries other than the country of manufacture. State value and period of execution of contract.**

The Tenderer shall furnish documentary evidence to demonstrate that the goods it offers meet the following requirement.

- a) 12 months warranty from date of commissioning in Ghana**

Section IV. Tender Forms

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Tenderer Information Sheet

Date: _____
ICT No.: _____
Invitation for Tender No.: _____
Page _____ of _____ pages

1. Tenderer's Legal Name
2. In case of JV, legal name of each party:
3. Tenderer's actual or intended Country of Registration:
4. Tenderer's Year of Registration:
5. Tenderer's Legal Address in Country of Registration:
6. Tenderer's Authorized Representative Information Name: Address: Telephone/Fax numbers: Email Address:
7. Attached are copies of original documents of: <input type="checkbox"/> Articles of Incorporation or Registration of firm named in 1, above, in accordance with ITT Sub-Clauses 4.1 and 4.2. <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITT Sub-Clause 4.1. <input type="checkbox"/> In case of government owned entity from Ghana, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITT Sub-Clause 4.4.

Party to JV Information Sheet

Date: _____
ICT No.: _____
Invitation for Tender No.: _____
Page _____ of _____ pages

1. Tenderer's Legal Name:
2. JV's Party legal name:
3. JV's Party Country of Registration:
4. JV's Party Year of Registration:
5. JV's Party Legal Address in Country of Registration:
6. JV's Party Authorized Representative Information Name: Address: Telephone/Fax numbers: Email Address:
7. Attached are copies of original documents of: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Articles of Incorporation or Registration of firm named in 1, above, in accordance with ITT Sub-Clauses 4.1 and 4.2. <input type="checkbox"/> In case of government owned entity from Ghana, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITT Sub-Clause 4.5.

Tender Submission Sheet

Date: _____
ICT No.: _____
Invitation for Tender No.: _____
Alternative No.: _____

To: _____

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Tender Documents, including Addenda No.: _____
- (b) We offer to supply in conformity with the Tender Documents and in accordance with the delivery schedule specified in the Schedule of Requirements the following Goods and Related Services: _____

- (c) The total price of our Tender, excluding any discounts offered in item (d) below is: _____
- (d) The discounts offered and the methodology for their application are: _____

- (e) Our Tender shall be valid for the period of time in accordance with ITT Sub-Clause 20.1, from the date fixed for Tender submission deadline in accordance with ITT Sub-Clause 24.1, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (f) If our Tender is accepted, we commit to obtain a performance security in accordance with ITT Clause 44 and GCC Clause 17 for the due performance of the Contract;
- (g) We, including any subcontractors or suppliers for any part of the Contract, have nationalities from eligible countries in accordance with ITT Sub-Clause 4.2;
- (h) We have no conflict of interest in accordance with ITT Sub-Clause 4.3;
- (i) Our firm, its affiliates or subsidiaries—including any subcontractors or suppliers for any part of the contract—has not been declared ineligible by the Public Procurement Board of the Republic of Ghana, or under the laws or official regulations of the Republic of Ghana, in accordance with ITT Sub-Clause 4.7;

- (j) The following commissions, gratuities, or fees have been paid or are to be paid with respect to the Tendering process or execution of the Contract:

Name of Recipient	Address	Reason	Amount
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

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

- (k) We understand that this Tender, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
- (l) We understand that you are not bound to accept the lowest evaluated Tender or any other Tender that you may receive.

Signed _____ In the Capacity of _____

Name _____

Duly authorized to sign the Tender for and on behalf of _____

Dated on _____ day of _____, _____

Price Schedule for Goods to be Supplied from Outside Ghana

(Group C Tenders)
Currencies in accordance with ITT Sub-Clause 14.6(b)

Date: _____
 ICT No: _____
 Invitation for Tenders No: _____
 Alternative No: _____
 Page N° ___ of ___

1	2	3	4	5	6	7	8	9
Item N°	Description of Goods	Country of origin	Quantity and physical unit	Unit price CIF [Tema Port, Accra, Ghana]	Price per item for inland transportation and other services required in Ghana to convey the goods to their final destination (if required in TDS-ITT14.6(b)(iv))x5)	Estimated Custom Duties and Taxes	Total CIP price per item (col. 5+6)	Total price per item DDP GRIDCo Central Warehouse, Tema (col. 5+6+7)
1								
Total Tender Price								

Name of Tenderer _____ Signature of Tenderer _____ Date _____

Price Schedule for Goods to be supplied from Inside Ghana

(Group A and B Tenders)
Currencies in accordance with ITT Sub-Clause 14.6(a)

Date: _____
ICT No: _____
Invitation for Tenders No: ____
Alternative No: _____
Page N° ____ of ____

1	2	3	4	5	6	7	8	9	10	11
Item N°	Description of Goods	Country of origin	Quantity and physical unit	Unit price EXW	Total EXW price per item (col. 4x5)	Price per item for inland transportation and other services required in Ghana to convey the goods to their final destination (if required in TDS-ITT14.6(a)(iii))	Cost of local labor, raw material and components from within Ghana % of col. 6	Total price of item (col. 6+7)	Sales and other taxes payable per item if Contract is awarded (in accordance with ITT 14.6(a)(ii))	Total Price per item (col. 9+10)
Total Tender Price										

Name of Tenderer _____ Signature of Tenderer _____ Date _____

Price and Completion Schedule for Related Services

Date: _____

ICT No.: _____

Invitation for Tender No.: _____

Currencies in accordance with ITT Clause 14.6(c)

Page N° ____ of ____

1	2	3	4	5	6	7
Item	Description of Services (excludes inland transportation and other services required in Ghana to convey the goods to their final destination)	Country of origin	Delivery Date	Quantity and physical unit	Unit price	Total Price of item (col. 7+8)
Total Tender Price						

Name of Tenderer _____ Signature of Tenderer _____ Date _____

Tender Security Form (Bank Guarantee)

Date: _____
ICT No.: _____
Invitation for Tender No.: _____

To: _____

Whereas _____
(hereinafter “the Tenderer”) has submitted its Tender dated
_____ for ICT No. _____ for the supply of

_____ hereinafter called “the
Tender.”

KNOW ALL PEOPLE by these presents that WE _____
of _____ having our registered office at
_____ (hereinafter “the bank”), are bound unto
_____ (hereinafter
“the Purchaser”) in the sum of _____
for which payment well and truly to be made to the aforementioned Purchaser, the Guarantor binds itself, its successors, or assignees by these presents. Sealed with the Common Seal of this bank this _____ day of _____, _____.

THE CONDITIONS of this obligation are the following:

1. If the Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer in the Tender Submission Sheet, except as provided in ITT Sub-Clause 20.2; or
2. If the Tenderer, having been notified of the acceptance of its Tender by the Purchaser, during the period of Tender validity, fails or refuses to:
 - (a) accept the correction of errors in its Tender by the Purchaser, pursuant to ITT Clause 31.
 - (b) execute the Contract; or
 - (c) furnish the Performance Security, in accordance with the ITT Clause 44; or

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser states that the amount claimed by it is due to it, owing to the occurrence of one or more of the above conditions, specifying the occurred conditions.

This security shall remain in force up to and including twenty-eight (28) days after the period of Tender validity, and any demand in respect thereof should be received by the Guarantor no later than the above date.

Signed _____ In the Capacity of _____

Name _____

Duly authorized to sign the Tender security for and on behalf of

Dated on _____ day of _____, _____.

Tender Security Form (Tender Bond)

NOT APPLICABLE

BOND NO. _____

BY THIS BOND _____ as Principal (hereinafter called “the Principal”), and _____, **authorized to transact business in** _____, as Surety (hereinafter called “the Surety”), are held and firmly bound unto _____, as Obligee (hereinafter called “the Purchaser”) in the sum(*) of _____, for the payment of which sum, well and truly to be made, we, the said Principal and Surety, bind ourselves, our successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal has submitted a written Tender to the Purchaser dated the ___ day of _____, 20__, for the supply of _____ (hereinafter called the “Tender”).

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal:

- (1) withdraws its Tender during the period of Tender validity specified by the Tenderer on the Tender Form; or
- (2) refuses to accept the correction of errors in its Tender Price in accordance with the Instructions to Tenderers; or
- (3) having been notified of the acceptance of its Tender by the Purchaser during the period of Tender validity;
 - (a) fails or refuses to execute the Contract Form in accordance with the Instructions to Tenderers, if required; or
 - (b) fails or refuses to furnish the Performance Security in accordance with the Instructions to Tenderers;

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

The Surety hereby agrees that its obligation will remain in full force and affect up to and including the date 30 days after the date of expiration of the Tender validity as stated in the Invitation to Tender. Any demand in respect of this Bond should reach the Surety not later than the above date.

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

Principal: _____

Surety: _____
Corporate Seal (where appropriate)

(Signature)

(Signature)

(Printed name and title)

(Printed name and title)

(*) The amount of the Bond shall be denominated in the currency of the Employer's country or the equivalent amount in a freely convertible currency

Manufacturer's Authorization

Date: _____
ICT No.: _____

To: _____

WHEREAS

We, _____, are reputable manufacturers of, _____, having factories at: _____.

THEREFORE, We do hereby

1. Authorize _____ to submit a Tender in response to the Invitation for Tenders indicated above. The purpose of such Tender is to provide _____ the _____ following _____ Goods:

_____,
manufactured by us, and to subsequently negotiate sign the Contract for the supply of such Goods.

and

2. Extend our full guarantee and warranty in accordance with Clause 27 of the General Conditions of Contract, with respect to the goods offered in the Tender.

Signed _____ In the Capacity of _____

Name _____

Duly authorized to sign the authorization for and on behalf of _____

Dated on _____ day of _____, _____.

Note: This letter of authorization should be on the letterhead of the Manufacturer

Instructions for Completing the Tender Forms

The Tenderer shall fill in and complete all the blank spaces in the Tender Forms in accordance with the instructions for each form indicated below. The Tenderer shall note that the forms included here are for guidance purposes only and that the Tenderer shall prepare its Tender using the corresponding blank forms.

Tenderer Information Sheet

Date: _____
ICT No.: _____
Invitation for Tender No.: _____
Page _____ of _____ pages

1. Tenderer's Legal Name [insert Tenderer's legal name]
2. In case of JV, legal name of each party: [insert legal name of each party in JV]
3. Tenderer's actual or intended Country of Registration: [insert actual or intended Country of Registration]
4. Tenderer's Year of Registration: [insert Tenderer's year of registration]
5. Tenderer's Legal Address in Country of Registration: [insert Tenderer's legal address in country of registration]
6. Tenderer's Authorized Representative Information Name: [insert Authorized Representative's name] Address: [insert Authorized Representative's Address] Telephone/Fax numbers: [insert Authorized Representative's telephone/fax numbers] Email Address: [insert Authorized Representative's email address]
7. Attached are copies of original documents of: [check the box(es) of the attached original documents] <input type="checkbox"/> Articles of Incorporation or Registration of firm named in 1, above, in accordance with ITT Sub-Clauses 4.1 and 4.2. <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITT Sub-Clause 4.1. <input type="checkbox"/> In case of government owned entity from Ghana, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITT Sub-Clause 4.4.

Party to JV Information Sheet

Date: _____
ICT No.: _____
Invitation for Tender No.: _____
Page _____ of _____ pages

1. Tenderer's Legal Name: [insert Tenderer's legal name]
2. JV's Party legal name: [insert JV's Party legal name]
3. JV's Party Country of Registration: [insert JV's Party country of registration]
4. JV's Party Year of Registration: [insert JV's Party year of registration]
5. JV's Party Legal Address in Country of Registration: [insert JV's Party legal address in country of registration]
6. JV's Party Authorized Representative Information Name: [insert name of JV's Party authorized representative] Address: [insert address of JV's Party authorized representative] Telephone/Fax numbers: [insert telephone/fax numbers of JV's Party authorized representative] Email Address: [insert email address of JV's Party authorized representative]
7. Attached are copies of original documents of: [check the box(es) of the attached original documents] <input type="checkbox"/> Articles of Incorporation or Registration of firm named in 1, above, in accordance with ITT Sub-Clauses 4.1 and 4.2. <input type="checkbox"/> In case of government owned entity from Ghana, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITT Sub-Clause 4.4.

Tender Submission Sheet Form

The Tenderer shall fill in and complete all the blank spaces in the **Tender Submission Sheet** in accordance with the instructions indicated here. No alterations to its format shall be permitted and no substitutions shall be accepted.

