STANDARD BIDDING DOCUMENTS

GUYANA POWER AND LIGHT INC

Procurement of Goods

IFB # GPL- PD - 003- 2022

Supply of:

72.5 KV Line Hardware

January 2022

Closing Date: February 03, 2022 @ 14:00 hrs or 2:00pm
Bid Opening: February 03, 2022 @ 14:30 hrs or 2:30pm

Invitation for Bids (IFB)

Cooperative Republic of Guyana

IFB# GPL - PD – 003- 2022

The Guyana Power and Light Incorporated (GPL) invite sealed bids from eligible bidders for the supply of **72.5 kV Line Hardware**

A bid Security of 2 % of the tendered sum ***must*** be submitted along with the bid.

Bids shall be valid for 90 days after the date of bid opening.

Bids must be submitted via email to our electronic tender box: gpltenderbox@gplinc.com

- Bids must be submitted with a valid **National Insurance (NIS) & Guyana Revenue Authority Compliance Certificate**

Deadline for submission of bids is 14:00 hrs. (2:00 p.m.) on**, February 03, 2022.**

Bid opening is scheduled for 14:30 hrs (2:30 pm) on**, February 03, 2022** at GPL's Board Room 91 Duke Street, Kingston, Georgetown, Guyana via Zoom Call in the presence of Bidders/ Representatives who may choose to participate.

IMPORTANT: Bidders downloading the bid document are advised to forward a registration e-mail to kwilson@gplinc.com, gpersaud@gplinc.com or proc_mng_sect@gplinc.com stating the following: Name of Bidder, Address, Contact No and Email address.

The above information will be used to inform bidders of any amendments to the bidding document and also to forward all responses to queries.

GPL reserves the right to reject any or all bids.

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INSTRUCTIONS TO BIDDERS

A. Introduction

1. Description of the Procurement

The Procuring Entity is Guyana Power and Light Inc. that intends to procure the goods identified in the *Bid Data Sheet* and in the Schedule of Requirements.

2. Eligibility and qualifications of Bidders

2.1 In order to be awarded a procurement contract, Bidders should possess the technical and financial capacity needed to perform the contract. They should fulfill their tax and national insurance fund liabilities in Guyana and should not currently be subjected to a debarment penalty and must comply with the specific eligibility and qualification requirements referred to in the *Bid Data Sheet*. Bidders shall provide the information and any supporting documentation required by the Qualification Information Form.

2.2 The bidders should not have a conflict of interests, including involvement in more than one bid in this proceeding, should not be associated nor have been associated in the past, directly or indirectly, with any agency or any of its representative, affiliate, that have been engaged by the Procuring Entity to provide consulting services at the preparation stage of the bidding documents, technical specifications and other documentation that are subject to be used in the procurement of goods, which must be purchased in accordance with the Invitation for Bids. In cases where the indicated facts are discovered, the Bidder's bid shall be rejected.

B. Bidding Documents

3. Clarification and amendment of bidding Documents

3.1 The Procuring Entity in not more than three (3) working days, will respond in writing (including by fax or electronic mail) to any request for clarification of the bidding documents to be received (in writing, including by fax or electronic mail) not later than 10 days before the expiry of a deadline for submission of bids. At the same time, the Procuring Entity's response shall without identifying its source of the request, be distributed to all bidders who have received the bidding documents from the Procuring Entity.

3.2 At any time before the deadline for submission of bids, the Procuring Entity may amend the bidding documents by issuing an Addendum and notifying it to the prospective bidders.

C. Preparation of Bid

4. Language of Bid

4.1 The bid prepared by the Bidder, as well as all correspondence and documents related to that bid and exchanged by the Bidder and the Procuring Entity shall be written in the language *specified in the Bid Data Sheet*.

5. Documents Included in Bid

5.1 The bid prepared by the Bidder should contain the Form of Bid, the Price Schedules and the other documents to be submitted in accordance with these Instructions to Bidders.

6**. Bid Price**

6.1. Subject to the choice of INCOTERMS as indicated in the Bid Data Sheet, the prices given in the Price Schedule shall include all transportation costs to the destination point indicated in the Contract, all taxes, duties, payments collected, in accordance with the laws of Guyana and delivery related and other costs on performing of contractual obligations.

6.2. The prices offered by the Bidders shall remain fixed during the whole period of Contract performance and shall not be modified in any circumstance.

7. Bid and Payment Currency

7.1 The prices shall be indicated in UK Pounds, US Dollars and Euros for Foreign Suppliers and Guyana Dollars for Domestic Suppliers, unless otherwise specified in the *Bid* Data Sheet.

8. Bid Security / Bid Securing Declaration

8.1 Unless otherwise provided in the *Bid Data Sheet*, the Bidder shall furnish, as part of his bid, a Bid Security, in the form, currency and amount specified in the *Bid Data Sheet* with a validity period for not less than 2 weeks upon the expiry of the bid validity period and in line with the form provided, or, if so indicated in the BDS, a Bid Securing Declaration in accordance with the form provided. **A Bid Securing Declaration in not required.**

8.2 The bid security may be forfeited, or the Bid Securing Declaration executed, if the Bidder:

(a) withdraws his/her bid after it is opened during the period of validity specified in the bid; or,

(b) Having been awarded the contract fails:

(1) To sign the contract on the terms and conditions provided in his bid; or

(2) To furnish the Performance Security, if required to do so.

9. Period of Validity of Bid

9.1 Bids shall remain in force during the period specified in *the Bid Data Sheet* after the date of bid opening.

10. Deadline for Submission of Bids

10.1 Bids must be received by the Procuring Entity at the address and within the periods specified in *the Bid Data Sheet.* All bids received by the Procuring Entity upon the expiry of a period established for submission of bids as indicated by the Procuring Entity shall be rejected and returned to the Bidder unopened.

11. Modification and Withdrawal of Bids

11.1 The Bidder may modify or withdraw his bid after the bid's submission, provided that the Procuring Entity will receive a written notice of modification, including substitution or withdrawal of bid until the expiry of established period for submission of bids.

D. Opening and Evaluation of Bids

12. Opening of Bids

12.1 The Procuring Entity will open all bids in the presence of bidders' representatives who wish to attend, at the time, on the date, and at the address specified in the *Bid Data Sheet***.** The bidders' representatives who are present shall sign a register evidencing their attendance.

12.2 The bidders' names, bid prices, including alternatives (if alternatives permitted), information on the presence or absence of required bid security, or bid securing declaration, information on the presence (absence) of tax debts and debts of social insurance payments will be announced at the opening. No bid may be rejected at the opening, exclusive of late bids to be returned to the Bidder unopened.

12.3 Bids (and modifications sent pursuant to ITB Clause 12.2 that are not opened and read out during the bid opening shall not be accepted for further evaluation, regardless of circumstances.

13. Evaluation of Bids

13.1 During the evaluation of bids, the Procuring Entity may, at his discretion, request the Bidder to provide clarification of his bid. The request for clarification and the response thereto shall be made in writing, and in that case no change in price or substance of the bid shall be sought, offered, or permitted.

13.2 The Procuring Entity shall determine the responsiveness of each bid to requirements of the bidding documents. For the purposes of this Clause a substantially responsive bid is one which satisfies all the indicated provisions without a material deviation or reservation.

13.3 The Procuring Entity may waive any minor nonconformity or small mistake or inaccuracy in the bid, which is not a material deviation from the requirements of the bidding documents, and such non-conformity or inaccuracy will not affect the bid evaluation. To the extent feasible and appropriate, for the purposes of comparing bids, acceptable deviations shall be quantified in monetary terms and reflected in adjustments to the bid price (for the purposes only of comparison of bids).

13.4 Arithmetical errors shall be rectified in the following manner: 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. If there is a discrepancy between words and figures, the sum in words shall be preferable. If the Bidder disagrees with such correction of errors, his/her bid shall be rejected.

13.5 The Procuring Entity shall evaluate and compare only the bids that are determined to be responsive to the bidding documents.

13.6 The methodology to adjust the price to reflect the price of the missing or non-conforming item or component is the average price of the item of all responsive bids.

14. Confidentiality and Contacting the Procuring Entity

14.1 No Bidder shall contact the Procuring Entity on any matter related to his/her bid from the date of bid opening until the date of contract award, except for requests related to clarification of the bid. Information concerning the evaluation of bids is confidential.

14.2 Any effort by the Bidder to influence the Procuring Entity's decision on bid evaluation and comparison, or contract award may result in the rejection of that Bidder's bid.

E. Award of Contract

15. Award Criteria

15.1 Subject to ITB Clause 18, the Procuring Entity will award the Contract to the Bidder whose bid is determined to be substantially responsive to the requirements of the bidding documents, and who offered **the Lowest Evaluated Bid**, provided that the Bidder has been determined:
(a) to be eligible pursuant to Clause 2;
(b) to comply with qualification requirements, in accordance with Clause 2, and any technical requirements and technical evaluation criteria disclosed in the bidding documents.

16. Procuring Entity's Right to Vary Quantities at Time of Entering into a Contract

16.1 The Procuring Entity reserves the right, when entering into a contract, to increase or decrease the quantity of goods and related services specified in the Schedule of Requirements, by the percentage indicated in the *Bid Data Sheet***,** no change in the unit price or other conditions shall be made (an increase of quantity not exceeding 10 ***percent variation***).

17. Procuring Entity's Right to Accept Any Bid and to reject All Bids

17.1 The Procuring Entity reserves the right to accept or reject any bid or all bids, and to cancel the bidding process at any time prior to award of contract, without thereby incurring any liability to Bidders and without being required to inform the Bidder or Bidders of reasons of such actions.

18. Notification of Award

18.1. The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period.

18.2. The notice of acceptance shall be equal to entering into a Contract, provided that the Bidder furnishes the performance security and the signed Contract.

18.3. At the same time that the Procuring Entity notifies the successful Bidder in accordance with sub-clause (1), the Procuring Entity will notify all other Bidders of the name of successful

Bidder, and his bid price.

18.4 The evaluation report and comparison of bids will not be sent to bidders.

19. Signing of Contract and performance security

19.1 At the same time with notification of award, the Procuring Entity will send the successful Bidder the Form of Contract contained in the bidding documents. The successful Bidder shall sign and date the Contract, and return it to the Procuring Entity during seven (7) days of receipt of notice of award.

19.2 Together with the signed Contract, the Bidder shall, if required to do so by the *Bid Data Sheet*, furnish the Procuring Entity with a Performance Security in the amount and form specified in the *Bid Data Sheet*.

19.3 If the successful Bidder fails to furnish the performance security, if required to do so, or during 14 (fourteen) days fails to return the Contract signed by him, then it shall be a sufficient ground to refuse the award of Contract, and to forfeit the bid security, or execute the bid-securing declaration. In that case the Procuring Entity shall award the Contract to the next lowest evaluated Bidder, subject to the right of the Procuring Entity to reject all bids.

20. Settlement of disputes

20.1 To settle the disputes, which may arise during the execution of the Contract, the parties shall follow the procedure referred to in the *Bid Data Sheet*.

21. Corrupt and Fraudulent Practices

21.1 The Procuring Entity requires that Bidders observe the highest standards of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Procuring Entity:

(a) will reject the bid if it establishes that the Bidder recommended for award has engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract in question;

(b) will declare the Supplier, for indefinite or specified period of time, to be ineligible to participate in state-financed biddings, in accordance with applicable debarment procedures.

22. Compliances

22.1 Bidder registered in Guyana must submit valid certificates of compliances from Guyana Revenue Authority (GRA), National Insurance Scheme (NIS), and (VAT registration is required only if item being supplied is Vatable).

23. Defects Liability:

23.1 The "Defects Liability Period" for the goods and related services is twelve (12) months from the date of taking over possession or such other period as may be specified in the Bid Data Sheet. During this period, the supplier will be responsible for replacing any defective item free of cost to the Procuring Entity.

24. Inspection and Testing

24.1 The Supplier shall at its own expense and at no cost to the Purchaser carry out all testing and/or inspections of the Goods and Related Services as are specified in the Technical Specification**.** 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.

24.2 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.

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

24.4 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.

24.5 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, shall release the Supplier from any warranties or other obligations under the Contract.

