POWER GRID COMPANY OF BANGLADESH LIMITED

Construction of 230/132/33kV GIS Substation at Anwara, 230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir), 132/33kV GIS Substation at Cox'sbazar & Teknaf and 230kV GIS bay extension at existing Kaliakoir Substation (Package-1)

Under

Southern Chattogram and Kaliakoir Transmission Infrastructure Development Project.

[Bid Identification No.: PGCB/AIIB/000308-BGD/SS/Package-1]

CLARIFICATION NO.1

A pre-tender meeting was held on August 16, 2022 as per provision of ITT 7.4, Volume 1 of 3 of the Tender Document. Clarifications to the queries received from the prospective Tenderers regarding the Tender Documents prior to and during the Pre-tender meeting and after the Pre-tender meeting are given below which will form part of the tender document.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
Volume 01 of 03			
1.	Volume 1 of 3 Section 4: Tender Forms / Price Schedules Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Abroad. Schedule No. 4 - Installation and Other Services STI. STD and HIV/AIDS alleviation program & Excel document-Price Schedule Schedule No. 1 - Plant and Mandatory Spare Parts Supplied from Abroad Schedule No. 4 - Installation and Other Services-STI. STD and HIV/AIDS alleviation program	- For the excel document, Schedule No. 1 the colunm of taxes and duties is not shown in the table, only the total price is included. Whilst in the Section 4 of the bidding document, column 8 shows that tax & duties should be listed in local currency, and will not be summed to Schedule No. 5: Grand Summary. -The cost of STI. STD and HIV/AIDS alleviation program are listed in Schedule No. 4 of the Section 4 Tender Forms, but it is not included in the Excel document. Please instruct: Should the final bid be submitted based on the format of "Excel Document" or" bidding form"?	The cost of STI. STD and HIV/AIDS alleviation program and any others which are not listed in Price Schedule item but necessary for safe, efficient and satisfactory completion and functioning of the project shall be deemed to include in the overall quoted price. Bidders are instructed to submit their Price offer following the provided detailed Price schedule given in Volume 3 of 3 of the tender documents.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
2.	Volume 1 of 3 Section 1: Instructions toTenders 21. Tender Security/ Tender Securing Declaration In the case of a bank guarantee, the Tender security shall be submitted using either the Tender Security Form included in Section 4 (Tender Forms) or another form acceptable to the Employer. The form must include the complete name of the Tenderer.	Please instruct if issuing an unconditional bank guarantee, will the tender security be advised through or transfered through a local bank?	The authenticity of the tender security/bank guarantee submitted by a Tenderer shall be examined and verified by the Employer in writing from the bank issuing the security, prior to finalization of the evaluation report. If a tender security/bank guarantee was not found authentic, the tender which it covers shall not be considered for subsequent evaluation and in such case the Employer shall proceed to take punitive measures against that Tenderer as stated under ITT 3.1. If a Tenderer submit a tender security/bank guarantee which is issued by any foreign bank located outside Employer's country, such tender security shall have to be confirmed by a correspondent bank registered in the Employer's country.
3.	Volume 1 of 3 Section 8: Special Conditions of Contract 13.2.1 The Contractor shall, within 28 days of the notification of contract award, provide a security in an amount equal to the advance payment calculated in accordance with the Appendix (Terms and Procedures of Payment) to the Contract Agreement, and in the same currency or currencies.	Please instruct if the advance payment guarantee will be advised through a bank or transfered through a local bank.	Tenderers are requested to read carefully SCC clause 13.3.2 for clear understanding.
4.	Volume 1 of 3 GCC. 13.3.3 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	We understand that the clause of validity period of the performance security in Contract Forms shall prevail, please kindly confirm.	Performance security shall expire 12 Months after issuance of Operational Acceptance Certificate as per Contract form, 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,

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
	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. Section 9 – Contract Forms Performance Security This guarantee shall expire no later than the earlier of (a) 12 (twelve) months after our receipt of (i) or (ii) or (iii) (b) the [date] day of [month], [year].		
5.	Volume 1 of 3 SCC. 13. Securities Clause 13.2.1 Advance Payment Security is amended as follows: The expression "notification of contract award" is replaced by "contract signature". GCC. 13.3 Performance Security 13.3.1 The Contractor shall, within 28 days of the notification of contract award, provide a security	Please kindly confirm whether the GCC 13.3.1 shall be amended as follows: 13.3.1 The Contractor shall, within 28 days of the notification of contract "signature", provide a security for the due performance of the Contract in the amount specified in the SCC.	Please follow the terms and conditions of the tender document.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
	for the due performance of the Contract in the amount specified in the SCC.		
6.	Volume 1 of 3 SCC. 13. Securities Volume 3 of 3 1.2 Description of this Package The works under this turnkey contract include the following: • Construction of 230/33kV Indoor GIS (with future provision of 132kV) at Bangabandhu Hi-Tech city at Kaliakoir and Extension of 02 (two) nos. 230kV Bays at existing 400/230/132kV Kaliakoir Substation • Construction of 230/132/33kV Indoor GIS (with future provision of 400kV) at Anwara • Construction of 132/33kV Indoor GIS (with future provision of 230kV) at Cox'xbazar (N) • Construction of 132/33kV Indoor GIS at Teknaf	Please advice whether we should issue securities seperately for each scope of work? & Please kindly confirm: Will there be a certificate of completion / OAC for each scope? Should the defect liability period of the project scope be calculated separately or as a whole?	It is not mandatory to issue Securities separately for each scope of work. However, if the Contractor wishes to submit/issue separate securities for part of the facilities (individual scope) for which a separate Time for Completion is provided may be acceptable. Completion Certificate/ Operational Acceptance Certificate may be issued for part of the facilities (individual scope) for which a separate Time for Completion is provided in the bidding document. For defect liability period please follow the GCC clause 27 of the tender document.
7.	Volume 1 of 3 Section 4: Tender Forms Proposed Subcontractors and/or Manufacturers for Major Items of Plant and Services The following Subcontractors and/or Manufacturers are proposed for carrying out the item of the facilities indicated based on	Section 3: Evaluation and Qualification Criteria Criterion 2.5 of Section 3 refers to the "Contractor's Representative and Key Personnel", please clarify whether the correspondant Criterion should be "2.7 Subcontractors/Manufacturers"	Your understanding is correct. It's a typo error and it shall be 2.7 instead of 2.5.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
	Criterion 2.5 of Section 3 (Evaluation and Qualification Criteria). Tenderers are free to propose more than one for each item.		
8.	Volume 1 of 3 Section 4: Tender Forms Form - Tenderer's Qualification - EXP - 3: Subcontractors-	We understand that Subcontractors refer to Electrical Works Subcontractor & Civil Works Subcontractor and not comprise Manufacturers ,so Manufacturers do not need to fill out the Form EXP - 3.Please confirm.	Confirm.
9.	Volume 1 of 3 COF Contract Agreement Article 3 Effective Date 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 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 pay	With reference to the above clause, can we add one conditions precedent to the following options: ... (d)The Employer has issued a letter of credit.	Your proposal not acceptable. Please follow the tender document.
10.	Volume 1 of 3 COF Appendix 1 - Terms and Procedures of Payment (B) Payment Procedures Local Currency Portion:	In respect to the above-mentioned clause, could you please define and explain the " PGCB's financial and account rules or any other account rules in force and adopted by the Employer." ?	Payment terms and conditions for this contract already defined in the bidding document. PGCB's financial and account rules will be shared with the lowest responsive tenderer after award of Contract.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
	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.		