Input of Information to be completed by Tenderer

Tender Submission Sheet

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

ICT No.: **[insert number of Tendering process]**

Invitation for Tender No.: **[insert No of IFB]**

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

To: **[insert complete name of Purchaser]**

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Tender Documents, including Addenda No.: **[insert the number and issuing date of each Addenda]**;
- (b) We offer to supply in conformity with the Tender Documents and in accordance with the site arrival dates specified in the Schedule of Requirements the following Goods and Related Services **[insert a brief description of the Goods and Related Services]**;
- (c) The total price of our Tender, excluding any discounts offered in item (d) below, is: **[insert the total Tender price in words and figures, indicating the various amounts and the respective currencies]**;
- (d) The discounts offered and the methodology for their application are:

Discounts. If our Tender is accepted, the following discounts shall apply. **[Specify in detail each discount offered and the specific item of the Schedule of Requirements to which it applies.]**

Methodology of Application of the Discounts. The discounts shall be applied using the following method: **[Specify in detail the method that shall be used to apply the discounts]**;

-
- (e) Our Tender shall be valid for the period of time specified in ITT Sub-Clause 20.1, from the date fixed for the Tender submission deadline in accordance with ITT Sub-Clause 24.1, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
 - (f) If our Tender is accepted, we commit to obtain a performance security in accordance with ITT Clause 44 and GCC Clause 17 for the due performance of the Contract;
 - (g) We, including any subcontractors or suppliers for any part of the contract, have nationality from eligible countries **[insert the nationality of the Tenderer, including that of all parties that comprise the Tenderer, if the Tenderer is a JV, and the nationality each subcontractor and supplier]**
 - (h) We have no conflict of interest in accordance with ITT Sub-Clause 4.3;
 - (i) Our firm, its affiliates or subsidiaries—including any subcontractors or suppliers for any part of the contract—has not been declared ineligible by the Bank, under Ghana laws or official regulations, in accordance with ITT Sub-Clause 4.7;
 - (j) The following commissions, gratuities, or fees have been paid or are to be paid with respect to the Tendering process or execution of the Contract: **[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]**

Name of Recipient	Address	Reason	Amount
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

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

- (k) We understand that this Tender, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
- (l) We understand that you are not bound to accept the lowest evaluated Tender or any other Tender that you may receive.

Signed: **[insert signature of person whose name and capacity are shown]** In the capacity of **[insert legal capacity of person signing the Tender Security]**

Name: **[insert complete name of person signing the Tender Security]**

Duly authorized to sign the Tender for and on behalf of: **[insert complete name of bank]**

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

Price Schedule Forms

The Tenderer shall fill in and complete all the blank spaces in the **Price Schedule** forms in accordance with the instructions indicated below. The list of items in column 1 of the **Price Schedules** shall coincide with the List of Goods and Related Services specified by the Purchaser in the Schedule of Requirements.

Price Schedule for Goods to be Supplied from Outside Ghana

(Group A and B Tenders)
Currencies in accordance with ITT Sub-Clause 14.6(a)

Date: _____
ICT No: _____
Invitation for Tenders No: ____
Alternative No: _____
Page N° ____ of ____

1	2	3	4	5	6	7	8	9	10	11
Item N°	Description of Goods	Country of origin	Quantity and physical unit	Unit price EXW	Total EXW price per item (col. 4x5)	Price per item for inland transportation and other services required in Ghana to convey the goods to their final destination (if required in TDS-ITT14.6(a)(iii))	Cost of local labor, raw material and components from within Ghana % of col. 6	Total price of item (col. 6+7)	Sales and other taxes payable per item if Contract is awarded (in accordance with ITT 14.6(a)(ii))	Total Price per item (col. 9+10)
Total Tender Price										

Name of Tenderer _____ Signature of Tenderer _____ Date _____

Price Schedule for Goods to be Supplied from Inside Ghana

Date:[insert day, month and year of Tender submission]

(Group A and B Tenders)

ICT No: [insert No of Tendering process]

Currencies in accordance with ITT Sub-Clause 14.6(a)

Invitation for Tenders No: [insert No of IFB]

Alternative No: [insert No if this Tender is for an Alternative]

Page N° ____ of ____

1	2	3	4	5	6	7	8	9	10	11
Item N°	Description of Goods	Country of origin	Quantity and physical unit	Unit price EXW	Total EXW price per item (col. 4x5)	Price per item for inland transportation and other services required in Ghana to convey the goods to their final destination (if required in TDS-ITT14.6(a)(iii))	Cost per item of local labor, raw material and components from within Ghana % of col. 7	Total price of item (col. 6+7)	Sales and other taxes payable per item if Contract is awarded (in accordance with ITT 14.6(a)(ii))	Total Price per item (col. 9+10)
[insert number of item]	[insert name of good]	[insert country of origin of this item]	[insert number of units to be supplied and name of the physical unit]	[insert unit price EXW of this item]	[insert total EXW price per item]	[when this optional item has been specified in the ITT, insert the corresponding price per item]	[insert cost of local labor, raw material and components from within Ghana]	[insert total price of this item]	[insert sales and other taxes payable per item if Contract is awarded]	[insert total Contract Price of item]
Total Tender Price										[insert total of this column]

Name of Tenderer [insert complete name of Tenderer] Signature of Tenderer [insert signature of person signing the Tender]

Date [insert date]

Price and Completion Schedule for Related Services

Date:[insert day, month and year of Tender submission]

ICT No.: [insert No of Tendering process]

Invitation for Tender No: [insert No of IFB]

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

Currencies in accordance with ITT Clause 14.6(c)

Page N° ____ of ____

1	2	3	4	5	6	7
Item	Description of Services (excludes inland transportation and other services required in Ghana to convey the goods to their final destination)	Country of origin	Delivery Date	Quantity and physical unit	Unit price	Total price per item (col. 7+8)
[insert number of item]	[insert description of services (excludes inland transportation and other services required in Ghana to convey the goods to their final destination)]	[insert country of origin of the goods or nationality of the firm providing the services]	[insert Delivery Date]	[insert quantities of services and name of the physical unit. Insert Lump Sum, if appropriate]	[insert unit price of services, where applicable, or insert price on a lump sum basis]	[insert total contract price of item]
Total Tender Price						insert total for this column]

Name of Tenderer [insert complete name of Tenderer] **Signature of Tenderer** [insert signature of person signing the Tender]

Date [insert date]

Tender Security Form (Bank Guarantee)

The Tenderer shall fill in and complete all the blank spaces in the Tender Security form in accordance with the instructions indicated below:

Input of Information to be completed by Tenderer

Tender Security

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

ICT No.: **[insert number of Tendering process]**

Invitation for Tender No.: **[insert No of IFB]**

Alternative No.:

To: **[insert complete name of Purchaser]**

Whereas **[insert complete name of Tenderer]** (hereinafter “the Tenderer”) has submitted its Tender dated **[insert date (as day, month and year) of Tender submission]** for ICT No. **[insert ICT No]** for the supply of **[insert brief description of the Goods and Related Services]**, hereinafter called “the Tender.”

KNOW ALL PEOPLE by these presents that **WE [insert complete name of bank issuing the Tender Security]**, of **[insert city of domicile and country of nationality]** having our registered office at **[insert full address of the issuing institution]** (hereinafter “the bank”), are bound unto **[insert complete name of the Purchaser]** (hereinafter “the Purchaser”) in the sum of **[specify in words the amount and currency of the Tender security (specify the amount and currency in figures)]**, for which payment well and truly to be made to the aforementioned Purchaser, the Guarantor binds itself, its successors or assignees by these presents. Sealed with the Common Seal of this bank, this **[insert day in numbers]** day of **[insert month]**, **[insert year]**.

THE CONDITIONS of this obligation are the following:

1. If the Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer in the Tender Submission Sheet, except as provided in ITT Sub-Clause 20.2; or
2. If the Tenderer, having been notified of the acceptance of its Tender by the Purchaser, during the period of Tender validity, fails or refuses to:
 - (a) execute the Contract; or
 - (b) furnish the Performance Security, in accordance with the ITT Clause 44; or
 - (c) accept the correction of its Tender by the Purchaser, pursuant to ITT Clause 31.

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser state that the amount claimed by it is due to it, owing to the occurrence of one or more of the above conditions, specifying the occurred conditions.

This guarantee shall remain in force up to and including twenty-eight (28) days after the period of Tender validity, and any demand in respect thereof should be received by the Guarantor no later than the above date.

Name: **[insert complete name of person signing the Tender Security]** In the capacity of **[insert legal capacity of person signing the Tender Security]**

Signed: **[insert signature of person whose name and capacity are shown above]**

Duly authorized to sign the Tender for and on behalf of: **[insert complete name of bank]**

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

Tender Security Form (Tender Bond)

NOT APPLICABLE

BOND NO. _____

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

WHEREAS the Principal has submitted a written Tender to the Purchaser dated the ___ day of _____, 20___, for the supply of [insert name and/or description of goods] (hereinafter called the “Tender”).

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal:

- (1) withdraws its Tender during the period of Tender validity specified by the Tenderer on the Tender Form; or
- (2) refuses to accept the correction of errors in its Tender Price in accordance with the Instructions to Tenderers; or
- (3) having been notified of the acceptance of its Tender by the Purchaser during the period of Tender validity;
 - (a) fails or refuses to execute the Contract Form in accordance with the Instructions to Tenderers, if required; or
 - (b) fails or refuses to furnish the Performance Security in accordance with the Instructions to Tenderers;

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

The Surety hereby agrees that its obligation will remain in full force and affect up to and including the date 30 days after the date of expiration of the Tender validity as stated in the Invitation to Tender. Any demand in respect of this Bond should reach the Surety not later than the above date.

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

Principal: _____

Surety: _____

Corporate Seal (where appropriate)

(Signature)

(Signature)

(Printed name and title)

(Printed name and title)

(*) The amount of the Bond shall be denominated in the currency of the Employer's country or the equivalent amount in a freely convertible currency

Manufacturer's Authorization Form

The Tenderer shall fill in and complete all the blank spaces in the Manufacturer's Authorization form in accordance with the instructions indicated here.

Input of Information to be completed by Tenderer

Manufacturer's Authorization

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

ICT No.: **[insert number of Tendering process]**

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

To: **[insert complete name of Purchaser]**

WHEREAS

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

We hereby extend our full guarantee and warranty in accordance with Clause 27 of the General Conditions of Contract, with respect to the Goods offered by the above firm in reply to this Invitation for Tenders.

[insert complete name of person signing the authorization] **[insert legal capacity of person signing the authorization]**
Name _____ In the Capacity of _____

Signed **[insert signature of person name and capacity are shown]** _____

Duly authorized to sign the authorization for and on behalf of **[insert complete name of Manufacturer]** _____

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

Note: This letter of authorization should be on the letterhead of the Manufacturer.

Section V. Eligible Countries

Public Procurement Board of the Republic of Ghana

Eligibility for the Provision of Goods, Works and Services financed from the Public Funds of the Republic of Ghana

As of JUNE 2019.

For the information of Tenderers, and in accordance with ITT Clause 4, set forth below is a list of countries from which Tenderers, goods and services are not eligible to participate in procurement financed from the public funds of the Republic of Ghana:

- NONE

PART 2 – Supply Requirements

Section VI. Schedule of Requirements

Contents

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List of Goods and Delivery Schedule

The Tenderer shall quote Contract Delivery Dates for all items and lots as specified in this Form 1 List of Goods and Delivery Schedule.

1	2	3	4	5		
Item	Description of Good	Quantity	Physical Unit	Incoterm Specified and Named Place or Port of Destination		Required Delivery Date
				Goods from outside Ghana	Goods from inside Ghana	
	ITEM					
1	GROUNDING/ STATION SERVICE TRANSFORMERS	20	SGLS	DDP GRIDCo Central Ware House, Tema	DDP GRIDCo Central Warehouse, Tema, Ghana	5 to 6 months from award of contract

Schedule of Delivery

The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery (i) at EXW premises, or (ii) to the carrier at the port of shipment when the contract is placed on FOB or CIF terms, or (iii) to the first carrier when the contract is placed on FCA or CIP terms. In order to determine the date of delivery hereafter specified, the Purchaser has taken into account the additional time that will be needed for international or national transit to the Project Site or to another common place of destination.¹

Item number	Brief description	Quantity (Shipment)	Delivery schedule
1	GROUNDING / STATION SERVICE TRANSFORMERS	20 set	5 to 6 Months

2. List of Related Services and Completion Schedule

The Tenderer shall quote Contract Completion Dates for all items and lots as specified in this Form 2 List of Related Services and Completion Schedule.

1	2	3	4	5	6
Item	Description of Service	Quantity	Physical Unit	Site or Place where Services shall be performed	Required Completion Date for Services
1	Factory Acceptance test (See GCC25.2)	Three (3) GRIDCo Staff			

3. Technical Specifications

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

TECHNICAL CHARACTERISTICS FOR GROUNDING/STATION SERVICE

The grounding transformers shall comply with the following characteristics which shall be the minimum requirements.