Bid Data Sheet (BDS)

The following specific data to clauses of the provisions of Instructions to Bidders which supplement, or amend the provisions of the Instructions to Bidders (ITB) whenever there is a conflict, the provisions herein shall prevail over those in ITB

Item No.	
ITB 1.1	Guyana Power and Light Inc. of 40 Main Street Georgetown Guyana Telephone #592-226-9598 Email: kwilson@gplinc.com or gpersaud@gplinc.com The subject of the procurement is: **Supply of 72.5 kV Line Hardware**
ITB 2.1	To qualify for award of the Contract, the bidders shall provide satisfactory evidence to the Purchaser of their capability and adequacy of resources to carry out the Contract effectively: (a) Copies of original documents defining the constitution or legal status, place of registration and principal place of business. (b) Experience as a supplier in carrying out of 2 (two) or more supplies of a similar items within the last 3 (three) years. (c) Average Turnover for the last three years should be a least US$ 400,000.00. (d) Evidence of access to lines of credit and availability of other financial resources. (e) Evidence compliance with NIS, GRA, Vat registration if applicable (Only applies to local Supplier). (f) To be covered by an express warranty period of twelve (12) month. (g) Manufacturers authorization form. (h) **Wherever practicable sample(s) may accompany a bid. GPL Inc. reserves the right to request sample(s) before the awarding of a tender.**
ITB 3.1	Language of Bid shall be English
ITB 4.1	Other documents to be submitted includes; GRA and NIS Compliances, **(TIN Certificate and VAT Registration if the item/s being procured attract VAT). Only applies to suppliers who are registered office is within Guyana**
ITB 5.1	The price quoted by bidders shall be on the basis of CIF for goods delivered from abroad and for goods delivered from within Guyana. Incoterms 2010 shall apply.
ITB 6.1(a)	For Goods and Related Services with orign in the Purchaser's country, the currency of the bid shall be Guyana Dollars (GY$) (Suppliers with registered business in Guyana must submit their bid in Guyana Dollars (GY$). For Suppliers outside of the Purchaser's country the currency of the bid can be

ITB 6.1(b) **ITB 6.1(c)**	US$,GBP or a freely convertible currency. The currency that will be used for bid evaluation and comparison purposes to convert all bid prices expressed in various currencies into a single currency is the Guyana Dollars G$. The source of exchange rate shall be the Bank of Guyana, and the selling rate shall be used. The date for exchange rate shall be ten days before the opening of tenders.
ITB 7.1	A bid security of 2% of the tendered sum is required. A signed Bid Securing Declaration is not required.
ITB 8.1	The period of validity of bid is 90 Days.
ITB 9.1	Deadline for submission of bids: **14:00 hours on February 03, 2022.** Attention: Secretary to the Tender Board, Guyana Power and Light, Inc. 91 Duke Street, Kingston Georgetown Guyana South America.
ITB 10.1	Time and place for opening of bid: The Board Room, Guyana Power and Light, Inc., 91 Duke Street, Kingston, Georgetown, Guyana, South America.
ITB 11.1	When entering into a contract the Procuring Entity reserves the right to Increase or decrease quantities of goods by 10%.
ITB 12.1	The performance security shall be 10% of the Contract Price and in the form of a Bank Guarantee or Managers Cheque.
ITB 13.1	Disputes that may arise in the performance of the contract shall be settled in accordance with the Procurement Act 2003.
ITB 14.1	The duration of the defects liability period is to be stated by the Bidder.

General Conditions of Contract (GCC)

The General Conditions are the Standard General Conditions of Contract. No alteration shall be made on the pages of these Conditions. The Procuring Entity, when amending or supplementing the General Conditions of Contract should do so only in the Special Conditions of Contract. Any amendment or addenda of the General Conditions of Contract shall conform to the legislation of Guyana.

1. Definitions and application

1.1 This Contract lists below the terms that have the following interpretation:

(a) "**Contract**" means the agreement entered into between the Procuring Entity and the Supplier, as recorded in the Form of Contract signed by the parties, including all attachments and appendices thereto and all the documents referenced therein;

(b) "**Contract Price**" means the price payable to the Supplier under the Contract for complete and proper performance of his contractual obligations;

(c) "**Goods**" means the item(s) referred to in the SCC;

(d) **«GCC» -** means the General Conditions of Contract contained in this Section;

(e) **"SCC» -** means the Special Conditions of Contract;

(f) **"Procuring Entity"** – means the Procuring entity carrying out the procurement of Goods, specified in the SCC;

(g) **"Supplier"** – means an individual or legal entity, or a combination of any above mentioned forms which operate under the existing agreement as a joint venture and supply the Goods and Services under the Contract;

(h) **"Day"** – means calendar day.

1.2 The General Conditions of Contract shall apply in the procurement of goods; the specific amendment, addition and alteration shall be indicated in the Special Conditions of Contract.

1.3 Warrant requirements are as may be specified in the special conditions of contract.

2. Contract Documents

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

3. Performance Security

3.1 If required by the SCC, during fourteen (14) days of receipt of notification of award, the successful Bidder shall furnish the Procuring Entity with the performance security the amount and form of which are indicated in the SCC.

4. Packing

4.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to final destination specified in the Contract, and as may be required by the Special Conditions of Contract.

5. Delivery, Transportation, Mobilization Advance

5.1 The Supplier must deliver the Goods within the periods and to the Destination point indicated in the Schedule of Requirements and shall provide the documentation indicated in the SCC. Subject to the SCC, transportation of the Goods to the place specified by the Procuring Entity shall be carried out and paid by the Supplier, and related costs shall be included in the Contract Price.

6. Payment

6.1 The payment to the Supplier for the Goods delivered shall be made in accordance with the Contract in the form and within the periods specified in the SCC**.**

7. Prices

7.1 Prices established by the Supplier in the Contract for goods delivered shall not vary from the prices quoted by the Supplier in his bid.

8. Assignment

8.1 The Supplier shall not assign, in whole or in part, his obligations under the Contract to the third party for the execution without the Procuring Entity's prior written consent.

9. Delays in the Supplier's Performance and liquidated damages

9.1 Delivery of the Goods shall be carried out by the Supplier, in accordance with the schedule indicated by the Procuring Entity in the Delivery *Schedule.*

9.2 Except for provided under GCC Clause 13, the delay in the Supplier's performance of his delivery obligations shall render the Supplier liable for payment of liquidated damages in the amount specified in the SCC, unless an extension of time is agreed upon by the parties without application of liquidated damages. Once the maximum deduction specified in the SCC is reached, the Procuring Entity may consider termination of the Contract, in accordance with Clause 10 of the General Conditions of Contract.

10. Termination

10.1 The Procuring Entity, without detriment to any other sanctions of infringement of the provisions of Contract, by written notice of default sent to the Supplier, may terminate this Contract in whole or in part:

(a) if the Supplier fails to deliver the portion or all of the Goods within the periods provided for in the Contract, or within an extension period of that Contract, or to perform any of his obligations under the Contract;
(b) if bankruptcy procedures are applied to the Supplier, or it is declared insolvent.
(c) if the Supplier, in the Procuring Entity's opinion, has engaged in corrupt, fraudulent, collusive or coercive practices when entering into or executing the Contract;
(d) if the Procuring Entity deems that continued implementation of the contract would no longer be expedient from the standpoint of the public interest

10.2 The notice of termination shall specify the reason of termination, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

10.3 Notwithstanding clauses 9 and 10.1, the Supplier shall not forfeit his performance security, and shall not be liable for payment of liquidated damages, or termination for default, if delay in executing the Contract or failure to perform obligations under the Contract is the result of an event of force majeure. When force majeure arises, the Supplier shall promptly notify the Procuring Entity in writing of such circumstance and its causes.

10.4 When the contract is terminated in accordance with clause 10.1(d), the Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of notice of termination shall be accepted by the Procuring Entity at the Contract terms and prices. For the remaining Goods, the Procuring Entity may elect:

(a) to have any portion completed and delivered at the Contract terms and prices; and/or

(b) 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.

11. Settlement of Disputes

11.1 If any dispute or disagreement arises between the Procuring Entity and the Supplier for the Contract or in connection with it, the parties shall make every effort to resolve the dispute or disagreement amicably by mutual consultation.

11.2 If during twenty one (21) days, the parties failed to resolve their dispute or disagreement by mutual consultation; either the Procuring Entity or the Supplier may send the other party the notice of intent to commence arbitration, if an arbitration is incorporated in the Contract in the Special Conditions of Contract or otherwise agreed by the parties, or in the

Court of General Jurisdiction if no arbitration is envisaged, and no arbitration or litigation in respect of that matter may be commenced unless such notice is given.

Any dispute or disagreement in respect of which the notice of intent is sent to commence trial shall be heard by the [Court of General Jurisdiction].

11.3 Notwithstanding any reference to dispute settlement herein, the parties shall continue to perform their obligations under the Contract, unless they agree otherwise.

12. Applicable Law

12.1 The Contract shall be interpreted in accordance with the laws of Guyana.

13. Formal Communication between the Procuring Entity and the Supplier

13.1 Any notice given by one party to the other pursuant to the Contract shall be in force if it is done in writing and sent at the address of other party in the SCC**.**

13.2 A notice shall be effective when delivered or on the specified date, whichever is later.

14. Taxes and Duties

14.1 The Supplier shall be fully responsible for all taxes, duties, license taxes, etc., levied in accordance with the legislation of Guyana, and subject to the application of INCOTERMS in accordance with the SCC.

15. Retention

15.1 No retention shall be applied on consumables, but warranties, guarantees and expiry dates to apply.

Special Conditions of Contract (SCC)

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract.

GCC Clause No.	Special Conditions of Contract
1 **1.1 (f)**	**Definitions** The Procuring Entity is Guyana Power and Light of 40 Main Street Georgetown Guyana South America, Tele #592-226-9598, *Fa x# 592 227-2180 Email: ajohnson@gplinc.com*
1.1 (g)	The Supplier is **Not Applicable** *(indicate full name, legal address, phone, fax and e-mail of Supplier)*
1.1(c)	**The Subject of procurement is Supply of 72.5 kV Line Hardware**
3.1	A Performance Security will be required Fourteen (14) days after receipt of notification award in the amount and form of a Bank Guarantee or Managers Cheque not exceed ten *(10) percent of the Contract price.*
4.1	**Packing** The packing, marking and documentation within and outside the packages shall be: <u>Packing</u> The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, 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. <u>Marking</u> **Marking shall be in accordance with international practice and shall be agreed with the Purchaser. The Goods shall be addressed for delivery to Guyana Power & Light, 40 Main Street,Georgetown,Guyana,South America.**
5.1	**Delivery, Transportation** <u>Documentation</u> (a) For Imported Goods. Within 24 hours of shipment, the Supplier shall notify the Purchaser and the Insurance Company by cable or telex or fax or email, 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 Original documents to the Purchaser with a copy to the insurance Company: (1) Supplier's invoice indicating a description, quantity, unit price of the Goods and sum total; (2) Shipping order, railway receipt or truck receipt; (3) Warranty certificate of Manufacturer or Supplier; (4) Inspection certificate issued by the authorized inspection service, and the supplier's factory inspection report (if any); (5) Certificate of origin; (6) Certificate of conformity; (7) Full set of ocean on-board bills of lading, of air waybills or courier/parcel post Certificates consigned to the Purchaser; (8) Packing list identifying contents of each package, and clearly showing Shipping marks and package numbers, kind of package, contents, dimensions and Gross weights of each package in pounds or kilos. The above documents shall be received by the Purchaser at least two (2) weeks before arrival of Goods at the port or place of arrival and, if not received, the Supplier will be responsible for any consequent expenses.
6.1	**Payment** The method and conditions of payment to be made to the Supplier under this Contract shall be as follows: **Payment for Goods supplied:** Payment will be as follows: **Advance Payment:** Thirty (30) percent of the Contract Price shall be paid within thirty (30) days of signing of the Contract, and upon submission of claim and a bank guarantee for equivalent amount valid until the Goods are delivered and in the form provided in the bidding documents or another form acceptable to the Purchaser. **On Delivery:** Sixty (60) percent of the Contract Price of the Goods shipped shall be paid upon submission of claim and evidence that items are ready for shipment. **On Acceptance:** Ten (10) percent of the Contract Price of Goods received shall be paid within thirty (30) days of receipt of the Goods supported by the acceptance certificate issued by the Purchaser.