11.	Volume 1 of 3 COF Appendix 1 - Terms and Procedures of Payment (B) Payment Procedures Foreign Currency Portion:All Foreign currency payment will be through an irrevocable commercial letter of credit except the advance payment. & Volume 1 of 3 COF Contract Agreement 2.2Terms of Payment (Reference GCC Clause 12) The Employer shall instruct its bank to issue an irrevocable confirmed documentary credit made available to the Contractor in a bank in the country of the Contractor.	Please kindly clarify the time when the letter of credit is issued. Shall the letter of credit be issued by irrevocable letter of credit or irrevocable confirmed letter of credit (different terms are stipulated in the two places). In addition, if it is irrevocable confirmed letter of credit, shall the confirming bank be a bank in Bangladesh or a bank outside Bangladesh, and who shall bear the charges?	The letter of credit shall be irrevocable letter of credit only. Irrevocable confirmed letter of credit not required. 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.
12.	Common to all the Substations : Volume 1 of 3, Section 3, Clause 2.7.1 C), Item No. 1	We understand that GIS form different manufacturers / factories are acceptable for different voltage levels (i.e. 230kV & 132kV). Please confirm.	Confirm.
13.	Common to all the Substations : Volume 1 of 3, Section 3, Clause 2.7.1 C), Item No. 13	As per the requirement, "At least one evidence from end users for satisfactory service of equipment for a minimum of three (3) years in **employer's country** as on the date of tender opening." We request you to amend the same in line with previous bid requirements as, "At least one evidence from end users for satisfactory service of equipment for a	Please follow the tender document.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
		minimum of three (3) years **outside manufacturer's own country or in Bangladesh** as on the date of tender opening."	
14.	Common to all the Substations : Volume 1 of 3, Section 3, Clause 2.7.1 C), Item No. 13	We understand that bidder can propose manufacturers for CRP & SAS who are meeting the qualification requirement in line with clause 2.7.1 of Section 3, Volume-1. Please confirm.	Tenderers are requested to propose manufacturers for CRP & SAS in compliance with the clause 5.2.1 of the volume 2 of 3 of the tender document.
15.	Common to all the Substations : Volume 1 of 3, Section 3, Clause 2.7.1 C), Item No. 3, 4, 5, 6 & 7	We understand that AIS equipment qualification requiremnt is applicable for 230kV & 132kV equipment only. Please confirm.	Your understanding is not correct. Please follow the tender document.
16.	Commercial Queries: Volume-I, Section 3 - Special Conditions of Contract, Page 8-11 26. Completion Time Guarantee Applicable rate for liquidated damages: 0.5% (zero point five percent) of the contract price or the relevant part there of 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.	Tenderers are requested follow the terms and conditions of the tender document.
17.	Commercial Queries: 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 are less, we request to waive the submission of type test reporst for these AIS equipment at the bidding stage.	Please follow the tender document.
18.	Commercial Queries: Volume-I, Section 3. Evaluation and Qualification Criteria Page 3-9	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	**Exchange Rate for Qualification Criteria** Wherever a Form in Section IV, tender document forms, requires the tenderer to state a monetary amount, the tenderer should indicate the USD equivalent using the rate of exchange determined as follows: (a) For turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar or fiscal year, as

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
	Participation as a contractor, Joint Venture partner in at least three .... the Bidder's (or JV partner1) participosed pation 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	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.	applicable. (b) Value of single contract - Exchange rate prevailing on the date of the Contract. Exchange rates shall be taken from the publicly available source **identified in TDS 37.1** or, in case such rates are not available in the source identified above, any other publicly available source acceptable to the Employer. Any error in determining the exchange rates may be corrected by the Employer.
19.	Commercial Queries: 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	Type test validity shall be as per provided test report and the recommendations of the test report issuing authority.
20.	Commercial Queries: 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 confirm.	Your understanding is not correct. As per GCC clause 39.2.5, If the aggregated amount of change proposal becomes increase or decrease the Contract Price as originally set forth in Article 2 (Contract Price) of the Contract Agreement by more than 15%, the Contractor may give a written notice of objection thereto prior to furnishing the Change Proposal. Tenderers are requested to read carefully the tender document for their clear understanding.
21.	Commercial Queries: 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	Your request is not acceptable. Please follow the tender document.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
		applicable. Please confirm.	
22.	Commercial Queries: 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.	Expatriate tax on imported personnel of contractor or his subcontractor who may visit Bangladesh for short duration during execution of contract for supervision and other relevant works shall be as per prevailing law of the Employer's country.
23.	Commercial Queries: 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 correct.
24.	Commercial Queries: Volume-I, Section 9: Contract Forms Page 9-12 Appendix 2 - Price Adjustment..... 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, in the present volatile market scenario, all equipment are exposed to high fluctuation in raw material prices and no vendor is agreeing to provide firm prices. In line with the above, we request PGCB to kindly provide the price adjustment formula for all equipment as per International/IEEMA Standards & Price Indicies	Please follow the tender document.
25.	Commercial Queries: Volume-I, Section 9: Contract Forms Page 9-14 Appendix 3 - Insurance	We understand that all the insurances mentioned in the tender clause can be purchased from any reputed Insurance company in Bangladesh. Kindly Confirm.	Please follow the tender document.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
	Requirements.....		
26.	Commercial Queries: 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.
27.	Commercial Queries: Section 3 - Evaluation and Qualification Criteria 1.3.3 Operation and Maintenance (O&M) Costs	Capitalization values for transformers and capacitor banks have been listed under the subject section. We understand that these are to be read as part of "1.3.4 Functional Guarantees of the Facilities", and that "1.3.3 Operation and Maintenance (O&M) Costs" - are not applicable Kindly confirm if our understanding is coorect. In case our understanding is not correct kindly clarify the interpretation of this clause	Your understanding is not correct. Generally, Transformer loss will be confirmed during Factory Acceptance Test (FAT) in manufacturers factory before shipment of Transformer. It is not relevant to functional performance after commissioning. Tenderers are requested to follow the tender document.
28.	Commercial Queries: Section 4: Tender Forms - Form FUNC	In continuation with above query - request to kindly provide form FUNC	Please follow the tender document.
29.	Specification of Power Transformer, clause.no.4.3.5, 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. The test is applicable for a reference transformer and calculation is for the offered transformer 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 similarity calculation shall be submitted during design review after award of contract. Please confirm whether bidder's understanding is in order.	Your understanding is correct.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
30.	Volume 1 of 3-GCC-Clause 13	The Contractor shall, within 28 days of the notification of contract award, provide a security in an amount equal to the advance payment calculated in accordance with the Appendix (Terms and Procedures of Payment) to the Contract Agreement, and in the same currency or currencies. Please clarify if the advance payment security can be provided by just one currency	Please follow the tender document.
31.	Volume 1 of 3-Contract Agreement-Appendix 1 - Terms and Procedures of Payment-(B) Payment Procedures	Only the advance payment (10% of the foreign currency portion) will be paid through direct disbursement by AIIB, without letter of credit. The remaining payments (90% of the foreign currency portion) will be made through an irrevocable commercial Letter of Credit. But LC value will be in- creased by remaining 10% of contract value at the time when it will be required for customs clearance purpose for clearance of goods from Port only. Please clarify if the Letter of Credit for the foreign currency will be issued by AIIB or not.	Please follow the tender document.
32.	Please clarify if the Letter of Credit for the foreign currency will be issued by AIIB or not.	the conditions listed under 3.1 are not fulfilled within 2 months from the date of this Contract notification because of reasons not attributable to the Contractor, the parties shall discuss and agree on an equitable adjustment to the Contract Price and the Time for Completion and/or other relevant conditions of the Contract. Please clarify the definition of "the date of Contract notification"	The date of Contract notification is the date of Notification of Award (NOA).
33.	Volume 1 of 3-SCC-Clause 27.8	27.8 The following paragraph is added at the end of this sub clause: Upon correction of the defects in the Facilities or any part thereof by repair/ replacement, such repair/replacement shall have the Defect Liability Period extended by a period mentioned in Sub-Clause 27.2 from the time such replacement/repair of the facilities or any part thereof. Since the Defect Liability Period will be extended if there's replacement during the period, please clarify the cap of the Defect Liability Period.	As per tender document.
