1.

POWER GRID COMPANY OF BANGLADESH LIMITED

Dhaka and Western Zone Transmission Grid Expansion Project

Design, Supply, Installation, Testing and Commissioning of 400/230 kV GIS Substation at Kaliganj on turnkey basis (Package-5)

(OCB No. PGCB/ADB/L3853/AIIB/L8374/DWZTGEP/GIS/P5)

CLARIFICATION NO.1

Sl. No.	Reference and Queries of Prospective Bidders	PGCB's Reply/Clarification	Addendum (Yes-Y/No-N)
	Volume-1 of 3		
1.	**Volume 1 of 3** **Section 1: Instructions to Bidders** **21. Bid Security / Bid Securing Declaration** In the case of a bank guarantee, the bid security shall be submitted using either the Bid Security Form included in Section 4 (Bidding Forms) or another form acceptable to the Employer. Please confirm if the bid security will be advised through a local bank.	Please follow the ITB clause no. 21 in volume 1 of 3 of the bidding document.	N.
2.	**Volume-I, Section 3 - Special Conditions of Contract, Page 8-11, 26. Clause 26: Completion Time Guarantee** Applicable rate for liquidated damages: 0.5% (zero point five percent) of the contract price or the relevant part thereof per week. From the said clause, we understand 0.5% per week of Liquidated Damages shall be levied on undelivered portion of the contract price. Kindly confirm.	Your understanding is not correct. Liquidated Damages shall be calculated as per the provisions of the bidding documents.	N

3.	**Volume-I, Section 3 - Evaluation and Qualification Criteria, Page 3-4, 1.3.7 Domestic Preference:** From the said clause, we understand that 15% will be loaded on foreign procured items ie., CIP price component during price evaluation. To bring all bidder at par, we request to reduce/remove the Domestic preference. Kindly consider and confirm.	Your request can not be accepted. Please follow the bidding documents.	N
4.	**Volume-I, Section 3 - Evaluation and Qualification Criteria, Page 3-11, Submission of Type test reports:** As per the referred clause, bidder needs to enclose type test reports for power transformer, GIS,CRP SAS, disconnecting switch, current and voltage transformer, lightning arrester, Circuit breaker , XLPE Cable , Battery & Charger and communication panels and systems. Since the quantity of disconnecting switch, lightning arresters, circuit breakers, current and voltage transformers will be less. Hence, we request to the submission of type test for these AIS equipment in the bidding stage.	Please follow the bidding documents.	N
5.	**Volume-I, Section 3. Evaluation and Qualification Criteria, Page 3-9, Participation as a contractor, Joint Venture partner in at least three .... the Bidder's (or JV partner1) participation under each contract exceeds 21.0 million USD. & Volume-I, Section 4: Bidding Forms, Page 4-42, Form EXP-1: Contracts of similar size and nature** We understand the bidder need to fill the form "Form EXP-1: Contracts of similar size and nature" for bidder qualification. While filling the form, if contract value is in other currency then it should be converted to USD and the exchange rates will be as on date of award of that particular contract. Kindly confirm. If our above understanding is not correct, kindly provide the methodology for considering exchange rates. And also we request to provide the methodology for considering exchange rates for converting annual turnover and current contract commitments to USD.	As per the Form EXP-1, Volume 1 of the bid documents "The exchange rate to be used to calculate the value of the contract for conversion to a specific currency shall be the selling rate of the Borrower's national bank on the date of the contract". As per the Form FIN-2, Volume 1 of the bid documents, "The information supplied should be the Annual Turnover of the Bidder or each member of a Joint Venture in terms of the amounts billed to clients for each year for work in progress or completed, converted to US dollars at the rate of exchange at the end of the period reported". As per the Form FIN-4, Volume 1 of the bid documents, "Remaining outstanding contract values to be calculated from 28 days prior to the bid submission deadline ($ equivalent based on the foreign exchange rate as of the same date)."	N

6.	**Section 3 Evaluation and Qualification Criteria** **2.4.2 Experience in Key Activities** **And** **Section 4 Bidding Forms** **Form EXP-3** Inconsistent. In Section 3, 2.4.2 (page 51 of volume 1) it state "Not applicable" required of EXP-3, but in the Section 4, Form EXP-3 (page 104 of volume 1), it state "Each Bidder must fill out this form.". Please clarify which one shall we follow?	Experience in Key Activities is not applicable for this tender. So, the bidder doesn't need to fill up this form EXP-3 for the 2.4.2 criteria.	N.
7.	**Volume 1 of 3** **Section 4: Bidding Forms/Price Schedules** **Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Abroad** **Excel document** **Schedule B1 : Plant and Equipment Supplied from Outside the Employer's Country** In the Section 4 of the bidding document, Line 8 shows that tax & duties should be listed in local currency, and will not be summed to Schedule No. 5: Grand Summary. For the excel document, schedule B1, the line of taxes and duties is not shown in the table, only the total price is included. We understand that in this tender, PGCB will bear all of the taxes and duties for Schedule 1. Please instruct if the taxes and duties for Schedule 1 should be calculated and listed in the quotation document?	Please follow SCC 14.1 & 14.2, Volume 1 of 3 of the bidding documents.	N.
8.	**Volume-I, Section 6: Employers Requirements, Page 6 - 1 , 1.3 Type test requirements** Since type test validity is not provided in here. We understand that there is no limit on the type test validity.	Your understanding is correct.	N

9.	**Volume 1 of 3, Clause No. 1.3 Type Test Requirements in Section 6: Employers Requirements -** "Type test certificates of Power Transformer (including short circuit withstand test certificates of power transformer) shall be issued by manufacturer's own testing laboratory or independent testing laboratory. Test carried out at manufacturer's own testing laboratory must have been witnessed and certified by a representative from third party. Type test certificates of GIS, Circuit Breaker and Lightning Arrester shall be issued by STL member testing laboratories. **Bidder's request for followings:** 1) Power Transformer is the most important electric equipment in Substation, in this reason, Type test certificates of Power Transformer (including Short circuit withstand test certificate) shall be issued by any STL member testing laboratory same as GIS, Circuit Breaker and Lightning Arrester or from manufacturer's own testing laboratory or independent testing laboratory. Test carried out at manufacturer's own testing laboratory or independent testing laboratory must have been witnessed and certified by a representative from STL member testing laboratory. Please kindly confirm.	Please follow the bid documents.	N.
10.	**Clause 2.5.1, "Evaluation and Qualification Criteria" Section 3, Vol.1** Qualification criteria for "Gas Insulated Switchgear (GIS)". "Manufacturer's proposed factory shall have at least fifteen (15) years of manufacturing experience ..... .All GIS shall be from same factory." We undrstand that the qualification requirement stated for the refered clause is applicable only for 400kV GIS the GIS equipment of different voltage levels may be sourced from different suppliers/factories.	Please follow the bid documents.	N.
11.	**Clause 2.5.1, "Evaluation and Qualification Criteria" Section 3, Vol.1 Qualification criteria for "Power Transformer".** "Manufacturer's proposed factory shall have at least twenty (20) years of manufacturing experience prior to the date of bid submission of 380 kV or higher voltage rating power transformer with minimum delivery of at least ten (10) nos. of similar or higher rating (kV, MVA) three phase/3-single phase Power transformer over the last ten (10) years outside the manufacturer's own country or in Bang-	Your understanding is correct. The clause you have referred to is applicable for supply records of power transformers only. Please follow the bidding documents carefully.	N

	ladesh". We undrstand that 3 nos of single phase transformers of similar or higher rating (i.e. 250MVA) will be considered equal to 1 no of 3 phase transformer of similar or higher rating (i.e. 750MVA). Please confirm.		
12.	Volume 1 of 3, 1.3 Type Test Requirements in Section 6: Employers Requirements **(i) Power Transformer (400kV)** **(a) Temperature rise test** **(b) Dielectric tests (Induced over voltage test, Lightning impulse voltage withstand test, separate source voltage withstand test / Applied voltage test (AV)).** **(c) Partial discharge test** **(d) Measurement of sound level** **(e) Short circuit withstand test (special test)/Calculation (calculation shall be certified by the representative from independent transformer testing lab).** **Bidder queries & request:** 1) We would like to know if both short circuit withstand test certificate and Calculation should be submitted together or not. 2) For short circuit withstand test, please inform us the minimum rating for voltage and capacity (MVA). 3) For calculation, does independent testing lab mean from STL member testing laboratory? 4) For the above mentioned type tests for Power Transformer ((i) Power Transformer (400kV), (a)~(e)), the transformer must be a Grid transformer, generator step-up transformer shall not be acceptable. Please confirm Please kindly answer for our above 1)~4) questions.	Please follow the bid documents.	N
13.	**Section 6: Employers Requirements** **1.3 Type Test Requirements** **Type test certificates of GIS, Circuit Breaker and Lightning Arrester shall be issued by STL member testing laboratories.** We understand that type tests must be performed in STL member laboratories with reports. This is too restrictive for us GIS manufacturers to treat each manu-	Your understanding is not correct. Type test can be carried out at STL member testing laboratories or manufacturer's own testing laboratory or independent testing laboratory. Tests carried out at the manufacturer's own testing laboratory or independent testing laboratory must have been witnessed by a representative from STL member testing laboratories and the test certificates shall be issued by STL member testing laboratories.	N.

	facturer fairly. We recommend that the Type test certificates of GIS, Circuit Breaker and Lightning Arrester shall be issued by any STL member testing laboratory or from manufacturer's own testing laboratory or independent testing laboratory. Test carried out at manufacturer's own testing laboratory or independent testing laboratory must have been witnessed and certified by a representative from STL member testing laboratory. Please confirm whether it is ok?		
14.	**Volume 1 of 3** **Section 7: General Conditions of Contract** **ITB 19.1 of the BDS** The currencies of the Bid shall be as follows: (a) The prices shall be quoted either in the currency of the Bidder's home country,or in any fully convertible currency of up to three foreign currencies. Please instruct whether the Contractor can use RMB as the currency for quotation?	The prices shall be quoted either in the currency of the Bidder's home country,or in any fully convertible currency of up to three foreign currencies as per GCC of the bidding documents.	N.
15.	**Volume-I, Section 7. General Conditions Page 7-12 GCC 10. Employer's Responsibilities** We understand from the said clause that land for site office shall be provided by the employer to the contractor free of cost. Kindly confirm.	Your understanding is not correct. Please follow the bidding documents.	N
16.	**Volume-I, Section 7. General Conditions Page 7-10 GCC 9. Contractor's Responsibilities** For the water and electricity for construction works, we request you to kindly confirm whether Water and Power for construction can be made available. Further we request you to kindly share the existing rates/tariffs for the same.	It is the contractor's responsibility to arrange the water and electricity required for construction works. However, if requested by the Contractor, the Employer may assist the Contractor in obtaining permits and/or approvals from the respective utilities in this regard.	N
17.	**Volume-I, Section 7. General Conditions Page 7-50 GCC 39.2 Changes Originating from the Employer 39.2.5** From the said clause we understand that if there is change of more than +/- 15% in the quantities of any item with respect to tender quantity then unit rates for those items shall be mutually decided between contractor and employer. Kindly	Your understanding is not correct. Please follow the bidding documents.	N

	confirm.		
18.	**Volume 1 of 3 Section 7 - General Conditions of Contract, 21.4 Customs Clearance** The Contractor shall, at its own expense, handle all imported materials and Contractor's Equipment at the point(s) of import and shall handle any formalities for customs clearance, subject to the Employer's obligations under GCC Sub-Clause 14.2, provided that if applicable laws or regulations require any application or act to be made by or in the name of the Employer the Employer shall take all necessary steps to comply with such laws or regulations. In the event of delays in customs clearance that are not the fault of the Contractor, the Contractor shall be entitled to an extension in the Time for Completion, pursuant to GCC Clause 40. Please instruct that who will bear the demurrage charge as well as other cost in the event of delays in customs clearance that are not the fault of the Contractor, such as the Employer's fault.	Please follow the bidding documents.	N.
19.	**Volume 1 of 3** **GCC 20.Design and Engineering** 20.3.4 If the Project Manager disapproves the document, the Contractor shall modify the document and resubmit it for the Project Manager's approval in accordance with GCC Sub Clause 20.3.2. If the Project Manager approves the document subject to modification(s), the Contractor shall make the required modification(s), whereupon the document shall be deemed to have been approved. There is no limit on the number of times a project manager present his opinion towards the documents, we suggest to limit up to three times for one document. Please confirm.	Your proposal cannot be accepted. Please follow the bidding documents.	N.
20.	**24. Completion of the Facilities** 24.4 As soon as all works in respect of Pre-commissioning are completed and, in the opinion of the Contractor, the Facilities or any part thereof is ready for Commissioning, the Contractor shall so notify the Project Manager in writing 1. Definitions	Detailed requirements about the pre-commissioning shall be told to the contractor during the execution stage. Please follow the bidding documents.	N.

	(aa) "Pre-commissioning" means the testing, checking and other requirements specified in the Employer's Requirements that are to be carried out by the Contractor in preparation for Commissioning as provided in GCC Clause 24 (Completion) hereof. We cannot find the detail requirement about the pre-commissioning in the Employer's Requirements, please request to clarify the detail requirement and work of the pre-commissioning.		
21.	**25.2 Guarantee Test** 25.2.2 If for reasons not attributable to the Contractor, the Guarantee Test of the Facilities or the relevant part thereof cannot be successfully completed within the period from the date of Completion specified in the SCC or any other period agreed upon by the Employer and the Contractor, the Contractor shall be deemed to have fulfilled its obligations with respect to the Functional Guarantees, and GCC Subclauses 28.2 and 28.3 shall not apply. We cannot find the detail requirement about the pre-commissioning in the Appendix to the Contract Agreement titled Functional Guarantees, please request to clarify the detail requirement and work of the Guarantee Test.	Detailed requirements shall be told to the contractor during the execution stage. Please follow the bidding documents.	N.
22.	**Volume 1 of 3** **GCC 25.4** **Appendix 1. Terms and Procedures of Payment** 25.4 Partial Acceptance 25.4.1 If the Contract specifies that Completion and Commissioning shall be carried out in respect of parts of the Facilities, the provisions relating to Completion and Commissioning including the Guarantee Test shall apply to each such part of the Facilities individually, and the Operational Acceptance Certificate shall be issued accordingly for each such part of the Facilities. 25.4.2 If a part of the Facilities comprises facilities such as buildings, for which no Commissioning or Guarantee Test is required, then the Project Manager shall issue the Operational Acceptance Certificate for such facility when it attains Completion, provided that the Contractor shall thereafter complete any outstanding minor items that are listed in the Operational Acceptance Certificate.	Your understanding is not correct. Please follow the bidding documents.	N.