Phases:	Three (3)
Windings:	Two (2)
Rated Voltage:	
• Primary (grounding winding)	34.5kV
• Secondary (low-voltage winding)	0.433 - 0.250kV
Maximum continuous operation voltage:	
○ Primary winding, in mean tap	36kV
○ Secondary winding	1kV
Rated Frequency:	50 Hz
Rated Power:	
• Secondary winding	250kVA
Tap changing:	by means of off voltage Tap - Changer on the primary winding having a range of $\pm 5\%$ of no-load rated voltage in ± 2 steps each of 2.5%
Connections of Phases:	
• Primary winding	interconnected star (zig - zag) with external neutral
• Secondary winding	star with external neutral
Connection Symbols:	ZNyn11
Rated Short Time Current on the primary windings for not less than 15s:	
- on phases	600A
- on neutral	1800A
Cooling Method:	ONAN

Insulation: The insulation level shall be as follows:

Winding	INSULATION LEVELS			
	Power Frequency Withstand Voltage		Lightning Impulse Withstand Voltage	
	Line Terminal (kV rms)	Neutral Terminal (kV rms)	Line Terminal (kV crest)	Neutral Terminal (kV crest)
Primary	70	70	170	170
Secondary	10	10	-	-

The grounding transformer shall be capable of withstanding for a period of not less than 15sec the voltage arising on two line terminals when the third terminal and the neutral terminal are connected solidly to ground.

Maximum continuous operation voltage

Impedance voltage referred to 250kVA and to rated frequency

- On ratio 34.5kV+2X2.5%/0.433kV -
- On ratio 34.5/0.433kV 4%
- On ratio 34.5kV – 2X5%/0.433kV -

Zero-sequence impedance voltage at rated short time current in the neutral (primary winding side) 31.75 Ω/phase

Bushings:

The bushings of primary winding shall be as follows:

- Rated Voltage: 52 kV
- Rated Current: ≥600 A
- Creepage Distance: ≥1080 mm

Temperature-Rise Limits

- In normal condition of service

Windings (average): $\leq 60^{\circ}\text{C}$

Top oil: $\leq 55^{\circ}\text{C}$

Winding hot spot: $\leq 70^{\circ}\text{C}$

- In conditions of short time service (reference hot-spot temperature rise)

Windings: 125°C

Top Oil: 75°C

Particular Operating Conditions

The transformers shall be capable to withstand without any danger an exceptional over excitation causing the flux to increase up to 1.4 times the normal flux for duration up to 10 seconds.

Tolerances

Unless specified elsewhere, each transformer of the supply will be considered to comply with these Specifications when the guaranteed characteristics are within the following tolerances:

	For Penalty Application	For Rejection
Voltage ratio at no-load on any tapping	-	$\pm 0.5\%$
Impedance voltage (Primary-secondary) on principal tapping	-	$\pm 10\%$
Same on extreme taps	-	$\pm 10\%$
No-load losses at rated voltage and frequency	0	+15%
Load losses at rated voltage, frequency and power of secondary winding	0	+15%
No-load current at rated voltage and frequency	-	+30%
Temperature rises	0	0
Zero – sequence impedance voltage, at rated short time current in the neutral in any tap position	-	$\pm 10\%$
Audible sound level		As per IEC standards

16.1.4 CONSTRUCTION REQUIREMENTS

16.1.4.1 General

Materials used shall be new, of first class quality and free from defects and imperfections.

The Contractor shall submit to the Purchaser a list of the proposed sub-suppliers for main components (such as copper, insulating materials, core laminations, bushings, off-load tap-changers). Said list is subject to acceptance by the Purchaser before suborders are placed.

16.1.4.2 Magnetic Circuits

The core shall be made of cold-rolled oriented-grain silicon steel, of the best quality, suitably annealed in order to minimize losses. Joints shall be cut at 45 deg to facilitate flux flow from legs to yokes.

Core construction shall be sturdily clamped by means of yoke clamping structures made of fabricated steel. Upper and lower yokes shall be connected by plates or tie rods mechanically secured to said yoke frames only, in order to avoid mechanical stresses on laminations. The resulting structure shall be capable of retaining its shape under the most severe stresses met during shipment, handling and under short-circuit conditions.

In particular, the unit is designed to withstand the acceleration induced by the earthquake levels mentioned in Section on General Requirements Clause 3.1.1 of these Specifications and to sustain an inclination of 10 deg.

The flux density in the core at rated frequency and rated voltage of 33kV, at mean tap position, shall be ≤ 1.65 Tesla.

Insulation of the core frame from the core shall be able to withstand a voltage of 2 kV rms 50 Hz for 1 minute.

Means shall be adopted to avoid hot spots.

The core shall be connected to the yoke frames and to ground in one point only by means of a copper strap, having a minimum cross section of 160 mm², accessible through a handhole. Copper bridges shall also be provided across cooling ducts, if any.

16.1.4.3 Windings

Conductors shall be made of electrolytic copper insulated by pure cellulose paper.

All weldings in windings shall be brazed.

The windings shall be conceived to sustain thermal and dynamic stress occurring in short circuit conditions.

16.1.4.4 Tank

The tank shall be made with stiffened welded steel plates so that the transformer can be lifted completely assembled with oil without permanent deformation or oil leakages. The cover shall be of the bolted type.

The tank is capable of withstanding without permanent deformation the practically complete vacuum (less than 1mmHg absolute pressure). The permissible loss of vacuum shall not exceed 6mmHg in 6 hours.

The tank shall also withstand a steady – state overpressure test of 1kg/sqcm measured at a tank bottom, with duration of 24hours, without permanent deformation and leaks.

The gaskets will be preferably of synthetic rubber and located on flanges with steel stops to avoid over compression of the same.

Details of gaskets and gasket arrangement shall be submitted for approval together with suitable reference to previous experience.

The tank and cover are designed so as to leave no external pockets in which water can lodge, and no internal pockets in which oil remains when draining the tank or in which air can be trapped when filling the tank.

All bolts shall be made of galvanized or stainless steel.

Lugs shall be located on the cover for lifting the completely assembled transformer with oil and core-and-coil only.

Pulling eyes near the base shall be mounted for dragging the transformer.

One grounding terminal shall be provided near the base in the middle of the long sides.

The tank is provided with filtering, drain and sampling valves and fittings for connection to vacuum pumps specified herebelow.

Suitable electric bridges shall ensure that all parts of the tank and all fittings frames are the same potential.

16.1.4.5 Bushings

The bushings shall comply with IEC Publication 137, 1995 specifications and shall be of the plain porcelain type, brown colour.

Terminals shall be of the flag type in accordance with DIN standards.

For rated characteristics (including creepage distance) of bushings refer to Clause 16.1.3

Toroidal current transformers shall be mounted on the 33kV bushings as specified elsewhere in these specifications.

16.1.4.6 Off-Load Tap Changer

Off-load tap-changer shall be provided on primary windings. The tap-changer shall be 3-phase and shall be operated by means of a hand drive mechanism with control located on the cover

16.1.4.7 Oil Conservator

The size of conservator shall be suitable for a temperature range of +10 to 100°C.

The conservator shall be provided with filling cap, draining plug and with an oil level indicator easily readable at eye level. Dial shall indicate minimum, 30°C and maximum levels. A breather device shall be provided on the filling cap. The connection pipes to the gas actuated (Buchholz) relay shall include disconnecting valves.

16.1.4.8 Oil

The supply shall include the transformer oil, plus 10% spare oil. This oil shall be new, inhibited and shall meet the requirements for Class I type as provided for by the IEC Publication 296, 1982.

The oil shall be obtained from naphthenic crudes and shall not contain PolyChlorinated Biphenyls (PCB).

Oil shall not contain corrosive sulfur and shall be tested to be in compliance with Method B of the ASTM Standard D1275-06” Standard Test Method for Corrosive Sulfur in Electrical insulating Oils”

In any case, the Contractor shall submit to the Purchaser for approval the characteristics of oil he intends to use.

16.1.4.9 Painting

All parts of the transformer made of corrodible metals shall be painted. The surfaces inside the transformer tank (including the oil conservator) shall be protected by rust inhibiting paint of proven insolubility in hot oil (at100°C).

The external metal surfaces shall be treated as follows:

Surface preparation: prior to painting all surfaces shall be subjected to white metal blast-cleaning according to the specification SSPC-SP 5-63 of the Steel Structure Painting Council. The primer shall not be applied later than 24 hours after sandblasting, and in any case before the sandblasted surfaces start rusting.

First coat (primer): catalyzed epoxy paints with anti-corrosion pigments shall be used as a primer for the tank and radiators; synthetic paints may also be used for the radiators.

Finishing coat: the finishing coats for the tank and radiators shall be based on paints belonging to one of the following categories:

- Polyurethane paints.
- Alkyd and silicone-based paints (30% silicone-copolymer).
- modified vinyl paints.

Intermediate coats between the priming and finishing coats may be selected by the Manufacturer. The various coats of paint shall be of contrasting colours to permit their prompt identification.

Colour of the finishing paint shall be subject to approval by the Engineer.

The Manufacturer shall submit for approval the painting method he intends to adopt, in particular he shall specify the nominal value of the thickness of each coat. Painting of the transformer shall be completed before the routine tests. Finished painted surfaces shall be properly protected against possible damage during transport and installation. Manufacturer shall supply a sufficient quantity of touch-up paint to repair damaged parts.

16.1.4.10 Accessories

1 Buchholz relay with 2 floats and 2 independent contacts for alarm and tripping for the oil of the transformer tank with 2 disconnecting valves and circuit testing device.

1 Oil sampling device, vacuum-tight at eye level connected with the above relay.

1 Flanged pipe for the above relay to allow removal of same.

1 Hot oil thermometer, dial type with 2 resettable contacts (alarm and tripping), mounted on the tank wall at a suitable level.

1 Bronze plug vacuum – tight with screwed cap for sampling oil from main tank.

2 Bronze valves in opposite sides of the main tank (located at convenient height) for oil treatment. The valves shall be vacuum – tight, threaded 1.5in. and fitted with screwed cap. Lower valve will be used for oil draining.

1 Valve as above for vacuum pump.

2 Thermometer pockets with captive screw caps.

1 Safety overpressure valve with alarm contacts

Name plate with transformer diagram.

Other accessories such as lugs, valves etc, as listed.

16.1.4.11 Plate

Each transformer shall be provided with a rating plate. The plate shall be of stainless steel or other approved incorrodible metal, shall be fixed with stainless screws and lettering shall not deteriorate with time. All inscriptions shall be in English and subject to approval by the Purchaser.

The rating plate shall show all the indications specified in IEC Publication 76-1, Article 5 (plus the indication that the tank is suitable for lifting the transformer full of oil).

16.1.5 TESTS

16.1.6

16.1.5.1 Tests on Components

Before being fitted to the transformers, all components shall be subjected to routine tests required by the relevant standards at the suppliers or sub-supplier's factory. A detailed test report, proving the successful passing of such tests, shall be provided.

16.1.5.2 Acceptance Tests

The following tests shall be performed at the contractor's works prior to shipment:

Type Tests

Temperature rise tests.

Short circuit tests (optional, at Owner's choice)

Leakage test on tank and assembled fittings under oil pressure

Measurement of acoustic noise level

Vacuum test on tank and assembled fittings

Routine Tests

Measurements of voltage ratio and check of voltage vector relationship.

Measurement of the winding resistance

Separate-source power-frequency withstand test

Induced overvoltage test

Impulse test

Measurement of zero-sequence impedance

Measurement of no-load loss and no-load current.

Measurement of impedance voltage and load losses.

Check of breakdown voltage of insulating oil

Measurement of insulation resistance

Operation tests of no-load tap-changer

Check of paint protection

Test on components and fittings

The routine tests shall be made on each transformer supplied.

The type tests shall be made on one transformer only after the routine tests.

Unless otherwise specified, the test shall be carried out in accordance with IEC standards.

16.1.5.3 Type Tests

Temperature-Rise Test

To be carried out in accordance with IEC Publication 76-2, 1993, at rated voltage, rated frequency and with rated power of the secondary winding.

The winding temperature shall be ascertained by using the resistance method. The hot spot temperatures rise shall be in accordance with the IEC Publication 354, 1991.

Short-Circuit Tests (optional, to be quoted separately)

To be carried out in accordance with the procedure laid down in IEC Publication 60076-5, 2000.

The dynamic ability shall be proved by the following tests.

Primary supplied, secondary open. The test shall be carried out connecting the earthing transformer to single phase supply between the three line terminals connected together and the neutral terminal. The applied voltage will be the winding rated voltage increased by 10%.

Three short circuit tests shall be carried out, with the tap-changer on rated and extreme positions.

When starting the test, the initial value of the top oil temperature shall be the temperature in continuous service with rated power of the secondary winding.

The duration of each short circuit shall be:

- 0.5 seconds (tolerance $\pm 5\%$) for the first and second test (tap changer on extreme positions).
- 15 seconds (tolerance $+10\%$) for the third test (tap changer on mean position).