9.2	**Liquidated Damages** The liquidated damage shall apply and they shall be equivalent to one percent (1%) of the delivered price of the delayed Goods or unperformed services per each day of delay or part thereof until actual delivery. The maximum amount of liquidated damages shall be: 10 percent (10 %) of the delayed Goods or services contract price.
11.2	**Settlement of Disputes** The rules of procedure for arbitration proceedings pursuant to GCC Sub-Clause 11.2 shall be as follows: ***(a) Contract with foreign Supplier:*** GCC 11.2 (a) Any dispute, controversy or claim arising out of or relating to this Contract, or breach, termination or invalidity thereof, shall be settled by arbitration in accordance with the UNCITRAL Arbitration Rules as at present in force. ***(b) Contracts with Supplier national of the Purchaser's country:*** In the case of a dispute between the Purchaser and a Supplier who is a national of the Purchaser's country, the dispute shall be referred to adjudication or arbitration in accordance with the laws of Guyana **(c) The Courts of Georgetown, Guyana, shall have exclusive jurisdiction in all the matters arising in the contract including execution of Arbitration Awards**
12.1	**The governing law shall be the law of*:* Guyana**

Schedule of Requirements

IFB # GPL-PD-003-2022

Supply of: 72.5 KV Line Hardware

Description	Quantity
1. Bus Potential Transformer	1
2. Line Potential Transformer	2
3. 72.5 kV SF6 Circuit Breaker	3
4. 72.5 kV Outdoor Tubular Aluninium Busbars	2
5. 72.5 kV 3 Phase Disconnect Switch with Earthing Mechanism	6

Technical Specifications for 72.5 KV Line Hardware

a) Bus Potential Transformer Specification

The Specifications for the **Three Phase Bus Potential Transformer** is as follows:

Type	JDQXF69-6973	
Standard	IEC60044-2	
Rated Voltage Ratio	$\frac{69}{\sqrt{3}}, \frac{0.12}{\sqrt{3}} : \frac{69}{\sqrt{3}} / 0.12 \ (kV)$	
Rated Frequency	60Hz	
Phase	Single phase	Three (3) Single phase PTs required for the purpose.
Equipment Class	Outdoor	
Rated Insulation Level	72.5/160/350 kV	
Altitude	1000m	
Rated Pressure	0.4MPa (20˚C)	
Minimum Operating Pressure	0.35MPa (20˚C)	
Rated Voltage Factor/Time	1.2, Continuously; 1.5,30s	
Secondary Connection Terminal	1a-1n, 2a-2n, da-dn	
Rated Secondary Voltage	$\frac{120\ V}{\sqrt{3}}, \frac{120\ V}{\sqrt{3}}, 120$	
Accuracy Class	0.2, 0.5, 3P	
Rated Output VA	30, 50, 100	
Gas Weight	5kg	
Gross Weight	500kg	
Manufacturer:		

N.B: It is required that Bus Potential transformers come with a motorized three phase disconnect switch system that will allow for Local and Remote connection and disconnection of these when required. The control voltage for motorized circuit should be 125V DC. Indications lights showing status of operation together with local selector switches should be included in a panel on the motorized unit setup.

b) Line Potential Transformer Specification

The following specifications are for the required **Single Phase Line Potential Transformers**

Type	JDQXF69-6973	
Standard	IEC60044-2	
Rated Voltage Ratio	$\frac{69}{\sqrt{3}}:\frac{0.12}{\sqrt{3}}kV$	
Rated Frequency	60Hz	
Phase	Single phase	
Equipment Class	Outdoor	
Rated Insulation Level	72.5/160/350 kV	
Altitude	1000m	
Rated Pressure	0.4MPa (20˚C)	
Minimum Operating Pressure	0.35MPa (20˚C)	
Rated Voltage Factor/Time	1.2, Continuously; 1.5,30s	
Secondary Connection Terminal	1a-1n, 2a-2n, da-dn	
Rated Secondary Voltage	$\frac{120\ V}{\sqrt{3}}$	
Accuracy Class	0.5	
Rated Output VA	30	
Gas Weight	5kg	
Gross Weight	500kg	
Manufacturer:		

c) 72.5 KV SF6 Circuit Breaker

1. SCOPE

This specification covers the design, engineering, manufacture, testing, supply and performance requirements of 72.5 kV SF_6 Circuit Breaker for use in substations within the Guyana Power & Light, Inc.

2. APPLICABLE STANDARDS

Except where modified by this specification, the 72.5 kV SF_6 Circuit Breaker shall be designed, manufactured and tested in accordance with the latest editions of the following standards (Table 1). The bidder may propose alternative standards, but shall demonstrate that they give a degree of quality and performance equivalent to or better than the referenced standards herein.

Acceptability of an alternative standard is at the discretion of the Purchaser.

The Bidder shall furnish a copy of the alternative standard proposed along with the bid. If the alternative standard is not written in the English Language, a certified English Language translated version of the original standard shall be submitted with the bid.

Table 1: Applicable Standards

Item No.	ANSI/IEC Standards	Title
1	IEC 60529	Degrees of Protection Provided by Enclosures (IP Code)
2	IEC 62271	High-voltage switchgear and controlgear
3	IEEE C57.13	Requirements for Current Transformers
4	IEEE C37.04	IEEE Standard for Ratings and Requirements for AC High-Voltage Circuit Breakers with Rated Maximum Voltage Above 1000 V

In case of conflict, the order of precedence shall be:

- This Technical Specification
- IEEE or IEC Standards

3. INSTALLATION/SERVICE CONDITIONS

The installation conditions of the 72.5 kV SF_6 Circuit Breaker shall be as follows:

1. Maximum altitude above mean sea level — less than 1,000 m;
2. Maximum ambient air temperature — 40^0C;
3. Maximum daily average ambient air temperature — 33^0C;
4. Minimum ambient temperature — 21^0C; and
5. Maximum relative humidity — 99.5%.

All outdoor materials, components and equipment shall be designed and protected for use in exposed, heavily polluted and salty, corrosive and humid tropical coastal atmospheric conditions.

1. ELECTRICAL SYSTEM CONDITIONS

The switchgear shall be suitable for installation within GPL's Power System, which has the following characteristics as shown in see Table 2.

Table 2: Characteristics of GPL's Power System

Nominal System Voltage, Frequency and Phase	High Voltage (HV) Side	69 kV, 60 Hz, 3φ-3-wire, Wye
Voltage Class – High Voltage Side	72.5 kV	
Short circuit withstand Capability	As per IEEE C37.04	
Insulation Level		
Basic Insulation Level (BIL)	350 kV for 69 kV side (High Voltage Level)	
Power Frequency withstand level – Dry 1 Minute	160 kV for 69 kV side (High Voltage Level)	
Power Frequency withstand level – Wet 10 Seconds	140 kV for 69 kV side (High Voltage Level)	
Creepage Distance (minimum)	25 mm/kV for line-to-line and 44 mm/kV for line-to-ground for both 69 kV side (High Voltage Level) and 13.8 kV side (Medium Voltage Level).	
System Grounding		
Neutral Grounding	High Voltage Side	Wye - Solidly Grounded.

4. TYPE OF CIRCUIT BREAKER

The breaker shall be outdoor type dead tank SF6 circuit breaker rated at 72.5 kV maximum.

5. RATINGS

5.1 ELECTRICAL RATING

A. Circuit breaker ratings shall be based on "constant kA" ratings and ANSI/IEEE C37.04 and IEC 62271.

Interrupting class: 40 kA

- Maximum design voltage: 72.5 kV;
- Nominal Operating Voltage: 69 kV;
- Impulse withstand voltage: 350 kV;
- Power frequency withstand voltage: 160 kV;
- Interrupting current (I) at maximum design voltage: 40 kA;
- Voltage range factor (K): 1.0;
- Short time withstand current: 40 kA; and
- Momentary withstand and closing and latching current: 64 kA rms and 108 kA peak.

B. Circuit breaker rated interrupting time three (3) cycles (0.05 sec); and

C. Switchgear main bus bar continuous current 1200 A.

5.2 AUXILIARY POWER SUPPLY

A. The circuit breaker including all controls and signalling etc. shall operate with 125 VDC.

B. The Circuit breaker lighting and heating shall operate with 220VAC.

6. CIRCUIT BREAKER CONSTRUCTION

A. POLE UNIT

The 72.5 kV SF_6 Circuit Breaker shall consist of three (3) pole units to make up the three (3) phase circuit breaker. Each pole unit shall consist of a cylindrical high strength aluminium tank with an electrically insulated interrupter unit and two composite bushing for insulating line voltages from ground. The top of the tank shall house bushing type current transformers. The interrupting contacts shall be insulated from the tank. Each pole unit shall be connected via a mechanical linkage.

B. TANK

The tank shall be a uniform one-piece aluminium cylinder with sealing end covers secured with bolts and washers. At the top ends of the tank, accommodation shall be made for bushing type current transformers.

C. INTERRUPTERS

Interrupters shall use self-blasting action to quench any arc which may form upon separation of the main contacts within the pole unit. The entire interrupter unit shall be factory assembled and replaceable upon failure.

D. BUSHING AND CENTRE CONDUCTOR

Each Pole unit consists of two gas filled bushings. The SF6 gas shall be common to both bushings and the tank without barriers or separation. The bushings shall be made of composite material have flanges for bolting to the tank and terminal plate. The Centre conductor connects to the upper terminal plate, passes through the centre of the bushing within a shield then securely connects to the interrupter unit.

E. BUSHING TYPE CURRENT TRANSFORMER

The current transformers (CTs) shall be of bushing type toroidal construction, located at the base of each bushing and protected by aluminium covers. The covers shall also function as part of the insulating bushing. There shall be three (3) sets of current transformers on every bushing. Two (2) sets for relaying and One (1) set for metering purposes. Secondary currents for CTs shall be 5 Amps. The current transformers shall be manufactured and tested as per IEEE C57.13.

CTs shall be multi-tap and have the following ratings:

100:5	600:5
200:5	800:5
300:5	900:5
400:5	1000:5
500:5	1200:5

The accuracy class of the relaying CT shall be 5P20 with a rating factor of 2 at a burden of 15 VA. The metering CT class shall be 0.3B1.8.

F. OPERATING MECHANISM

Operation of the interrupter shall be a spring actuated. Energy is stored in a suitable spring via a charging motor. In the event of a power failure the to the circuit breaker controls, the energy stored by the operating mechanism shall be enough to perform an open-close-open operation sequence manually at the circuit breaker.

G. CONTROL CIRCUIT

The control circuits shall operate with 125VDC. It shall cause the energization of the trip and close coils, facilitate alarm and circuit breaker position status, and also only allow circuit breaker operation under safe conditions. The control circuit shall be capable of establishing an interlock with adjacent disconnect switches.

H. SF_6 INSULATING GAS SYSTEM

The circuit breaker shall be equipped to use SF_6 gas and be compliant with IEC 62271. A SF_6 monitoring system shall be included which ensures that the gas density is above the required level for safe operation of the circuit breaker. If the gas density falls below

the safe setpoint the circuit breaker shall lockout. In addition, a warning alarm shall be incorporated to indicate a low gas level which may be due to a possible leak. The gas leakage rate shall be >0.5% per year. The three pole units shall be connected together by stainless steel tubes to allow simultaneous filling of SF_6 gas through an appropriate filling valve and connection mechanism. The connected pole units also allow complete system gas monitoring with temperature compensation. In addition, each pole unit shall be equipped with an isolation valve to isolate each unit from each other.