	From this clause, we consider that Completion Certificate and Operation Certificate can be obtained accordingly for each part of the Facilities. Please request to clarify and confirm that the payment of final 5% and 5% will be released accordingly.		
23.	**Volume 1 of 3** **GCC 27.8** 27.8 If the Facilities or any part thereof cannot be used by reason of such defect and/or making good of such defect, the Defect Liability Period of the Facilities or such part, as the case may be, shall be extended by a period equal to the period during which the Facilities or such part cannot be used by the Employer because of any of the aforesaid reasons. We requested to add at the end of Cluase 27.8 the following: No Defect Liabiliy Period will extend beyond eighteen (18) monthis from the date of Operational Acceptance of Facilities for all equipment/materials.	Your proposal cannot be accepted. Please follow the bidding documents.	N.
24.	**Volume I Section 7** **APPENDIX A General Conditions of Dispute Board Agreement** **Article 6 Payment** (d) The Contractor shall pay each of the Member's invoices in full within 56 calendar days after receiving each invoice and shall apply to the Employer (in the Statements under the Contract) for reimbursement of one-half of the amounts of these invoices. The Employer shall then pay the Contractor in accordance with the Contract. If the Contractor fails to pay to the Member the amount to which he/she is entitled under the Dispute Board Agreement, the Employer shall pay the amount due to the Member and any other amount which may be required to maintain the operation of the Dispute Board; and without prejudice to the Employer's rights or remedies. In addition to all other rights arising from this default, the Employer shall be entitled to reimbursement of all sums paid in excess of one-half of these payments, plus all costs of recovering these sums and financing charges calculated at the rate specified in accordance with GCC Subclause 12.3.	GCC clause 12.3 is applicable for payment to the contractor. Dispute and arbitration related payment shall be paid as per the clause no. 45, GCC & SCC, volume 1 of 3 of the bidding documents. Bidders are requested to follow/read the bidding documents carefully.	N.

	We suppose that there should be no inequivalence between the Employer and Contractor with regard to the reimbursement, so we suggest both party shall be entitled to reimbursement of one-half of the amounts of these invoices, plus all costs of recovering these sums and financing charges calculated at the rate specified in accordance with GCC Subclause 12.3 in case of late payment. Kindly please consider.		
25.	**Volume 1 of 3, SCC 10.2** The Employer shall be responsible for acquiring and providing legal and physical possession of the Site and access thereto, and for providing possession of and access to all other areas reasonably required for the proper execution of the Contract, as specified in the Appendix (Scope of Works and Supply by the Employer) to the Contract Agreement. The Employer shall give full possession of and access thereto on or before the date(s) specified in that Appendix. We can not find the date specified in the Appendix (Scope of Works and Supply by the Employer). We understand the land for construction is already acquired by PGCB and PGCB will provide contractor encumbarnce free land of the Project site on/before effective date upon which the period until the Time for Completion of the facilities shall be counted. Kindly confirm	Effective date shall be counted as per Article 3 of the contract forms, section-9, volume 1 of 3 of the bidding documents. However, PGCB will help the contractor to get full possession of the land before commencement date.	N.
26.	**Volume 1 of 3, SCC 10.3** Subject to Sub-Clause 10.7, any additional field data and drawing required for permits, approvals, and/or licenses from all local, state, or national government authorities, or public service undertakings, which are not required to be supplied by the Employer in the Appendix (Scope of Works and Supply by the Employer), shall be provided by the Contractor. We cannot find any requirements which required to be supplied by the Employer in the Appendix (Scope of Works and Supply by the Employer), we request PGCB to kindly provide us the list of the concerned required field data and drawing for permits approvals	Please follow the bid documents and if required bidders are requested to visit the relevant site for assessing the requirement. However, PGCB shall provide the necessary administrative assistance regarding this. It is the contractor's responsibility for getting any additional field data and drawing(if required), permits, approvals, and/or licenses from all local, state, or national government authorities, or public service undertakings. However, the Employer shall provide administrative assistance if required.	N.

27.	**Appendix 1 - Terms and Procedures of Payment** Schedule No. 3 - Design Services Ninety percent (90%) of the total or pro rata design services amount upon acceptance of Final design by the Project Manager within 45 days after receipt of invoice The design work will be implemented step by step and will lasting nearly more than one year, so the bidder would like to know whether t is possible to applicate interim payment based on the approval of some critical design, which suggested to be settled during pre-contract discussion.	Please follow the bidding documents.	N.
28.	**Appendix 1 - Terms and Procedures of Payment** Schedule No. 4 - Installation and Other Services Eighty percent (80%) of the measured value of work performed by the Contractor, as identified in the said Program of Performance, during the preceding month, as evidenced by the Employer's authorization of the Contractor's application, will be made monthly within 45 days after receipt of invoice. From this clause, we consider that, the Contractor will applicate the payment of the value of work performed by the Contractor during the preceding month, and the Employer shall authorize the application and make the payment accordingly.	Please follow the bidding documents.	N.
29.	**13.3 Performance Security** 13.3.3 Unless otherwise specified in the SCC, the security shall be reduced by half on the date of the Operational Acceptance. The Security shall become null and void, or shall be reduced pro rata to the Contract Price of a part of the Facilities for which a separate Time for Completion is provided, 540 days after Completion of the Facilities or 365 days after Operational Acceptance of the Facilities, whichever occurs first; provided, however, that if the Defects Liability Period has been extended on any part of the Facilities pursuant to GCC Subclause 27.8 hereof, the Contractor shall issue an additional security in an amount proportionate to the Contract Price of that part. The ecurity shall be returned to the Contractor immediately after its expiration, provided, however, that if the Contractor, pursuant to	Please follow the bidding documents.	N.

	GCC Subclause 27.10, is liable for an extended defect liability obligation, the performance security shall be extended for the period and up to the amount specified in the SCC. SCC 13.3.3 The performance security shall not be reduced on the date of the operational acceptance. SCC 27.10 Not applicable After considering combined with the mentioned clauses, we consider that: 1. the performance security shall not be reduced on the date of the operational acceptance. 2. the performance securtity shall become null and void 12 months after Operational Acceptance of the Facilities. 3. if the Defects Liability Period has been extended on any part of the Facilities pursuant to GCC Subclause 27.8 hereof, the Contractor shall issue an additional security in an amount proportionate to the Contract Price of that part Please request to clarify and confirm.		
30.	**Volume 1 of 3** **Section 8: Special Conditions of Contract** **13.3.2 The following shall be added at the end of Sub-Clause 13.3.2:** The performance security shall be in the form of the unconditional bank guarantee as per form included in Section 9 (Contract Forms). In case the institution issuing the security is located outside of Bangladesh, it shall have a correspondent financial institution located in the territory of Bangladesh to make it enforceable. Please instruct if the performance guarantee and advance payment guarantee will be advised through a bank or transfered through a bank.	Please follow the SCC Clause no.13 in volume 1 of 3 of the bidding documents.	N.
31.	**SCC 14.2** Sub-Clause 14.2 a. All items in the price schedules under this contract are exclusive of VAT Please request to clarify: The local subcontractors for the equipment, civil work and installation work are also exclusive of VAT. Is there any tax exemption policy for VAT under the Contract?	Please follow the bidding documents.	N.

32.	**Volume-I, Section 8: Special Conditions of Contract (SCC) Page 8-5 PC 14. Taxes and Duties PC 14.2 b** In the said clause it is mentioned that Employer is not responsible for the payment of customs duties and VAT for the items imported for civil works material specified in price schedule No.4. In the same context we request you to kindly confirm that Steel structures / Super Structures required for buildings and foundation of equipment can be part of imported supply and waiver of customs duty and local VAT shall be applicable. Please confirm.	Your request can not be accepted. Please follow the bidding documents.	N
33.	**Volume-I, Section 8: Special Conditions of Contract (SCC) Page 8-5 PC 14. Taxes and Duties PC 14.2 c** From the said clause we understand that contractor at his own cost and expense shall secure any work permit, labor permit any other authorization which may be required by the Government of Bangladesh for the imported personnel of contractor and his subcontractor, however there shall not be any expatriate tax on such imported personnel of contractor or his subcontractor who may visit Bangladesh for short duration during execution of contract for supervision and other relevant works. Kindly Confirm.	Please follow the bidding documents. Also, the bidders are requested to collect necessary information from the respective Government agency(ies) for clear understanding.	N
34.	**Volume-I, Section 8: Special Conditions of Contract (SCC) Page 8-5 PC 14. Taxes and Duties PC 14.2 d** From the said clause we understand that there shall not be any custom duty and other taxes as Local VAT etc. on imported contractor's equipment for purpose of testing & commissioning of the facilities under present scope of works if the imported contractor's equipment are brought back to contractor's/ subcontractor's country after completion of the testing and commissioning and not subsequently sold in Bangladesh. Kindly Confirm.	Your understanding is not correct. Please follow the bidding documents.	N
35.	**Section 8:Special Conditions of Contract** **22.1.1** The following text is added at the end of Sub-Clause 22.1.1 Benchmark, end of	The bidder shall consider the price for the mentioned issues in this query along with the overall consideration of their to be quoted price.	N.

	sub-paragraph a): "The Contractor shall comply with (i) the measures and requirements relevant to the Contractor which are set forth in the Resettlement Plan ("RP") and attached hereto as Appendix 1 to 3 to the extent it concerns impacts on affected people during construction; and (ii) any corrective or preventive actions set out in safe-guards monitoring reports that the Employer will prepare from time to time to monitor implementation of the resettlement plan. CAPs need to be ensured in the corresponding substations before the contractor is given entry. The Contractor shall allocate a budget for compliance with these measures, re-quirements and actions. For the said Clause, the bidder shall allocate a budget for compliance with these measures, requirements and actions, But we cannot find any corresponding items in the Price Schedules.		
36.	**Volume-I, Section 9: Contract Forms Page 9-12 Appendix 2 - Price Adjust-ment..... Power Transformers..... & Volume-I, Section 4 - Bidding Forms Page 4-16 Tables of Adjustment Data.....** We understand that price adjustment is applicable only for power transformers and bidder has to fill table of adjustment data only for Power Transformers. However, as per tender specifications there is requirement of , 36kV (MV) & LV Cables also. We would like to bring to your kind attention that EHV, MV & LV Cables along with Power Transformers shall be adjusted with price variation formula since both have mainly Metals in their construc-tion. We request PGCB to kindly provide the price adjustment formula for EHV, MV & LV Ca-bles also	Your request can not be accepted. Please follow the bidding documents.	N
37.	**Volume-I, Section 9: Contract Forms Page 9-14 Appendix 3 - Insurance Require-ments.....** We understand that all the insurances mentioned in the tender clause can be purchased	Insurances shall be taken as per the prevailing rules and regulations of the Government of Bangladesh.	N

	from any reputed Insurance company in Bangladesh. Kindly Confirm.		
38.	**Volume-I, Section 9. Contracts Forms Page 9-9 Appendix 1. Terms and Procedures of Payment** As per the payment procedures Foreign Currency payment shall be made through Letter of Credit (L/C). The charges for establishment of letter of credit shall be to PGCB's account. Please confirm.	All costs in connection with the Letter of Credit inside Bangladesh shall be borne by the Employer and costs outside Bangladesh shall be borne by the Contractor.	N
39.	**Contract Agreement** **Article 1 Contract Documents** (n) Remaining portion of Volume 1 of the Bidding Document (o) Volume 2 of the Bidding Document (p) Volume 3 of the Bidding Document (q) Replies against PGCB's Clarification (if any). (r) Clarification sought by the Employer (if any). (s) Bid Proposal of Bidder (Contractor). (s) Any other documents shall be added here 1.2 Order of Precedence (Reference GCC Clause 2) In the event of any ambiguity or conflict between the Contract Documents listed above, the order of precedence shall be the order in which the Contract Documents are listed in Article 1.1 (Contract Documents) above. We consider the item q,r shall be places before the item n o,p, because the clarification and its reply are the explanation and amendment to the bidding document, if there is any conflict between the clarification and bidding document, the clarification and its reply shall have the priority.	Your proposal cannot be accepted. Please follow the bidding documents.	N.

40.	**Contract Agreement** **Article 3.1 Effective Date** 3.1 Effective Date (Reference GCC Clause 1) The Effective Date upon which the period until the Time for Completion of the Facilities shall be counted from is the date when all of the following conditions have been fulfilled: (a) This Contract of Agreement has been duly executed for and on behalf of the Employer and the Contractor. (b) The Contractor has submitted to the Employer the performance security and the advance payment guarantee. (c) The Employer has paid the Contractor the advance payment. We request to add the following conditions: 1.The right of access to, and possession of the Project Site given by the Employer.	Your proposal can not be accepted. Please follow the bidding documents.	N.
41.	- **Volume-I, Section 3, Evaluation and Qualification Criteria** **Page 3-17** 12. Outdoor cable sealing end/ GIS cable sealing end - Document Submission Requirements Document states "Reference list: Bidder shall provide Manufacturer's supply record (Reference list) of Substation communication equipment for the last ten (10) years." We understand that this has been mentioned erroneously as Substation communication equipment is not related to Cable Sealing Ends. Kindly confirm/clarify our understanding.	Bidders shall have to submit relevant equipment's supply record as reference list which is mentioned in the description of the item. Such as item no. 11- XLPE HV Power Cable (230kV) and item no.12- Outdoor Cable Sealing end/GIS cable sealing end.	N.
42.	**Volume 1 of 3** **Section 9: Contract Forms, Contract Agreement** 3.1 Effective Date (Reference GCC Clause 1) The Effective Date upon which the period until the Time for Completion of the	Please follow the bidding documents.	N.