Primary supplied, secondary short-circuited. The tests shall be carried out in three phase connecting the earthing transformer to a supply having the rated voltage of the winding plus 10%. Nine short circuits shall be applied as follows:

Winding Conditions	Tap Position	Changer	Current in Phases a, b, c, as a Percentage of Short Circuit Current		
			a	b	c
Primary: Supply Input	+5%		100%	cons	cons
	0		100%	cons	cons
	-5%		100%	cons	cons
Secondary: short-circuited	+5%		cons	100%	cons
	0		cons	100%	cons
	-5%		cons	100%	cons
	+5%		cons	cons	100%
	0		cons	cons	100%
	-5%		cons	cons	100%

The duration of each short-circuit shall be 0.5 seconds with a tolerance of $\pm 10\%$. At the end of the short-circuits tests a) and b), the power frequency insulation tests, at 100% levels, shall be repeated.

In case the reactances, before and after short circuit tests, happen to differ by more than 1%, the earthing transformer shall be untanked for visual inspection and dismantled if deemed necessary by Employer's representative.

In case the reactances measured before and after the short circuit tests, happen to differ by more than 2%, the earthing transformer shall be rejected.

The thermal ability shall be demonstrated with the following procedure:

Short time current on primary windings and rated currents on the secondary windings. The terminal ability is demonstrated by calculations according to IEC Publication 60076-5, Subclause 2.1. The winding temperature after test is ascertained using the resistance method. The hot-spot temperature rise shall be determined in accordance with IEC Publication 354.

Primary supplied, secondary short-circuited. The temperature rises of windings shall be calculated in accordance with IEC Publication 60076-5, Subclause 2.1.

Leakage Test on Tank and Assembled Fitting under Oil Pressure

The test shall be carried out with the transformer filled with warm oil and performed at the end of the temperature-rise test.

An over pressure of 1kg/sq cm measured at tank bottom shall be applied for 24 hours. No leaks and deformation shall occur.

During this test, the magnitude of any permanent deformations of the tank shall be noted.

Measurement of audible sound level

To be carried out with the procedure laid down in clause 8.6 of IEC publication 60076-1, 1993.

Vacuum test on tank and assembled fittings

This test shall be carried out in the grounding transformer complete with all the fittings, but without oil. The test pressure in the tank shall be $\leq 3\text{mmHg}$. The connection to the vacuum pump shall then be isolated. The permissible loss of vacuum shall not exceed 40mmHg in 6 hours. No permanent deformation will occur.

16.1.5.4 Routine Tests

Tests shall be performed at any ambient temperature between 10 and 40°C.

Measurement of Voltage Ratio

To be carried out in accordance with the procedure laid down in IEC Publication 76- 1, 1993, Subclause 8.3.

Check of Voltage Vector Relationship.

To be carried out in accordance with the procedure laid down in IEC Publication 76-1, 1993, Subclause 8.3

Measurement of the Winding Resistances

To be carried out in accordance with the procedure laid down in IEC Publication 76-1, 1993

Separate-Source Power-Frequency Voltage Withstand Test

To be carried out in accordance with the procedure laid down in IEC Publication 60076-3, 2000.

Induced overvoltage test

To be carried out at 2 times max. operation voltage, at increased frequency, as per IEC Standard 60076-3, 2000.

Impulse Test

To be carried out in accordance with the procedure laid down in Clause 12 of IEC Publication 60076-3, 2000.

Measurement of Zero-Sequence Impedance

To be carried out preferably at rated neutral current and expressed in ohms per phase. It shall be ensured that the current and the time of application is compatible with the current-carrying capability of the windings or metallic constructional parts. If this condition does not allow the measurement at rated neutral current, a current between 50% and 100% may be used. The result is to be converted by using an extrapolation method.

Measurement shall be according to IEC Publication 60076-1, 2000.

Measurement of No-Load Losses and No-Load Current

To be carried out in accordance with the procedure laid down in IEC Publication 7 60076-1, 2000, Subclause 8.5.

Measurement of Impedance Voltage, Short Circuit Impedance and Load Loss

To be carried out in accordance with the procedure laid down in IEC Publication 60076-1, 2000, Subclause 8.4.

Operation Test of Off-Voltage Tap-Changer

Operations shall be carried out for 20 operating cycles across the whole range of tapping. During the test no failures of the parts of the tap changer and no oil leakages across the gaskets shall be observed.

Checks of Breakdown of Insulating Oil

To be carried out in accordance with the procedure laid down in IEC Publication 296, 1982.

The breakdown voltage of oil shall be minimum 60kV for all samples drawn from the transformers. In case the oil used during acceptance tests at Works differs from the oil used at site, this test will be performed at site only.

Check of Paint Protection

To be carried out by checking both thickness and adhesion of the film.

The measurement of the paint thickness shall be performed by employing a “Paint Inspection Gauge”. In particular it shall be made by the direct measurement of total film thickness as well as the thickness of individual coats. Ten points shall be chosen at random on the painted surface of transformers (radiators included); the mean of the values of each coat shall not be lower than the nominal value declared by the manufacturer. No value shall be lower than the minimum thickness specified by the manufacturer.

Film adhesion shall be verified by the cross-cut method according to DIN Standard 53151-1970. The test shall be made in ten points chosen at random on the painted surface of transformer. The degree of alteration shall not be higher than Gtl.

16.1.5.5 Criteria for the acceptance of Transformers

Tests on Components at Factory

All routine tests shall have a positive result within the tolerance allowed, when applicable.

The negative result of one test shall not imply the rejection of the supply but only of the failing component, unless the manufacturer is in a position to remedy said defect within a reasonable period of time.

Final Tests on Transformers at Factory Before Shipment

The negative result of a type test, if considered by the Engineer as essential for reliable operation of the transformers, may involve rejection of all transformers of the same type of the supply. The Engineer will accept the repetition of the test if the

Contractor proposes to modify the design of the transformer within a reasonable period of time and to repeat, at his own expense all type tests listed under Clause 16.1.5.3.

All routine tests shall have a positive result within the tolerances allowed, when applicable.

If the negative result of a test is prejudicial to the operation of the transformer, each unsound transformer shall be replaced or repaired at the full expense of the Contractor.

A negative result of the control of paint application entitles the Engineer to require, at no charge, the repainting of transformer.

Failure to Meet Guarantees

If tests on transformers show that the characteristics fail to meet guaranteed values, the Engineer is entitled to reject the transformers in case the tolerances stipulated in Clause 16.1.3 are exceeded. If no-load and/or load losses exceed the guaranteed values, the following penalties shall be applied, independently for each transformer:

- a) An amount calculated at the rate of US \$4,000 for every full kilowatt that no load losses at rated voltage and frequency exceed the guaranteed value.
- b) An amount calculated at the rate of US\$1,500 for every full kilowatt the load losses, calculated with the formula in Clause 16.1.2.7, exceed the guaranteed value.

No credit shall be granted for characteristics which are found to be better than the guaranteed values

16.1.6 TRANSPORT

Transformers shall be designed for rail, sea and road transport.

Road transport shall be possible with the transformer filled-up with oil and complete with all its parts inclusive of bushing, conservator and radiators.

From the Contractor's works to the installation site, the transformer will however be transported by rail/road/sea with oil, bushings, radiators, conservator and external accessories.

If it is not possible to transport the transformer filled up with oil, the transport shall be in a nitrogen atmosphere. In this case the Contractor shall take care of the equipment for maintaining a slightly positive nitrogen pressure in the tank.

16.1.7 SPARE PARTS

A list of recommended spare parts, with unit prices, for necessary maintenance of the grounding transformers shall be furnished with the Tender.

The list shall include, but not be limited to, the following for each transformer.

One set of gaskets

One bushing for the primary and secondary winding

Spare parts shall be interchangeable with and have the same characteristics and quality as those mounted on transformers.

All spare parts shall be interchangeable with and have the same characteristics and quality as those mounted on transformers.

All spare parts shall be treated and packed as required to preserve them against deterioration for indefinite storage. Each spare part shall be suitably identified by metal label.

SCHEDULE OF GUARANTEED CHARACTERISTICS

SCHEDULE 17: 34.5/0.433kV OUTDOOR GROUNDING/AUXILLIARY TRANSFORMER

Column A: Contains the Specified Technical Characteristics to be considered together with the required stated in the technical specification.

Column B: Is the schedule of the guaranteed characteristics to be filled in by the Tenderer. Missing data may entitle the Employer to reject the Tender.

No.	Description	A	B
1.	Supply	Three – phase earthing transformer	
2.	Manufacturer’s name	-	
3.	Manufacturer’s type designation	-	
4.	Service Conditions		
	maximum altitude above sea level (m)	<1000	
	ambient temperature (° C):		
	maximum value	+45	
	minimum value	+10	
	average value in any one year	+30	
	average value in any one day	+35	
5.	Standard in force (with reservations as mentioned in the technical specifications)	IEC	
6.	Windings	Two (earthing winding and low voltage winding)	
7.	Rated voltages (kV)		
	- HV winding	34.5	
	- LV winding	0.433 – 0.250	
8.	Rated frequency (Hz)	50	
9.	Off voltage tap – changer		

	- position	primary winding	
	- range	± 5% of rated voltage (34.5kV)	
	- steps	± 2 each of 2.5%	
10.	Connection		
	- primary winding	Zig - zag with external neutral	
	- secondary winding	star with external neutral	
11.	Connection symbols	ZNyn11	
12.	Rated short time current in the primary winding		
	- phase current (A rms)	600	
	- neutral current (A rms)	1800	
	- time (sec)	15	
13.	Rated power of secondary winding (kVA)	250	
14.	Cooling method	ONAN	
15.	Insulation levels		
	Power frequency (kVrms):		
	primary	70	
	secondary	10	
	Induced over voltage on primary, in mean tap (kVrms)	70	
	Lightning Impulse (kV peak):		
	primary	170	
	secondary	-	
16.	Particular dielectric stress	see technical specification.	
17.	Zero Sequence Impedance at rated Voltage (34.5kV) and rated frequency (Ω/phase)	31.75	

18.	Bushings		
	manufacturer's name		
	primary winding:		
	rated voltage (kV)	52	
	rated current (A)	≥ 600	
	creepage distance (mm)	≥ 1080	
	secondary winding:		
	rated voltage (kV)	1	
	rated current (A)	≥ 600	
	creepage distance (mm)	-	
19.	Temperature -rise limits ($^{\circ}\text{C}$)		
	Normal condition of service:		
	windings (average)	$\leq 60^{\circ}\text{C}$	
	Top oil	$\leq 55^{\circ}\text{C}$	
	Winding hot spot	$\leq 70^{\circ}\text{C}$	
	Condition of short time service (reference hot spot):		
	Windings (average)	$\leq 125^{\circ}\text{C}$	
	Top oil	$\leq 75^{\circ}\text{C}$	
20.	Particular working conditions	See technical spec	
21.	No load losses at rated voltage (34.5kV) and rated frequency (kW)	≤ 2	
22.	Load losses at rated voltage (34.5kV), frequency and power of secondary winding	≤ 4	
23.	No - load current (A) at rated voltage (34.5kV) and frequency (%)	-	
24.	Impedance voltage at 75°C referred to 250kVA and to rated frequency (%)		
	At ratio 34.5 + 5% / 0.433 kV	-	
	At ratio 34.5 / 0.433 kV	4	

	At ratio 34.5 - 5% / 0.433 kV	-	
25.	Audible sound level (dB)	≤ 54	
26.	Tolerances	See tech. specifications	
27.	Magnetic circuits		
	Characteristics	See tech. specifications	
	Flux density at rated frequency and voltage (34.5kV) (tesla), at mean tap	≤ 1.65	
28.	Windings		
	Characteristics	-	
	Disposition		
	Materials	see tech. specifications	
	Current density at rated frequency, voltage (34.5kV) and power of low voltage winding		
29.	Insulating materials	-	
30	Tank		
	- characteristics	see tech. specifications	
	- thickness of tank walls	-	
31.	Off voltage tap changer		
	type	Three pole hand drive mechanism	
	manufacturer's name	-	
	rated voltage (kVrms)	52	
	insulation levels to earth	-	
	power frequency (kV rms)	70	
	lightning impulse (kV rms)	170	
32.	Oil conservator	See tech. specifications	
33.	Accessories	See tech. specifications	
34.	Oil	See tech. specifications	
35.	Bushing type current transformers on 33kV winding terminals:		

	number of cores		
	line CT's (protection)	2	
	neutral CT's (protection)	1	
	ratio		
	line CT's (A) i.e. 1 & (2)	300/5/5	
	neutral CT's (A)	900/5/5	
	rated 1 – second thermal current (kArms)	16	
	rated dynamic current (kA, peak)	40	
	burden	10VA	
	accuracy class		
	line CT's i.e. 1 & 2	10 P	
	neutral CT's	5 P	
	accuracy limit factor		
	line CT's i.e. 1 & 2	20	
	neutral CT's	20	
36.	Overall dimension (mm)		
	height		
	length		
	width		
37.	Weights (kg)	Not exceeding 5,000kg	
	earthing transformer (excl. oil)		
	oil as necessary plus 10% spare		
	tank		
	cover with core and coils		
	copper		
	magnetic circuit		

SCOPE

This Specification covers the design, manufacturing, testing, supply and transport of three -phase auxiliary transformers.