I. CABINET

1. The cabinet shall be constructed with corrosion resistant material otherwise a suitable protective coating shall be applied to withstand service conditions in section 3 above.
2. The cabinet shall be weatherproof;
3. The cabinet shall have internal lights and thermostatically controlled space heaters and sized to prevent condensation;
4. Louvers equipped with screens and filters, arranged to permit air circulation while excluding exterior dust and rodents;
5. Access doors with outside padlocking provisions;
6. One duplex receptacles with integral ground fault protection;
7. Thermostatically controlled exhaust fan;
8. Protection degree of cabinet shall be IP5X in accordance with IEC 60529;
9. Cable entry shall be at the bottom and have an appropriate metal plate with cable protecting glands; and
10. Cabinet shall house the open, close, local/remote control switches; connection terminals for CTs; incoming power LV supply overload protection; mimic diagram and breaker status indicators; control mechanism etc.

7. ACCESSORIES

1. Heater to prevent condensation;
2. 220 VAC receptacle;
3. Mechanical operating counter;
4. Cabinet lighting;
5. Auxiliary switches mounted to operating mechanism;
6. Mimic diagram with Circuit breaker position indicators;
7. Spring charge/discharge indicators;
8. Hand crank for manual charging of control mechanism;
9. Local/Remote switch;
10. Dual trip coils;
11. SF6 first filling cylinder;
12. Adapter fittings for SF6 filling;
13. Service hose for SF6 filling; and
14. Corrosion resistant legs.

8. RATING AND CONNECTION PLATE

Each switchgear shall be provided with anodized aluminium laser engraved nameplate. Additionally, bidders shall ensure that the following attributes are indicated on the aforementioned nameplate:

1. Serial number;
2. Standard to which it is manufactured and tested;
3. Rated voltage;
4. Rated currents in A;
5. Power frequency withstand voltage in kV;
6. Lightening impulse withstand voltage;
7. Short time withstand current;
8. Peak withstand current;
9. Rated frequency;
10. Gas alarm pressures;
11. Continuous ambient temperature at which ratings apply in ^{0}C (40); and
12. Name of the purchaser (Property of Guyana Power & Light Inc.)

Colours shall be permanent and free from fading. All labels and plates shall be of non-corrosive material.

9. SURFACE TREATMENT

The 72.5 kV circuit breaker shall be painted or coated or treated to provide a durable finish which offers good corrosion protection, chemical/solvent resistance, and weathering to withstand the service conditions as indicated in section 3 above. In addition, the finish shall be highly resistant to discoloration and scratches. If paint or other coating is used the circuit breaker exterior shall be painted in ANSI grey color and have a uniform appearance.

10. DRAWINGS

The supplier shall submit drawings for approval within 5 working days after notification of contract award.

11. TESTS

Supplier shall test and submit certified test reports in accordance with IEC 62271.

12. COMPLIANCE WITH SPECIFICATION

The 72.5 kV circuit breaker shall comply in all respects with the requirements of this specification. However, any minor departure from the provisions of the specification shall be disclosed at the time of tendering in the Non-Compliance Schedule in this document. (see page 14).

13. COMPLIANCE WITH REGULATIONS

All the equipment shall comply in all respects with the Laws of Guyana Governing the Importation of Commercial Items and/or Goods.

The equipment and connections shall be designed and arranged to minimize the risk of fire and any damage that might be caused in the event of a fire.

14. QUALITY ASSURANCE, INSPECTION AND TESTING

14.1 GENERAL

To ensure that the supply and services are in accordance with the Specification herein, with the regulations of Guyana and with relevant authorized international standards, the Proponent shall have in place suitable Quality Assurance Programmes and Procedures to ensure that all activities are being controlled and documented as necessary.

The quality assurance arrangements shall conform to the relevant requirements of ISO 9001 or ISO 9002, as deemed appropriate by the Purchaser and the Proponent.

The systems and procedures that the Proponent will use to ensure that the supply complies with the specified requirements, shall be defined in the Proponent's Quality Plan.

The Proponent shall operate systems that implement the following:

Hold Point "A stage in the material procurement or workmanship process beyond which work shall not proceed without the documented approval of designated individuals or organisations."

The Purchaser's written approval is required to authorise work to progress beyond the Hold Points indicated in approved Quality Plans.

Notification Point "A stage in material procurement or workmanship process for which advance notice of the activity is required to facilitate witness."

If the Purchaser's representative does not attend after receiving documented notification in accordance with the agreed procedures and with the correct period of notice, then work may proceed.

14.2 QUALITY ASSURANCE SYSTEM

Unless the Proponent's Quality Assurance System has been audited and approved by the Purchaser, a Quality Assurance System shall be submitted to the Purchaser for approval within a minimum of One (1) month from the placement of order, or such other period as shall be agreed with the Purchaser. The Quality Assurance System shall provide a description of the Quality Control System for the supply and shall, unless advised otherwise, shall include, but not limited to the following details:

1. The structure of the organisation;
2. The duties and responsibilities assigned to staff to ensure quality of work;
3. The system for purchasing, taking delivery and verification of the specifications of raw materials;
4. The system for ensuring the quality of workmanship
5. The system for control of documentation;
6. The system for the retention of records; and
7. The arrangement for the Proponent's internal auditing.

14.3 QUALITY PLANS

The Quality Plans shall set out the activities in a logical sequence and, unless advised otherwise, shall include, but limited to the following:

1. An outline of the proposed programme sequence;
2. The duties and responsibilities assigned to staff ensuring the quality of work;
3. Hold and notification points;
4. Submission of engineering documents required by the specification;
5. The inspection of materials and components on receipt;
6. Reference to the Supplier's procedures appropriate to each activity;
7. Inspection during fabrication and assembly; and
8. Final inspection and test.

14.4 INSPECTION AND TESTING

The Manufacturer/Proponent shall afford the Purchaser without charge, all reasonable facilities to assure that the equipment being furnished are in accordance with the specifications herein.

The Purchaser reserves the right to reject an item of the equipment if the test results do not comply with the values specified herein.

Tests, including any retests required, shall be carried out by the Supplier at no extra charge, at the manufacturer's works.

Full details of the proposed methods of testing, including connection diagrams, shall be submitted to the Purchaser by the Supplier for approval, at least one month before testing.

All costs in connection with the testing, including any necessary re-testing, shall be borne by the Manufacturer/Proponent.

Any cost incurred by the Purchaser in connection with inspection and re-testing as a result of the failure of the 72.5 kV circuit breaker or any of its components under test or damage during transport or offloading shall be to the account of the Proponent.

The Proponent shall submit to the Purchaser three signed copies of the test certificates, giving the results of the tests as required. No materials shall be dispatched until the test certificates have been received by the Purchaser and the Proponent has been informed that they are acceptable.

The test certificates must show the actual values obtained from the tests, in the units used in this specification, and **not** merely confirm that the requirements have been met.

No inspection or lack of inspection or approval by the Purchaser's Representative of equipment or materials whether supplied by the Proponent or a Sub-Proponent, shall relieve the Proponent from his/her liability to complete the contracted works in accordance with the contract would exonerate him/her from any of his/her guarantees.

15. NON-COMPLIANCE SCHEDULE

On this schedule, the Proponent shall provide a list of non-compliance with this specification, documenting the effects that such non-compliance is likely to have on the equipment/component life span and operating characteristics. Each non-compliance shall be referred to the relevant specification clause.

Clause No.	Non-Compliance

16. SHIPPING

The Manufacturer/Proponent shall prepare the 72.5kV circuit breaker for shipping in such a manner as to protect from them from damage or deterioration during shipping and storage, and shall be responsible for, and make good, any and all damage due to improper preparation for loading, shipment, and storage.

The 72.5kV circuit breaker Switchgear shall be shipped securely banded with a steel strap or approved synthetic strap to a pallet. The pallet shall be constructed to accept two fixed 195 mm forks spaced either 65mm or 320 mm apart. At least 90 mm clearance shall be provided under each pallet and the bottom of the pallet must not be fully covered in order to facilitate the use of pallet jacks.

d) 72.5 kV Busbars

1. SCOPE

This specification covers the design, engineering, manufacture, testing, supply and performance requirements of 72.5 kV outdoor tubular aluminium busbars for use in distribution substations within the power system of Guyana Power & Light, Inc.

2. APPLICABLE STANDARDS

Except where modified by this specification, the busbars shall be designed, manufactured and tested in accordance with the latest editions of the following standards (Table 1). The bidder may propose alternative standards, but shall demonstrate that they give a degree of quality and performance equivalent to or better than the referenced standards herein.

Acceptability of an alternative standard is at the discretion of the Purchaser.

The Bidder shall furnish a copy of the alternative standard proposed along with the bid. If the alternative standard is not written in the English Language, a certified English Language translated version of the original standard shall be submitted with the bid.

Table 3: Applicable Standards

Item No.	ANSI/IEC Standards	Title
1	ANSI C29.1	Test Methods for Electrical Power Insulators"
2	ANSI C29.9	Wet process porcelain insulators (Apparatus, post type).
3	IEEE 605	IEEE Guide for Bus Design in Air Insulated Substations
4	ASTM A153 / A153M	Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
5	IEEE C37.32	American National Standard for High Voltage Switches, Bus Supports, and Accessories Schedules of Preferred Ratings, Construction Guidelines, and Specifications

In case of conflict, the order of precedence shall be:

- This Technical Specification
- IEEE or IEC Standards

3. INSTALLATION/SERVICE CONDITIONS

The installation conditions of the 72.5 kV outdoor tubular aluminium busbars shall be as follows:

6. Maximum altitude above mean sea level less than 1,000 m;
7. Maximum ambient air temperature 40^0C;
8. Maximum daily average ambient air temperature 33^0C;
9. Minimum ambient temperature 21^0C; and
10. Maximum relative humidity 99.5%.

All outdoor materials, components and equipment shall be designed and protected for use in exposed, heavily polluted and salty, corrosive and humid tropical coastal atmospheric conditions.

4. ELECTRICAL SYSTEM CONDITIONS

The 72.5 kV outdoor tubular aluminum busbars shall be suitable for installation within GPL's Power System, which has the following characteristics as shown in see Table 2.

Table 4: Characteristics of GPL's Power System

Nominal System Voltage, Frequency and Phase	High Voltage (HV) Side	69 kV, 60 Hz, 3φ-3-wire, Wye
Voltage Class – High Voltage Side	72.5 kV	
Insulation Level		
Basic Insulation Level (BIL)	350 kV for 69 kV side (High Voltage Level)	
Power Frequency withstand level – Dry 1 Minute	160 kV for 69 kV side (High Voltage Level)	
Power Frequency withstand level – Wet 10 Seconds	140 kV for 69 kV side (High Voltage Level)	
Creepage Distance (minimum)	25 mm/kV for line-to-line and 44 mm/kV for line-to-ground for both 69 kV side (High Voltage Level) and 13.8 kV side (Medium Voltage Level).	
System Grounding		
Neutral Grounding	High Voltage Side	Wye - Solidly Grounded.

5. TYPE OF BUSBARS

The busbars shall be outdoor, air insulated round tubular type Aluminium alloy busbars.

6. RATINGS

i. Voltage rating

- Maximum operating voltage: 72.5 kV;
- Nominal operating voltage: 69 kV;
- Basic Insulation Level (BIL): 350 kV;
- Power Frequency withstand level: 160 kV;

ii. Busbar continuous current 2,000 A; and

iii. Busbar outer diameter shall be 80mm.