	Facilities shall be counted from is the date when all of the following conditions have been fulfilled: (a) This Contract of Agreement has been duly executed for and on behalf of the Employer and the Contractor. (b) The Contractor has submitted to the Employer the performance security and the advance payment guarantee. (c) The Employer has paid the Contractor the advance payment. Please confirm whether the Employer has acquired the legal and physical possession of the Site and access until now. if not, whether the Employer completing the acquiring of land can be a contract effective condition.		
43.	**Volume 1 of 3** **Section 9: Contract Forms, Appendix 1 - Terms and Procedures of Payment** In the event that the Employer fails to make any payment on its respective due date, the Employer shall pay to the Contractor interest on the amount of such delayed payment at the following rate: For foreign currency payments, the interest rate is LIBOR; and for local currency payments, Central Bank rate (Published by Bangladesh Bank in its website). We have heard that the US dollar LIBOR rate will be cancelled to use next year. please provide other options to caculate the delayed foreign currency payment interest.	Please follow the bidding documents.	N.
44.	**Volume 1 of 3** **Section 9: Contract Forms, Appendix 1 - Terms and Procedures of Payment.** Local Currency Portion: The local currency portion of the contract price will be paid as per PGCB's financial and account rules or any other account rules in force and adopted by the Employer. Please instruct what is the content of the PGCB's financial and account rules.	Please follow the bidding documents.	N.
45.	**Volume 1 of 3** **Section 9: Contract Forms, Appendix 3-Insurance Requirements,** (b) Installation All Risks Insurance Deductible Limits is NIL	Please follow the bidding documents.	N.

	According to the operation management of Installation All Risks Insurance, reasonable deductibles should be set up. It may affect insurance rates.		
46.	**General** We understand the land for construction is already acquired by PGCB and PGCB will provide contractor encumbrance free land during award of contract. Any disputes arising against land acquisition of land provided by PGCB during construction of works will be taken care by PGCB. Kindly confirm.	Your understanding is correct.	N
47.	**General** We understand that PGCB shall provide water and electricity for construction works for free of cost at each sub-station location to Bidder. Kindly confirm whether our understanding is correct.	The Contractor shall have to arrange water and electricity for construction works at their own cost at each substation location.	N
48.	**General** If the lockdown is imposed due to any epidemic/pandemic situation in employer's country or contractor's country, in such cases whether contractor is eligible to get (i) a time extension to complete the works and (ii) reimbursement to cost implication incurring due to that?	Please follow the bidding documents.	N
49.	**General** Kindly confirm the incoming line availability for commissioning of new substations. Also, If commissioning of substations is delayed due to factors which are not attributable to contractor, Kindly confirm whether Taking over (TOC) and DLP can start within next 3 months of completion of facilities.	Please follow the bidding documents.	N
50.	**Section 3: Evaluation and Qualification Criteria, 2.5.1 D) 1.** "Satisfactory Type test reports as per clause 1.3 of Section 6: Employers Requirements of volume 1 of 3 of the bidding document for GIS with similar or higher rating (KV, rated current, short circuit current)."	Your understanding is not correct. Bidder has to submit the type test report for each voltage level separately as per bidding requirement. For 400kV GIS- Type test report of Similar rating (kV, Rated	N

	We understand that as per the qualification requirement indicated in clause no 2.5.1 D) 1 of Section 3, bidder has to submit the type test report of highest rating equipment only. Please confirm if our understanding is correct.	Current, Short Circuit Current) GIS shall be considered as acceptable. For 230kV GIS- Type test report of Similar rating (kV, Rated Current, Short Circuit Current) GIS shall be considered as acceptable.	
51.	**Section 6: Employers Re-quirements** **1.3 Type Test Requirements** **Type test certificates of GIS, Circuit Breaker and Lightning Arrester shall be issued by STL member testing laboratories.** We request to accept the Type test certificates of GIS, Circuit Breaker and Lightning Arrester, issued by any STL member testing laboratory or from manufacturer's own testing laboratory or independent testing laboratory and test carried out at manufacturer's own testing laboratory or independent testing laboratory must have been witnessed and certified by a representative from STL member testing laboratory.	Please follow the bidding documents.	N
	Volume-2, 3 of 3		
52.	- **General** Kindly provide the Soil Electrical Resistivity Parameters / Plot Size and ERT Data for the proposed SS.	Please follow the bidding documents.	N
53.	Schedule B1,1A7, 400kV Busbar extension Module "As per referred BPS line item, only 2 sets of Busbar extension module are specified. However, as per bidder's understanding, for double busbar scheme with Bus-sectionalizer, 4 sets of Busbar extension modules are required to provide extension facility on both the sides. Please confirm whether bidder understanding is in order & issue suitable amendments."	Your understanding is not correct. Two sets of busbar extension modules shall be provided. One set shall be installed at one end of double busbar and another set shall be installed at the other end of double busbar of the 400kV GIS. One set shall comprise extension interface for both the busbars at one end in case of double busbar arrangement.	N
54.	Schedule B1,1A9, 390kV Surge arrester "As per Layout (Drg no. PGCB/DESIGN/2021/KALIGANJ/E01) & SLD (Drg no. PGCB/DESIGN/2021/KALIGANJ/E02), We understand that the quantity of	Your understanding is not correct. 400kV Ghorashal New-1 & Ghorashal New- 2 feeders will be initially charged at 230 kV and terminated to 230kV GIS. So 400kV AIS LAs for two 400kV spare line bays shall not be installed initially. Hence, the total	N

	390kV surge arrestors required are as follows: a. 400kV Feeder Lines - 24 Nos. (18 nos. for Present Bays + 6 nos. for Spare Bays) b. 400kV Transformer Bays - 9 Nos. (6 nos. for Present Bays + 3 nos. for Spare Bays) However as per referred BPS line item, the quantity is mentioned as 27 nos. Please Clarify the actual requirement. "	quantity of 400kV AIS LA shall be 27 nos. as per tender requirement.	
55.	Schedule B1,1A11, 400kV Wave trap Phase to phase coupling is required as per Volume-2, Chapter 15, Power Line carrier, Teleprotection and Communication Equipment, Clause 15.1.3.(b). However as per Layout (Drg no. PGCB/DESIGN/2021/KALIGANJ/E01) and Telecommunication Diagram (PGCB_DESIGN_2021_KALIGANJ_E18), wave trap is indicated in Y-phase alone. Please clarify the actual requirement.	Wave trap shall be installed in Y-phase of each circuit.	N
56.	Volume-2, Chapter 19, Telecommunication Diagram, PGCB_DESIGN_2021_KALIGANJ_E18 As per referred Diagram, We understand that Remote end side wave traps are also under present scope of work. However, as per BPS line item no. 1A11 only 8 Nos. of wave trap are mentioned for Kaliganj end. Please check and issue suitable amendments, if remote end wave traps are also under the scope of this package.	Your understanding is not correct. Please follow the bidding document.	N
57.	Schedule B1,1B2.ii, CSD for 230kV Feeder Bay Circuit breaker As per VOLUME-2, Chapter 1, Scope of work, Clause 3.3.9.4.1 & 3.3.9.4.2, CSD, Controlled switching Device shall be supplied for 230kV circuit breaker of transformer bay. However the same is not mentioned in referred clause of BPS. Please clarify the actual requirement.	CSD, Controlled switching Device, shall be supplied for 400kV circuit breaker only.	
58.	Schedule B1,1A2.iii, CSD for 400kV Feeder Bay Circuit breaker As per VOLUME-2, Chapter 1,Scope of work, Clause 3.3.9.4.1 & 3.3.9.4.2, CSD, Controlled switching Device shall be supplied for 400kV circuit breaker of Transformer & Reactor bay only. However as per referred clause CSD is required for feeder bay circuit breaker as well. Please clarify the actual requirement.	CSD shall be provided for all 400kV line bay CB and 400kV transformer bay CB.	N

59.	Schedule B1,1B6, 230kV Busbar extension Module "As per referred BPS line item, only 2 sets of Busbar extension module are specified. However, as per bidder's understanding, for double busbar scheme with Bus-sectionalizer, 4 sets of Busbar extension modules are required to provide extension facility on both the sides. Please confirm whether bidder understanding is in order & issue suitable amendments."	Your understanding is not correct. Two sets of busbar extension modules shall be provided. One set shall be installed at one end of double busbar and another set shall be installed at the other end of double busbar of the 230kV GIS. One set shall comprise extension interface for both the busbars at one end in case of double busbar arrangement.	N
60.	Schedule B1,1B7,198kV Surge arrestor "As per Layout (Drg no. PGCB/DESIGN/2021/KALIGANJ/E01) & SLD (Drg no. PGCB/DESIGN/2021/KALIGANJ/E03), We understand that the quantity of 198kV surge arrestors required are as follows: a. 230kV Feeder Lines - 30 Nos. (6 nos. for Present Bays + 4 nos. for Spare Bays) b. 230kV Transformer Bays - 9 Nos. (6 nos. for Present Bays + 3 nos. for Spare Bays) Based on the above, we presume that 198kV Surge arrestor shall be supplied for both present and spare bays in line with the referred BPS line item. Please confirm our understanding."	198kV Surge arrester shall be supplied for both present and spare bays in line with the BPS line item Schedule B1,1B7 & 1H3 iii. Requirement of 198kV surge arresters are as follows: a. 230kV Feeder Lines - 30 Nos. (18 nos. for Present Bays + 12 nos. for furnished Spare Bays) b. 230kV Transformer Bays - 9 Nos. (6 nos. for Present Bays + 3 nos. for furnished Spare Bays) c. At the interfacing of overhead line and underground cable for 400kV Ghorashal New-1 & Ghorashal New- 2 feeders (presently it will be charged at 230 kV) - 6nos.	N
61.	Schedule B1,1D1.x,36kV AIS switchgear As per VOLUME-2, Chapter 1, Scope of work & SLD (Drg no. PGCB/DESIGN/2021/KALIGANJ/E02), we presume that tertiary loading is required for both the Auto-transformers. Hence 36kV AIS Switchgears for Unloaded tertiary Auto-Transformer Bays will not be applicable for the present scope of work. Please confirm whether bidder understanding is in order.	Please follow the bidding document. Tertiary loading is required for both the Auto-transformers to be supplied under the present scope. 36kV AIS Switchgears for Unloaded tertiary Auto-Transformer Bays shall also be installed under the present scope for the Auto-Transformer to be installed in future.	N
62.	"Schedule B1,1H3, 230kV XLPE Cable & Volume-2, Chapter 19, Layout (Drg. No. PGCB/DESIGN/2021/KALIGANJ/E02)" "As per referred line item of BPS, Layout & As per VOLUME-2, Chapter 1,	Your understanding is correct.	N

	Scope of work, Clause 1.2.1.2, we understand that 230kV XLPE power cable to be used for the connection of 230kV Ghorashal new line 1 & 2 to 400kV Ghorashal New Future 1 & 2 line bays. Please confirm whether bidder understanding is in order."		
63.	"Schedule B1,1H1, 420kV Gas Insulated Line & Schedule B1,1H2, 245kV Gas Insulated Line" We presume that the quantity mentioned in the referred line item is inclusive of both Indoor & outdoor Gas insulated busducts. Please confirm.	GIL length shall be counted from the end of the last GIS equipment toward line entry to the bottom of the bushing at the GIL terminal for each phase of each circuit.	Y
64.	"VOLUME-2, Chapter 1, Scope of work, Clause 1.2.1 & VOLUME-3,1. Schedule A : Scope of Work, Clause 1.1.1" "As per Volume-2, clause-1.2.1, it is mentioned that the scope involves, 400/230kV GIS substation & associated three (3) buildings and civil works. As per Volume-2, Clause-1.2.1.13, it is mentioned that ""construction of 400kV, 230kV GIS and control buildings, and Fire suppression water feeding (CAFS) & Emergency Aux. Power DG building."" As per Volume-3, clause-1.1.1, it is mentioned that Complete civil works and facilities for two new GIS building for 400kV & 230 kV GIS and control building separately. Also as per the same clause local control kiosks are mentioned. As per Layout drawing, 400kV GIS Hall, 230kV GIS Hall, DG room and Transformer Fire suppression CAF feeding room are shown. As the requirements are contradicting, we understand only the following buildings shall be in the scope of this package as per BPS schedule-B4: a) 420kV Indoor GIS Building including Protection & Metering Room, Control Room, 110V Battery Room, 48 Battery Room and Warehouse b) 245kV Indoor GIS Building including Protection & Metering Room &110V Battery Room	Please follow the bidding document.	N

	c) Emergency Aux. power Room & Water feeding Room (CAF -cum-DG room) Please confirm."		
65.	VOLUME-2, Chapter 1,Scope of work, Clause 1.2. As per referred drawing, it is mentioned that " Earthmat is to be laid in substation area (including spare bays). In this regard, we understand that Main Earth mat shall be considered only for present scope 400/220kV system. We are not envisaging the main earth mat in the future substation area. Please confirm.	Earthmat is to be laid in substation area considering the present scope as well as the future bay provision of the substation.	N
66.	VOLUME-2, Chapter 1,Scope of work, Clause 1.4.1, Short time withstand current for 230kV As per referred clause, Symmetrical short-circuit current for 230kV is mentioned is 63kA for 3 sec. We would like to inform that Manufacturers are having 230kV GIS type tested up to 50kA for 3sec only. In this regard, we request PGCB to recheck the requirement & propose suitable amendments by changing the short time withstand current to 50kA for 3sec.	Please follow the bidding document.	N
67.	VOLUME-2, Chapter 1,Scope of work, Clause 1.4.3 As per referred clause, Creepage distance for proposed station is given as 31mm/kV. However in various parts of the specification (Transformer ,GIS etc.) creepage distance is indicated as 25mm/kV. Based on above discrepancy we are considering 31mm/kV for all equipments as applicable. Please confirm.	Creepage distance shall be 31mm/kV for all the equipment.	N
68.	VOLUME-2, Chapter 3, HV Switchgear and Outdoor equipment, Clause 1.2.1.1,1.2.1.2 & 3.3.1.45.3 As per referred clause, we understand that one interface module with double isolator & earth switch in-between at both ends need to be provided for future extension while as per clause 3.3.1.45.3, one interface module with isolating link also needs to be provided. We understand that only double isolator & earth switch needs to be provided, as disconnector will provide the function of isolating link. Please confirm whether bidder understanding is in order.	Busbar extension/interface module at both ends of GIS bus shall be comprised with sufficient buffer gas compartments and appropriate disconnect facilities for extensions without de-energization of complete GIS.	Y