23.1 GENERAL

23.1.1 Transformer Type

The transformers shall be 3-phase, 50Hz, no – load ratio 34.5/0.433 kV, star/star connected, oil immersed type, natural air cooled and provided with off-load tap changer on 34.5kV side.

23.1.2 Service Conditions

The elevation above sea level will not exceed 1000m.

Temperature of ambient air are:

Maximum	-	+45°C
annual mean not exceeding	-	+30°C
daily mean: not exceeding	-	+35°C
minimum	-	+10°C

The equipment is exposed to tropical conditions and is therefore subject to high sun radiation and heavy moisture condensation during the night-time.

The area is subject to heavy storms and to frequent lightning strokes.

Earthquake conditions to be taken into account shall allow for horizontal peak ground acceleration of 0.2g; 80% of this value will be assumed for the vertical ground acceleration.

23.1.3 Standards

Unless otherwise specified herein, transformer shall be designed and manufactured in accordance with standards and documents listed below:

IEC Publ 60076-1, 2000	“Power Transformers-Part 1: General” (Edition 2.1)
IEC 60076-2, 1993	“Power Transformers-Part 2: Temperature Rise” (2 nd Edition)
IEC Publ 60076-3, 2000	“Power Transformers-Part 3: Insulation Levels, Dielectric Tests and External Clearances in Air” (2 nd Edition)
IEC Publ 76-4, 1976	“Power Transformers-Part 4: Tappings and Connections”
IEC 60076-5, 2000	“Power Transformers-Part 5: Ability to Withstand Short Circuit”

	(2 nd Edition)
IEC Publ 296, 1982	“Specification for Unused Mineral Insulating Oils for Transformers and Switchgear” (2 nd Edition)
IEC 60354, 1991	“Loading Guide for Oil – Immersed Power Transformers”
IEC Publ 60076-10, 2001	“Power Transformers. Part 10: Determination of Sound Levels”
IEC 60137, 1995	“Insulated Bushings for Alternating Voltage Above 1000V” (4 th Edition)
IEC Publ. 185, 1987	“Current Transformers” (2 nd Edition)
IEC 60567, 1992	“Guide for the sampling of gases and oil from oil filled electrical equipment, and for the analysis of free and dissolved gases”
IEC Publ. 60076-4, 2002	“Power Transformers. Part 4. Guide for the lightning impulse and switching impulse testing of power transformers and reactors”
IEC 60076-8, 1997	“Application Guide for Power Transformers”
IEC 60616, 1978	“Terminals and tapping markings for power transformers”
IEC 60694, 1996	“Common clauses for high voltage switchgear and control gear standards”
IEC 60529, 1989	“Degrees of Protection provided by Enclosures (IP Code)”
EN 50216	“Accessories for power transformers and reactors” Parts 1 through 6
IEC Publ. 289, 1988	“Reactors” (2 nd Edition)

Electrical accessories shall comply with the relevant IEC standards even if not expressly mentioned in this clause.

Chemical, physical, dielectric and mechanical characteristics of materials to be used for manufacturing of transformers shall comply with the requirements given by ASTM (American Society for Testing and Materials) or DIN (Deutsches Institute for Normung) or British Standards.

Should, during the manufacture of transformers, these above mentioned standards be revised, it shall be understood that unless otherwise expressly requested or authorized in writing by the Engineer, these standards shall be considered valid regardless of revisions.

23.1.4 Technical Documentation Required with Tender

The following technical documentation shall be submitted with the Tender.

- A technical description including information on materials, guaranteed values, type and disposition of windings, type of core, type of insulation and impregnation used.
- A preliminary drawing with overall dimensions and weights of transformer including all the accessories.

- A report including information about available short-circuits tests carried out on similar transformers.
- A preliminary drawing of proposed gasket and flange for the cover.
- One drawing with transport dimensions, weights and other relevant information.
- Type of impregnating oil used.
- Quality of oil, kg.

23.1.5 Documentation to be furnished by the Contractor

- Outline drawings showing overall dimensions, location of terminals and cubicles, weights and details of underbase, as necessary for the foundation design.
- Drawings of transformer transportation with fittings for road and sea transport.
- Installation and maintenance instructions.

23.1.6 Installation and Maintenance Instructions

The Contractor shall provide a manual concerning the erection, dismantling and maintenance of transformers. In particular this manual shall include:

- Information on handling the different parts in which transformers may be sub-assembled.
- Cautions to be taken during installation.
- Procedure for on-site treatment of the insulating oil of the transformers.
- All applicable drawings.
- Information on periodic measurements, checks and maintenance.
- Any other useful Information.

The manual shall be in English.

23.2 TECHNICAL CHARACTERISTICS

The auxiliary transformers shall comply with the following characteristics, which shall be the minimum requirements.

Phases:	Three (3)
Windings:	Two (2)
Rated Voltage:	
Primary	34.5kV
Secondary	0.433kV
Rated Frequency:	50 Hz
Rated Power:	

Secondary winding	250kVA
Tap changing:	by means of off voltage Tap - Changer on the primary winding having a range of $\pm 5\%$ of no-load rated voltage in ± 2 steps each of 2.5%
Connections of Phases:	
Primary winding	star or Delta
Secondary winding	star with external neutral
Connection Symbols:	YNyn0/ Dyn11
Cooling Method:	ONAN
Temperature-Rise Limits	
In normal condition of service	
Windings (average):	$\leq 60^{\circ}\text{C}$
Top oil:	$\leq 55^{\circ}\text{C}$
Winding hot spot:	$\leq 70^{\circ}\text{C}$

Bushings:

The bushings of primary winding shall be as follows:

Rated Voltage:	52 kV
Rated Current:	≥ 600 A
Creepage Distance:	≥ 1080 mm

Insulation: The insulation level shall be as follows:

Winding	INSULATION LEVELS			
	Power Frequency Withstand Voltage		Lightning Impulse Withstand Voltage	
	Line Terminal (kV rms)	Neutral Terminal (kV rms)	Line Terminal (kV crest)	Neutral Terminal (kV crest)
Primary	70	-	170	-
Secondary	3	3	-	-

Impedance Voltage 4% to 6%

Particular Operating Conditions

The transformers shall be capable to withstand without any danger an exceptional over excitation causing the flux to increase up to 1.4 times the normal flux for a duration up to 10 seconds.

Tolerances

Unless specified elsewhere, each transformer of the supply will be considered to comply with these Specifications when the guaranteed characteristics are within the following tolerances:

	For Penalty Application	For Rejection
Voltage ratio at no-load on any tapping	-	±0.5%
Impedance voltage (Primary-secondary) on principal tapping	-	±10%
Same on extreme taps	-	±15%
No-load losses at rated voltage and frequency	0	+15%
Load losses at rated voltage, frequency and power of secondary winding	0	+15%
No-load current at rated voltage and frequency	-	+30%
Temperature rises	0	0
Zero – sequence impedance voltage, at rated short time current in the neutral in any tap position	-	±10%
Audible sound level		As per IEC standards

23.3 CONSTRUCTION REQUIREMENTS

23.3.1 General

Materials used shall be new, of first class quality and free from defects and imperfections.

The Contractor shall submit to the Purchaser a list of the proposed sub-suppliers for main components (such as copper, insulating materials, core laminations, bushings, off-load tap-changers). Said list is subject to acceptance by the Purchaser before suborders are placed.

23.3.2 Magnetic Circuits

The core shall be made of cold-rolled oriented-grain silicon steel, of the best quality, suitably annealed in order to minimize losses. Joints shall be cut at 45 deg to facilitate flux flow from legs to yokes.

Core construction shall be sturdily clamped by means of yoke clamping structures made of fabricated steel. Upper and lower yokes shall be connected by plates or tie rods mechanically secured to said yoke frames only, in order to avoid mechanical

stresses on laminations. The resulting structure shall be capable of retaining its shape under the most severe stresses met during shipment, handling and under short-circuit conditions.

In particular, the unit is designed to withstand the acceleration induced by the earthquake levels mentioned in sub-clause 1.1.1 and to sustain an inclination of 10 deg.

Insulation of the core frame from the core shall be able to withstand a voltage of 2 kV rms 50 Hz for 1 minute.

Means shall be adopted to avoid hot spots.

The core shall be connected to the yoke frames and to ground in one point only by means of a copper strap, having a minimum cross section of 160 mm², accessible through a handhole. Copper bridges shall also be provided across cooling ducts, if any.

23.3.3 Windings

Conductors shall be made of electrolytic copper insulated by pure cellulose paper.

All weldings in windings shall be brazed.

The windings shall be conceived to sustain thermal and dynamic stress occurring in short circuit conditions.

23.3.4 Tank

The tank shall be made with stiffened welded steel plates so that the transformer can be lifted completely assembled with oil without permanent deformation or oil leakages. The cover shall be of the bolted type.

The tank is capable of withstanding without permanent deformation the practically complete vacuum (less than 3mmHg absolute pressure). The permissible loss of vacuum shall not exceed 40mmHg in 6 hours.

The tank shall also withstand a steady – state overpressure test of 1kg/sqcm measured at the tank bottom, with duration of 24hours, without permanent deformation and leaks.

The gaskets will preferably be of synthetic rubber and located on flanges with steel stops to avoid over compression of the same.

Details of gaskets and gasket arrangement shall be submitted for approval together with suitable reference to previous experience.

The tank and cover are designed so as to leave no external pockets in which water can lodge, and no internal pockets in which oil remains when draining the tank or in which air can be trapped when filling the tank.

All bolts shall be made of galvanized or stainless steel.

Lugs shall be located on the cover for lifting the completely assembled transformer with oil and core-and-coil only.

Pulling eyes near the base shall be mounted for dragging the transformer.

One grounding terminal shall be provided near the base in the middle of the long sides.

The tank is provided with filtering, drain and sampling valves and fittings for connection to vacuum pumps specified herebelow.

Suitable electric bridges shall ensure that all parts of the tank and all fittings frames are the same potential.

23.3.5 Bushings

The bushings shall comply with IEC Publication 137, 1995 specifications and shall be of the plain porcelain type, brown colour.

Terminals shall be of the flag type in accordance with DIN standards.

For rated characteristics (including creepage distance) of bushings refer to Clause 23.2

23.3.6 Off-Load Tap Changer

Off-load tap-changer shall be provided on primary windings. The tap-changer shall be 3-phase and shall be operated by means of a hand drive mechanism with control located on the cover.

23.3.7 Oil Conservator

The size of conservator shall be suitable for a temperature range of +10 to 100°C.

The conservator shall be provided with filling cap, draining plug and with an oil level indicator easily readable at eye level. Dial shall indicate minimum, 30°C and maximum levels. A breather device shall be provided on the filling cap. The connection pipes to the gas actuated (Buchholz) relay shall include disconnecting valves.

23.3.8 Oil

The supply shall include the transformer oil, plus 10% spare oil. This oil shall be new, non-inhibited and shall meet the requirements for Class I type as provided for by the IEC Publication 296, 1982.

The oil shall be obtained from naphthenic crudes and shall not contain PolyChlorinated Biphenyls (PCB).

In any case, the Contractor shall submit to the Purchaser for approval the characteristics of oil he intends to use.

23.3.9 Painting

All parts of the transformer made of corrodible metals shall be painted. The surfaces inside the transformer tank (including the oil conservator) shall be protected by rust inhibiting paint of proven insolubility in hot oil (at 100°C).

The external metal surfaces shall be treated as follows:

Surface preparation: prior to painting all surfaces shall be subjected to white metal blast-cleaning according to the specification SSPC-SP 5-63 of the Steel Structure Painting Council. The primer shall not be applied later than 24 hours after sandblasting, and in any case before the sandblasted surfaces start rusting.

First coat (primer): catalyzed epoxy paints with anti corrosion pigments shall be used as a primer for the tank and radiators; synthetic paints may also be used for the radiators.

Finishing coat: the finishing coats for the tank and radiators shall be based on paints belonging to one of the following categories:

- Polyurethane paints.
- Alkyd and silicone-based paints (30% silicone-copolymer).
- modified vinyl paints.

Intermediate coats between the priming and finishing coats may be selected by the Manufacturer. The various coats of paint shall be of contrasting colours to permit their prompt identification.

Colour of the finishing paint shall be subject to approval by the Engineer.

The Manufacturer shall submit for approval the painting method he intends to adopt, in particular he shall specify the nominal value of the thickness of each coat. Painting of the transformer shall be completed before the routine tests. Finished painted surfaces shall be properly protected against possible damage during transport and installation. Manufacturer shall supply a sufficient quantity of touch-up paint to repair damaged parts.

23.3.10 Accessories

1 Buchholz relay with 2 floats and 2 independent contacts for alarm and tripping for the oil of the transformer tank with 2 disconnecting valves and circuit testing device.