7. BUSBAR CONSTRUCTION

a. BUSBAR MATERIAL

The tubular busbar shall be made of Aluminium alloy. The aluminium alloy tubes shall be seamless and have uniform wall thickness. The busbars shall be capable of operating continuously at a temperature of 90 degrees Celsius as per IEEE 605.

b. BUSBAR CONFIGURATION

The busbar shall be configured in a three (3) phase arrangement. The busbars shall be identified by a marking system where the colours RED shall represent the first phase, YELLOW shall represent the second phase and BLUE shall represent the third phase. Alternatively, the busbars shall be marked R, Y and B in the same phase order as before. All phases shall be aligned horizontally on post type insulators and mounted on galvanized supporting structures. The height of the busbar conductors shall not be less than 6.5m above ground. The busbars shall be of constant cross-sectional area throughout their length. The resistance of any length shall not be greater than that of an equal length of similar section of conductor without a joint.

c. BUSBAR SPACING

The busbar supports shall be constructed to ensure that the rigid busbars have the minimum spacing as recommended in IEEE C37.32.

d. CLAMPS AND FITTINGS

Bus clamps and fittings shall be an approved bolted type and be made of aluminium Where dissimilar metals are connected, approved means shall be provided to prevent electromechanical action and corrosion. The temperature rise shall also be considered in this case. The factor of safety of fittings and clamps shall be 2.5 based on the elastic limit of the material & under conditions of maximum working load. Clamps and fittings shall also cater for thermal expansion of the tubular busbar. Busbar fittings shall include rigid, slip and expansion fittings.

e. INSULATORS

- Insulators used on the 72.5 kV outdoor tubular aluminum busbars shall be single post-type apparatus insulators manufactured and tested according to ANSI C29.9;
- Insulators shall be made of porcelain and shall be chocolate brown in colour;
- All fittings for insulators shall be malleable or cast-iron hot-dipped galvanized;
- Strength of insulators shall be such that the factor of safety when the insulators are supporting the maximum working load is not less than 2.5;
- The creepage distance of the outdoor post insulators shall not be less than 25mm/kV for the system highest line voltage unless otherwise specified; and
- Insulators shall be designed to operate under the electrical system conditions listed in section 4 above.

f. BUSBAR STRUCTURES

The busbar structures shall be made of steel. All exposed iron and steel parts of the busbar shall be hot dip galvanized in accordance with ASTM A153 / A153M to provide a durable finish which offers excellent anti-corrosion capability, chemical/solvent resistance, and weathering to withstand the service conditions as indicated in section 3 above. In addition, the finish shall be highly resistant to discoloration and scratches. If paint or other coating is used the structures shall be painted in ANSI grey colour and have a uniform appearance. Busbar structures shall be designed as per IEEE 605.

8. RATING AND CONNECTION PLATE

Each busbar shall be provided with anodized aluminium laser engraved nameplate. Additionally, bidders shall ensure that the following attributes are indicated on the aforementioned nameplate:

13. Serial number;
14. Standard to which it is manufactured and tested;
15. Rated voltage;
16. Rated currents in A;
17. Power frequency withstand voltage in kV;
18. Lightening impulse withstand voltage;
19. Rated frequency;
20. Continuous ambient temperature at which ratings apply in ^{0}C; and
21. Name of the purchaser (Property of Guyana Power & Light Inc.)

Colours shall be permanent and free from fading. All labels and plates shall be of non-corrosive material.

9. DRAWINGS

The supplier shall submit drawings for approval within 5 working days after notification of contract award.

10. TESTS

Supplier shall test and submit certified test reports in accordance with ANSI C29.1 or related standards.

11. COMPLIANCE WITH SPECIFICATION

The busbar shall comply in all respects with the requirements of this specification. However, any minor departure from the provisions of the specification shall be disclosed at the time of tendering in the Non-Compliance Schedule in this document.

12. COMPLIANCE WITH REGULATIONS

All the equipment shall comply in all respects with the Laws of Guyana Governing the Importation of Commercial Items and/or Goods.

The equipment and connections shall be designed and arranged to minimize the risk of fire and any damage that might be caused in the event of a fire.

13. QUALITY ASSURANCE, INSPECTION AND TESTING

a. GENERAL

To ensure that the supply and services are in accordance with the Specification herein, with the regulations of Guyana and with relevant authorized international standards, the Proponent shall have in place suitable Quality Assurance Programmes and Procedures to ensure that all activities are being controlled and documented, as necessary.

The quality assurance arrangements shall conform to the relevant requirements of ISO 9001 or ISO 9002, as deemed appropriate by the Purchaser and the Proponent.

The systems and procedures that the Proponent will use to ensure that the supply complies with the specified requirements, shall be defined in the Proponent's Quality Plan.

The Proponent shall operate systems that implement the following:

Hold Point "A stage in the material procurement or workmanship process beyond which work shall not proceed without the documented approval of designated individuals or organisations."

The Purchaser's written approval is required to authorise work to progress beyond the Hold Points indicated in approved Quality Plans.

Notification Point "A stage in material procurement or workmanship process for which advance notice of the activity is required to facilitate witness."

If the Purchaser's representative does not attend after receiving documented notification in accordance with the agreed procedures and with the correct period of notice, then work may proceed.

b. QUALITY ASSURANCE SYSTEM

Unless the Proponent's Quality Assurance System has been audited and approved by the Purchaser, a Quality Assurance System shall be submitted to the Purchaser for approval within a minimum of One (1) month from the placement of order, or such other period as shall be agreed with the Purchaser. The Quality Assurance System shall provide a description of the Quality Control System for the supply and shall, unless advised otherwise, shall include, but not limited to the following details:

8. The structure of the organisation;
9. The duties and responsibilities assigned to staff to ensure quality of work;
10. The system for purchasing, taking delivery and verification of the specifications of raw materials;
11. The system for ensuring the quality of workmanship
12. The system for control of documentation;
13. The system for the retention of records; and
14. The arrangement for the Proponent's internal auditing.

c. QUALITY PLANS

The Quality Plans shall set out the activities in a logical sequence and, unless advised otherwise, shall include, but limited to the following:

9. An outline of the proposed programme sequence;
10. The duties and responsibilities assigned to staff ensuring the quality of work;
11. Hold and notification points;
12. Submission of engineering documents required by the specification;
13. The inspection of materials and components on receipt;
14. Reference to the Supplier's procedures appropriate to each activity;
15. Inspection during fabrication and assembly; and
16. Final inspection and test.

d. INSPECTION AND TESTING

The Manufacturer/Proponent shall afford the Purchaser without charge, all reasonable facilities to assure that the equipment being furnished are in accordance with the specifications herein.

The Purchaser reserves the right to reject an item of the equipment if the test results do not comply with the values specified herein.

Tests, including any retests required, shall be carried out by the Supplier at no extra charge, at the manufacturer's works.

Full details of the proposed methods of testing, including connection diagrams, shall be submitted to the Purchaser by the Supplier for approval, at least one month before testing.

All costs in connection with the testing, including any necessary re-testing, shall be borne by the Manufacturer/Proponent.

Any cost incurred by the Purchaser in connection with inspection and re-testing as a result of the failure of the busbar or any of its components under test or damage during transport or offloading shall be to the account of the Proponent.

The Proponent shall submit to the Purchaser three signed copies of the test certificates, giving the results of the tests as required. No materials shall be dispatched until the test certificates have been received by the Purchaser and the Proponent has been informed that they are acceptable.

The test certificates must show the actual values obtained from the tests, in the units used in this specification, and **not** merely confirm that the requirements have been met.

No inspection or lack of inspection or approval by the Purchaser's Representative of equipment or materials whether supplied by the Proponent or a Sub-Proponent, shall relieve the Proponent from his/her liability to complete the contracted works in accordance with the contract would exonerate him/her from any of his/her guarantees.

14. NON-COMPLIANCE SCHEDULE

On this schedule, the Proponent shall provide a list of non-compliance with this specification, documenting the effects that such non-compliance is likely to have on the equipment/component life span and operating characteristics. Each non-compliance shall be referred to the relevant specification clause.

Clause No.	Non-Compliance

15. SHIPPING

The Manufacturer/Proponent shall prepare the busbar for shipping in such a manner as to protect from them from damage or deterioration during shipping and storage, and shall be responsible for, and make good, any and all damage due to improper preparation for loading, shipment, and storage.

The busbar shall be shipped securely banded with a steel strap or approved synthetic strap to a pallet. The pallet shall be constructed to accept two fixed 195 mm forks spaced either 65mm or 320 mm apart. At least 90 mm clearance shall be provided under each pallet and the bottom of the pallet must not be fully covered in order to facilitate the use of pallet jacks.

e) 72.5 kV Disconnect Switch with Earthing Switch

1. SCOPE

This specification covers the design, engineering, manufacture, testing, supply and performance requirements of 72.5 kV disconnect switch with earthing switch for use in distribution substations within the power system of Guyana Power & Light, Inc.

2. APPLICABLE STANDARDS

Except where modified by this specification, the 72.5 kV disconnect switch with earthing switch shall be designed, manufactured and tested in accordance with the latest editions of the following standards (Table 1). The bidder may propose alternative standards, but shall demonstrate that they give a degree of quality and performance equivalent to or better than the referenced standards herein.

Acceptability of an alternative standard is at the discretion of the Purchaser.

The Bidder shall furnish a copy of the alternative standard proposed along with the bid. If the alternative standard is not written in the English Language, a certified English Language translated version of the original standard shall be submitted with the bid.

Table 5: Applicable Standards

Item No.	ANSI/IEC Standards	Title
1	IEC 60529	Degrees of Protection Provided by Enclosures (IP Code)
2	IEC 62271	High-voltage switchgear and controlgear
3	IEEE C57.13	Requirements for Current Transformers
4	IEEE C37.04	IEEE Standard for Ratings and Requirements for AC High-Voltage Circuit Breakers with Rated Maximum Voltage Above 1000 V

In case of conflict, the order of precedence shall be:

- This Technical Specification
- IEEE or IEC Standards

3. INSTALLATION/SERVICE CONDITIONS

The installation conditions of the 72.5 kV disconnect switch with earthing switch shall be as follows:

11. Maximum altitude above mean sea level — less than 1,000 m;
12. Maximum ambient air temperature — 40^0C;
13. Maximum daily average ambient air temperature — 33^0C;
14. Minimum ambient temperature — 21^0C; and
15. Maximum relative humidity — 99.5%.

All outdoor materials, components and equipment shall be designed and protected for use in exposed, heavily polluted and salty, corrosive and humid tropical coastal atmospheric conditions.

4. ELECTRICAL SYSTEM CONDITIONS

The 72.5 kV disconnect switch with earthing switch shall be suitable for installation within GPL's Power System, which has the following characteristics as shown in Table 2.

Table 6: Characteristics of GPL's Power System

Nominal System Voltage, Frequency and Phase	High Voltage (HV) Side	69 kV, 60 Hz, 3φ-3-wire, Wye
Voltage Class – High Voltage Side	72.5 kV	
Short circuit withstand Capability	As per IEEE C37.04	
Insulation Level		
Basic Insulation Level (BIL)	350 kV for 69 kV side (High Voltage Level)	
Power Frequency withstand level – Dry 1 Minute	160 kV for 69 kV side (High Voltage Level)	
Power Frequency withstand level – Wet 10 Seconds	140 kV for 69 kV side (High Voltage Level)	
Creepage Distance (minimum)	25 mm/kV for line-to-line and 44 mm/kV for line-to-ground for both 69 kV side (High Voltage Level) and 13.8 kV side (Medium Voltage Level).	
System Grounding		
Neutral Grounding	High Voltage Side	Wye - Solidly Grounded.

5. TYPE OF DISCONNECT SWITCH WITH EARTHING SWITCH

The disconnect switch with earthing switch shall be outdoor, vertical break, air insulated type rated at 72.5 kV maximum.

6. RATINGS

a. ELECTRICAL RATING

i. The disconnect switch with earthing switch ratings shall be based on "constant kA" ratings and ANSI/IEEE C37.04 and IEC 62271.

- Interrupting class: 40 kA;
- Maximum design voltage: 72.5 kV;
- Nominal Operating Voltage: 69 kV;
- Impulse withstand voltage: 350 kV;
- Power frequency withstand voltage: 160 kV;
- Interrupting current (I) at maximum design voltage: 40 kA;
- Voltage range factor (K): 1.0;
- Short time withstand current (3s): 40 kA; and
- Peak withstand current: 160 kA peak.

ii. Disconnect switch rated opening and closing time: < 6 sec; and

iii. Disconnect switch continuous current 1200 A.

b. AUXILIARY POWER SUPPLY

i. The disconnect switch with earthing switch including all controls and signalling etc. shall operate with 125VDC.

ii. The disconnect switch with earthing switch lighting and heating shall operate with 220VAC.