34.	Volume 1 of 3-SCC-Clause 19.6	19.6 The Contractor shall not subcontract more than 50% of the facilities. Please clarify what "The Contractor shall not subcontract more than 50% of the facilities." means. What kind of subcontract cannot be more than 50% ? Does such clause apply to equipment procurement? and how it is evaluated	Generally it is applicable for civil construction, installation, testing and Commissioning.
35.	Volume 1 of 3-SCC-Clause 8.1	The Contractor shall commence work on the Facilities within 30 (thirty) days from the Effective Date for determining Time for Completion as specified in the Contract Agreement. Please clarify the precedent conditions for commencement.	It is already clear in the said clause. Please read carefully the tender document.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
36.	Volume 1 of 3 Section 8 Volume 1 of 3 Section 9:Appendix 8	Section 8:26.2 The aggregate amount of such liquidated damages shall in no event exceed 10% (ten percent) of the Total Contract Price. Section 9:Appendix 8: Subject to para. 4.3 above, the Contractor's aggregate liability to pay liquidated damages for failure to attain the functional guarantees shall not exceed ten percent (10%) of the Contract price. Please clarify the aggregate liability of delay liquidated damages and performance liquidated damages.	The aggregate amount of liquidated damages shall in no event exceed 10% (ten percent) of the Total Contract Price. Please follow the tender document.
37.	Volume 1 of 3 - 21.5 -	If a Tender security is specified pursuant to ITT 21.1, the Tender security of the unsuccessful Tenderer shall be returned promptly upon the successful Tenderer's furnishing of the performance security pursuant to ITT 46. According to volume1 of 3 ITT 21. 3 The Tender security shall be valid for 28 days beyond the original validity period of the Tender, or beyond any period of extension if requested under ITT 20.2. This two clauses about Tender security conflict with each other. We propose The Tender security shall be valid for 28 days beyond the original validity period of the Tender, or beyond any period of extension if requested under ITT 20.2. Please confirm.	Your question is not clear. Please follow the tender document.
38.	Volume 1 of 3 - 46.1 -	Within 28 days of the receipt of notification of award from the Employer, the successful Tenderer shall furnish the performance security in accordance with the conditions of contract, subject to ITT 39.5 and ITT 40.4, using for that purpose the Performance Security Form included in Section 9 (Contract Forms), or another form acceptable to the Employer. If the institution issuing the performance security is located outside the country of the employer, it shall have a correspondent financial institution located in the country of the employer to make it enforceable. We suggest such performance security as to be issued by a Chinese bank directly in China will be accepted. Please conform such suggestion is acceptable or not.	Please follow the tender document.
39.	Volume 1 of 3 - 13.2.2-	The security shall be in the form provided in the Tendering Documents or in another form acceptable to the Employer. The amount of the security shall be reduced in proportion to the value of the Facilities executed by and paid to the Contractor from time to time, and shall automatically become null and void when the full amount of the advance payment has been recovered by the Employer. The security shall be returned to the Contractor immediately after its expiration. Please clarify the deduction ratio of advance payment base on the value of the Facilities executed by Contractor.	It is already mentioned in the said clause GCC 13.2.2 as follows: *"The amount of the security shall be reduced in proportion to the value of the Facilities executed by and paid to the Contractor from time to time."*

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
40.	Volume 1 of 3 - Appendix 1- Terms 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). Since Libor will not be updated in the future, please clarify if other interest such as SOFR can be used.	Please follow the tender document.
41.	Volume 1 of 3 - Section 8 SCC- Taxes and Duties	Notwithstanding GCC Sub-Clauses 14.1 above or where ever, any material import from abroad under price schedule No.1 shall be considered as the direct import of the Employer and the Employer shall bear and promptly pay all relevant customs and import duties as well as other local taxes, e.g., a value added tax (VAT), advance income tax (AIT) and other charges, which imposed by the law of the country, that are to be incorporated into the facilities. The Employer shall not be responsible for the payment of customs duties and VAT for the items imported for civil works material specified in Price Schedule No.4.The Contractor shall be responsible for the payment of customs duties and VAT for the items imported for civil works material. 1.Pls clarify the AIT of Schedule No.2 &3&4 will be borne by the Employer or the Contractor 2.Pls clarify the VAT which is borne by the Employer is 15% or 7.5%.	Applicable AIT or TDS (Tax deduction at source) shall be deducted from the Contractor's invoice against price schedule 2, 3 & 4 as per prevailing rule of Employer's country. VAT shall be as per prevailing rule of the employer's country.
42.	Tender Documents- Volume 1 of 3 Page : 1 Construction of 230/132 /33kVGIS Substation at Anwara, 230/33kVGIS Substation at Bangabandhu Hi-Tech City (Kaliakoir), 132/33kV GIS Substation at Cox'sbazar & Teknaf and 230kVGIS bay extension at existing Kaliakoir Substation	Tender Documents- Volume 1 of 3 1.3.2 Time Schedule Page:42 b) Scope-II: Kaliakoir 230kV AIS Bay extension: 24(Twenty four) months from the effective date. 2.7.1 Manufacturers Page:51 C) Requirement: AIS Circuit Breaker AIS Disconnector Switch Please confirm whether the high voltage equipment type is GIS or AIS for the Kaliakor 230KV power station interval expansion in the scope of work of this contract, and there are multiple conflicts before and after the contract documents.	Your question is not clear. However, bay extension at Kaliakoir substation shall be 230kV AIS type as per tender requirement.
43.	SCC 9.11 Contractor's Responsibilities	"The Contractor shall obtain temporary rights-of-way for the mobilization of materials for the purpose of construction of transmission lines which are necessary for the Works in accordance with the Resettlement Plan (RP). Through its Environmental and Social Unit and Social Safeguard Consultant(s),	Generally Employer i.e. PGCB is responsible for acquisition of the land for Substation site. However necessary measures has to be taken by the substation Contractor during construction and material transportation if any additional rights of way or facilities out- side the Site which he may require for

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
		the Employer shall collaborate with the contractor to implement the RP. The Employer shall also monitor Contractor's activity concerning the implementation of the Resettlement Plan, secure necessary budget, pay actual compensation cost and ensure timely disbursement of compensation and other entitlements to the Project Affected Entities via the Contractor, Social Safeguard Consultants, and its Environmental and Social Unit following the provisions of the RP and the Development Project Proposal (DPP) as updated from time to time. The Contractor shall obtain, at his risk and cost, any additional rights of way or facilities out- side the Site which he may require for the purposes of the Works in accordance with the RP." We understand that this clause applies to the transmission line project but not to this substation project, Please kindly clarify.	the purposes of the Works in accordance with the RP.
Volume 02 of 03 & Volume 03 of 03			
44.	Schedules of Rates and Prices Schedule No. 1. Section VI: Mandatory Spares, Erection & Test Equipment	For Item 6.2.7 and 6.3.7 (including 6.4.6) Surge Arresters are mandatorily required. Please clarify whether these quoted Surge Arresters are GIS integrated Arresters or AIS type Arresters.	As per tender. Surge arrester-245kV GIS, 145kV GIS and 36kV AIS.
45.	General	**Mounting of AVR (Automatic Voltage Regulator) IED for Transformers:** We understand that the AVR IED shall be mounted in the RTCC panels offered for Transformers. Please confirm.	Confirm.
46.	Tender document, Volume 1 of 3, Volume 2 of 3 and Volume 3 of 3	There are no related specifications about fire system in GIS room and control room, CCTV system of substation. Please provide.	The Contractor is responsible for submitting the proposal of CCTV system to cover substation area including GIS and Control room with suitable specification during contract execution. The Contractor is also responsible for submitting the proposal of firefighting system to cover GIS and Control room with suitable specification during contract execution.