1 Oil sampling device vacuum – tight at eye level connected with the above relay.

1 Flange pipe for the above relay to allow removal of same.

1 Hot oil thermometer, dial type with 2 resettable contacts (alarm and tripping), mounted on tank wall at a suitable level.

1 Bronze plug vacuum – tight with screwed cap for sampling oil from main tank.

2 Bronze valves in opposite sides of the main tank (located at convenient height) for oil treatment. The valves shall be vacuum – tight, threaded 1.5in. and fitted with screwed cap. Lower valve will be used for oil draining.

1 Valve as above for vacuum pump.

2 Thermometer pockets with captive screw caps.

1 Safety overpressure valve with alarm contacts

Name plate with transformer diagram.

Other accessories such as lugs, valves etc, as listed.

23.3.11 Plate

Each transformer shall be provided with a rating plate. The plate shall be of stainless steel or other approved incorrodible metal, shall be fixed with stainless screws and lettering shall not deteriorate with time. All inscriptions shall be in English and subject to approval by the Purchaser.

The rating plate shall show all the indications specified in IEC Publication 76-1, Article 5 (plus the indication that the tank is suitable for lifting the transformer full of oil).

23.4 TESTS

23.4.1 Tests on Components

Before being fitted to the transformers, all components shall be subjected to routine tests required by the relevant standards at the suppliers or sub-supplier's factory. A detailed test report, proving the successful passing of such tests, shall be provided.

23.4.2 Acceptance Tests

The following tests shall be performed at the contractor's works prior to shipment:

Type Tests

Temperature rise tests.

Short circuit tests (optional, at Owner's choice)

Leakage test on tank and assembled fittings under oil pressure

Measurement of acoustic noise level

Vacuum test on tank and assembled fittings

Routine Tests

Measurements of voltage ratio and check of voltage vector relationship.

Measurement of the winding resistance

Separate-source power-frequency withstand test

Induced overvoltage test

Lightning Impulse test

Measurement of no-load loss and no-load current.

Measurement of impedance voltage and load losses.

Check of breakdown voltage of insulating oil

Measurement of insulation resistance

Operation tests of no-load tap-changer

Check of paint protection

Test on components and fittings

The routine tests shall be made on each transformer supplied.

The type tests shall be made on one transformer only after the routine tests.

Unless otherwise specified, the test shall be carried out in accordance with IEC standards.

23.4.3 Type Tests

Temperature-Rise Test

To be carried out in accordance with IEC Publication 76-2, 1993, at rated voltage, rated frequency and with rated power of the secondary winding.

The winding temperature shall be ascertained by using the resistance method. The hot spot temperatures rise shall be in accordance with the IEC Publication 354, 1991.

Leakage Test on Tank and Assembled Fitting under Oil Pressure

The test shall be carried out with the transformer filled with warm oil and performed at the end of the temperature-rise test.

An over pressure of 1kg/sq cm measured at tank bottom shall be applied for 24 hours. No leaks and deformation shall occur.

During this test, the magnitude of any permanent deformations of the tank shall be noted.

Measurement of audible sound level

To be carried out with the procedure laid down in clause 8.6 of IEC publication 60076-1, 1993.

Vacuum test on tank and assembled fittings

This test shall be carried out in the auxiliary transformer complete with all the fittings, but without oil. The test pressure in the tank shall be ≤ 3 mmHg. The connection to the vacuum pump shall then be isolated. The permissible loss of vacuum shall not exceed 40mmHg in 6 hours. No permanent deformation will occur.

23.4.4 Routine Tests

Tests shall be performed at any ambient temperature between 10 and 40°C.

Measurement of Voltage Ratio

To be carried out in accordance with the procedure laid down in IEC Publication 76-1, 1993, Subclause 8.3.

Check of Voltage Vector Relationship.

To be carried out in accordance with the procedure laid down in IEC Publication 76-1, 1993, Subclause 8.3

Measurement of the Winding Resistances

To be carried out in accordance with the procedure laid down in IEC Publication 76-1, 1993

Separate-Source Power-Frequency Withstand Test and Induced Overvoltage Test

To be carried out in accordance with the procedure laid down in IEC Publication 60076-3, 2000.

Impulse Test

To be carried out in accordance with the procedure laid down in Clause 12 of IEC Publication 60076-3, 2000.

Measurement of No-Load Losses and No-Load Current

To be carried out in accordance with the procedure laid down in IEC Publication 76-1, 1993, Subclause 8.5.

Measurement of Impedance Voltage, Short Circuit Impedance and Load Loss

To be carried out in accordance with the procedure laid down in IEC Publication 76-1, 1993, Subclause 8.4.

Operation Test of Off-Voltage Tap-Changer

Operations shall be carried out for 20 operating cycles across the whole range of tapping. During the test no failures of the parts of the tap changer and no oil leakages across the gaskets shall be observed.

Checks of Breakdown of Insulating Oil

To be carried out in accordance with the procedure laid down in IEC Publication 296, 1982.

The breakdown voltage of oil shall be minimum 60kV for all samples drawn from the transformers. In case the oil used during acceptance tests at Works differs from the oil used at site, this test will be performed at site only.

Check of Paint Protection

To be carried out by checking both thickness and adhesion of the film.

The measurement of the paint thickness shall be performed by employing a "Paint Inspection Gauge". In particular it shall be made by the direct measurement of total film thickness as well as the thickness of individual coats. Ten points shall be chosen at random on the painted surface of transformers (radiators included); the mean of the values of each coat shall not be lower than the nominal value declared by the manufacturer. No value shall be lower than the minimum thickness specified by the manufacturer.

Film adhesion shall be verified by the cross-cut method according to DIN Standard 53151-1970. The test shall be made in ten points chosen at random on the painted surface of transformer. The degree of alteration shall not be higher than Gtl.

23.4.5 Criteria for the acceptance of Transformers

Tests on Components at Factory

All routine tests shall have a positive result within the tolerance allowed, when applicable. The negative result of one test shall not imply the rejection of the supply but only of the failing component, unless the manufacturer is in a position to remedy said defect within a reasonable period of time.

Final Tests on Transformers at Factory Before Shipment

The negative result of a type test, if considered by the Engineer as essential for reliable operation of the transformers, may involve rejection of all transformers of the same type of the supply. The Engineer will accept the repetition of the test if the Contractor proposes to modify the design of the transformer within a reasonable period of time and to repeat, at his own expense all type tests listed under Clause 23.4.3.

All routine tests shall have a positive result within the tolerances allowed, when applicable. If the negative result of a test is prejudicial to the operation of the transformer, each unsound transformer shall be replaced or repaired at the full expense of the Contractor. A negative result of the control of paint application entitles the Engineer to require, at no charge, the repainting of transformer.

Failure to Meet Guarantees

If tests on transformers show that the characteristics fail to meet guaranteed values, the Engineer is entitled to reject the transformers in case the tolerances stipulated in under Clause 23.2 are exceeded. If no-load and/or load losses exceed the guaranteed values, the following penalties shall be applied, independently for each transformer:

An amount calculated at the rate of US \$4000 for every full kilowatt that no load losses at rated voltage and frequency exceed the guaranteed value.

An amount calculated at the rate of US\$1,500 for every full kilowatt the load losses exceed the guaranteed value.

No credit shall be granted for characteristics which are found to be better than the guaranteed values.

23.5 TRANSPORT

Transformers shall be designed for rail, sea and road transport.

Road transport shall be possible with the transformer filled-up with oil and complete with all its parts inclusive of bushing, conservator and radiators.

From the Contractor's works to the installation site, the transformer will however be transported by rail/road/sea with oil, bushings, radiators, conservator and external accessories.

If it is not possible to transport the transformer filled up with oil, the transport shall be in a nitrogen atmosphere. In this case the Contractor shall take care of the equipment for maintaining a slightly positive nitrogen pressure in the tank.

23.6 SPARE PARTS

A list of recommended spare parts, with unit prices, for necessary maintenance of the auxiliary transformers shall be furnished.

The list shall include, but not be limited to, the following for each transformer.

One set of gaskets
One bushing for the primary and secondary winding

Spare parts shall be interchangeable with and have the same characteristics and quality as those mounted on transformers.

All spare parts shall be interchangeable with and have the same characteristics and quality as those mounted on transformers.

All spare parts shall be treated and packed as required to preserve them against deterioration for indefinite storage. Each spare part shall be suitably identified by metal label.

GUARANTEED TECHNICAL CHARACTERISTICS

TENDERERS ARE REQUIRED TO STATE OR RE-STATE DETAILED SPECIFICATIONS OF GOODS TO BE SUPPLIED. TENDERERS OFFERS SHALL BE REJECTED IF THEY DO NOT STATE DETAILED SPECIFICATIONS.

TENDERERS SHOULD SUBMIT WITH THEIR TENDERS DETAILED LITERATURE, BROCHURES, CATALOGUES OF THE GOODS THEY INTEND TO SUPPLY. FAILURE TO PROVIDE THESE MAY RESULT IN THE REJECTION OF THE TENDERS.

4. Drawings

PART 3 - Contract

Section VII. General Conditions of Contract

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Section VII. General Conditions of Contract

Definitions

- 2.1 The following words and expressions shall have the meanings hereby assigned to them:
- (a) “Contract” means the Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
 - (b) “Contract Documents” means the documents listed in the Agreement, including any amendments thereto.
 - (c) “Contract Price” means the price payable to the Supplier as specified in the Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.
 - (d) “Day” means calendar day.
 - (e) “Delivery” means the transfer of ownership of the Goods from the Supplier to the Purchaser in accordance with the terms and conditions set forth in the Contract.
 - (f) “Completion” means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
 - (g) “Eligible Countries” means the countries and territories eligible as listed in Section V.
 - (h) “GCC” means the General Conditions of Contract.
 - (i) “Goods” means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.
 - (j) “Purchaser” means the entity purchasing the Goods and Related Services, as specified in the SCC.
 - (k) “Related Services” means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other similar obligations of the Supplier under the Contract.

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- (l) “SCC” means the Special Conditions of Contract.
 - (m) “Subcontractor” means any natural person, private or government entity, or a combination of the above, including its legal successors or permitted assigns, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.
 - (n) “Supplier” means the natural person, private or government entity, or a combination of the above, whose Tender to perform the Contract has been accepted by the Purchaser and is named as such in the Agreement, and includes the legal successors or permitted assigns of the Supplier.
 - (o) “The Site,” where applicable, means the place named in the SCC.

Contract Documents

2.1 Subject to the order of precedence set forth in the Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory.

Corrupt Practices

3.1 The Government of Ghana (GOG) requires that all Procurement Entities as well as Tenderers, Suppliers, Contractors and Consultants participating in contracts financed from the public funds of the Republic of Ghana, adhere to the highest ethical standards, both during the tendering process and throughout the execution of such contracts. The list of definitions set forth below involves the most common types of corrupt practices, but is not exhaustive. For this reason, the Public Procurement Board will also consider claims of similar nature involving alleged acts of corruption, in accordance with the established procedure.

- (a). “Bribery” means the act of unduly offering, giving, receiving or soliciting anything of value to influence the process of procuring goods or services, selecting consultants, or executing contracts.
- (b). “Extortion” or “Coercion” means the act attempting to influence the process of procuring goods or services, selecting consultants, or executing contracts by means of threats of injury to person, property or reputation.
- (c). “Fraud” means the misrepresentation of information or facts for the purpose of influencing the process of procuring goods or services, selecting consultants, or executing

contracts, to the detriment of the Procurement Entity/Purchaser or other participants.

- (d) “Collusion” is an agreement between tenderers designed to result in tenders at artificial prices that are not competitive.

3.2 If, in accordance with the administrative procedures of the Public Procurement Board, it is demonstrated that a government/public official, or anyone acting on his or her behalf, and/or a Tenderer in a procurement process or supplier/contractor during the execution of the contract carried out in connection with a project financed from the public funds of the Republic of Ghana has committed corrupt practices, the Public Procurement Board or the appropriate Tender review Board will:

- (a) reject a proposal to award a contract in connection with the respective procurement process; and/or
- (b) declare a firm and/or its personnel directly involved in corrupt practices, temporarily or permanently ineligible to be awarded future contracts financed from the public funds of the Republic of Ghana.

3.3 The Tenderer shall disclose any commissions or fees that may have been paid or are to be paid to agents, representatives, or commission agents with respect to the tendering process or execution of the contract. The information disclosed must include at the name and address of the agent, representative, or commission agent, the amount and currency, and the purpose of the commission or fee. The information must be included in the Tender Submission Sheet. Furthermore, Tenderers shall be aware of the provision stated in Sub-Clause 3.2 and Sub-Clause 35.1 (c) of the General Conditions of Contract.

3.4 Any communications between the Tenderer and the Purchaser related to matters of alleged fraud or corruption must be made in writing

Interpretation

4.1 If the context so requires it, singular means plural and vice versa.

4.2 Incoterms

- (a) Unless otherwise specified in the SCC, the meaning of any trade term and the rights and obligations of parties thereunder shall be as prescribed by Incoterms.