7. DISCONNECT SWITCH WITH EARTHING SWITCH CONSTRUCTION

J. DISCONNECTOR

1. The disconnector shall be a slow-speed, vertical break, gang operated switch which incorporates a motor operating mechanism and can also be operated manually;
2. The live parts shall be made of hard drawn silver-plated copper;
3. All insulators shall be polymer type insulators;
4. The insulator bearings shall be heavy duty, double row ball bearings, shall be exceptionally rigid and rotate with very little resistance. The bearings shall be factory lubricated and sealed stainless steel making them completely maintenance free;

5. Position stops shall be provided for individual pole adjustments allowing maximum synchronization of the three-phase assembly;
6. Grading ring shall be included at stationary contacts to improve electric field distribution and to effectively avoid corona;
7. A protection mechanism shall be included to avoid potential damages caused by electric arc during open and close operation; and
8. Mechanical and electric interlock available between disconnector and earthing switch.

K. EARTHING SWITCH

1. The switch shall be a gang operated switch which incorporates a motor operating mechanism and can also be manually operated;
2. The earthing switch shall be made of materials similar to that of the disconnect switch;
3. The live parts shall be made of hard drawn silver-plated copper;
4. The insulator bearings shall be heavy duty, double row ball bearings, shall be exceptionally rigid and rotate with very little resistance. The bearings shall be factory lubricated and sealed stainless steel making them completely maintenance free; and
5. Mechanical and electric interlock available between disconnector and earthing switch.

L. MOTOR OPERATING MECHANISM

The motor operation mechanism of disconnector switch and earthing switch shall be composed of the gear unit with motor, transmission mechanism, microswitch and auxiliary switchs.

1. The mechanism shall be easy to adjust, small in size, lightweight, and compact;
2. The housing shall be constructed from stainless steel riveted and welding to provide corrosion-proofing as well as water and dust-proofing;
3. Interlock units shall be capable of multi-interlock functions at the same time;
4. Worm gear mechanisms shall allow operation to be done reliably, smoothly, and with low noise;
5. The mechanism shall be completely finished and pre-adjusted to simplify installation and commissioning;
6. The unit shall contain IEC tested auxiliary switch with highest endurance class for greatest reliability; and
7. . The operating mechanism can also be operated manually. For this purpose, a hand crank is easily accessible from the side and can be operated with little effort.

M. CONTROL CIRCUIT

The control circuits shall operate with 125VDC. It shall cause the energization of the control mechanism, switch position statuses and facilitate alarms. The control circuit shall be capable of establishing an electrical interlock between disconnect switch and earthing switch in addition to interlock with adjacent circuit breakers.

N. INSULATING MEDIUM

The insulting medium for the disconnect switch shall be air.

O. Housing for Disconnect and Earthing Switch Controls

11. The cabinet shall be constructed with corrosion resistant material otherwise a suitable protective coating shall be applied to withstand service conditions in section 3 above for the life of the equipment;
12. The cabinet shall be weatherproof;
13. The cabinet shall have internal lights and thermostatically controlled space heaters and sized to prevent condensation;
14. Louvers equipped with screens and filters, arranged to permit air circulation while excluding exterior dust and rodents;
15. Access doors with outside padlocking provisions;
16. One duplex receptacles with integral ground fault protection;
17. Thermostatically controlled exhaust fan;
18. Protection degree of cabinet shall be IP5X in accordance with IEC 60529;
19. Cable entry shall be at the bottom and have an appropriate metal plate with cable protecting glands; and
20. Cabinet shall house the open, close, local/remote control switches; connection terminals, disconnect switch and earth switch incoming power LV supply overload protection; control mechanism etc.

P. SUPPORTS

The supporting frame, pedestal and all exposed iron and steel parts of the disconnect switch with earthing switch shall be hot dip galvanized to provide excellent anti-corrosion capability and tolerate service conditions as stated in section 3 above.

8. ACCESSORIES

15. Heater to prevent condensation;
16. 220VAC receptacle;
17. Mechanical operating counter;
18. Cabinet lighting;
19. Auxiliary switches mounted to operating mechanism;
20. Hand crank for manual operation of control mechanism;
21. Local/Remote switch; and
22. Open/Close switches.

9. RATING AND CONNECTION PLATE

Each switchgear shall be provided with anodized aluminium laser engraved nameplate. Additionally, bidders shall ensure that the following attributes are indicated on the aforementioned nameplate:

22. Serial number;
23. Standard to which it is manufactured and tested;
24. Rated voltage;
25. Rated currents in A;
26. Power frequency withstand voltage in kV;
27. Lightening impulse withstand voltage;
28. Short time withstand current;
29. Peak withstand current;
30. Rated frequency;
31. Continuous ambient temperature at which ratings apply in ^{0}C (40); and
32. Name of the purchaser (Property of Guyana Power & Light Inc.)

Colours shall be permanent and free from fading. All labels and plates shall be of non-corrosive material.

10. SURFACE TREATMENT

The 72.5 kV disconnect switch with earthing switch shall be made of an appropriate material or coated or treated to provide a durable finish which offers good corrosion protection, chemical/solvent resistance, and weathering to withstand the service conditions as indicated in section 3 above. In addition, the finish shall be highly resistant to discoloration and scratches. If

paint or other coating is used, the disconnect switch with earthing switch exterior shall be painted in ANSI grey colour and have a uniform appearance.

11. DRAWINGS

The supplier shall submit drawings for approval within 5 working days after notification of contract award.

12. TESTS

Supplier shall test and submit certified test reports in accordance with IEC 62271.

13. COMPLIANCE WITH SPECIFICATION

The 72.5 kV disconnect switch with earthing switch shall comply in all respects with the requirements of this specification. However, any minor departure from the provisions of the specification shall be disclosed at the time of tendering in the Non-Compliance Schedule in this document.

14. COMPLIANCE WITH REGULATIONS

All the equipment shall comply in all respects with the Laws of Guyana Governing the Importation of Commercial Items and/or Goods.

The equipment and connections shall be designed and arranged to minimize the risk of fire and any damage that might be caused in the event of a fire.

15. QUALITY ASSURANCE, INSPECTION AND TESTING

a. GENERAL

To ensure that the supply and services are in accordance with the Specification herein, with the regulations of Guyana and with relevant authorized international standards, the Proponent shall have in place suitable Quality Assurance Programmes and Procedures to ensure that all activities are being controlled and documented, as necessary.

The quality assurance arrangements shall conform to the relevant requirements of ISO 9001 or ISO 9002, as deemed appropriate by the Purchaser and the Proponent.

The systems and procedures that the Proponent will use to ensure that the supply complies with the specified requirements, shall be defined in the Proponent's Quality Plan.

The Proponent shall operate systems that implement the following:

Hold Point "A stage in the material procurement or workmanship process beyond which work shall not proceed without the documented approval of designated individuals or organisations."

The Purchaser's written approval is required to authorise work to progress beyond the Hold Points indicated in approved Quality Plans.

Notification Point "A stage in material procurement or workmanship process for which advance notice of the activity is required to facilitate witness."

If the Purchaser's representative does not attend after receiving documented notification in accordance with the agreed procedures and with the correct period of notice, then work may proceed.

b. QUALITY ASSURANCE SYSTEM

Unless the Proponent's Quality Assurance System has been audited and approved by the Purchaser, a Quality Assurance System shall be submitted to the Purchaser for approval within a minimum of One (1) month from the placement of order, or such other period as shall be agreed with the Purchaser. The Quality Assurance System shall provide a description of the Quality Control System for the supply and shall, unless advised otherwise, shall include, but not limited to the following details:

15. The structure of the organisation;
16. The duties and responsibilities assigned to staff to ensure quality of work;
17. The system for purchasing, taking delivery and verification of the specifications of raw materials;
18. The system for ensuring the quality of workmanship
19. The system for control of documentation;
20. The system for the retention of records; and
21. The arrangement for the Proponent's internal auditing.

c. QUALITY PLANS

The Quality Plans shall set out the activities in a logical sequence and, unless advised otherwise, shall include, but limited to the following:

17. An outline of the proposed programme sequence;
18. The duties and responsibilities assigned to staff ensuring the quality of work;
19. Hold and notification points;
20. Submission of engineering documents required by the specification;
21. The inspection of materials and components on receipt;
22. Reference to the Supplier's procedures appropriate to each activity;
23. Inspection during fabrication and assembly; and
24. Final inspection and test.

d. INSPECTION AND TESTING

The Manufacturer/Proponent shall afford the Purchaser without charge, all reasonable facilities to assure that the equipment being furnished are in accordance with the specifications herein.

The Purchaser reserves the right to reject an item of the equipment if the test results do not comply with the values specified herein.

Tests, including any retests required, shall be carried out by the Supplier at no extra charge, at the manufacturer's works.

Full details of the proposed methods of testing, including connection diagrams, shall be submitted to the Purchaser by the Supplier for approval, at least one month before testing.

All costs in connection with the testing, including any necessary re-testing, shall be borne by the Manufacturer/Proponent.

Any cost incurred by the Purchaser in connection with inspection and re-testing as a result of the failure of the 72.5 kV disconnect switch with earthing switch or any of its components under test or damage during transport or offloading shall be to the account of the Proponent.

The Proponent shall submit to the Purchaser three signed copies of the test certificates, giving the results of the tests as required. No materials shall be dispatched until the test certificates have been received by the Purchaser and the Proponent has been informed that they are acceptable.

The test certificates must show the actual values obtained from the tests, in the units used in this specification, and **not** merely confirm that the requirements have been met.

No inspection or lack of inspection or approval by the Purchaser's Representative of equipment or materials whether supplied by the Proponent or a Sub-Proponent, shall relieve the Proponent from his/her liability to complete the contracted works in accordance with the contract would exonerate him/her from any of his/her guarantees.

16. NON-COMPLIANCE SCHEDULE

On this schedule, the Proponent shall provide a list of non-compliance with this specification, documenting the effects that such non-compliance is likely to have on the equipment/component life span and operating characteristics. Each non-compliance shall be referred to the relevant specification clause.