47.	Volume 1 of 3 -20. DRAWINGS FORMING PART OF THE SPECIFICATION Drawing Title: ELECTRICAL LAYOUT OF Bangabandhu Hi-Tech City 230/33 kV GIS SUBSTATION &	The quantities of 230kV GIS building &132kV GIS building between Drawings and Schedule No. 4. Installation and Other Services are contradictory, For instance, In the Drawing ELECTRICAL LAYOUT OF Bangabandhu Hi-Tech City 230/33 kV GIS SUBSTATION, the No.of 230kV GIS building is one, while in Schedule No. 4. Installation and Other Services Item1M4, the No.of 230kV GIS building is two. Please kindly confirm which one is correct?	Please follow the price schedule for this specific case.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
	ANOWARA 400/230/132/33 kV GIS SUBSTATIO & ELECTRICAL LAYOUT OF TEKNAF 132/33 kV GIS SUBSTATIO & Schedule No. 4. Installation and Other Services Item1M4 Two storied 230kV GIS building (35mX12m) & Item3M4 Two storied 230kV GIS building (55mX12m), Two storied 132kV GIS building (45mX12m)		
48.	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." 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.	Please follow the tender document.
49.	Volume 2 of 3, Tender Drawing : Electrical layouts	Please provide the sectional layouts for the tender electrical layouts for all the substations	Tentative Layouts for all the Substations are attached in tender doc. In addition to it, Gantry height related issues are described in gantry drawing at section 20 of volume 2 of tender doc.
50.	Volume 2 of 3, Technical specification - 10A Buildings and Civil Engineering works, Cl. 10A.3.3, Drainage. Pg 16	In the referred clause, please confirm the type of open channels, concrete or brick.	Following the clause 10A.3.3 Drainage, detailed design & engineering shall be finalized during execution stage.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
51.	Volume 2 of 3, Technical specification - 10A Buildings and Civil Engineering works, Cl. 10A.3.22, Transformer Bases.Pg 26	Please confirm if wall type foundation can be provided for Transformer base.	Following the clause 10A.3.22 Transformer Bases, detailed design & engineering shall be finalized during execution stage.
52.	Volume 2 of 3, Tender drawings	Please provide the drawing for Fencing Gate.	This will be finalized during execution stage
53.	Volume 2 of 3, Tender Drawing : Electrical layouts	As per the referred tender layouts we envisage Bus Ducts from GIS Buildings. Please confirm how the foundations for these Bus Ducts are measured and paid.	It is included in GIL installation in Lot
54.	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/Hi-wall type split AC units/Cassette Type AC which suffice the system design and have less maintenance cost and running cost. Pls confirm.	As per tender
55.	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	As per tender
56.	Volume 2, Section13, Clause 13.31.2	We understand that No Heating system is envisaged for this tender. Please confirm	As per tender
57.	Volume 2, Section13, Clause 13.31.3	We understand that, Exhaust Fan shall be propellar type. Please confirm	As per tender
58.	Volume 2, Section13, Clause 13.31.3	We Understand that Exhaust Fan with Cowl & Bird/Insect Screen shall be provided for 220 KV GIS Hall. Please Confirm.	Confirmed.
59.	Volume 2, Section13, Clause 13.31.2	Please clarify the Standby requirement of Air conditioning System. Since there is no Stand-by requirement mentioned in the Technical Specification, we will consider 20 % Stand-by AC units for Control & Relay Protection room & Telecommunication/SCADA/PLC room only. No standby AC unit shall be considered for Office & AC/DC Auxiliary Power Supply room. Please confirm	20% extra air cooling capacity shall have to be provided with respect to the actual requirement (calculated design value)
60.	Volume-II, SECTION-4- Clause no. 4.13.3	As per referred Clause, The pressurizing air vessel is to be designed for a minimum spraying time of 20 minutes. However, please note that, Pressurizing Vessel shall be provided to minimize the no. of Start- Stop of Jockey Pumps. The size of Pressurizing vessel shall be decided to meet water demand due Minor leakage through various Flanges, Joints etc. in Fire Pipe Network & the	As per Tender.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
		same shall not be decided based on Spraying Time. If we consider Fire Water Storage Tank for 1 hr. operation of HVWS System for Transformer as per NFPA, then Further storage of 20 min. spraying time for pressurizing Vessel is not required at all. Also note the 20min Spraying time Storage will be huge Size, over design & unnecessary add to the cost of Project. Hence, we request you to check & revise this clause.	
61.	Volume-II, SECTION-4- Clause no. 4.12.5	As per Clause no. 4.13.3, For, quality and maintenance requirement, the Water Spray System (WSS) shall be from Europe/USA/Canada/Japan origin. We want to propose Indian Make Water Spray System Equipment of equivalent Standard with UL/FM Approved equipment to ensure Quality & Maintenance requirements. Request you to provide your confirmation for the same.	As per Clause no. 4.13.3 of section 4 of volume 2, For, quality and maintenance requirement, the Water Spray System (WSS) shall be from Europe/USA/Canada/Japan origin. Please proceed accordingly.
62.	General Scope Clarification	We understand that, Air Sampling System & LHS Cable shall not be envisaged for this tender. Please confirm	As per Tender.
63.	General Scope Clarification	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	As per Tender.
64.	Tender Layout	There is no tender drawing provided for Fire Water Pump House & Tank. Please provide the same.	The same shall be finalized during execution stage upon detailed engineering & calculation.
65.	General	We will consider Aboveground Fire Water Tank to maintain Flooded (Positive) Suction of Fire Water Pumps. Please confirm	Following the Tender Requirement, detailed design & engineering shall be finalized during execution stage.
66.	General	We are considering the Following Make/origin list for Fire Fighting System. Please provide confirmation on the same. 1. Fire Pumping System- Indian Make/Standard (Non Listed) 2. Water Spray System(WSS)- Indian Make/Standard (UL/FM/LPCB Approved) 3. ERW Pipe (Black I Galvanized)- Indian Make/Standard (Non Listed) 4.Fire Alarm System - Indian Make/Standard (Non Listed) 5 Cables-Indian Make/Standard (Non Listed) 6. Fire Extinguishers-Indian Make/Standard (Non Listed)	As per Clause no. 4.13.3 of section 4 of volume 2, For, quality and maintenance requirement, the Water Spray System (WSS) shall be from Europe/USA/Canada/Japan origin. Please proceed accordingly.
67.	General Scope Clarification	Since Fast Depressurization System, Water Mist System & CAFS System is not mentioned in the price schdule, we understand relavant clauses mentioned in Volume-2 stands void regarding the same.	Fire Fighting system for transformer shall be Water Spray Fire Fighting System as per schedule-A. Volume-2 is a comprehensive document where all specifications are mentioned.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
68.	230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir): General	Please provide the soil resistivity value	For collecting any data/information from existing site, bidder may visit the site
69.	230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir): Tender Layout	Please provide the distance between property wall to boundary line to be considered.	Slope protection shall be with 1:2 ratio (depth of earth filling: distance between property line to boundary wall. Following it, the required distance shall be finalized.
70.	230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir): Remote Integration	Please note that we are not considering any remote end as well as SLDC/RLDC/NLDC augmentation/modification scope in present scope for complete substation package. Please confirm.	As per tender.
71.	230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir): Remote Communication	Please note that we are not considering any communication panel/integration for SLDC/RLDC/NLDC in present scope for complete substation package. Please confirm.	As per tender.
72.	230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir): Remote CRP Panels	Please note that we are not considering any protection and control relay panels for remote end line bays connected to our present scope bays. Please confirm.	Please note that we are not considering any protection and control relay panels for remote end line bays connected to our present scope bays. Please confirm.