69.	VOLUME-3, 1.2.2.1 GIS Switchgear 230kV , SI No.1.2.12.1.2 As per referred line item, Digital type density monitor to be supplied for CB. Please specify what does "digital" density monitor means. Is it a density monitor with RS 485 signal output (or) just conventional temperature compensated density monitors with two alarms levels?	Please follow the bidding document.	N
70.	VOLUME-2, Chapter 3, HV Switchgear and Outdoor equipment ,Clause 3.3.13.14 "As per referred clause, We would like to clarify following points : 1) GIS manufacturer can not supply neutral current transformer for power transformer 2) NCT supplied by GIS manufacturer can not be used for transformer Request client to kindly accept the different manufacturer for NCT and GIS system."	Please follow the bidding document.	N
71.	VOLUME-2, Chapter 3, HV Switchgear and Outdoor equipment ,Appendix : Gas Insulated Switchgear, Point 9 "As per referred Diagram, Extension module comprising of Double disconnector with earth switch in between is not shown; while as per clause 1.2.1.1,1.2.1.2 the same is required. Please check & clarify the requirement."	Busbar extension/interface module at both ends of GIS bus shall be comprised with sufficient buffer gas compartments and appropriate disconnect facilities for extensions without de-energization of complete GIS.	Y
72.	VOLUME-2, Chapter 3, HV Switchgear and Outdoor equipment , Clause 3.3.14.7 As per referred clause, Voltage transformers on feeder circuits shall be located on the feeder side of the circuit breaker outside the protected zone covered by the busbar protection. However, as per BPS we understand that only AIS type Capacitive voltage transformer and AIS type Surge arrestor for all the bays are in present scope of supply. Please confirm whether bidder understanding is in order.	Please read the bidding document carefully.	N
73.	VOLUME-2, Chapter 3, HV Switchgear and Outdoor equipment, Clause No.3.3.1.29 As per referred clause, "Portable scissor lift shall be provided for access of distant portion of GIS installation." However, there is no line item in the BoQ for the same. Please check and add a separate line item in the BoQ if required.	Scissor lift is already included in item no. 1S1 of BPS.	N

74.	VOLUME-2, Chapter 3, HV Switchgear and Outdoor equipment, Clause No.3.3.1.22 As per referred clause, "The GIS shall be designed, so as to take care of the VFT over voltages generated as a result of pre-strikes and re-strikes during isolator operation. Maximum VFT over voltages peak shall not be higher than rated lightning impulse withstand voltage (LIWV) of the equipment. Necessary measures shall be under taken by GIS manufacturer to restrict maximum VFT over voltages lower than the LIWV. Manufacturer shall submit the study report of VFTO generated for GIS installation". However, as per clause no. 3.3.3.1.7.1 Study report of VFTO generated for GIS installation for 400 kV and above only. In this regard, we understand that VFTO study report is not required for 230kV GIS. Please confirm.	Your understanding is correct.	N
75.	VOLUME-2, Chapter 5, Protection , Metering & Control and Substation Automation System, Clause 5.9.1 "As per referred clause , we understand that Differential protection with in built distance protection needs to be provided for Overhead transmission line. Please confirm whether bidder understanding is in order."	Your understanding is correct.	N
76.	Single line diagram, Doc no. PGCB/DESIGN/2021/KALIGANJ/E02 "As per VOLUME-2, Chapter 1, Scope of work, Clause 1.2, We understand that two number of reactor bay as future provision need to be kept in 400kV GIS, while as per referred SLD only line bays are shown as future provision. Please check & clarify."	Future bay provisions shall be as per Single line diagram provided in volume 2 of the bidding document.	N
77.	Remote End CRP & SAS "Please clarify the following: a) Please confirm whether remote end line differential protection relays are in the scope of this package. b) If the remote end relays are already available, please confirm the make & model number c) If the remote end relays are not available, we presume only loose supply of remote end relays are to be supplied under this scope. d) Any installation on to the existing C&R panels, retrofitting & augmentation of the existing SAS are not considered in the scope of works.	a) Relay Panels at remote end (i.e. at existing Ghorasal substation) of Ghorasal Old 1 & 2 lines and Relay Panels at remote end (i.e. at existing Tongi Substation) of Tongi Old 1 & 2 lines shall be replaced. b) Please follow the bidding documents. c) Please follow the bidding documents. d) Please follow the bidding documents. e) Existing SAS augmentation & retrofitting are not envisaged.	Y

	e) If SAS Augmentation & retrofitting are required, please confirm the make & model number of the existing SAS."		
78.	General We presume that DSLP, Lighting, Cable trench & other associated works are required to be executed only for the present scope of works and the same are not required for future bays and future areas. Please confirm.	DSLP is required to be executed only for the present scope of works and the same is not required for future bays and future areas. But cable trench and lighting are required to be executed for both the present scope of works and the future bays and future areas.	N
79.	Transmission Line length "Please specify the following transmission line length from proposed Kaliganj substation : a) Kalikoir tapping point to Kaliganj b) Kaliakoir 1 & 2 c) Bhulta 1 & 2 d) Purbachal 1 & 2 e) Ghorashal new 1 & 2 f) Ghorashal old 1 & 2 g) Tongi old 1 & 2"	Transmission Line length may be provided during the execution stage as per requirement.	N
80.	Volume-2, Section-3, Clause No.3.3.15.3 As per referred clause, "All bushings shall be Resin Impregnated Paper (RIP) bushings with silicon composite housing.". However, Normally SF6 to air bushing shall be provided for GIS which is universally acceptable by all utilities. We request PGCB to accept the same in place of RIP bushings.	Please follow the bidding documents.	N
81.	Volume-2, Section-3, Clause No. 3.3.15.14 "As per referred clause, "" To reduce the effect of solar gain all SF6 or other types of insulated bus ducts exposed to direct sunlight shall be covered with metallic sun shielding, for part of outdoor installation."" In this regard, if Bidder proves that the temperature rise is within the limits either by calculation (or) based on the result of simulation of temperature rise due to solar flux, then Sunshielding will not be provided. Please confirm whether Bidder's understanding is in order."	Please follow the bidding documents.	N

82.	Volume-2, Section-3, Clause No.3.3.29 We understand that the type test need not be repeated for 400kV & 230kV GIS, if bidder can substantiate with valid type test reports of similar or higher rated equipment (kV, rated current, short circuit current) issued by any STL laboratory or manufacturer's own testing laboratory or independent testing laboratory witnessed and certified by a representative from STL member laboratory. Please confirm whether bidder's understanding is in order.	Please follow the bidding documents.	N
83.	"Volume-2, Chapter 8, Appendix Batteries, Chargers and DC Switchgear, SI No. 6" As per referred clause, 48V Battery charger capacity is indicated as 150 Ah while as per BPS line item no. 1K2, the same is indicated as 200 Ah. Please clarify the actual requirement.	The requirement is as per BPS line item.	N
84.	Volume-2, Section-3, Clause No.3.4.3.16 - Portable Lightning Arrester Diagnostic System (PLADS) "As per referred clause, ""Contractor shall provide two PLADS (one per S/S) to diagnose of the aging state of lightning arrester for condition test and MRE."" As there is only one substation in the present scope, we presume that One PLADS is sufficient for the substation under this package. Also, there is no line item in the BoQ for the above ite,. Please check and include the same in the BPS, if required."	The requirement is as per BPS.	N
85.	"Volume-2, Section-3, Clause No.3.3.7.15 - Partial Discharge & 1A8 of BPS-Standalone Partial Discharge measurement and analyzer system for Complete GIS" "As per referred clauses of technical specification & BPS, we understand that one portable PD measuring and analyser device shall be provided as common for both 400kV & 230kV GIS. Online PD Monitoring device is not required for this package. Please confirm whether Bidder's understanding is in order."	Your understanding is correct.	N

86.	Volume-2, Section-3, Clause No. 3.3.1.43. UHF sensors for PD detection: Adequate number of UHF sensors shall be provided in the offered GIS for detection of Partial discharge (of 5 pC and above) as per IEC 60270. Volume-2, Section-3, Clause No. 3.3.7.15.1. Appropriate numbers of sensors (PD antennas) inside the GIS shall be installed. Our understanding is that UHF sensors shall be used for PD detection. Please confirm whether Bidder's understanding is in order."	Your understanding is correct. Adequate number of UHF sensors shall be provided inside the 400kV & 230kV GIS offered for detection of Partial discharge (of 5 pC and above) as per IEC 60270.	N
87.	Volume-2, Chapter 8, Clause No.8.8 - Insulation Monitoring System "As per referred clause, we understand that Insulation Monitoring System need to be supplied under present scope of work while same is not given in BPS. If required, please add a separate line item in the price schedule."	The requirement is as per Bid Price Schedule (BPS).	N
88.	Volume-2, Chapter 7, Clause No.7.7.2 - Earthing Design Requirement As per referred clause, It is mentioned that " The earthing system shall be sized to ensure the temperature rise is limited so as not to cause failure of the electrode, conductor or joints. The maximum design or operating temperature for bare copper and joints is 300 °C. ". However, as per IEEE 80 Table-I, Fusing temperature for copper is 1084 °C. We request PGCB to accept the same as per IEEE 80.	Please follow bidding documents.	N
89.	Volume-2, Chapter 17, Annex 17B.2, HV Cable types used "As per referred clause, Min. Short circuit rating of metallic sheath for 230kV cable is indicated as 63kA for 3sec. As the requirement is higher for 230kV level, we request PGCB to recheck the requirement & propose suitable amendments with regards to both STC & its duration."	Please follow bidding documents.	N
90.	Auto-Transformer : Tap Step As per Volume-3, 1.2.4 D , Transformers, Sl.no. 2.4.11 Tapping step/Size of Each tapping step is given as 1.25. However as per volume-2, clause 4.7.2.2.1, the same is given as "high voltage winding in 17 steps of approximately 5/8 (0.625) % each". As the requirements are contradicting, please clarify the actual requirement.	Tapping step/size of each tapping step shall be 1.25%.	N
91.	Volume-2, Section-4 - Clause No. 4.16.11 Oil Storage (Tanks and Bags)	Please follow the bidding documents.	N

	"a) As per referred clause, ""the Contractor shall supply the first filling of transformer oil. It is envisaged that the oil will be supplied to site in 200kg drums and filtered by use of the plant described in the preceding paragraph into a storage tank prior to transfer again via filter plant into the transformer."" In this regard, we shall provide the first filling of transformer oil to site in 200kg. However, no separate storage tank shall be provided. If any separate storage tank is required, please add a separate line item in the BoQ. b) Further, as per referred clause, ""Contractor shall also provide a rubber oil bag (pillow type) for MRE at Kaliganj substation, which shall be able to contain the oil capacity more than the oil quantity of the biggest transformer"". However, no separate line item in the price schedule for the same is given. If required, please add a separate line item in the price schedule."		
92.	Volume-3, Price schedule- B1 - Item No. 1E4 We understand that the Power transformer fire protection for all new GIS stations shall be compressed Air foam system (CAFS) only. We do not envisage any water spray system & water mist fire protection system in this contract as mentioned in the technical specification,Volume-2, Chapter 4, clause no. 4.15.3 & 4.15.4. Please confirm whether bidder's understanding is in order.	Your understanding is correct.	N
93.	"Volume-2, Section-4 - Clause No. 4.17.1.1 & 4.17.2.8" "As per referred clause, ""The following type tests shall be conducted on the first power transformer of in a single FAT schedule:"". Further, as per clause no. 4.17.2.8 ""The following tests shall be performed on each unit in accordance with IEC Standards 60076-1."" However, as per Vol.1, Section-6, Clause No. 1.3 , type test certificates of the equipment of similar or higher specifications (voltage & capacity) shall be provided which shall be issued by STL member testing laboratories or from manufacturer's own testing laboratory or independent testing laboratory. Test carried out at manufacturer's own testing laboratory or independent testing laboratory must have been witnessed and certified by a representative from STL member testing laboratory. In this regard, Valid type test reports shall be submitted as per Vol.1, Section-6. Repetition of type tests are not envisaged. Please confirm."	Please follow bidding documents.	N
94.	Volume-2, Section-4 - Clause No. 4.17.1.1 & 4.17.1.3 - Type test & Special	Please follow bidding documents.	N

	Tests "As per referred clause, Type test shall be conducted on the first transformer in a single FAT. However, as per clause no. 4.17.2.8, Tests shall be performed on each unit in accordance with IEC Standards 60076-1. As there are discrepancies in the above clauses please clarify the following: a) As per clause no. 4.17.1.3 (Special test), it is not mentioned that whether special test need to be conducted on first transformer (or) on each unit. In this regard, we propose that type test & special test of transformer shall be conducted on only first unit if required. Please accept the same. b) Further, as per Vol.1, section-6, Only type test report need to be submitted for similar or higher specification. In this regard, please clarify whether type test & special tests for transformer need to be re-conducted during detail engineering (or) only test reports are sufficient?"		
95.	"Volume-2, Section-17 - Clause No. 17B.10.8 Corrugated Seamless Aluminium Sheath" As per referred clause, "Metallic sheath shall consist of the extruded corrugated seamless aluminium sheath" In this regard, proposed metallic sheath shall consist of the seam-welded aluminium sheath instead of extruded corrugated seamless aluminium sheath as the same is universally acceptable and accepted in earlier PGCB projects also. We request PGCB to accept both Seamless & Seam-welded Aluminium sheaths.	Your request cannot be accepted. Please follow bidding documents.	N
96.	Volume-3 - Technical data sheet, clause no.1.2.2.3, 230kV XLPE Cable - Type of curing (dry) – VCV We request PGCB to accept cables manufactured using Catenary continuous vulcanizing (CCV) process also. Please confirm.	Your request cannot be accepted. Please follow bidding documents.	N
97.	Volume-3 - Technical data sheet, clause no.1.2.2.3, 230kV XLPE Cable - Longitudinal water tightness & Radial moister barrier "As per referred data sheet, Following two type of layers are asked for 230kV Power cable. a) Longitudinal water tightness	Please follow bidding documents.	N

	b) Radial moister barrier However, these layers are not mentioned in the technical specification, section-17, Clause no. 17.10 Cable Specification. In this regard, please check and confirm the requirement of above layers."		
98.	"Volume-2, Section-14 - Clause No.14.4 General Requirements & 14.6.1 Vol.3 - Technical data sheet , clause no. 1.2.5.43 Fibre Optic Multiplexer Equipment" "As per the referred clause ""optical STM-1 aggregate interfaces on 155Mbit/s shall be available."" Further, as per clause no. 14.6.1, The following SDH interfaces shall be available: i) STM-1/4 for 132kV & lower voltage level ii) STM-4/16 for 230kV voltage level iii) STM-16 for 400kV voltage level As per data sheet, Transmission capacity shall be STM-4. In this regard, please check and confirm the transmission capacity for 400kV & 230kV Lines."	The following SDH interfaces shall be available: i) STM-4 for 132kV voltage level ii) STM-4/16 for 230kV voltage level iii) STM-16 for 400kV voltage level	Y
99.	Tender Drawings - Telecommunication Diagram for package-5 (Drg. No.PGCB_DESIGN_2021_KALIGANJ_E18) As per referred drawing, we understand that FOTE interfaces are not required for 2# spare line bays in 400kV & 230kV. Please confirm.	Please follow bidding documents.	N
100.	"Technical Specification –Section-4, cl.no.4.7.2 On-Load Tap Changers" "As per referred clause, it is mentioned that "" The OLTC shall be installed inside the main tank. Current making and breaking switches [i.e., diverter switches] associated with the tap selectors or otherwise where combined with tap selectors shall be contained in a tank in which the head of oil is maintained by means of completely independent of that on the transformer itself for Oil type OLTC and the same [i.e., diverter switches] shall be in vacuum for Vacuum type OLTC. Details of maintaining oil separation, oil levels, detection of oil surges and provision of alarm or trip contacts will be dependent on the design of tap-changer and be to the approval of the Engineer.""	Please follow bidding documents.	N