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- (b) The terms EXW, FOB, FCA, CIF, CIP, and other similar terms, when used, shall be governed by the rules prescribed in the current edition of Incoterms, published by the International Chamber of Commerce at the date of the Invitation for Tenders or as specified in the SCC.

4.3 Entire Agreement

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

4.4 Amendment

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

4.5 Nonwaiver

- (a) Subject to GCC Sub-Clause 4.5(b) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.
- (b) Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

4.6 Severability

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

Language

- 5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be written in the language specified in the SCC. Supporting documents and printed literature that are part of the

Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the SCC, in which case, for purposes of interpretation of the Contract, this translation shall govern.

- 5.2 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation.

Joint Venture, Consortium or Association	6.1 If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfillment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.
Eligibility	<p>7.1 The Supplier and its Subcontractors shall have the nationality of an eligible country, in accordance with Section V, Eligible Countries. A Supplier or Subcontractor shall be deemed to have the nationality of a country if it is a citizen or constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country.</p> <p>7.2 All Goods and Related Services to be supplied under the Contract and financed from the public funds of the Republic of Ghana shall have their origin in Eligible Countries.</p> <p>7.3 For the purpose of this Clause, origin means the country where the goods have been grown, mined, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its imported components</p>
Notices	<p>8.1 Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the SCC. The term “in writing” means communicated in written form with proof of receipt.</p> <p>8.2 A notice shall be effective when delivered or on the notice’s effective date, whichever is later.</p>
Governing Law	9.1 The Contract shall be governed by and interpreted in accordance with the laws of Ghana, unless otherwise specified in the SCC.
Settlement of Disputes	<p>10.1 The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.</p> <p>10.2 If the parties fail to resolve such a dispute or difference by mutual consultation within twenty-eight (28) days from the commencement of such consultation, either party may require that</p>

the dispute be referred for resolution to the formal mechanisms specified in the SCC. These mechanisms may include, but are not restricted to, conciliation mediated by a third party, adjudication in an agreed national or international forum, and/or international arbitration.

- Scope of Supply**
- 11.1 Subject to the SCC, the Goods and Related Services to be supplied shall be as specified in the Schedule of Requirements.
- 11.2 Unless otherwise stipulated in the Contract, the Supply shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining Delivery and Completion of the Goods and Related Services as if such items were expressly mentioned in the Contract.
- Delivery and Documents**
- 12.1 Subject to GCC Sub-Clause 32.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Schedule of Requirements. The details of shipping and other documents to be furnished by the Supplier are specified in the SCC.
- Supplier's Responsibilities**
- 13.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GCC Clause 11, and the Delivery and Completion Schedule, as per GCC Clause 12.
- Contract Price**
- 14.1 The Contract Price shall be as specified in the Agreement subject to any additions and adjustments thereto, or deductions therefrom, as may be made pursuant to the Contract.
- 14.2 Prices charged by the Supplier for the Goods delivered and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its Tender, with the exception of any price adjustments authorized in the SCC.
- Terms of Payment**
- 15.1 The Contract Price, including any Advance Payments, if applicable, shall be paid as specified in the SCC.
- 15.2 The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate, the Goods delivered and Related Services performed, and by the documents submitted pursuant to GCC Clause 12 and upon fulfillment of all the obligations stipulated in the Contract.
- 15.3 Payments shall be made promptly by the Purchaser, no later than sixty (60) days after submission of an invoice or request for

payment by the Supplier, and the Purchaser has accepted it.

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

15.5 In the event that the Purchaser fails to pay the Supplier any payment by its respective due date or within the period set forth in the SCC, the Purchaser shall pay to the Supplier interest on the amount of such delayed payment at the rate shown in the SCC, for the period of delay until payment has been made in full, whether before or after judgement or arbitrage award.

Taxes and Duties

16.1 For goods supplied from outside Ghana, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside Ghana.

16.2 For goods supplied from within Ghana, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.

16.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in Ghana, the Purchaser shall use its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.

**Performance
Security**

17.1 The Supplier shall, within twenty-eight (28) days of the notification of contract award, provide a performance security for the due performance of the Contract in the amount specified in the SCC.

17.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

17.3 The performance security shall be denominated in the currency of the Contract, or in a freely convertible currency acceptable to the Purchaser, and shall be in one of the following forms:

(a) a bank guarantee or an irrevocable letter of credit issued by a reputable located in Ghana or abroad, acceptable to the Purchaser, in using the form included in Section IX Contract Forms; or

(b) a cashier's certified check.

17.4 The performance security shall be discharged by the Purchaser and returned to the Supplier not later than twenty-eight (28) days

following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in the SCC.

Copyright

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

**Confidential
Information**

19.1 The Purchaser and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under GCC Clause 19.

19.2 The Purchaser shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Purchaser for any purpose other than the design, procurement, or other work and services required for the performance of the Contract.

19.3 The obligation of a party under GCC Sub-Clauses 19.1 and 19.2 above, however, shall not apply to information that:

- (a) the Purchaser or Supplier need to share with the Public Procurement Board of the Republic of Ghana or other institutions participating in the financing of the Contract;
- (b) now or hereafter enters the public domain through no fault of that party;
- (c) can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or
- (d) otherwise lawfully becomes available to that party from a

third party that has no obligation of confidentiality.

- 19.4 The above provisions of GCC Clause 19 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.
- 19.5 The provisions of GCC Clause 19 shall survive completion or termination, for whatever reason, of the Contract.

Subcontracting

- 20.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in the Tender. Subcontracting shall in no event relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.
- 20.2 Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.

Specifications and Standards

- 21.1 Technical Specifications and Drawings
- (a) The Supplier shall ensure that the Goods and Related Services comply with technical specifications and other provisions of the Contract.
 - (b) The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser.
 - (c) The Goods and Related Services supplied under this Contract shall conform to the standards mentioned in Section VI, Schedule of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the goods' country of origin.
 - (d) Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with GCC Clause 32.

Packing and

- 22.1 The Supplier shall provide such packing of the goods as is

Documents

required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.

- 22.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the SCC, and in any other instructions ordered by the Purchaser.

Insurance

- 23.1 Unless otherwise specified in the SCC, the Goods supplied under the Contract shall be fully insured—in a freely convertible currency from an eligible country—against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the SCC.

Transportation

- 24.1 Unless otherwise specified in the SCC, responsibility for arranging transportation of the Goods shall be in accordance with the Incoterms specified in the Schedule of Requirements.

Inspections and Tests

- 25.1 The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in the Schedule of Requirements.
- 25.2 The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, at point of delivery, and/or at the Goods' final destination, or in another place in Ghana as specified in the SCC. Subject to GCC Sub-Clause 25.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.
- 25.3 The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in GCC Sub-Clause 25.2, provided that the Purchaser bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.
- 25.4 Whenever the Supplier is ready to carry out any such test and

inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.

25.5 The Purchaser may require the Supplier to carry out any test and/or inspection not required by the Contract but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specifications codes and standards under the Contract, provided that the Supplier's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of manufacturing and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery Dates and Completion Dates and the other obligations so affected.

25.6 The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.

25.7 The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to GCC Sub-Clause 25.4.

25.8 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to GCC Sub-Clause 25.6, shall release the Supplier from any warranties or other obligations under the Contract.

**Liquidated
Damages**

26.1 Except as provided under GCC Clause 31, if the Supplier fails to deliver any or all of the Goods or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the SCC of the Contract Price for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in those SCC. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to GCC Clause 34.

Warranty

- 27.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 27.2 Subject to GCC Sub-Clause 21.1, the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.
- 27.3 Unless otherwise specified in the SCC, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or for eighteen (18) months after the date of shipment or loading in the country of origin, whichever period concludes earlier.
- 27.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- 27.5 Upon receipt of such notice, the Supplier shall, within the period specified in the SCC, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 27.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the SCC, the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

Patent Indemnity

- 28.1 The Supplier shall, subject to the Purchaser's compliance with GCC Sub-Clause 28.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:
 - (a) the installation of the Goods by the Supplier or the use of

-
- the Goods in the country where the Site is located; and
- (b) the sale in any country of the products produced by the Goods.

Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, neither any infringement resulting from the use of the Goods or any part thereof, or any products produced thereby in association or combination with any other equipment, plant, or materials not supplied by the Supplier, pursuant to the Contract.

- 28.2 If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GCC Sub-Clause 28.1, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.
- 28.3 If the Supplier fails to notify the Purchaser within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf.
- 28.4 The Purchaser shall, at the Supplier's request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.
- 28.5 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Supplier may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Purchaser.

Limitation of Liability

- 29.1 Except in cases of criminal negligence or willful misconduct,
- (a) the Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the

Supplier to pay liquidated damages to the Purchaser and

- (b) the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the purchaser with respect to patent infringement

**Change in Laws
and Regulations**

- 30.1 Unless otherwise specified in the Contract, if after the date of the Invitation to Tender, any law, regulation, ordinance, order or by-law having the force of law is enacted, promulgated, abrogated, or changed in the particular area of Ghana where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with GCC Clause 14.

Force Majeure

- 31.1 The Supplier shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
- 31.2 For purposes of this Clause, “Force Majeure” means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- 31.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

Change Orders and

- 32.1 The Purchaser may at any time order the Supplier through notice

**Contract
Amendments**

in accordance GCC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:

- (a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
- (b) the method of shipment or packing;
- (c) the place of delivery; and
- (d) the Related Services to be provided by the Supplier.

32.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Supplier's receipt of the Purchaser's change order.

32.3 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

Extensions of Time

33.1 If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GCC Clause 12, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.

33.2 Except in case of Force Majeure, as provided under GCC Clause 31, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 26, unless an extension of time is agreed upon, pursuant to GCC Sub-Clause 33.1.

Termination

34.1 Termination for Default

- (a) The Purchaser, without prejudice to any other remedy for

breach of Contract, by notice of default sent to the Supplier, may terminate the Contract in whole or in part:

- (i) if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 33; or
 - (ii) if the Supplier fails to perform any other obligation under the Contract.
- (b) In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 34.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.
- (c) if the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices, as defined in GCC Clause 3, in competing for or in executing the Contract.

34.2 Termination for Insolvency.

- (a) The Purchaser may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser

34.3 Termination for Convenience.

- (a) The Purchaser, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
- (b) The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of notice of termination shall be accepted by the

Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

- (i) to have any portion completed and delivered at the Contract terms and prices; and/or
- (ii) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

Assignment

35.1 Neither the Purchaser nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

Section VIII. Special Conditions of Contract

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

GCC 1.1(j)	The Purchaser is: <u>GHANA GRID COMPANY LTD</u>
GCC 1.1 (o)	The Site is: DDP GRIDCo. CENTRAL WAREHOUSE TEMA FOR FOREIGN TENDERERS CIP GRIDCo CENTRAL WAREHOUSE TEMA, FOR LOCAL TENDERERS
GCC 4.2 (a)	The meaning of the trade terms shall be as prescribed by Incoterms.
GCC 4.2 (b)	The version edition of Incoterms shall be: <u>2010</u>
GCC 5.1	The language shall be: <u>ENGLISH</u>
GCC 8.1	For <u>notices</u> , the Purchaser's address shall be: Attention: <u>DIRECTOR OF FINANCE</u> Street Address: TEMA MOTORWAY ROUNDABOUT TO AFLAO ROAD Floor/ Room number: _____ City: <u>TEMA</u> Region: <u>GREATER ACCRA</u> Country: <u>GHANA</u> Telephone: <u>+233 303 308892</u> Facsimile number: <u>+233 303 303325</u> Electronic mail address: gridcoprocurement@gridcogh.com
GCC 9.1	The governing law shall be the laws of Ghana

GCC 10.2	<p>The formal mechanism for the resolution of disputes shall be as follows:</p> <p><i>(a). For contracts entered into with Foreign Suppliers:</i></p> <p>In case of a dispute between the Purchaser and the supplier, the dispute shall be settled by arbitration in accordance with the provisions of the United Nations Commission on International Trade Law (UNCITRAL) arbitration Rules.</p> <p><i>(b). For contracts entered into with suppliers from Ghana</i></p> <p>In the case of a dispute between the Purchaser and a Supplier from Ghana, the dispute shall be referred to adjudication or arbitration in accordance with the laws of Ghana.</p>
GCC 11.1	<p>The scope of supply for the Goods and Related Services to be supplied shall be as specified in: <i>SCHEDULE OF REQUIREMENT</i></p>