73.	230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir): Volume 2 of 3, Tender Drawing : Electrical layout of Bangabandhu Hi-Tech City 230/33kV GIS Substation	In the referred layout the number of gantries are mismatching as per schedule and layout plan. Also there are some gantry columns with double beam but the quantity for the same has been mentioned as 0 in the schedule. Please clarify.	Number of gantry columns (with only single beam) and Beams shall be finalized as per price schedule. In Layout Plan, there are some future transformers, gantries, beams etc. shown in the layout to indicate & keep provision for future extension works in the switchyard.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
74.	230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir): Volume 2 of 3, Tender Drawing : Electrical layout of Bangabandhu Hi-Tech City 230/33kV GIS Substation	Please clarify the scope of the following shown in the tender layout. If in scope may provide the tender drawings and add in the schedule for civil works.. 1) Residential building. 2) Building for soak well and septic tank 3) One more pump House shown in addition to FFPH and Water tank 4) Unloading platform 5) Civil works for NIFPS	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
75.	230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir): Volume 2 of 3, Tender Drawing : Electrical layout of Bangabandhu Hi-Tech City 230/33kV GIS Substation	We could not locate the three storied 230kV control room building in the referred layout which is mentioned in the schedule. May please confirm. May please provide the tender drawing for 230kV Control Room Building.	Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule). Necessary drawings are attached in section-20 of volume-2 of bid document.
76.	230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir): Volume 2 of 3, Tender Drawing : Electrical layout of Bangabandhu Hi-Tech City 230/33kV GIS Substation	3 no.s 230/33kV Transformers are shown in the layout, but as per the schedule only 2 nos. of transformer foundations are mentioned. We presume that transformer foundations and fire walls to be considered as per schedule only. Please confirm.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
77.	230/132/33kV GIS Substation at Anwara: General	Please provide the soil resistivity value	For collecting any data/information from existing site, bidder may visit the site
78.	230/132/33kV GIS Substation at Anwara: Tender Layout	Please provide the distance between property wall to boundary line to be considered.	Slope protection shall be with 1:2 ratio (depth of earth filling: distance between property line to boundary wall. Following it, the required distance shall be finalized.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
79.	230/132/33kV GIS Substation at Anwara: Remote Integration	Please note that we are not considering any remote end as well as SLDC/RLDC/NLDC augmentation/modification scope in present scope for complete substation package. Please confirm.	As per tender.
80.	230/132/33kV GIS Substation at Anwara: Remote Communication	Please note that we are not considering any communication panel/integration for SLDC/RLDC/NLDC in present scope for complete substation package. Please confirm.	As per tender.
81.	230/132/33kV GIS Substation at Anwara: Remote CRP Panels	Please note that we are not considering any protection and control relay panels for remote end line bays connected to our present scope bays. Please confirm.	Please note that we are not considering any protection and control relay panels for remote end line bays connected to our present scope bays. Please confirm.
82.	Volume 2 of 3, Tender Drawing : Electrical layout of Anwara 400/220/132/33kV GIS Substation	In the referred layout the number of gantries are mismatching as per schedule and layout plan. Also there are some gantry columns with double beam but the quantity for the same has been mentioned as 0 in the schedule. Please clarify.	Number of gantry columns (with only single beam) and Beams shall be finalized as per price schedule. In Layout Plan, there are some future transformers, gantries, beams etc. shown in the layout to indicate & keep provision for future extension works in the switchyard.
83.	Volume 2 of 3, Tender Drawing : Electrical layout of Anwara 400/220/132/33kV GIS Substation	Please clarify the scope of the following shown in the tender layout. If in scope may provide the tender drawings and add in the schedule for civil works. 1) Building for soak well and septic tank	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
84.	Volume 2 of 3, Tender Drawing : Electrical layout of Anwara 400/220/132/33kV GIS Substation	Please confirm the number of septic tank and soak pit for the present scope of work.	As per tender.
85.	Volume 2 of 3, Tender Drawing : Electrical layout of Anwara 400/220/132/33kV GIS Substation	We could not locate the two storied 230kV control room building and 132kV control room building in the referred layout which is mentioned in the schedule. May please confirm. May please provide the tender drawing for 230kV control room building and 132kV Control Room Building.	Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule). Necessary drawings are attached in section-20 of volume-2 of bid document.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
86.	Volume 2 of 3, Tender Drawing : Electrical layout of Anwara 400/220/132/33kV GIS Substation	We understand that to cater for level difference in the periphery of the plot, slope protection with turfing shall be provided and boundary wall without retaining wall shall be provided. Please confirm.	As per tender.
87.	Volume 2 of 3, Tender Drawing : Electrical layout of Anwara 400/220/132/33kV GIS Substation	3 no.s 230/132kV Transformers and 3 no.s of 132/33kV are shown in the layout, but as per the schedule only 4 no.s of transformer foundations are mentioned. We presume that transformer foundations and fire walls to be considered as per schedule only.Please confirm.	Confirmed.
88.	Volume 2 of 3, Tender Drawing : Electrical layout of Anwara 400/220/132/33kV GIS Substation	In electrical layout, please confirm what are the LM's shown near transformers.	LM means Lightning Mast which might be required to be installed along with Shield Wire for DSLP protection.
89.	Volume 2 of 3, Tender Drawing : Electrical layout of Anwara 400/220/132/33kV GIS Substation	In electrical layout, please confirm what are the LM's shown near transformers.	LM means Lightning Mast which might be required to be installed along with Shield Wire for DSLP protection.
90.	Volume 2 of 3, Tender Drawing : Electrical layout of Anwara 400/220/132/33kV GIS Substation	In electrical layout, please confirm what are the LM's shown near transformers.	LM means Lightning Mast which might be required to be installed along with Shield Wire for DSLP protection.
91.	Volume 2 of 3, Tender Drawing : Electrical layout of Anwara 400/220/132/33kV GIS Substation	In electrical layout, please confirm what are the LM's shown near transformers.	LM means Lightning Mast which might be required to be installed along with Shield Wire for DSLP protection.
92.	132/33kV GIS Substation at Cox'sbazar: General	Please provide the soil resistivity value	For collecting any data/information from existing site, bidder may visit the site

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
93.	132/33kV GIS Substation at Cox'sbazar: Tender Layout	Please provide the distance between property wall to boundary line to be considered.	Slope protection shall be with 1:2 ratio (depth of earth filling: distance between property line to boundary wall. Following it, the required distance shall be finalized.
94.	132/33kV GIS Substation at Cox's bazar: Schedule-1, S.No-4H2	Please confirm the "momentary short circuit current of metallic sheath" of 145kV EHV Cable.	Detailed design & calculation shall be finalized during execution.
95.	132/33kV GIS Substation at Cox'sbazar: Remote Integration	Please note that we are not considering any remote end as well as SLDC/RLDC/NLDC augmentation/modification scope in present scope for complete substation package. Please confirm.	As per tender.
96.	132/33kV GIS Substation at Cox'sbazar: Remote Communication	Please note that we are not considering any communication panel/integration for SLDC/RLDC/NLDC in present scope for complete substation package. Please confirm.	As per tender.
97.	132/33kV GIS Substation at Cox'sbazar: Remote CRP Panels	Please note that we are not considering any protection and control relay panels for remote end line bays connected to our present scope bays. Please confirm.	Please note that we are not considering any protection and control relay panels for remote end line bays connected to our present scope bays. Please confirm.
98.	Volume 2 of 3, Tender Drawing : Electrical layout of Cox's Bazar(N) 132/33kV GIS Substation	In the referred layout the number of gantries are mismatching as per schedule and layout plan. Also there are some gantry columns with double beam but the quantity for the same has been mentioned as 0 in the schedule. Please clarify.	Number of gantry columns (with only single beam) and Beams shall be finalized as per price schedule. In Layout Plan, there are some future transformers, gantries, beams etc. shown in the layout to indicate & keep provision for future extension works in the switchyard.
99.	Volume 2 of 3, Tender Drawing : Electrical layout of Cox's Bazar(N) 132/33kV GIS Substation	Please clarify the scope of the following shown in the tender layout. If in scope may provide the tender drawings and add in the schedule for civil works.. 1) Dormitory building shown in the layout. 2) Building for soak well and septic tank 3) Transformer fire suppression CAF feeding room 4) Building for soak well and septic tank	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
100.	Volume 2 of 3, Tender Drawing : Electrical layout of Cox's Bazar(N) 132/33kV GIS Substation	We could not locate the three storied 132kV control room building in the referred layout which is mentioned in the schedule. May please confirm. May please provide the tender drawing for 132kV Control Room Building.	Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule). Necessary drawings are attached in section-20 of volume-2 of bid document.