	However , we shall provide the same as follows: The position of OLTC is inside the main tank but inside a separate chamber. Hence, Oil in OLTC is separated from the main tank Oil. Please give your acceptance."		
101.	Technical Specification –Section 4. Power Transformers, cl.no.4.3.6.2 Calculations and Tests "In the referred clause, it is mentioned that ""Evidence shall be submitted with the Bid as to the extent to which the Manufacturer has proved, or is able to prove, by test, or by calculation, the ability of the specified Transformers to withstand short circuit"". We understand that the dynamic short circuit test report as per Vol.1, Section-6, clause no. 1.3 shall be submitted along with the bid. The calculation shall be submitted during design review after award of contract. Please confirm whether bidder's understanding is in order."	Please follow bidding documents.	N
102.	Volume -2, Section -6 ,Cl.no.6.12.4.3, Trays and Racks As mentioned in referred clause, cable trays are to be perforated. Kindly confirm whether ladder type cable trays shall be used instead of perforated trays.	Your request cannot be accepted. Please follow bidding documents.	N
103.	Volume -2, Section -6, Cl.no.6.12, Cables Supported on Racks, Trays, Etc.: Cable laying in trenches We propose to lay cables on support angles in outdoor trenches. For control building, cables shall be laid in trays. Please confirm.	Please follow bidding documents.	N
104.	Volume -2, Technical Specification – 7. Earthing System and Lightning Protection, cl.no.7.7.8 As per referred clause, we request PGCB to furnish the X/R ratio which need to considered for Earthing design of all new substations, as the same is not mentioned in the referred specification.	It will be provided during detailed design and execution stage.	N
105.	Technical Specification – 7. Earthing System and Lightning Protection, cl.no.7.8.9 As per referred clause, we understand that when compound wall is used as property fence, then bidder shall adopt separately earthed fence. Please confirm	Please follow bidding documents.	N

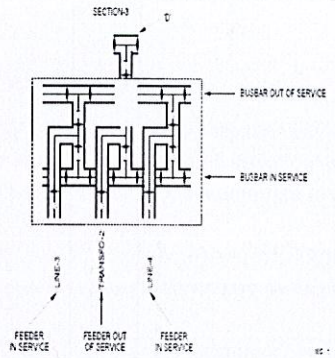
106.	Insulator Please confirm whether bidder can propose long rod polymer insulator instead of disc insulator?	Please follow bidding documents.	N
107.	Dismantling work We are not envisaging any dismantling work in New & extension stations. Please confirm.	Please follow bidding documents.	N
108.	"Vol.3 - Technical data sheet ,1.2.1 A: GIS Switchgear 400kV, Sl No. 2-29-16, Page No. 52 & 1.2.2 B: GIS Switchgear 230kV, Sl No. 2.4.14, Page No. 88" "As per referred clause, IP Protection of Weatherproof, corrosion resistance enclosure is as follow: a) 400kV - IP 55 b) 230kV - IP 55 In this regard, please check and confirm whether standard solution as specified below can be acceptable. Regarding indoor GIS: Enclosure (Pressure vessel: IP67 for both 400kV and 230kV GIS. Density monitor: IP 65 for both 400kV and 230kV GIS. Mechanism drive box of DS/ES/FES: IP43 for both 400kV and 230kV GIS. Mechanism drive box of CB: IP43 for 400kV / IP33 for 230kV GIS. LCC: IP4X for both 400kV and 230kV GIS."	Please follow bidding documents.	N
109.	Vol.3 - Section-A, Scope of work, Item No. 1B1, Sl No. III As per referred clause, 245kV, 63kA/3s, three phase three position disconnector integrated with earth switch complete with motor operating mechanism is mentioned. However, we propose separate disconnector and Earthing switch for 230kV GIS based on earlier PGCB projects. Please confirm acceptance.	Separate disconnector and earthing switch are acceptable.	N

110.	General Please furnish the standard GA drawings (Plan & Section) for 33kV switchyard.	Please follow bidding documents.	N
111.	"Volume 2 of 3 ADB DWZTGEP P5 Kaliganj GIS" "After checking site preliminary arrangement by the bidder, the reserved space cannot be fully meet requirements for future extention of 230/400kV line bay. Please clarify whether the layout and size of the building can be adjusted and optimized."	Please follow the bidding document. The space for future extension bays shall be finalized during execution stage.	N
112.	"Volume 2 of 3 ADB DWZTGEP P5 Kaliganj GIS" "The rated symmetrical short-circuit current of 230kV equipmnet is 63kA/3s. However, according to the information that the bidder has learned, most manufacturers only have 50kA/3s products. Please clarify whether the 50kA/3s meets the needs of the power systems."	Please follow bidding documents.	N
113.	"Volume 2 of 3 ADB DWZTGEP P5 Kaliganj GIS" Is the line protection cabinet of the opposite substation within the EPC scope?	Please follow bidding documents.	N
114.	PGCB_DESIGN_2021_KALIGANJ_E18 : Telecommunication Diagram "1. In the telecommunication diagram, there are two OPGW lines connected to Ghorasal 400kV SS, but in the Single Line Diagram, Ghorasal-1&2 are spare lines in future , Please clarify . 2. Equipment in existing substations at remote end is purchased in this project, but installation work is not included. Please comfirm. 3. To confirm the configuration of the optical booster, we need the overhead line	1. In case of each double circuit line there shall have one OPGW line. 2. Please follow the bidding documents carefully. Installation work at remote end is included in the scope of this project. 3. Please follow the bidding documents. The length of OPGW may be provided during execution stage as per requirements.	N

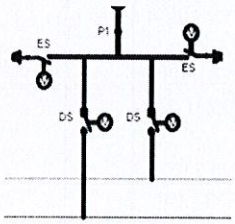
	Contractors supply the length of OPGW . The required length of OPGW is as follows: Kalikoir-Kaliganj-Bhulta, Ghorashal-Kaligan-Tongi. Please confirm. "		
115.	"Volume 3 of 3 DWZTGEP P5 Kaliganj GIS" Please explain the route detail of 1400m XLPE HV Power cable trench in LAY-OUT.	Please follow the bidding documents.	N
116.	"Volume 2 of 3 Technical Specification -3 HV Switchgear and Outdoor Equipment 3.4.3.2.1" "Volume 3 of 3 1.2.1.5 Post Insulator 400kV" "Volume 2 : 3.4.3.2.1 Post insulators should be solid core type post insulators, made of porcelain, for outdoor installation in AC system. While in Volume 3: 1.2.1.5 Post Insulator 400kV , it is mentioned the Insulator shall be Composite type , but the IEC 60168 wherein is suitable to Porcelain In-sulator. Please clarify whether the Insulator is Composite type, and the IEC 60168 shall be IEC 62231"	Post insulator shall be porcelain type.	Y
117.	"Volume 2 of 3 2.7 Cleaning and Painting (p.2-9 ~ 2-14) '2.7.2 Schedules for Indoor Surfaces Finishes 2.7.3 Schedules for Outdoor Surfaces Finishes 3.3.1 General Requirement (p.3-16) ---- 3.3.1.57 Painting: All enclosures and structures, panels supplied by Contractor shall be painted (or galvanized) as per manufacturer's procedure." "As per 3.3.1.57 / Volume 2 of 3, Painting spec. shall be applied same as in the previous PGCB project, Mirsharai 230kV GIS Substation. • Minimum dry film thickness (D.F.T) of external surface ü For GIS/GIB enclosure : ≥120µm	Please follow the bidding documents.	N

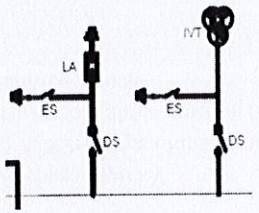
	ü For LCC and operating mechanism box : ≥60μm ü For steel structure such as base, platform, etc. : Galvanizing as per ASTM A123"		
118.	"Volume 2 of 3 2.9 Environmental Protection & Tropicalisation (p.2-16) 2.9.1 Sunshades need not be provided on outdoor plant or equipment provided the Manufacturer could satisfy the Engineer that the materials employed will not be adversely affected or the temperature rise due to internal heat generation plus that due to solar radiation will not exceed the equipment design temperature. However, equipment requiring manual operation shall be provided with sun-shades to ensure that surface temperatures will not exceed 50°C. 3.3.15 Bushing and Feeder and Transformer Connections (p.3-48) 3.3.15.14 To reduce the effect of solar gain all SF6 or other types of insulated bus ducts exposed to direct sunlight shall be covered with metallic sun shielding, for part of outdoor installation. 3.3.17 Bus bar (GIB) (p.3-49) 3.3.17.2 To reduce the effect of solar gain, all SF6 insulated bus duct exposed to direct sunlight may be covered with metallic sun shielding as per the Owner's request." Sunshade shall be excluded in the same way as the previous PGCB project, based on the result of simulation of temperature rise due to solar flux. In addition, GIB also does not require manual operation.	Please follow bidding documents.	N
119.	"Volume 2 of 3 2.14 General Welding Requirements (p.2-26)----2.14.16 A minimum of 10% of all butt welds on all classifications of work shall be radiographically examined, unless otherwise agreed with the Engi-neer. 16.11 Specific Requirements for Tests at Manufacturers' Factories (p.16-10)--- 16.11.1 Pressure Vessles	Please follow bidding documents.	N

	b) An approved method of radiographic or other non-destructive testing shall be used for proving all welding, at all positions of possible high stress concentration, such as large branch welds, and their vicinities after all heat treatment is completed. This shall be done whatever the programme of non-destructive testing before heat treatment. c) Hydrostatic test shall be conducted in accordance with BS 5500." Liquid penetrant test (PT) as non-destructive testing shall be performed for welding part. Hydrostatic pressure (PT) is recommended in IEC 62271-203 clause 6.103.3.		
120.	"Volume 2 of 3 3.3.2 Availability for Maintenance, Repair, Extensions, Testing (p.3-16)----3.3.2. Availability for Maintenance, Repair, Extensions, Testing Appendix : Gas Insulated Switchgear (p.3-109) -----[GIS SLD for MRE & Testing Scheme for Double Busbar] The Drawing is tentative & is for Tender Purpose Only. Details shall be finalized during Execution. Volume 3 of 3 5. Schedule E: Technical Particulars and Guarantees 1.2.2.1 GIS Switchgear 230 kV (p.76)----1.2.1 Type of busbars : Double, sectionalize (for 230kV)" "We would like to comply with IEC 62271-203 (Annex F). Buffer compartment shall be arranged between one busbar DS and adjacent busbar DS without passive busbar as below.	Please follow bidding documents.	N

	 In this arrangement, the removal of one busbar DS requires only the outage of the faulty feeder and not of the adjacent feeders. And also at least one busbar will always stay in service condition. It also complies with PGCB's specification (3.3.2 / Volume 2, Schedule E / Volume 3)"		
121.	"Volume 2 of 3 3.3.11 Maintenance Earthing Switches (p.3-42) -----3.3.11.5 All earthing switches shall be mechanically interlocked with associated circuit breakers and disconnectors so that it shall not be possible to close an earthing switch onto a live circuit or to make the circuit alive when the earthing switch is closed." All earthing switches shall be electrically interlocked with associated circuit breakers and disconnectors instead of mechanical interlock.	Please follow bidding documents.	N
122.	"Volume 2 of 3 3.3.18 Local Control Cubicle (p.3-50)----3.3.18.5 Where control cabling between the local control cubicle and the switchgear are connected by plug and socket boxes, the plugs and sockets shall not be interchangeable" Gland type shall be applied to LCC side and Jack type shall be applied to GIS mechanism side.	Please follow bidding documents.	N

123.	"Volume 2 of 3 3.3.21 Interlocking (p.3-53)---3.3.21.11 FES shall be interlocked (Electrical & Mechanical) with VT so that VT cannot be isolated if FES is not grounded. " FES shall be electrically interlocked with VT.	Please follow bidding documents.	N
124.	"Volume 2 of 3 3.3.26 Special Equipment and Tools (p.3-61 & 62)---3.3.26.2 (d) Portable Partial Discharge(PD) monitoring system viii) The equipment shall be battery operated with built-in-battery charger. It shall also be suitable for 230V AC/50 Hz input. The make of the equipment shall be from EU, UK, USA, Japan or other eligible countries with equivalent quality." HiPDS-M smart, which is a portable PD monitoring device developed by Hyun-dai Korea, is included in our offer. Battery operating is not applicable and it shall be operated by 230V AC power.	Please follow bidding documents.	N
125.	"Volume 2 of 3 6.5.2 Armouring (p.6-6)-----6.5.2 All multicore cables shall be provided with galvanised steel wire armour. Single-core cables shall have copper or aluminium wire or tape armour-ing. 6.6.2.2 Multicore Control Cables (p.6-8)---6.6.2.2 All these cables shall have galvanised steel wire armouring." "The application of "galvanized steel wire armoured" require large bending spaces and has low flexibility property. This point has critical impact to civil work with requiring of deep dig foundation level, and expected high difficult to work at actual site.	Please follow bidding documents.	N