<p>GCC 12.1</p>	<p>Delivery and Documents For Goods supplied from abroad:</p> <p>a. Tenderers who quote CIF/C&F to Tema Port should negotiate with their shippers/Shipping line for a Demurrage Free Period ranging between 21-30 days for full container Load (FCL) shipments consigned to GRIDCo. N/A</p> <p>The Demurrage –free days provided should be Stamped clearly on all the Bill of Lading and other relevant documents covering the shipment. N/A</p> <p>b. Upon shipment, the Supplier shall notify the Purchaser and the Insurance Company by cable the full details of the shipment, including Contract number, description of Goods, quantity, the vessel, the bill of lading number and date, port of loading, date of shipment, port of discharge, etc. The Supplier shall mail the following documents to the Purchaser, with a copy to the Insurance Company: N/A</p> <ul style="list-style-type: none"> (i) 2 original copies of the Supplier’s invoice showing Goods’ description, quantity, unit price, and total amount; (ii) 2 original and <u>2</u> copies of the negotiable, clean, on-board bill of lading marked “freight prepaid” and <u>2</u> copies of nonnegotiable bill of lading; (iii) 2 copies of the packing list identifying contents of each package; (iv) Insurance certificate; (v) Manufacturer’s or Supplier’s warranty certificate; (vi) Supplier’s factory inspection report (vii) Certificate of origin. <p>The above documents shall be received by the Purchaser at least one week before arrival of the Goods at the port or place of arrival and, if not received, the Supplier will be responsible for any consequent expenses. N/A</p> <p>For Goods from within the Purchaser’s country:</p> <p><i>Sample Provision (EXW term)</i> Upon delivery of the Goods to the transporter, the Supplier shall notify the Purchaser and mail the following documents to the Purchaser: N/A</p> <ul style="list-style-type: none"> (i) copies of the Supplier’s invoice showing Goods’ description, quantity, unit price, and total amount; (ii) delivery note, railway receipt, or truck receipt; (iii) Manufacturer’s or Supplier’s warranty certificate; (iv) inspection certificate issued by the nominated inspection agency, and the Supplier’s factory inspection report; and (v) certificate of origin. <p>The above documents shall be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses..</p>
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GCC 14.2	The prices charged for the Goods delivered and the related Services performed shall not be adjustable
GCC 15.1	<p>The terms of payment shall be as follows:</p> <p>Payment for Goods and Services supplied by a Local Tenderer :</p> <p>i. Payment of the goods supplied by a local tenderer shall be made in Ghana cedi 30 days after the delivery of goods to the satisfaction of the Purchaser</p> <p>Payment for Goods and Services supplied by a Foreign Tenderer:</p> <p>ii. Payment of goods supplied by a foreign tenderer shall be in the currency in which the tender price is expressed, within 30 days after shipment of goods and submission of invoices or by Confirmed Irrevocable Letter of Credit</p> <p>Payment of local currency portion shall be made in <i>Ghana Cedi</i> within thirty (30) days of presentation of claim supported by a certificate from the Purchaser declaring that the Goods have been delivered and that all other contracted Services have been performed.</p>
GCC 15.5	<p>The payment-delay period after which the Purchaser shall pay interest to the supplier shall be forty five (45) days.</p> <p>The interest rate that shall be applied is zero point five percent (0.5 %) per week.</p>
GCC 17.1	The amount of performance security, as a percentage of the Contract Price, shall be: five percent (5%)
GCC 17.4	<p><i>[The following provision shall be used in the case of Goods having warranty obligations.]</i></p> <p>After delivery and acceptance of the Goods, the performance security shall be reduced to two (2) percent of the Contract Price to cover the Supplier's warranty obligations in accordance with Clause GCC 27.3.</p>
GCC 22.2	<p>The packing, marking and documentation within and outside the packages shall be: <u>GHANA GRID COMPANY LTD (GRIDCo) , ATTN: DIRECTOR OF FINANCE</u> <u>PURCHASE ORDER No</u> <u>TEMA, GHANA</u></p>

GCC 23.1	The Insurance shall be in an amount equal to 110 percent of the or CIP value of the Goods from “warehouse” to “warehouse” on “All Risks” basis, including War Risks and Strikes.
GCC 24.1	Responsibility for transportation of the Goods shall be as specified in the Incoterms.
GCC 25.2	The Inspections and tests shall be conducted at: <u>MANUFACTURER SITE</u> Tenders shall quote for this related service. Their quote shall include return air-ticket, per diem , and hotel accommodation for three engineers of the purchaser for the days within which the test shall be carried
GCC 26.1	The liquidated damage shall be: One Percent (1 %) per week
GCC 26.1	The maximum amount of liquidated damages shall be: <u>__10%_____</u>
GCC 27.3	The period of validity of the Warranty shall be: 12 MONTHS WHERE APPLICABLE
GCC 27.5	The period for repair or replacement shall be: SIX WEEKS

**Attachment to SCC: Sample Price Adjustment Formula
(NOT APPLICABLE)**

Prices payable to the Supplier, as stated in the Contract, shall be subject to adjustment during performance of the Contract to reflect changes in the cost of labor and material components in accordance with the formula:

$$\Delta P = P_0 \left(a + b \frac{L_1}{L_0} + c \frac{M_1}{M_0} \right) - P_0$$

in which:

- ΔP = adjustment amount payable to the Supplier.
- P_0 = Contract Price (base price).
- a = fixed element representing profits and overheads included in the Contract Price and generally in the range of five (5) to fifteen (15) percent.
- b = estimated percentage of labor component in the Contract Price.
- c = estimated percentage of material component in the Contract Price.
- L_0, L_1 = labor indices applicable to the appropriate industry in the country of origin on the base date and date for adjustment, respectively.
- M_0, M_1 = material indices for the major raw material on the base date and date for adjustment, respectively, in the country of origin.

The coefficients a , b , and c shall be specified by the Purchaser in the bidding documents. The sum of the three coefficients should be one (1) in every application of the formula.

The Bidder shall indicate the source of the indices and the base date indices in its bid.

Base date = thirty (30) days prior to the deadline for submission of the bids.

Date of adjustment = _____ weeks prior to date of shipment (representing the midpoint of the period of manufacture).

The above price adjustment formula shall be invoked by either party subject to the following further conditions:

- (a) Price adjustment will be applied only if the resulting increase or decrease is more than _____ percent of the Contract Price.

[Two (2) percent would be an acceptable percentage.]

- (b) No price adjustment shall be allowed beyond the original delivery dates unless specifically stated in the extension letter. As a rule, no price adjustment shall be allowed for periods of delay for which the Supplier is entirely responsible. The

Purchaser will however be entitled to any decrease in the prices of the Goods and Services subject to adjustment.

- (c) The total adjustment under this clause shall be subject to a ceiling of plus or minus ____ percent of the Contract Price.

[Ten (10) percent would be an acceptable percentage.]

- (d) If the currency in which the Contract Price P_0 is expressed is different from the currency of origin of the labor and material indices, a correction factor will be applied to avoid incorrect adjustments of the Contract Price. The correction factor shall correspond to the ratio of exchange rates between the two currencies on the base date and the date for adjustment as defined above.
- (e) No price adjustment shall be payable on the portion of the Contract Price paid to the Supplier as advance payment.

Section IX. Contract Forms

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Contract

THIS AGREEMENT made the _____ day of _____, _____, between _____ of _____ (hereinafter “the Purchaser”), of the one part, and _____ of _____ (hereinafter “the Supplier”), of the other part:

WHEREAS the Purchaser invited Tenders for certain Goods and Related Services, viz., _____ and has accepted a Tender by the Supplier for the supply of those Goods and Related Services in the sum of _____ (hereinafter “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 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 Purchaser’s Notification to the Supplier of award of Contract;
- (b) the Tender Submission Sheet and the Price Schedules submitted by the Supplier;
- (c) the Special Conditions of Contract;
- (d) the General Conditions of Contract;
- (e) the Schedule of Requirements
- (f) the Technical Specifications and
- (g) the Minutes of Negotiation.

3. In consideration of the payments to be made by the Purchaser to the Supplier as indicated in this Agreement, the Supplier hereby covenants with the Purchaser to provide the Goods and Related Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Related Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Ghana on the day, month and year indicated above.

For the Purchaser:

Name _____

Signature _____

Witnessed by _____

For the Supplier:

Name _____

Signature _____

Witnessed by _____

Performance Security

Date: _____

ICT No.: _____

To: _____

WHEREAS _____ (hereinafter “the Supplier”) has undertaken, pursuant to Contract No. _____ dated _____, _____ to supply _____ (hereinafter “the Contract”).

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

AND WHEREAS the undersigned _____, legally domiciled in _____, (hereinafter “the Guarantor”), have agreed to give the Supplier a security:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of _____ and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract, without cavil or argument, any sum or sums within the limits of _____ as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

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

Signed _____ in the capacity of _____

Seal of the Guarantors:

Name _____

Address _____

Duly authorized to sign the authorization for and on behalf of _____

Dated on _____ day of _____, _____.

Bank Guarantee for Advance Payment

Date: _____
ICT No.: _____

To: _____

In accordance with the payment provision included in the Special Conditions of Contract, which amends Clause 15 of the General Conditions of Contract to provide for advance payment, _____ (hereinafter called “the Supplier”) shall deposit with the Purchaser a bank guarantee to guarantee its proper and faithful performance under the said Clause of the Contract in an amount of _____.

We, the _____, as instructed by the Supplier, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the Purchaser on its first demand without whatsoever right of objection on our part and without its first claim to the Supplier, in the amount not exceeding _____.

We further agree that no change or addition to or other modification of the terms of the Contract to be performed thereunder or of any of the Contract documents which may be made between the Purchaser and the Supplier, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition, or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment received by the Supplier under the Contract until _____.

Yours truly,

Signature and seal of the Guarantors

Name

Address

Date

Instruction for completing the Contract Forms

The Purchaser or the successful Tenderer, as appropriate, shall fill in and complete the Contract Forms in accordance with the instruction indicated here. Tenderers shall not submit these forms with their Tenders.

Contract Form

This form shall be completed by the Purchaser and then sent to the successful Tenderer for signature. Therefore, instructions on how to complete this form are **not included** in the Tender Documents.

Performance Security Form

The successful Tenderer shall fill in and complete the **Performance Security** form in accordance with the instruction indicated here. Tenderers shall not submit this form with their Tenders.

Input of Information to be completed by the Tenderer awarded the Contract

Performance Security

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

ICT No.: **[insert no. of Tendering process]**

Invitation for Tender No.: **[insert no. of IFB]**

To: **[insert complete name of Purchaser]**

WHEREAS **[insert name complete of Supplier]** (hereinafter “the Supplier”) has undertaken, pursuant to Contract No. **[insert number]** dated **[insert day and month]**, **[insert year]** to supply **[brief description of the Goods and Related Services]** (hereinafter “the Contract”).

AND WHEREAS it has been stipulated by you in the aforementioned Contract that the Supplier shall furnish you with a security **[insert type of security]** issued by a reputable guarantor for the sum specified therein as security for compliance with the Supplier’s performance obligations in accordance with the Contract.

AND WHEREAS the undersigned **[insert complete name of Guarantor]**, legally domiciled in **[insert complete address of Guarantor]**, (hereinafter the” Guarantor”), have agreed to give the Supplier a security:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of **[insert currency and amount of guarantee in words and figures]** and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract, without cavil or argument, any sum or sums within the limits of **[insert currency and amount of guarantee in words and figures]** as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This security is valid until the **[insert number]** day of **[insert month]**, **[insert year]**.

Signed: **[insert signature of person whose name and capacity are shown]** In the capacity of **[insert legal capacity of person signing the Tender]**

Name: **[insert complete name of person signing the Tender]**

Duly authorized to sign the Tender for and on behalf of: **[insert complete name of Tenderer]**

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

Bank Guarantee Form for Advance Payment

Only the successful Tenderer shall fill in and complete the Advance Payment Security form in accordance with the instruction indicated below. The other Tenderers shall not submit this form with their Tenders.

Input of Information to be completed by Tenderer awarded the Contract, if applicable

Bank Guarantee Form for Advance Payment

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

ICT No.: **[insert no. of Tendering process]**

Invitation for Tender No.: **[insert no. of IFB]**

To: **[insert complete name of Purchaser]**

In accordance with the payment provision included in the Special Conditions of Contract, which amends Clause 15 of the General Conditions of Contract to provide for advance payment, **[insert name and address of Supplier]** (hereinafter called “the Supplier”) shall deposit with the Purchaser a bank guarantee to guarantee its proper and faithful performance under the said Clause of the Contract in an amount of **[insert amount of guarantee in figures and words]**.

We, the **[insert bank or financial institution]**, as instructed by the Supplier, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the Purchaser on its first demand without whatsoever right of objection on our part and without its first claim to the Supplier, in the amount not exceeding **[insert amount of guarantee in figures and words]**.

We further agree that no change or addition to or other modification of the terms of the Contract to be performed thereunder or of any of the Contract documents which may be made between the Purchaser and the Supplier, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition, or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment received by the Supplier under the Contract until **[insert date]**.

Yours truly,

Signature and seal of the Guarantors

[insert name of bank or financial institution]

[insert address]

[insert date]