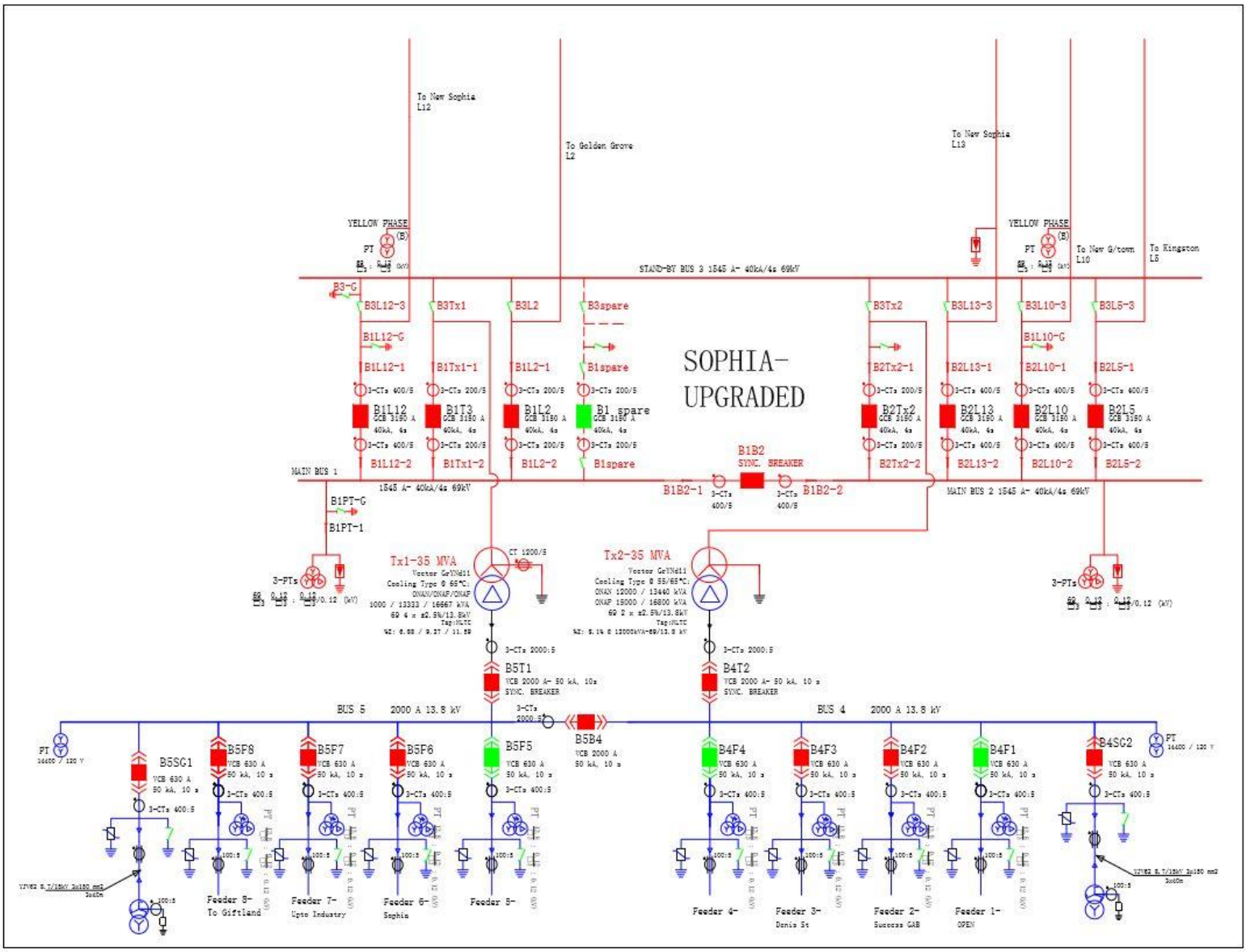
Clause No.	Non-Compliance

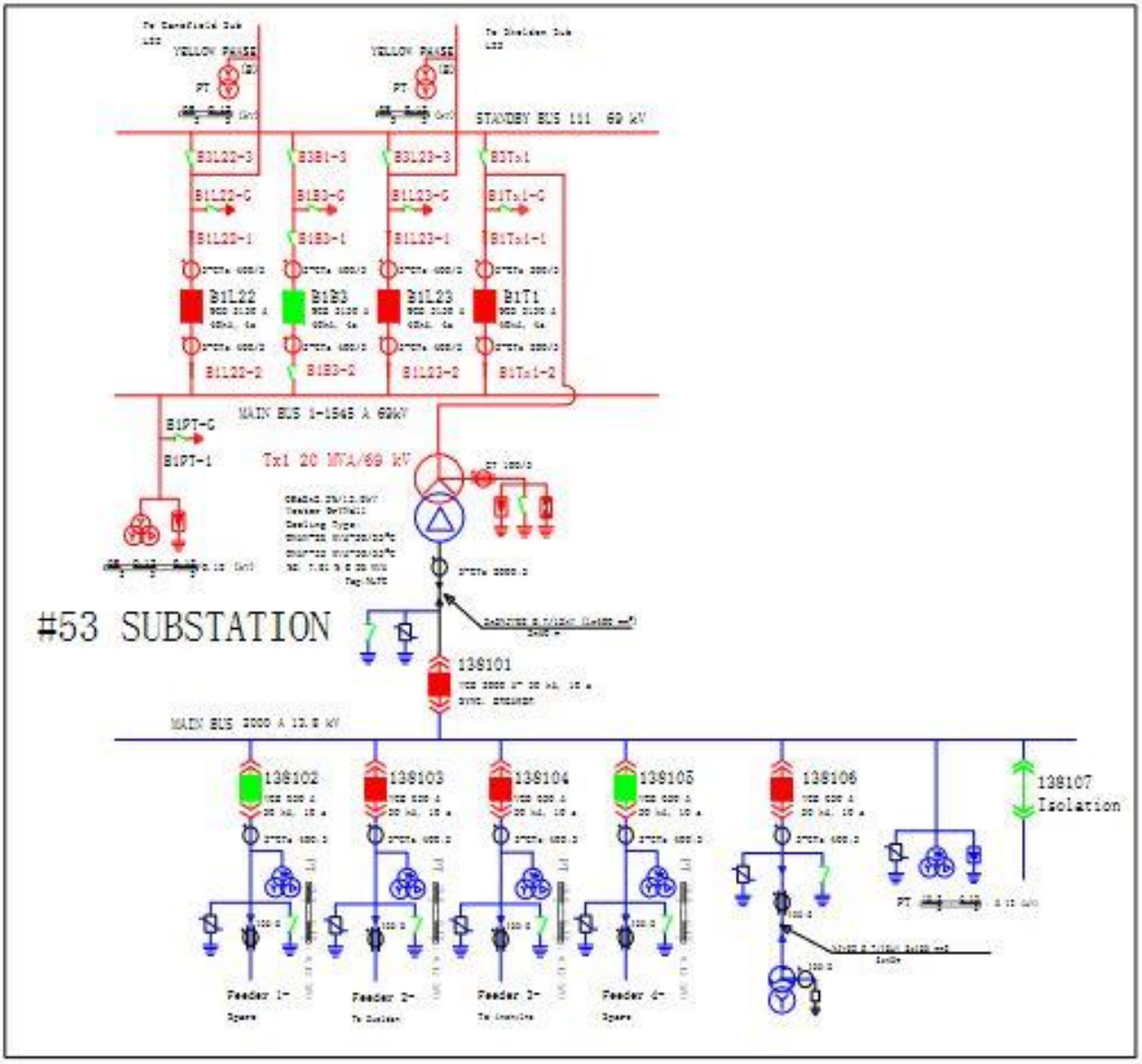
17. SHIPPING

The Manufacturer/Proponent shall prepare the 72.5 kV disconnect switch with earthing switch for shipping in such a manner as to protect from them from damage or deterioration during shipping and storage, and shall be responsible for, and make good, any and all damage due to improper preparation for loading, shipment, and storage.

The 72.5 kV disconnect switch with earthing switch shall be shipped securely banded with a steel strap or approved synthetic strap to a pallet. The pallet shall be constructed to accept two fixed 195 mm forks spaced either 65mm or 320 mm apart. At least 90 mm clearance shall be provided under each pallet and the bottom of the pallet must not be fully covered in order to facilitate the use of pallet jacks.

Drawings


To New Sophia
L12
To Golden Grove
L2
To New Sophia
L13
YELLOW PHASE
PT
STAND-BY BUS 3 1545 A- 40kA/4s 69kV
To New G'town
L10
To Kingston
L5
B3-G
B3L12-3
B3Tx1
B3L2
B3spare
B3Tx2
B3L13-3
B3L10-3
B3L5-3
B1L12-G
B1L10-G
B1L12-1
B1Tx1-1
B1L2-1
B1spare
B2Tx2-1
B2L13-1
B2L10-1
B2L5-1
SOPHIA-
UPGRADED
B1L12
B1T3
B1L2
B1 spare
B2Tx2
B2L13
B2L10
B2L5
B1L12-2
B1Tx1-2
B1L2-2
B1spare
B2Tx2-2
B2L13-2
B2L10-2
B2L5-2
MAIN BUS 1
1545 A- 40kA/4s 69kV
B1B2
SYNC. BREAKER
B1B2-1
B1B2-2
MAIN BUS 2 1545 A- 40kA/4s 69kV
B1PT-G
B1PT-1
3-PTs
Tx1-35 MVA
Tx2-35 MVA
CT 1200/5
B5T1
B4T2
BUS 5
2000 A 13.8 kV
BUS 4
2000 A 13.8 kV
B5B4
B5SG1
B5F8
B5F7
B5F6
B5F5
B4F4
B4F3
B4F2
B4F1
B4SG2
Feeder 8-
To Giftland
Feeder 7-
Upto Industry
Feeder 6-
Sophia
Feeder 5-
Feeder 4-
Feeder 3-
Denis St
Feeder 2-
Success GAB
Feeder 1-
OPEN


YELLOW PHASE
YELLOW PHASE
PT
PT
STANDBY BUS 111 69 kV
B1L22-3
B1B3-3
B1L23-3
B1Tx1
B1L22-C
B1B3-C
B1L23-C
B1Tx1-C
B1L22-1
B1B3-1
B1L23-1
B1Tx1-1
B1L22
B1B3
B1L23
B1T1
B1L22-2
B1B3-2
B1L23-2
B1Tx1-2
MAIN BUS 1-1545 A 69kV
B1PT-C
B1PT-1
Tx1 20 MVA/69 kV
#53 SUBSTATION
138101
MAIN BUS 2000 A 13.8 kV
138102
138103
138104
138105
138106
138107
Isolation
Feeder 1-
Spare
Feeder 2-
Feeder 3-
Feeder 4-
Spare

BID Delivery Schedule

IFB # GPL-PD-003-2022

Description	Named place of Destination as stated in the bid document	Earliest Delivery Date	Latest Delivery Date	Bidders offered Delivery date (to be specified by the bidder)	Bid Security required
Supply of 72.5 kV Line Hardware	Georgetown Guyana	Immediately after signing of Contract or receipt of Purchase Order	Eight weeks after the signing of the contract or the receipt of the purchase order.		2 % of Bid Price

QUALIFICATION INFORMATION

1. **For individual bidders or individual members of a joint venture**

1.1 Legal status of Bidder *(attach copy).*
Place of registration: _____
Principal kind of business: _____
Power of attorney for signing the Bid *(attach).*

1.2 Total volume of supplies executed for the last three (3) years in Guyana dollars or currency of bid:
_____ in 20___.
_____ in 20 ___.
_____ in 20 ___.

1.3 Supplies of a similar nature executed by the Supplier during the last two years *(not less than three (3) supplies)*

№	Name of Goods	Name of Clients, address and telephone	Contract Price

1.4 Copies of financial reports for the last three years *(balance sheets, loss and profit statements, auditors' reports, etc.).List below and attach copies.*
_____
_____
_____

a. Evidence of access to financial resources *(cash in hand, lines of credit, overdraft facility etc.).List below and attach copies of supporting documents.*
_____
_____
_____

b. Evidence of compliance with NIS, IRD and TIN Certificate and VAT Registration for Vatable item/s. *(attach supporting documents).*
_____
_____
_____

c. Information on all claims, arbitration or other legal proceedings currently being examined or already settled.

_____
_____

2.0 Any other information required by the Procuring Entity to execute the Contract _____

2.1 The Supplier certifies that he meets all the qualification criteria and requirements, in accordance with normative legal documents.

I certify the authenticity of all the above information.

_____ _____ _____

(Full name) (Title) (Signature and seal)

Dated on: _____ day of _____ 20__.

(Date)

SUPPLIER'S BID

Date: _____
IFB No: _____

TO: _____
(Name and address of Procuring Entity)

Dear Sir / Madam,

Having examined the bidding documents, including the Annexes and Addenda No _____ *[specify number]*, the receipt of which is hereby acknowledged, we, the undersigned, offer to supply and provide _____ *[description of goods and related services]* in accordance with the requirements of the bidding documents to the total sum of _____ *[Total Amount of Bid in Words and Figures]*, confirmed by the attached Price Schedule which is a part of this Bid.

(a) We, including all subcontractors, regarding any part of the Contract, in accordance with the bidding documents, have no conflict of interests pursuant to sub clause 2 (i) of the Instructions to Bidders;

(b) We, including all subcontractors, regarding any part of the Contract, in accordance with the bidding documents, have not been declared by the [authorized State body] [National Board] on procurement to be ineligible, or are not ineligible, in accordance with the legislation of Guyana.

We undertake, if our Bid is accepted, to supply the Goods, in accordance with a delivery schedule given in the Schedule of Requirements.

If our Bid is accepted, we undertake to furnish the Performance security in the form of _____ to the amount of _____, comprising _____% of the Contract Price in order to execute the Contract properly and within the time period(s) specified in the Bidding Documents.

We hereby confirm that this bid shall be valid during _____ days starting from the date established for bid opening, and it shall be binding until the expiry of the indicated period.

Prior to the preparation and execution of a formal Contract, this Bid together with your written confirmation of its acceptance shall form a binding Contract on the parties.

We understand that you are not bound to accept the lowest or any bid you receive.

Dated _____.

Duly authorized to sign the Bid _____
(*Name of Supplier*)

Supply Contract

THIS CONTRACT made the _____ day of _____ 20__

Between _____ [name of Procuring Entity] (hereinafter referred to as "the Procuring Entity"), on the one hand, and_____ [name of Supplier] from _____ [city and country of Supplier] (hereinafter referred to as "the Supplier"), on the other hand have come to an Agreement on the following:

The Procuring Entity has announced bid for procurement of goods and services, namely _____[brief description of goods and related services] and has accepted the Supplier's bid for the supply of indicated goods and services to the sum of _____[Contract Price in words and figures] (hereinafter referred to as "the Contract Price").