101.	Volume 2 of 3, Tender Drawing : Electrical layout of Cox's Bazar(N) 132/33kV GIS Substation	In electrical layout, please confirm what are the LM's shown near transformers.	LM means Lightning Mast which might be required to be installed along with Shield Wire for DSLP protection.
102.	Tender Layout	Since there is no, water based fire protection system is envisaged for Cox's Bazar SS. So, Fire Water Pump House & Tank shown in Layout is not required. Please check & clarify.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
103.	132/33kV GIS Substation at Teknaf: General	Please provide the soil resistivity value	For collecting any data/information from existing site, bidder may visit the site
104.	132/33kV GIS Substation at Teknaf: Tender Layout	Please provide the distance between property wall to boundary line to be considered.	Slope protection shall be with 1:2 ratio (depth of earth filling: distance between property line to boundary wall. Following it, the required distance shall be finalized.
105.	132/33kV GIS Substation at Teknaf: Remote Integration	Please note that we are not considering any remote end as well as SLDC/RLDC/NLDC augmentation/modification scope in present scope for complete substation package. Please confirm.	As per tender.
106.	132/33kV GIS Substation at Teknaf: Remote Communication	Please note that we are not considering any communication panel/integration for SLDC/RLDC/NLDC in present scope for complete substation package. Please confirm.	As per tender.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
107.	132/33kV GIS Substation at Teknaf: Remote CRP Panels	Please note that we are not considering any protection and control relay panels for remote end line bays connected to our present scope bays. Please confirm.	As per tender.
108.	Volume 2 of 3, Tender Drawing : Electrical layout of Teknaf 132/33kV GIS Substation	In the referred layout the number of gantries are mismatching as per schedule and layout plan. Also there are some gantry columns with double beam but the quantity for the same has been mentioned as 0 in the schedule.Please clarify.	Number of gantry columns (with only single beam) and Beams shall be finalized as per price schedule. In Layout Plan, there are some future transformers, gantries, beams etc. shown in the layout to indicate & keep provision for future extension works in the switchyard.
109.	Volume 2 of 3, Tender Drawing : Electrical layout of Bangabandhu Hi-Tech City 230/33kV GIS Substation	Please clarify the scope of the following shown in the tender layout. If in scope may provide the tender drawings and add in the schedule for civil works.. 1) Residential building shown in the layout. 2) Building for soak well and septic tank 3) One more pump House shown in addition to FFPH and Water tank 4) Unloading platform 5) Civil works for NIFPS	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
110.	Volume 2 of 3, Tender Drawing : Electrical layout of Cox's Bazar(N) 132/33kV GIS Substation	Please confirm the number of septic tank and soak pits in the present scope.	Number of septic tank and soak pits under present scope shall be finalized upon detailed engineering and calculation during execution stage and as per scope of work/ price schedule.
111.	230kV AIS bay extension at existing Kaliakoir Substation: LT auxiliary Supply	We understand that LT aux supply are available as per spec. Hence, we need to consider only cable feeder for present scope bays aux supply. kindly confirm	As per tender.
112.	230kV AIS bay extension at existing Kaliakoir Substation: CRP panles	We understand that present scope bays control panels shall be located in the existing control room building. Kindly confirm.	Confirmed.
113.	230kV AIS bay extension at existing Kaliakoir Substation: Existing Control Room Building	Please provide the existing control room building drawing.	For collecting any data/information from existing site, bidder may visit the site.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
114.	230kV AIS bay extension at existing Kaliakoir Substation: Earthing Risers	Please provide the details of earthing risers being used in this substation for equipment earthing.	Detailed design & calculation shall be finalized during execution.
115.	230kV AIS bay extension at existing Kaliakoir Substation: Remote Integration	Please note that we are not considering any remote end as well as SLDC/RLDC/NLDC augmentation/modification scope in present scope for complete substation package. Please confirm.	As per tender.
116.	230kV AIS bay extension at existing Kaliakoir Substation: Remote Communication	Please note that we are not considering any communication panel/integration for SLDC/RLDC/NLDC in present scope for complete substation package. Please confirm.	As per tender.
117.	230kV AIS bay extension at existing Kaliakoir Substation: Remote CRP Panels	Please note that we are not considering any protection and control relay panels for remote end line bays connected to our present scope bays. Please confirm.	As per tender.
118.	Volume - II Section 5 - Protection, Metering & Control and Substation Automation System Page 2 of 70 Clause 5.2.1	As vendors have been standardized and pre-defined for protection Relays and Panels, we request that for inclusion of vendors in approved list for this item - bidder may only submit Manufacturers Authorization from respective vendor. Submission of remaining documents listed under Section 3 - 2.7 - Sl.no 13 may be waived. Kindly accept and confirm the same.	Please follow the bid document.
119.	Commercial Queries: General	1) Similar to standardization of vendors for protection realys and panels - we request to kindly share preferred vendor list for all major equipment which are to be supplied for the subject tender. 2) Further, we request that for inclusion of standard/prefered vendors in approved list of item- bidder may only submit Manufacturers Authorization from respective vendor. Submission of remaining documents listed under Section 3 - 2.7 may be waived for standard/prefered vendors. Kindly accept and confim the same.	As per tender document.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
120.	Commercial Queries: General	We understand the land for construction at all locations 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. Land acquisition for substation site is the responsibility of the Employer.
121.	Commercial Queries: General	For the approach road of 250m is to be constructed from the main road Cox's bazar site, kindly confirm that land/ROW for construction of approach road is already acquired by PGCB and PGCB will provide contractor with encumbrance free land during award of contract. Contractors shall not consider any cost toward acquiring of land/ROW for the approach road. Kindly confirm.	It is the responsibility of the Employer to acquire land for substation site and approach road of substation site.
122.	Commercial Queries: 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 tender document.
123.	Commercial Queries: GENERAL	Kindly provide the Soil Electrical Resistivity Parameters / Plot Sizes and ERT Data for the proposed SS locations.	For collecting any data/information from existing site, bidder may visit the site.
124.	Commercial Queries: GENERAL	Kindly confirm the incoming line availaibity for commissiong of new substations. Also, If commissiong of susbstations is delayed due to factors which are not attributable to contractor, Kindly confirm whether Taking over (TOC) for particular station and DLP will start within 3 months of completion of facilities.	As per terms and conditions of the Tender document.
125.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-2, 230/33kV Bangabanddhu Hi-tech GIS SLD	As per referred SLD, both indoor and outdoor type LAs are indicated. However as per Volume-3, Schedule-A, 1B, Indoor type LA's are not mentioned inside Indoor GIS modules. Hence we have considered 198kV outdoor LA and not considered indoor type LA. Please confirm.	Confirmed. GIS LA in not required. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
126.	Commercial Queries: GENERAL	The site location of Teknaf is in the vicinity of refugee camps, we understand that appropriate security measures for the safety of site will be taken up by the administration of PGCB/Govt. of Bangladesh. Kindly confirm.	Necessary measures will be taken at the time of execution if necessary. However, the Contractor is responsible for secure all construction activities and materials. If any cost involvement are there for such measures that has to be borne by the Contractor.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
127.	Kaliakoir 230kV AIS Bay Extension: Volume-2, General	Please furnish the following details for the existing Kaliakoir substation: a) Existing earthing layout (or) Earthmat spacing b) Cable trench layout c) Lightning Protection Layout d) AC/DC SLD e) Section view of the existing Switchyard.	For collecting any data/information for the existing substation apart from the data/ drawing provided in the bid doc., bidder may visit the site and furnish whatever is required.