	So, Hyundai propose FR-CCV-SB(Copper braid shield) control cable without galvanized steel wire amouring in the same way as the previous PGCB project, Mirsharai 230kV. Also, it is generally used for global GIS market all over the world."		
126.	"Volume 2 of 3 Single Line Diagram: KALIGANJ 400/230kV GIS SS (400&230kV Side)-----< Volume 2 of 3 > For feeder bays, busbar earthing switches are duplicated. Volume 3 of 3 1. Schedule A: Scope of Works----< Volume 3 of 3 > 1.2.1 Technical Requirements for 400/230KV GIS Substation at Kaliganj For feeder bays, three phase busbar Disconnector with earth switch, complete with motor operating mechanism : 2 Set"  Only one busbar earthing switch shall be included in feeder bays. Thus, 1 set of busbar DS with ES & 1 set of busbar DS shall be offered for feeder bays.	Please follow bidding documents.	N
127.	"Volume 2 of 3 Single Line Diagram: KALIGANJ 400/230kV GIS SS (400&230kV Side) Volume 3 of 3 1. Schedule A: Scope of Works-----1.2.1 Technical Requirements for 400/230KV GIS Substation at Kaliganj - 420kV single phase, Voltage Transformer with Disconnector and earth switch, externally operable - single phase Surge Arresters, Gas type, with externally operable Disconnecting	Please follow bidding documents.	N

	Link and earth switch - 245kV single phase Voltage Transformer with externally operable Disconnector and earth switch"  Voltage transformer and surge arrester shall be provided with manual operated Disconnection lever (Isolating device) & Earthing facility.		
128.	" Volume 3 of 3 5. Schedule E: Technical Particulars and Guarantees 1.2.1.1 GIS Switchgear 400 kV (p.43)---1-36-1.2 Type : Digital for CB & Analog for others 1-36-1.3 Digital : Meter & Transmitter 1.2.2.1 GIS Switchgear 230 kV (p.80)---1.2.12.1.2 Type : Digital for CB & Analog for others 1.2.12.1.3 Digital : Meter & Transmitter" Digital type density sensor for CB shall have transmitter with 4~20mA output signal and display the pressure by gauge needle.	Please follow bidding documents.	N
129.	"Volume 3 of 3 5. Schedule E: Technical Particulars and Guarantees - 1.2.1.1 GIS Switchgear 400 kV - 1.2.2.1 GIS Switchgear 230 kV 2 Circuit Breaker (p.52 & 88)----2-29 & 2.4 Accessories in central control panel/ LCC 2-29-16 & 2.4.14 Weatherproof, corrosion resistance enclosure : IP55	Please follow bidding documents.	N

	2-29-18 & 2.4.15Enclosure Material : Al or stainless steel 3 Disconnect Switch (p.53 & 89)---3-7 & 3.2.6 Operating Mechanism & Drive Box 3-7-19 & 3.2.6.8 Water-tight corrosion-resistant housing : IP55 3-7-20 & 3.2.6.9 Drive housing Material : AL or Stainless Steel 5 Voltage Transformer (p.60 & 95~96)----5-4-7 & 5.2.7 Secondary Box 5-4-7-1 & i) Secondary Box Material : AL or Stainless steel 5-4-7-2 & ii) Secondary Box IP rating : IP55 7 & 6 LCC (p.62 & 96)---7-3 & 6.3 Housing Material : AL or Stainless Steel with Glass Door 7-5 & 6.3.2 IP rating : IP55" The protection degree of LCC, operating mechanism and VT secondary box shall be IP54. And their enclosure shall be painted steel.		
130.	"Volume 3 of 3 5. Schedule E: Technical Particulars and Guarantees 1.2.1.1 GIS Switchgear 400 kV (p.52) 1.2.2.1 GIS Switchgear 230 kV (p.88)-----3-6-1 & 3.2.1 Type of disconnector 3-6-1.1 & a) Three pole, three position (close/open/earthed), motor operated, insulated, with earthing switch : Yes" ES/DS modules are not three position switch which have their respective mechanisms electrically interlocked.	All earthing switches shall be mechanically interlocked with associated disconnectors so that it shall not be possible to close an earthing switch onto a live circuit or to make the circuit alive when the earthing switch is closed.	N
131.	"Volume 3 of 3 5. Schedule E: Technical Particulars and Guarantees 1.2.1.1 GIS Switchgear 400 kV	Please follow the bidding documents.	N

	(p.55)-----3 Disconnector 3-9-9.1 Rated Bus-transfer voltage for DS : 300 V 3-9-9.2 Rated bus-transfer current : 1600A" 300V of rated bus-transfer voltage is a requirement for AIS type DS. For GIS type DS, 20V of rated bus-transfer voltage shall be applied according to IEC 62271-102.		
132.	Volume 2 of 3 ADB DWZTGEP P5 Kaliganj GIS Is the line protection cabinet of the opposite substation within the EPC scope?	Relay Panels at remote end (i.e. at existing Ghorasal substation) of Ghorasal Old 1 & 2 lines and Relay Panels at remote end (i.e. at existing Tongi Substation) of Tongi Old 1 & 2 lines shall be replaced.	Y
133.	Price Schedule_Kaliganj_ P5_ "230kV Circuits 1F11, The number of the 230KV busbar protection shall be 2 sets."	Please follow bidding documents.	N
134.	Volume 2 of 3/Drawing No. PGCB/DESIGN/2021/KALIGANJ/E01 Kaliganj grid substation layout From the layout, the bus layout is crossed. We recommend rearranging the GIL according to our own design to avoid GIB crossing. Please confirm.	Please follow bidding documents.	N
135.	Volume 3 of 3/1.2.1 Technical Requirements/1A3&1A4/iii 420kV, 5000A, 63kA/3s, three phase, three pole operation Circuit Breaker complete with spring /hydraulic / spring&hydraulic operating mechanism The circuit breakers in the Bus coupler bay and Bus section bay are required to be three-pole operation. Our 420kV circuit breakers are single-pole operation, three-pole operation can be achieved by electrical linkage, but not three-pole mechanical linkage operation. Please kindly consider and confirm.	Your proposal is acceptable.	N
136.	Volume 3 of 3/1.2.1 Technical Requirements/1A3&1A4/iii 420kV, 5000A, 63kA/3s, three phase, three pole operation Circuit Breaker complete with spring /hydraulic / spring & hydraulic op-	CSD shall be provided for all 400kV line bay CB and 400kV transformer bay CB.	N

	erating mechanism CSD is not mentioned in the circuit breaker of Bus coupler bay and Bus section bay, is it required? Please kindly confirm.		
137.	Volume 3 of 3 1.2.1 Technical Requirements All 420kV circuit breakers do not mention Pre insertion resistor (PIR), please clarify which circuit breakers need Pre insertion resistor (PIR).	Please follow bidding documents.	N
138.	Technical Specification–3. HV Switchgear and Outdoor Equipment "/3-116 G. Gas Insulated Line (GIL) Outer housing: Composite / Silicon " "H. Gas Insulated Line (GIL) Outer housing: Composite / Silicon " We generally understand that this is a requirement for GIL bushing, please kindly confirm.	Your understanding is correct.	N
139.	GTP 1.2.1.1 GIS Switchgear 400 kV,3-7-10 No. of auxiliary contact : 1NO early 3-7-10 No. of auxiliary contact : 1NO early Early Make is usually not possible with an auxiliary switch for the disconnector. Please confirm.	Please follow bidding documents.	N
140.	GTP 1.2.1.1 GIS Switchgear 400 kV 6-4 Max. continuous operating voltage Uc : 312kV We recommend that the Max. continuous operating voltage should be 303kV, please confirm.	Please follow bidding documents.	N
141.	GTP 1.2.1.1 GIS Switchgear 400 kV "5-4-1-1 Lightning : 1550 for Bus 5-4-1-2 Switching : 1155 for Bus " The parameter required here is too high, so we recommend changing it to Lightning: 1425 for Bus; Switching: 1050 for Bus. Please kindly confirm.	Your request cannot be accepted. Please follow bidding documents.	N

142.	GTP 1.2.1.1 GIS Switchgear 400 kV 5-4-4 Damping resistor : Yes Normally, voltage transformers do not have damping resistors, so we recommend changing this parameter to N.A. Please kindly confirm.	Please follow bidding documents.	N
143.	Technical Specification– –3.HV Switchgear and Outdoor Equipment 3.1.5.Installation, testing and commissioning of all switchgears shall be done by the switchgear engineer(s) of the switchgear(s) manufacturer(s). Normally manufacturer can only provide installation technical guidance, installaation will be done by Electrical Works Subcontractor . Kindly confirm.	Please follow bidding documents.	N
144.	Technical Specification "3.HV Switchgear and Outdoor Equipment/3-25 3.3.7.11.1." Testing flanges/adaptor and associated facilities shall be provided for each circuit for HV withstand testing of switchgear. Each testing flange shall be positioned in a separate gas zone compartment which shall be independent of adjacent disconnector and earthing switch gas sections. High voltage tests are carried out by connecting the test equipment to the high voltage bushings. There is no need to provide additional testing flange, please kindly confirm.	Please follow bidding documents.	N
145.	Technical Specification ".HV Switchgear and Outdoor Equipment/3-27 3.3.7.15.1." A portable PD measuring and analyzer shall be provided in each substation. And appropriate numbers of sensors (PD antennas) inside the GIS shall be installed. "Portable PD detector is required here, but 1A8 in the Schedule B1 require for ""Standalone Partial Discharge measurement and analyzer system for Complete GIS"".. Please clarify should portable be provided? Or an online monitoring system?"	Portable Partial Discharge measurement and analyzer system for Complete GIS shall be provided and appropriate number of UHF sensors inside the GIS shall be installed.	N
146.	Technical Specification 3.HV Switchgear and Outdoor Equipment/3-47 3.3.15.3 All bushings shall be Resin Impregnated Paper (RIP) bushings with silicon composite housing. Please confirm whether SF6-AIR bushing can be accepted. They are much more cost-effective for 400kV/230kV GIS.	Please follow bidding documents.	N

147.	Technical Specification "3.HV Switchgear and Outdoor Equipment/3-47 3.3.15.5" For quality, reliability and maintenance requirement, the bushings to be supplied under this project shall be from ABB(Sweden/Switzerland), Trench(France/USA), HSP (Germany), GE (Italy) (and/ as specified in Appendix of Requirement) or equivalent. "Please confirm whether the China suppliers can be accepted. Our recommended suppliers (partial): 1. Nanjing Electric HV Bushing Co. Ltd; 2. Jiangsu Shenma Electric Co.,Ltd; 3. Shandong Peiport Electric Power Technology Co.,Ltd "	Please follow bidding documents.	N
148.	Technical Specification "–3.HV Switchgear and Outdoor Equipment/3-48 3.3.15.14" To reduce the effect of solar gain all SF6 or other types of insulated bus ducts exposed to direct sunlight shall be covered with metallic sun shielding, for part of outdoor installation. Our products can meet the requirements of outdoor use conditions, do not need to provide sun shielding. Therefore, GIS quotation will not include this sun shielding, please kindly confirm.	Please follow bidding documents.	N
149.	Technical Specification "3.HV Switchgear and Outdoor Equipment/3-48 3.3.16.3" If the additional Surge Arresters are required different from the Surge Arresters proposed on the Single Line Diagrams, those Surge Arresters have to provided free of charge and included in the final Bid price. If additional SA are required, they must be provided free of charge. Please clarify how many additional SA should we consider in the bidding offer?	Please follow bidding documents.	N
150.	TDS 1.2.2.3 230kV XLPE Cable Nominal Current A ≥ 2000 The required Nominal Current of 230kV cable is ≥2000A, but the section of 2000mm2 has only about 1800A in the air and 1200A buried in the ground.	The required nominal current rating shall be 2000A and the cross-section of cable shall be 2000mm2. Nominal current rating of the cable offered shall have to be proven by calculation.	N

	Please confirm that the Nominal Current value can be filled in according to the actual value.		
151.	Technical Specification "117B 10.8 Corrugated Seamless Aluminium Sheath" "Metallic sheath shall consist of the extruded corrugated seamless aluminum sheath. Aluminum used for the sheath shall have the minimum purity of 99.5% and shall be of best quality metal free from pinhole flaws and other imperfections. The minimum" The required metallic sheath is Corrugated Seamless Aluminium Sheath. Please confirm Corrugated welded Aluminium Sheath is accepted.	Your request cannot be accepted. Please follow bidding documents.	N
152.	Technical Specification "117B .10.9 MDPE Outer Sheath" "After applying the bitumen compound over the aluminum sheath, the extruded MDPE outer sheath shall be applied." It is required Radial moister barrier Laminated plastic coated aluminium tape / lead/copper, but aluminum sheath is also one Radial moister barrier. Please confirm this project does not need Laminated plastic coated aluminium tape / lead/copper structure.	Please follow bidding documents.	N
153.	Technical Specification "1.2.2.3 230kV XLPE Cable &SECTION 17B POWER CABLES AND CABLE TERMINATING ACCESSORIES (HV)" "Sheath Earth Fault Current Carrying capacity for three second cable loaded as above prior to each fault is 50KA/1sec , But in the A nnex 17B of SECTION 17B POWER CABLES AND CABLE TERMINATING ACCESSORIES (HV) is 63 kA/ 3 sec" Please confirm .	Sheath earth fault capacity for 230kV XLPE cable shall be 63kA/3sec.	N
154.	TDS 1.2.3.7 33kV XLPE Cable Max. DC resistance at 20°C ohm/km 0.0366 "Max. DC resistance at 20°C ohm/km 0.0366 and Short circuit rating for 3 sec kA 31.5. But they are not the value of 300mm2. Please confirm."	DC resistance value shall be as per IEC 60228 standard. The short circuit current rating of 31.5kA/3sec is for metallic screen earth fault carrying capacity.	N