THIS CONTRACT WITNESSES AS FOLLOWS:

1. In this Contract, the terms and expressions have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.

2. The following documents shall form the Contract and shall be deemed its integral part, viz.:
   (a) Procuring Entity's Notification of Award;
   (b) Bid and Price Schedule submitted by Bidder;
   (c) Schedule of Requirements;
   (d) Technical Specifications;
   (e) General Conditions of Contract;
   (f) Special Conditions of Contract;
   (g) Other documents included in the Contract documents;

3. This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.

4. In consideration of the payments to be made by the Procuring Entity to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Procuring Entity to provide the Goods and Services, and remedy defects therein in conformity in all respects with the provisions of the Contract.

5. The Procuring Entity hereby agrees to pay the Supplier in consideration of the delivery of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract

IN WITNESS of the foresaid, the parties hereto have caused this Contract to be executed in accordance with the legislation of Guyana the day and year first above written in the beginning of the document.

For and on behalf of the Procuring Entity:

Signed by _____

Witnesses:

1._____

2._____

For and on behalf of the Contractor:

Signed by_____

Witnesses:

1._____

2._____

BID SECURITY
(Bank Guarantee)

Whereas _____ *[name of Bidder]* (hereinafter referred as "the Bidder") is ready to submit his bid dated _____ *[date of bid submission]* for the supply _____*[name and/or description of goods]* (hereinafter referred as "the Bid"),

KNOW ALL PEOPLE, that WE _____ *[name of Bank]* from _____ *[name of country]*, having our registered office at the address _____ *[address of Bank]*, (hereinafter referred as "the Bank"), are bound to _____ *[name of Procuring Entity]* to the sum of _____, by which payment to the indicated Procuring Entity shall be made in whole and in a timely manner; the Bank is bound on behalf of its name, its successors and authorized persons. This is to confirm that the license issued to the Bank shall provide for activity on issuance of the guarantee, and the person(s) signing that guarantee is entitled to act on behalf of the Bank, and if the approval of Board of Directors, or of General Stockholders Meeting is required, it is already received and there is no other approval required.

THE CONDITIONS of this obligation are as follows:

1. If the Bidder:
   (a) Withdraws his Bid during the period of bid validity specified by the Bidder on the Form of Bid; or
2. If the Bidder having received notice from the Procuring Entity that his bid is accepted within the period of bid's validity:
   (a) fails or rejects to sign the Contract at the request of; or
   (b) fails or rejects to furnish the performance security in accordance with the Instructions to Bidders;

We undertake to pay the Procuring Entity the above sum upon receipt of his first written request, without needing the Procuring Entity to show grounds or reasons of that request, provided that the sum requested by the Procuring Entity is due to him because of the occurrence of one or two or both conditions, specifying the condition or conditions occurred.

This guarantee shall remain in force during _____ days inclusive following the expiry of the bid validity period, and any request in respect thereof should reach the Bank not later than the abovementioned date.

_____ _____ _____
(Full name of Bank's representative) *(Title)* *(Signature and seal)*

Dated on «____» day of _____20__.

Bid-Securing Declaration –Not Applicable

[The Bidder shall fill in this Form if applicable pursuant to BDS.]

Date:_____
IFB No.:_____
Alternative No.:_____

To: _____

We, the undersigned, declare that:

1. We understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration.

2. We accept that we will automatically be suspended from being eligible for bidding in any contract with the Purchaser for the period of time of _____*[insert number of months or years]* starting on _____*[insert date]*, if we are in breach of our obligation(s) under the bid conditions, because we:

(a) have withdrawn our Bid during the period of bid validity specified by us in the Bidding Data Sheet; or

(b) having been notified of the acceptance of our Bid by the Purchaser during the period of bid validity, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the ITB.

3. We understand this Bid Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of a copy of your notification of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of our Bid.

4. We understand that if we are a Joint Venture, the Bid Securing Declaration must be in the name of the Joint Venture that submits the bid. If the Joint Venture has not been legally constituted at the time of bidding, the Bid Securing Declaration shall be in the names of all future partners as named in the letter of intent.

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

capacity of _____*[insert legal capacity of person signing the Bid Securing Declaration]*

Name: _____*[insert complete name of person signing the Bid Securing Declaration]*

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

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

Manufacturer's Authorization

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

Date of Bid Submission*(day/ month/ year):*
IFB No:*[insert number of bidding process]*
Alternative No.:[*insert identification No if this is a Bid 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 Bidder]* to submit a bid 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 1.3 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: _____*[insert signature(s) of authorized representative(s) of the Manufacturer]*

Name:_____ *[insert complete name(s) of authorized representative(s) of the Manufacturer]*

Title:_____ *[insert title]*

Duly authorized to sign this Authorization on behalf of: _____*[insert complete name of Bidder]*

Dated on _____ day of _____, 20____ *[insert date of signing]*

PERFORMANCE SECURITY
(Bank Guarantee)

TO: _____
[Name of Procuring Entity]

WHEREAS _____*[name of the Supplier]* (hereinafter called "the Supplier") has undertaken, in accordance with the Contract No. _____*[Contract number]* dated _____ 20__ to supply _____*[description of Goods and Services]* (hereinafter called "the Contract"),

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a Bank Guarantee by a reputable bank to the sum specified therein as a security for compliance with the Supplier's obligations under the Contract,

AND WHEREAS we have agreed to furnish the Supplier with a security,

THEREFORE WE hereby confirm that we are the Guarantors and are responsible to you on behalf of the Supplier, up to a total of _____*(amount of security in words and figures)* and, we undertake to pay you, on your first request notifying of the Supplier's default with the Contract, and without cavil or argument, any sum or sums within the above limits, as aforesaid, without your needing to show grounds or reasons of your request or the sum specified therein.

Any modification or addition, or amendment in the terms of Contract, which may be made by the Procuring Entity and the Supplier by Additional Agreement shall in no way release us from obligations under the Guarantee, and we waive any notice of modification, addition, or amendment. This guarantee shall be valid until full completion of the Contract Conditions by the Supplier. Also, we confirm that the license issued to the Bank shall provide for activity on issuance of a bank guarantee, and the person signing the guarantee is entitled to act on behalf of the Bank, and if the approval of Board of Directors or of General Stockholders Meeting is required, it is already received, and there is no other approval required

This guarantee shall be valid till the _____day of _____ 20__.

_____
_____ _____ (Full name of Bank's representative) (Title) (Signature and seal)

Dated on _____ day of _____20__

Address of the Bank issuing guarantee: _____

Letter of Acceptance

(Letterhead paper of Procuring Entity)

Date: _____

To: _____

(Name of Supplier)

_____

(Address of Supplier)

We hereby notify you that your bid dated the _____ day of _____20__, for the supply of goods _____ (*description of goods*) up to a total of_____

(Amount in figures and words)

as amended and modified in accordance with the Instructions to Bidders is hereby accepted by our agency.

Simultaneously, we send you the Form of Contract and request you, pursuant to Clause 20.1 of the Instructions to Bidders, during seven (7) days to sign and date the Form of Contract, and return it at our address. Jointly with the signed Contract, we request you to furnish the performance security, in accordance with ITB Clause 20.2.

You hereby entrusted to start supply of the Goods, in accordance with the terms and conditions of a Contract.

Name of agency _____

Full name and Title _____

Signature of Authorized Representative_____

Power of Attorney

TO: _____ *[name of Procuring Entity]*

WHEREAS _____ *[name of Supplier]*, who is the Supplier _____ *[name and/or description of goods]*.

do hereby authorize _____ *[name and address of Supplier's Representative]* to submit the Bid, and sign the Contract based on I*nvitation for Bids* for the abovementioned goods to be supplied by us, and

_____

[Full name, title, signature for and on behalf of Supplier]

Dated on «_____» day of _____20__ (Seal)
(Date)

_____

Note: The power of attorney must be drafted on a letterhead paper of the Supplier, and signed by a competent person authorized by the Supplier. The Bidder shall include this power of attorney in his Bid.

Evaluation Criteria

EVALUATION CRITERIA			
NON-FINANCIAL ASSESSMENT	**COMPULSORY REQUIREMENT**	**RESPONSIVE**	
		Yes	**No**
	Submission of Valid Company Registration		
	Submission of Valid Certificate of Compliance – GRA		
	Submission of Valid Certificate of Compliances – NIS		
	Completion of Form of Tender (signed)		
	Audited Financial Statement from a Registered Chartered Accountant/Accounting Firm		
	Record of Past Experience or Similar Works		
	Submit statement of any or no Litigation against company		
	Bid Security in the amount required		

Evaluation Criteria

1. Evaluation Criteria

Points will be award to bidders. The bidder with the highest points will be awarded the project. The points are split between X-points, tendered price and Y-points, other adequacies equally, as follows:

X-Points (40 Points):

Lowest Bid (Tender Price) – 30 Points

Financial Adequacy – 10 Points

Y- Points (60 points)

Technical Adequacy – 50 points

Delivery Time – 10 points

X-points

Max Score attained from sum of Formula 1 (30 point Max) and Table 1 (10 points Max) Score

Lowest Tendered Price (Max – 30 Points)
The X-points is calculated using the following ;

Formula 1

$$X = \frac{\text{Lowest Tendered Price}}{\text{Tendered Price}} \times 30$$

Financial Adequacy (Max -10 points):
Table No.1 = 10 points

The financial adequacy is based on the financial resources, available to the bidder.

Credit available as percentage of bid price	Points gained(Max 10 Points)
>50%	10
40-50	8
30-40	6
20-30	4
<20	2

Table 1 – Financial assessment based on credit available

A penalty of immediate rejection of a proposal or termination of the contract will be applied upon discovery of misrepresentation of information.

In addition, the bidder must include audited financial statements for the last three fiscal years and also evidence of access to funds stated.

The Contractor should provide proof in the following forms"

1. Bank Statement (s)
2. Latter of Credit (L/C)
3. Bank Reference
4. Any other evidence in support of funding

Y-points

Technical Adequacy (Max – 60points)
Max Score attained from sum of Table 2 (10 point Max), Table 3 (40 points Max) Score and formula 2 (10 point Max).

Technical Specification Submission

Technical Specification Submissions	Total Points = 10
75 - 100%	10
50 -75%	7
40 -50%	5
35-40%	3
Else	0

Table 2 – Points to be gained based on Clarity and completeness of technical Submissions

Technical Evaluation

Technical Suitability	Total Points = 40
Yes	40
No	0

Table 3 – Points to be gained based on evaluation of technical submissions for compliance
Compliance is evaluated against the requirements submitted in the technical evaluation sheets provided.

Formula 2

Delivery Score

$$\text{Delivery Score} = \frac{\text{Minimum Delivery time (Weeks)}}{\text{Bidder's Delivery time (Weeks)}} \times 10$$

Minimum Thresholds
Bidders failing to meet the following criteria will not be evaluated, as they would be deemed unqualified for the award of contract.

1. Minimum X-points of 20
2. Minimum Y-points of 30

NOTES ON EVALUATION

(a) The Contract would be awarded to the Bidder whose bid is determined to be substantially Responsive to the Bid Document and who has offered the lowest evaluated Bid Price

A penalty of immediate rejection of a bid or termination of contract will be applied upon discovery of misrepresentation of information

Law of Guyana: Procurement Act 2003

Section 39 – Subsection 6 (b)

(a) The procuring entity may grant a margin of preference not exceeding ten percent to tenders submitted by domestic contractors or for the benefit of tenders for domestically produced goods, provided that such preference is specified in the tender documents. If the lowest evaluated tender was submitted by a foreign tenderer, the evaluating committee will apply the margin of preference to the prices submitted by all foreign tenderers, for evaluation purpose. If, after applying the margin of preference, the lowest evaluated tender was submitted by a domestic tenderer, such tenderer shall be awarded the contract. Otherwise, the foreign tenderer who has submitted the lowest evaluated tender shall be awarded the contract.