128.	Kaliakoir 230kV AIS Bay Extension: Electrical Layout of Bay extension at existing Kalikoir 400/230/132/33kV AIS substation	Please provide/clarify the following details: 1) Please clearly mark the BPI location from where the Busbar need to be extended under the present scope in tender layout. 2) We presume that 230kV diameter-3 & 4 are existing and the busbar need to be extended from 4th Diameter only. Please confirm. 3) BUS CVT, BUS ES, BUS PI are indicated in Bus-1 & 2 after 4th Diameter. Please check and confirm the same need to be relocated after proposed 5th Diameter? 4) Please furnish the section drawing for any existing diameter with clear equipment-to-equipment spacing and height of the equipment. 5) Is it required to dismantle the existing boundary and road after 4th diameter? Please confirm. 6) Please check and confirm the requirement of land levelling in proposed area.	1. Separate block is mentioned in layout for present scope of work. 2. As per tender (layout, scope of work & existing scenario shall prevail). 3. Confirmed (the same shall be relocated under present scope of work). 4. For collecting any data/information for the existing substation apart from the data/ drawing provided in the bid doc., bidder may visit the site and furnish whatever is required. 5. Confirmed (As per tender). 6. As per tender.
129.	Kaliakoir 230kV AIS Bay Extension: Electrical Layout of Bay extension at existing Kalikoir 400/230/132/33kV AIS substation	Please furnish the following details: a) Whether the extension portion in the existing switchyard is levelled b) Whether gravel filling need to be done? c) Whether Earth mat is available for this portion? d) Please provide the earth mat spacing (or) Existing earth mat layout e) Type & size of the existing earthing conductors (Cu/GI/MS & its size)	For collecting any data/information for the existing substation apart from the data/ drawing provided in the bid doc., bidder may visit the site and furnish whatever is required. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule). Necessary drawings are attached in section-20 of volume-2 of bid document.
130.	Kaliakoir 230kV AIS Bay Extension: AC & DC Board details.	a) Please confirm from where the auxiliary AC & DC power supply need to be extended? Whether from the Main Control building (or) 230kV Local control house? b) We presume the existing LVAC & DC boards are provided with adequate spare feeders to cater the proposed bay extension under present scope.	Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
131.	Kaliakoir 230kV AIS Bay Extension: Conductor Details.	Please provide the following Conductor type & configuration existing switchyard: a) Main bus b) Equipment bus c) Strung bus	For collecting any data/information for the existing substation apart from the data/ drawing provided in the bid doc., bidder may visit the site and furnish whatever is required.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
132.	Kaliakoir 230kV AIS Bay Extension: Local Control house	We do not envisage construction of new control house for the proposed bay extension at Kaliakoir. We presume the proposed relay panes will be located in the existing 230kV Local control house. Please confirm.	As per tender.
133.	Volume-2, 220132/33kV Anwara GIS SLD	As per referred SLD, both indoor and outdoor type LAs are indicated. However as per Volume-3, Schedule-A, 3B&3C, Indoor type LA's are not mentioned inside Indoor GIS modules. Hence we have considered 198kV & 120kV outdoor LA and we have not considered indoor type LA. Please confirm.	Confirmed. GIS LA in not required. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
134.	Cox's Bazar (N) 132/33kV Indoor GIS: Volume-2, SLD of Cox'Bazar	As per referred SLD, both indoor and outdoor type LAs are indicated. However as per Volume-3, Schedule-A, 4C, Indoor type LA's are not mentioned inside Indoor GIS modules. Hence we have considered 120kV outdoor LA and we have not considered indoor type LA. Please confirm.	Confirmed. GIS LA in not required. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
135.	Teknaf 132/33kV Indoor GIS: Volume-2, SLD of Teknaf	As per referred SLD, both indoor and outdoor type LAs are indicated. However as per Volume-3, Schedule-1, 4C, Indoor type LA's are not mentioned inside Indoor GIS modules. Hence we have considered 120kV outdoor LA and we have not considered indoor type LA. Please confirm.	Confirmed. GIS LA in not required. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
136.	Teknaf 132/33kV Indoor GIS: Volume-2, Electrical layout Teknaf (Drg. No. teknaf/4.2)	As per referred drawing, 132kV GIL is indicated for Incomer and outgoing Bays. However as per volume-3, 5H, we understand that 132kV bays are connected to 132kV cable. Please check and confirm the actual requirement.	Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
137.	33kV Control & Relay Panels	Please confirm the location of 33kV Control & Relay panels, since our scope doesn't include 33kV GIS building.	33kV Incomer Control & Relay panels shall be main control building.
138.	Creepage Distance	As per specification, we understand that creepage distance shall be 25mm/kV for all outdoor equipment's. However as per volume-2, clause 3.4.1.8, minimum creepage distance for insulator are given as 30mm/kV. Please confirm the actual requirement.	Creepage distance shall be 31mm/kV for all outdoor equipment.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
139.	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.	As per tender (technical specifications as well as PSLD).
140.	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. e) If SAS Augmentation & retrofitting are required, please confirm the make & model number of the existing SAS.	As per tender.
141.	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.	As per tender.
142.	Transmission Line length	Please specify the transmission line length for the following : a) 230kV kaliakoir - Hitech City D/C line b) 230kV Shikalbah -Anwara D/C line. c) 230kV New Mooring -Anwara D/C line d) 230kV 300MW united power -Anwara D/C line e) 132kV Anwara - Cox's Bazar(N) D/C line. f) 132kV Dohzari - Cox's Bazar(N) D/C line g) 132kV Cox's Bazar(O) - Cox's Bazar(N) D/C line h) 132kV Teknaf - Cox's Bazar(N) D/C line i) 132kV Teknaf - Cox's Bazar(N) D/C line	For collecting any data/information for the existing substation apart from the data/ drawing provided in the bid doc., bidder may contact to project office and visit the site and furnish whatever is required.
143.	Volume-2, Section-3, Clause No. 3.4.5.34	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	As per tender. Further details shall be finalized during execution stage.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
		solar flux, then Sun shielding will not be provided. Please confirm whether Bidder's understanding is in order.	
144.	Volume-2, Section-3, Clause No.3.4.6.23.2 & 3.4.6.24	We understand that the type test need not be repeated for 230kV & 132kV 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.	As per tender requirement.
145.	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.	Please follow the bid document.
146.	Volume-2, Chapter 17, Annex 17.3.3., HV Cable types used	As per referred clause, Min. Short circuit rating of metallic sheath for 132kV cable is indicated as 40kA for 3sec. As the requirement is higher for 132kV level, we request PGCB to recheck the requirement & amend the short time rating as 40kA for 1sec.	As per tender.
147.	Auto-Transformer : Tap Step	As per Volume-3, 230/132/33kV, 250/350MVA, 3-Phase Auto Transformer, sl.no. sl.no.2.6, Tapping step/Size of Each tapping step is given as 1.25. However as per volume-2, clause 4.7.2, the same is given as "the high voltage winding in 17 steps of approximately 5/8% each. As the requirements are contradicting, please clarify the actual requirement.	GTP shall be followed.
148.	Volume-2, Section-4 - Clause No. 4.14.10, 4.14.11, 4.14.12	As per referred clause, the following items are indicated in specification: a) Oil Storage (Tanks and Bags) b) Oil Treatment Plant c) Oil Insulation Tester (Oil breakdown test) The above items are indicated in specification and not covered under price schedule. Please check and confirm the requirement and arrange suitable amendments.	As per tender.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
149.	Volume-2, Section-4 - Clause No. 4.18.1	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. 4.18.2 "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.	As per tender.
150.	Volume-2, Section-4 - Clause No. 4.18.1 - Type test & Special Tests	As per referred clause, Type test shall be conducted on the first transformer in a single FAT. However, as per clause no. 4.18.2, 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. 4.16.8 (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?	As per tender.