155.	Technical Specification 17A. 33kV Power Cables and Cable Terminating Accessories It is not mentioned armor in this document, but about MV cables usually has aluminum wire armor for 1C cable. Please confirm whether there is armor layer	Please follow bidding documents.	N
156.	"The external surface of the oversheath shall be embossed along two or more lines approximately equally spaced around the circumference with the words ""ELECTRIC CABLE"" in English. Please confirm ink printing is accepted."	Please follow bidding documents.	N
157.	Technical Specification 6.5.2 Armouring All multicore cables shall be provided with galvanised steel wire armour. Single-core cables shall have copper or aluminium wire or tape armouring. "All these cables shall have galvanised steel wire armouring. But in BOQ, the cables are galvanised steel tape armouring. Please confirm armour type."	Please follow bidding documents.	N
158.	Technical Specification 6.6.2.4 Oversheaths All the cable types above shall have a black flame-retardant low smoke PVC oversheath. In normally manned locations, especially the control building, cables shall have a low smoke, zero halogen over-sheath, so as to minimise the generation of smoke and corrosive acid gases in the event of a fire. "In normally manned locations, especially the control building, cables shall have a low smoke, zero halogen over-sheath, so as to minimise the generation of smoke and corrosive acid gases in the event of a fire. PVC is not a low smoke, zero halogen material. Please confirm whether outer sheath be changed to LSZH sheath."	Please follow bidding documents.	N
159.	Technical Specification It is not mentioned metallic screen about control cables in this document. Please confirm whether there has metallic screen.	Please follow bidding documents.	N
160.	Technical Specification 3.4.1.2.4/3.4.1.5.1 Technical Data 3.1 The voltage transformers shall have multi secondary windings appropriate characteristics. Capacitive voltage transformers should be used as capacitor for HF connection. They shall be supported by silicon composite insulator. according to the technical specification 3.4 outdoor equipment, its requirment is	400kV outdoor type AIS CVT shall have porcelain type insulator material.	N

	composite insulator, in technical data 3.1 which require for porcelain material. please clarify which type be required.		
161.	Price schedule 1H3 230kV, XLPE 2000sqmm, Cu Power cable & termination Please clarify where the 230kV cable & termination is used.	Please follow bidding documents and tender drawings.	N
162.	Volume 3 Schedule E "Schedule E 1.2.2.1 GIS swithcgear 230kV 1.1.11 Rated short-circuit brekaing current Isc is 63kA " For 230kV GIS switchgear, is 50kA acceptable for rated short-circuit breaking current? Based on past tender experience, 50kA is a common requirement for GIS.	Please follow bidding documents.	N
163.	"GTP 1.2.1.1 GIS Switchgear 400 kV 3-7-10 No. of auxiliary contact : 1NO early " "3-7-10 No. of auxiliary contact : 1NO early Early Make is usually not possible with an auxiliary switch for the disconnector. Please confirm."	Please follow bidding documents.	N
164.	"GTP 1.2.1.1 GIS Switchgear 400 kV 6-4 Max. continuous operating voltage Uc : 312kV" We recommend that the Max. continuous operating voltage should be 303kV, please confirm.	Your request cannot be accepted. Please follow bidding documents.	N
165.	"GTP 1.2.1.1 GIS Switchgear 400 kV 5-4-4 Damping resistor : Yes " Normally, voltage transformers do not have damping resistors, so we recommend changing this parameter to N.A. Please kindly confirm.	Please follow bidding documents.	N
166.	Clause 5.1, "Protection, Metering & Control and Substation Automation System" Section 5, Vol.2 "For standardisation of operating performance, facilities and spare requirements, the protection relays, control systems and Substation Automation System (SAS), together with complete panels, to be supplied under this project shall be manufactured by: ABB (Switzerland/Sweden), Alstom/GE (France/USA/UK), SEL (USA/UK/Canada), Siemens (Germany) or equivalent."	Your understanding is not correct. Please follow the bidding documents.	N

	We understand that the above mentioned suppliers are limited to Protection Relays and SAS. Complete panel may be sourced/assembled at other factories/Suppliers. Please confirm."		
167.	Item No: 1B, "Technical Requirements for 400/230KV GIS Substation at Kaliganj" Clause 1.2.1, Vol.3 "Short Circuit level requirement for 245kV GIS is indicated as 63kA for 3 Sec, which seems to be higher side. The same may limit the no of manufacturers and may not be cost effective. We request you to kindly recheck the requirement."	Please follow the bidding documents.	N
168.	Item No: FS1-a, Schedule B1 "36 Nos of Differential Protection Relay with backup Distance Protection & Directional Earth Fault Protection Functions are required as spare. The required quantity for spare seems to be very higher side. We request you to kindly recheck the requirement."	Please follow the bidding documents.	N
169.	Item No: 1S1, Schedule B1 Kindly provide the detailed technical specification for Scissor Lift	Please follow the bidding documents.	N
170.	Item No: 1N4, Schedule B1 Kindly provide the detailed technical specification for CCTV with motion sensor.	Please follow the bidding documents.	N
171.	Item No: 1R1, Schedule B1 Kindly provide the detailed technical specification for 250kW DG set.	Please follow the bidding documents.	N
172.	Item No: 1D1, Schedule B1 Kindly provide the detailed technical specification for 33kV AIS Switchgear Equipments (CB,CT,VT,Isolator,LA)	Please carefully follow Section 3, volume-2 and Schedule E, volume-3 of the bidding documents.	N
173.	Item No: 1D1.x Both Auto-Transformer;s Tertiary are loaded as per item no:1D1. Kindly recheck and update the requirement.	Please follow the bidding documents.	N

174.	Item No: 1D5 We presume that 33kV Tertiary connection can be made through aluminium bus. Kindly check and update the requirement.	Please follow the bidding documents.	N
175.	Item No: 1L1 We presume that, Generator power supply shall be fed for dedicated ACDB panel. Please confirm the requirement.	Please follow the bidding documents.	N
176.	"1.Scope of Works 1.2.1.1 420kV Gas Insulated Switchgear (GIS)" "Space provision shall be kept for future extension of six (06) 400kV line bays and two (02) bus reactor bays. As per Layout only 1 No. Bus Reactor bay shown. Also in Tender SLD, there is no such Reactor Bays. Kindly clarify the actual requirement. "	Future bay provisions shall be as per schedule A: Scope of works.	N
177.	Tender Layout Please clarify requirement of Station LT area	Please follow the bidding documents.	N
178.	Volume 2, Section13, Clause 13.31.2 Air Cooled Split System Air Handling Units is mentioned in TS which require additional AHU room. We are considering the Ductable split with Ducting/Cassette Type/Hi-wall type split AC units which suffice the system design and have less maintenance cost and running cost. Please confirm.	Please follow the bidding documents.	N
179.	Volume 2, Section13, Clause 13.31.2 Standby AC units qty will be considered for 20% of required tonnage capacity for CRP Room/ Control Room only. For other room No Standby AC unit shall be considered. Please confirm.	Please follow the bidding documents.	N
180.	Volume 2, Section13, Clause 13.31.2 Air- Conditioning heat load calculation shall be done on the basis of max site temperature and unit will satisfactory work up to ambient temperature i.e. 50 deg C. Please confirm.	Please follow the bidding documents.	N

181.	Volume 2, Section13, Clause 13.31.2 We understand that No Heating system is envisaged for this tender. Please confirm	Please follow the bidding documents.	N
182.	Volume 2, Section13, Clause 13.31.3 We Understand that Exhaust Fan (Propeller type) with Cowl & Bird/Insect Screen shall be provided for 400/220KV GIS Hall. Please Confirm.	Please follow the bidding documents.	N
183.	Volume 2, Section13, Clause 13.31.2 As per referred clause, Compressed Air foam Supply Room shall be Air conditioned. As per our understanding the same is not required. Please check & clarify	Please follow the bidding documents.	N
184.	Price Schedule-1, Clause no. 1N3 Please clarify the type of Fire Detection System (Conventional or Addressable type) to be considered. Please confirm.	Conventional type of Fire Detection System may be considered.	N
185.	Price Schedule-1, Clause no. 1E4 & 1N3 "As per referred clause of Price schedule, We understand that only following fire fighting system shall be envisaged for this tender: 1. CAFS of Fire Fighting System for 400/235/34.5 kV Auto-transformer with water feeding equipment 2. Fire Detection & Alarm System for 400KV GIS Building, 220KV GIS Building 3. Portable Fire Extinguisher Any other type of Fire Fighting system shall not be envisaged for any other building or facility. Please confirm"	The following fire fighting system shall be envisaged for this tender: 1. CAFS of Fire Fighting System for 400/235/34.5 kV Auto-transformer with water feeding equipment 2. Fire Detection & Alarm System for 400KV GIS Building, panel room & Control Room and 230KV GIS Building & panel room 3. Portable Fire Extinguisher	N
186.	Price Schedule-1, Clause no. 1N3, iii There is discrepancy in price schedule & Tender drawing. As per price Schedule Fire Fighting system for Control Room shall be provided, however as per tender layout, there is no separate control building. Please clarify.	Your understanding is not correct. You are requested to carefully follow the tender drawings (civil parts). Control room is situated at 2nd floor of 400kV GIS building.	N

<table>
<tr><td>187.</td><td>Price Schedule-1, Clause no. 1N3

We understand that, Hydrant system is not envisaged for this tender, as the same is neither mentioned in TS nor in price schedule, so we are not considering the same. Please confirm</td><td>Your understanding is correct.</td><td>N</td></tr>
<tr><td>188.</td><td>General

We are considering the Following Make/origin list for Fire Fighting System. Please provide confirmation on the same.

<table><tr><th>Sr. No</th><th>Item Description</th><th>Make / Manufacture</th><th>Remarks</th></tr><tr><td>A</td><td>CAF System</td><td>Indian Make/Standard</td><td>Non UL Listed</td></tr></table></td><td>Please follow bidding documents.</td><td>N</td></tr>
<tr><td>189.</td><td>Volume 2 DWZTGEP P5 Kaliganj GIS Chapter 13.31.3:

According to Volume 2 - 13.31.3 Mechanical Ventilation:

Supply and extract ventilation shall be provided to serve the following areas:

(a) Battery Room

(b) Toilets (Extract only)

(c) Cable basement

Supply air handling plants shall consist of a sand trap fresh air intake louvre, in-sect screen, pre-filter, bag filter, electric air heater battery, fan and distribution ductwork.

The common practice for air inlet of ventilation system is fresh air intake louvre with G2 type filter. Please confirm whether (a) Battery Room and (c) Cable basement need the complicated supply air handling plants described in Chapter 13.31.3, or only adopt common practice of fresh air intake louvre with G2 type filter.</td><td>Please follow bidding documents.</td><td>N</td></tr>
<tr><td>190.</td><td>Volume 3 - Schedule A: Scope of Works-1.2.1

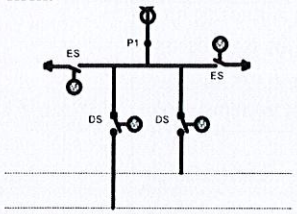
According to Volume 3 - Schedule A: Scope of Works-1.2.1 :</td><td>Please read the bidding document carefully, thereby you will get a clear idea about the scope under this contract.</td><td>N</td></tr>
</table>

	As listed in item No. 1A9、No. 1A10、No. 1A11, 18 sets of 420kV CVT and 27 sets of 420kV surge arresters are required, which shall excluded the spare outgoing bays but included the future transformer incoming bay. 8 sets of 420kV wave trap are required, which shall included the spare outgoing bays. As listed in item No. 1B7, 39 sets of 245kV surge arresters are required, which shall included the spare outgoing bays and the future transformer incoming bay. As listed in item No. 1D1.x, 36kV equipment for the future transformer is required. Please confirm whether the above-mentioned quantities of equipment is accurate, and shall Contractor quote for cost accordingly.		
191.	Volume 3 Schedule B1: item 1k1 According to item 1k1 in Volume 3 Schedule B1, 110V Battery Banks is listed separately in both 400kV and 230kV system, Please clarify whether one DC power supply system including 2 sets of 110V Battery Banks is enough for whole substation or two DC power supply systems including 4 sets of 110V Battery Banks for each of 400kV and 230kV system is required?	Two separate DC power supply systems are required for 400kV and 230kV system. 2 sets of chargers and 2 sets of 110V Battery Banks are required for each of 400kV and 230kV system.	N
192.	Volume 2 Schedule B1: item 1F2 According to item 1F2 in Volume 2 Schedule B1, there is 3 sets of Control, protection and monitoring, however current phase of this project includes only 2 set of Power Transformer, Please clarify whether the third set of Control, protection and monitoring shall be included in the scope of this tender?	Please follow bidding documents.	N
193.	Volume 2: 19.2.1 Kaliganj Substation Drawing List : PGCB_DESIGN_2021_KALIGANJ_E18: Telecommunication Schematic Diagram This Kaliganj Project has two 400kV outgoing bays to Purbachal substation in this project, but no optical link and carrier communication link are designed from Kaliganj substation to Purbachal substation; please clarify whether the optical link and carrier communication link of Kaliganj substation-Purbachal substation shall be included in the scope of this tender.	Please follow the bidding documents.	N

194.	Technical Specification–3.HV Switchgear and Outdoor Equipment/3-1 3.1.5.Installation, testing and commissioning of all switchgears shall be done by the switchgear engineer(s) of the switchgear(s) manufacturer(s). Our manufacturer can only provide installation technical guidance, can not send someone to install. Kindly confirm.	Your request cannot be accepted. Please follow the bidding documents.	N
195.	Technical Specification–3.HV Switchgear and Outdoor Equipment/3-7 3.3.1.29. In addition to above suitable portable scissor lift shall be provided for access of distant portion of GIS installation This portable scissor lift is difficult for our manufacturer to supply. If any consideration is required during bidding, the contractor shall provide it by himself. Please kindly confirm.	Please follow the bidding documents.	N
196.	Technical Specification – 1. Scope of Works/1-7 1.3 Training and Inspection The payment of daily allowance of US$ 80 per day excluding travel time for each of the Employer's trainee for item (a). The Employer's engineer attending the Pre-shipment inspection (as mentioned in item no. b) shall be provided with the same facilities except the payment of daily allowance which is to be US$ 100 per day excluding travel time. S80/person/day for International Training and $100/person/day for International Witnessing. Our GIS equipment quotation is in RMB, we do not study US dollars. Therefore, the general contractor is requested to add this part of the cost when bidding, please confirm.	Please follow the bidding documents.	N
197.	Volume 3 of 3 1.2.4 D: Transformers 1.2.4.1 400/235/34.5kV 520/750MVA ONAN/ONAF Autotransformer 2.4.26 Percent Impedance design due to Tap Changing-Constant According to normal design, the impedance value will be revised when tap changed, but we can guarantee the impedance change will be limited within the value range listed in GTP 3.1.1 (13±10%).	Please follow the bidding documents.	N
198.	Volume 3 of 3 1.2.4 D: Transformers 1.2.4.1 400/235/34.5kV 520/750MVA ONAN/ONAF Autotransformer	Please follow the bidding documents.	N

	3.4 Guaranteed losses [HV-LV-TV Simultaneously loaded] The losses under HV-LV-TV Simultaneously loaded is higher than the losses of HV-LV. Normally only the HV-LV losses is considered for capitalized evaluation. Please confirm.		
199.	Volume 2 of 3 4.20 Transformer Online Dissolved Gas Analyser (DGA) Online Dissolved Gas (Multi-gas) and Moisture Analyser Does PGCB have any qualified manufacturers on the online analyser? Can we propose Chinese manufacturer?	Please follow the clause-4.20, volume-2 of the bidding documents.	N
200.	Volume 3 of 3 1.2.4 D: Transformers 1.2.4.1 400/235/34.5kV 520/750MVA ONAN/ONAF Autotransformer 9. Oil for Transformer & Tap Changer Volume 2 of 3 4.16 Oil for transformer and tap-changer According to IEC 60296-Class II, the oil shall be un-inhibited type. But for the parameter of 9.5, 9.5.1, and 9.13-9.16 in GTP, the oil shall be inhibited type. Please clarify which one shall prevail.	The transformer oil shall be inhibited type.	N
201.	Volume 3 of 3 5. Schedule E: Technical Particulars and Guarantees 1.2.1.5 Post Insulator 400 kV Description of the tender document: 1.7 Design Solid core, Composite, outdoor Bidder's comments: Shall we use Porcelain instead?	Porcelain type insulation material is acceptable as per the GTP clause- 3.1 of the 400kV post insulator.	Y
202.	In "GTP-Transformer" datasheet (item 3.3) short circuit design shall be done with 105% pre-fault voltage and infinite bus at HV, LV & TV (was 100% pre-fault voltage and grid strength acc. IEC). However, in "scope of work" document (1.4.1 system conditions) the network	Notwithstanding the over current limits tabulated in IEC 60076-5, the transformer with the standard minimum percentage impedances given in the specification, shall be capable of withstanding the thermal, mechanical and other effects using the following criteria for calculating the short circuit withstand condition:	N

	fault levels are specified as HV/LV/TV = 63/63/31.5 kA. As per 4.3.6.1.1 pre-fault voltage is 1.1Um. Please clarify.	i. Pre-fault voltage of 1.05 Um; ii. Source fault capacity shall be assumed to be infinite (zero impedance); iii. Fault duration of 2 s.	
203.	AC insulation level of the LV in item 3.5.2 is now 460 kV (was 395 kV). As the AC tests are indicated acc the old IEC. We suggest to perform the IVPD test acc to the latest version of IEC together with SI routine test. Please advise.	Please follow the bidding documents.	N
204.	AC insulation level of the LV in item 3.5.2 is now 460 kV (was 360 kV). However this cannot be tested.	Please follow the bidding documents.	N
205.	Maximum hot spot temperature rises in core at rated power in item 4.3.5 is specified as 78 °C which contradicts the next item 4.3.6 indicating Internal Hot-spot Temperature (Amb. Temp. + Top oil rise + Core hot spot) to be 130°C. Please clarify?	To maintain Internal Hot-spot Temperature (Amb. Temp. + Top oil rise + Core hot spot) limit of 130°C, the bidder shall reasonably specify the allowable maximum hot spot temperature rises in core at rated power.	Y
206.	Safety factors in dielectric design are specified >2 (items 6.1.3, 6.2.3, 6.3.3 and 6.4.3). Kindly send us the definition of the safety factor.	Here, the term "Safety factors" is interpreted as "The insulation system shall be designed with a ratio >2 between the impulse voltage and the one-minute AC voltage (this is sometimes referred to as the BIL-to-power frequency ratio)."	N
207.	The specified max noise level in item 11.1 is <70 dB(A). this is lower than previous quotations. We can achieve that critically by assuming sound intensity method (acc. to IEC). Please confirm that sound measurement shall be performed according to the latest IEC.	Confirmed.	N
208.	Max. shipping weight/height of transformer are not indicated now (were limited to 300 ton/3.6m previously). Is this correct? If no, please send us the revised limitation in weight and height.	Bidders are requested to examine about the allowable maximum shipping weight/height for transporting the transformer from the manufacturer premise to the site.	N
209.	In general spec item 4.4.2.4.1 of volume 2 of the bidding document the core is specified to be 3-legged type. This was 5-leg in the previous design mainly due to limitation for transport. By 3-leg core the shipping height would be around 5.5 m. Please clarify.	The bidders can offer either 3-legged core or 5-legged core type transformer.	Y
210.	Volume 2, Section 5 5.9.1 400kV, 230kV and 132 kV Transmission Line Protection 5.9.2 Main Protection 1 (Distance)	Main 1 and Main 2 protection of 400kV & 230 kV lines shall be of Line differential protection with back-up distance protection and directional over-current to earth fault protection.	N

	5.9.3 Main Protection 1-1 (Differential Current) Please clarify whether Main 1 and Main 2 protection of 400kV & 230 kV lines and Main 1 protection of 132 kV line shall be of Line differential protection or distance protection.		
211.	Kaliganj grid substation lay-out drawing From the layout, the bus layout is crossed. We recommend rearranging the GIL according to our own design to avoid GIB crossing. Please confirm	The layout drawing provided in the volume 2 of the bidding document is for tender purpose only. This shall be finalized during detailed design and execution stage.	N
212.	"GTP 1.2.1.1 GIS Switchgear 400 kV 5-4-4 Damping resistor : Yes" Normally, voltage transformers do not have damping resistors, so we request to revise this pa-rameter to N.A. Kindly confirm.	Please follow the bidding documents.	N
213.	"GTP 5-4-7-2 Secondary Box IP rating --IP 55" We request you to accept the ingress protection for all secondary box to IP54, as most of the manufacturer has this rating which is sufficient for outdoor use.	Your request cannot be accepted. Please follow the bidding documents.	N
214.	Drawing In the single line drawing, it shows that two ES are in the same location which is not required technically. Hence, we request to accept one single ES. Please confirm. 	Your request cannot be accepted. Please follow the bidding documents.	N
215.	Technical Specification–3. HV Switchgear and Outdoor Equipment/3-48 3.3.15.14. To reduce the effect of solar gain all SF6 or other types of insulated bus ducts exposed to direct sun-light shall be covered with metallic sun shield-	Please follow the bidding documents.	N

	ing, for part of outdoor installation. We understand that the sun shielding is not required for the GIL if the same is suitable for out-door operations. Please confirm.		
216.	Volume 1 Section 3: Evaluation and Qualification Criteria 1.3.4 Fuctional Guarantee of the Facilities Capitalization of the transformer losses will be evaluated using average no-load loss (core loss) in kW and average load loss (copper loss) in KW Volume 2 Chapter 4 4.3.10 Loss and evaluation of losses Evaluated price of transformer loss shall be no-load loss (core loss) at rated voltage in kW and load loss (copper loss) at 75degree, 50Hz maximum continus rating in KW Volume 3 Schedule E 3.4 Guaranteed losses: Average no-load loss and average on load losses will be evaluated. Inconsistent evaluation criteria of transformer losses. Please confirm which to follow.	Capitalization of the transformer losses will be evaluated using average no-load loss (core loss) in kW, average load loss (copper loss) at 75 °C in kW and total load of transformer cooling fans at transformer maximum continuous rating in kW (when all the cooling fans are in operation).	Y
217.	Clause 5.18.- (h) "All input signals shall be able to scan and record simultaneously at least 2 or 3 user programmable sampling rates from 500Hz to 24kHz for fast (short-term) transient monitoring" We want to offer sampling rates from 500Hz to 12kHz for fast (short-term) transient monitoring for DFDR application. Please confirm whether this is acceptable.	All input signals of the DFDR shall be able to scan and record simultaneously at least 2 or 3 user-programmable sampling rates from 500Hz to 12kHz or higher for fast (short-term) transient monitoring and from 1Hz to 500Hz for slow phenomena (long-term) monitoring in order to detect and record fast (short-term) and slow phenomena (long-term) events.	Y
218.	Schedules ; Item 1M : Civil works, Building and foundation We understand that site surveying and soil investigation is in scope of work. Please confirm and if our understanding is correct may include the same in schedule of civil works, building and foundation.	Soil investigation cost deem to be included within the quoted price of the bidder.	N
219.	Technical specification - 10A Buildings and Civil Engineering works, Cl. 10A.1.1, Scope of work - point (f) -page no 4 of 9 and schedule 1M - Civil	Please follow the bidding documents.	N

	works, Building and foundation Please confirm the capacities of under ground and over head water tank and may include in the schedule 1M - Civil works, Building and foundation.		
220.	Technical specification - 10A Buildings and Civil Engineering works, Cl. 10A.3.3, Drainage In the referred cluse, please confirm the type of open channels, concrete or brick.	Detail design will be finalized in execution stages.	N
221.	Technical specification - 10A Buildings and Civil Engineering works, Cl. 10A.3.22, Transformer Bases Please confirm if wall type foundation can be provided for Transformer base.	Please follow the bidding documents.	N
222.	Volume 2 - 1.2.1.13 Civil Works, Building and Foundation Volume 3- Schedule A: Scope of Works 1.1 According to Volume 2 - 1.2.1.13 Civil Works, Building and Foundation, the total land of Kaliganj substation is 18.05 acres and the entire land requires development upto required level, which is matches to the Dimension & Coordinate Map given in Technical Specification – 19. Drawing forming Part of the Specification. However, in Volume 3 - Schedule A: Scope of Works 1.1: The plot size, mentioned above, is very much tentative and subject to change as per actual land acquisition and site condition. Please confirm that the substation area will not significantly exceed 18.05 acres however it changes, because the substation enclosed area is closely related to the quantities of the site leveling, boundary wall, slope protections and property line demarcation grade beam, etc.	Please follow the bidding documents.	N
223.	Volume 2 - 10A.1.3 Way leaves, Land Purchase and Planning Permission According to Volume 2 - 10A.1.3 Way leaves, Land Purchase and Planning Permission: The Employer will be responsible for the purchase of all land within the permanent site boundary and the purchase of all land required to the base of the fill of any batter slopes; Please clarify who will be responsible for the crop compensation within the substation area, because it seems like many crops and woods existing on the substation area from the google map.	Please follow the bidding documents.	N

224.	Volume 3 – Schedule B4, Item 1M: Civil Works, Building and Foundation Please provide a Geological report for reference, nearby or not far from the sub-station site to help us estimate the quantities of foundation treatment.	No other information will be provided. Please follow the bidding documents.	N
225.	Volume 2 - 1.5 Climatic Conditions: Maximum wind velocity is 160km/h; According to Volume 2 of 3- 10B.3.19 Brick work: External panels of brickwork shall be checked for wind pressure calculated in accordance with BS 6399 for a wind speed of 160 kph 3 second gust. Please confirm that 160km/h mentioned in Volume 2 of 3- 1.5 Climatic Conditions is 3s gust wind speed. According to Volume 2 - 1.5 Climatic Conditions: Maximum wind velocity is 160km/h; According to Volume 2 - 10B.3.19 Brick work: External panels of brickwork shall be checked for wind pressure calculated in accordance with BS 6399 for a wind speed of 160 kph 3 second gust. Please confirm that whether 160km/h mentioned in Volume 2 of 3- 1.5 Climatic Conditions is 3s gust wind speed.	Please follow the specifications of chapter 10A and chapter 10B regarding wind pressure for civil works.	N
226.	Volume 2 - 1.5 Climatic Conditions : seismic factor is 0.2g Volume 2 -10A.3.1 Architectural and Structural Requirements of Buildings According to Volume 2 - 1.5 Climatic Conditions : The seismic factor is 0.2g; which is inconsistent with the Volume 2 -10A.3.1 Architectural and Structural Requirements of Buildings: Control room building and switchyard panel room shall be reinforced by a reinforced concrete frame which shall be capable of resisting a horizontal earthquake force of 0.1G. Please clarify and provide the return period and exceedance probability of this seismic factor.	Please follow the specifications of chapter 10A and chapter 10B regarding seismic factors for civil works.	N
227.	Volume 2 - 10A.3.4 Surfacing According to Volume 2 - 10A.3.4 Surfacing : For the whole of the switchyard outdoor equipment area the ground shall be surfaced with gravel ; The substation plot, outside of the designated switchgear equipment areas, shall be turfed. Please confirm the surfacing of the future space provision area.	Please follow the bidding documents.	N

228.	Kaliganj grid substation lay-out drawing We understand that Ansar Barak building is not in bidder's scope, as the same is not indicated in Bid Price Schedule. Please Confirm	Please follow the Addendum 01	Y
229.	400kV & 220kV GIS Building We understand that only provision of lift to be provided by bidder as the lift is not indicated in Bid Price Schedule. Please Confirm	Please follow the Addendum 01	Y
230.	Volume_2_of_3. PGCB/DESIGN/2021/KALIGANJ/C01 400kV GIS Building & PGCB/DESIGN/2021/KALIGANJ/C02 230kV GIS Building In the notes: Floor area and height of the building provided here are minimum required size. If larger size is required building within the quoted price. No additional payment shall be made in this regard. We understand that we can adjust the length and width of the GIS room according to the size of the GIS equipment, taking into account the expansion bays. In this way, the actual building size may be smaller than the size provided in the Bidding Document drawings. Is that correct?	Floor area and height of the building provided in the Bidding Document drawings are minimum required size. If larger size is required due to bidder's GIS specifications, number of bays (including future), the bidder may increase size of the building within the quoted price. No additional payment shall be made in this regard. But if smaller size is required due to bidder's GIS specifications & number of bays (including future), floor area and height of the building shall be as per the Bidding Document drawings.	N