151.	Volume-2, Section-17 - Clause No. 17.10.8 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.	As per tender.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
152.	Volume-2- Air Conditioning and ventilation-Pg512/743	As per specification it has been mentioned to consider Air Cooled Split System Air Handling Units or cassette type Air Handling Units.Bidder presum that we need to consider Hiwall type split AC or Cassette type split Ac as Air handling units are specifically used for higher Air conditioning capacities with ducting system.Please confirm.	As per tender. Further details shall be finalized during execution stage.
153.	Volume-2- Air Conditioning and ventilation-Pg512/743	We are considering pressurized ventilation system for GIS hall ventilation system with 4 Air changes per hour as we couldn't find any spec for GIS hall ventilation system.Please confirm.	As per tender. Further details shall be finalized during execution stage.
154.	Volume-2- Air Conditioning and ventilation-Pg512/743	Please confirm the type of AC units to be considered for switchyard panel rooms (Hiwall split type or spacemaker units)	As per tender. Further details shall be finalized during execution stage.
155.	Volume-2- Air Conditioning and ventilation-Pg512/743	As per clause 13.31.3 Mechanical Ventilation it has been mentioned to consider sand trap louver for fresh air entry, We fell sand trap louver is not require as per environmental considitions.Please confirm.	As per tender. Further details shall be finalized during execution stage.
156.	Volume-2- Compresed air foam system (CAFS)- Clause-4.13.6-Pg 218/743	We are considering CAFS system for Transformer fire protection system only.Please confirm.	As per tender. (Please see the scope of work and price schedule)
157.	Volume-2- FPS System-General	We are considering Hydrant system for buildings with pump capacity of 137 CMH.Please confirm.	As per tender. Further details shall be finalized during execution stage.
158.	"Volume 2 of 3 Volume 3 of 3" "For Bangabandhu Hi-tech city 230-33 SA42 -- 1M1 Complete Land Development with carried/dredged earth filling & necessary slope protection(Deleted)"	It is seen from the site visit that Complete Land Development with carried/dredged earth filling & necessary slope protection is needed for this substation. However, this item is DELETED in Bill of Quantities. The Tenderer thereof understand that the Complete Land Development with carried/dredged earth filling & necessary slope protection at this substation is out of the work scope of the contract. Please confirm our understanding. If the Complete Land Development with carried/dredged earth filling & necessary slope protection is under the work scope of this substation, please	Please refer to item no. 19 of Addendum-1.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
		specify the quantities.	
159.	Volume 2 of 3 "4.16 Earthing & Auxiliary Transformer ..... 4.16.5.11 Current Transformer for E/F Protection The Transformer shall have two core bushing CTs at all side, i.e, HV, LV & Neutral bushing. Moreover, Outdoor type current transformer conforming to IEC6189 having ratio 100-800/1A (33kV class) (if not specifically mentioned) of 5P20 class shall be provided."	1. The quantity of current transformers is not clearly described. Please make it clear: Please specify the number of current transformers to be installed and how many on the high voltage side? How many on the Low voltage side? Does Low voltage neutral bushing need to be installed? 2. This type of Current Transformer for E/F Protection are usually installed inside the transformer, and the signal control cables are connected to the terminal box after being led out. This method can avoid the aging of the current transformer shell and inconvenient wiring problems, so please clarify that can the installation method be changed to be installed inside the transformer?	As per tender. Further details shall be finalized during execution stage.
160.	Volume 2 of 3, Scope of work 1.2	As per referred clause, geotechnical studies and soil investigation are in contractor's scope of work. However in price schedule there is no separate line item for the same. Kindly add an item for the same in price schedule.	It is deemed to be included in Schedule- B3 of price schedule.
161.	Volume 2 of 3, scope of work Cl.no: 10A.6/ 10B.6 (Land Development, Civil Works, Building and Foundation)	As per referred clause, Land development work is in bidder's scope for all SS. Kindly provide the following details for all S/S in order to estimate the quantum of work. 1. Contour survey (if available) 2. Soil investigation report (if available) 3. FGL for the proposed SS 4. High Flood Level	For collecting any data/information for the existing substation apart from the data/ drawing provided in the bid doc., bidder may visit the site and furnish whatever is required.
162.	Volume 2 of 3, scope of work Cl.no: 10A.6/ 10B.6 (Land Development, Civil Works, Building and Foundation)	As per referred clause, Land development work is in bidder's scope for all SS. But as per the BPS Schedule 4, for Hitech 230/33kV GIS Station, Item for Land development is not available. Hence we understand that land development for Hitech station is not in the scope of the bidder. Kindly confirm if our understanding is correct.	Please refer to item no. 19 of Addendum-1.

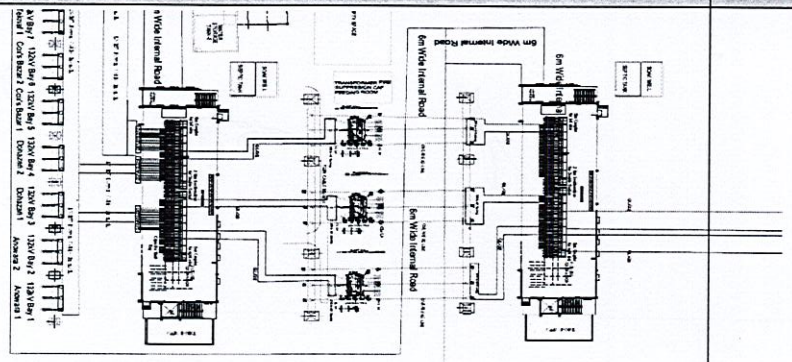
No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
163.	Volume-2 of 3, Technical specification Sec-10 (Buildings and Civil Engineering Works) 10A.3.1 & 10B.3.1	As per clause 10A.3.1, it is mentioned that the horizontal earthquake force is 0.1G. However in Cl.no : 10B.3.1, the same earthquake force is mentioned as 0.2G. Please clarify, which one is to be considered for design.	Please follow the bidding document.
164.	Volume 2 of 3, Technical specification, Section 11(Supporting Structures for Outdoor Equipment) 11.7.4	We presume that, the galvanisation thickness for structures is 610g/sq.m for all proposed substations. Please confirm.	Please follow the bidding document.
165.	Volume-2 of 3, Technical specification Sec-10 (Buildings and Civil Engineering Works) 10A.3/ 10B.3	We trust that, the buildings shall not be designed with future floor load, as the same is not mentioned in the specification. Please confirm. If the building to be designed considering future floor loads. Please furnish the future floor requirements.	Building shall be design considering both present load & future load. Future load can be estimated same as present load.
166.	Volume-2 of 3, Technical specification Sec-10 (Buildings and Civil Engineering Works) 10A.3.26/ 10B.3.28	In referred clause, the reinforcement grade is mentioned as Fe 415. We propose to use higher grade of Fe500 in design and supply instead of Fe 415, as it is not readily available in market. Please confirm.	Rebar grade 415 is minimum. Higher grade can be used.
167.	Volume-2 of 3, Technical specification Sec-10 (Buildings and Civil Engineering Works) 10A.3.2 e/ 10B.3.4 e	We wish to inform that, the detailed pile foundation specification is not attached with tender document. please provide the same, in order to ascertain the quantum of work.	Please follow the bidding document.
168.	Volume-2 of 3, Technical specification Sec-10 (Buildings and Civil Engineering Works) 10A.1.6.1/ 10B.1.6.1	As per referred clause, it is mentioned that On each major site the Contractor shall provide an office of approx size 5 x 8m. However in price schedule there is no separate item given for the same. Kindly add an item for the same in price schedule if required.	Site office cost deemed to be included in the quoted bid price.
169.	Volume-2 of 3, Technical specification Sec-10 (Buildings and Civil Engineering Works) 10A.3.18 & 10A.3.3	As per clause 10A.3.18, it is mentioned that the cable trench walls shall project 70mm above the site finish level. However in Cl.no : 10A.3.3, it is mentioned that the cable trench walls shall project at least 50mm above brick paving level. Please clarify, which one is to be considered for design.	The cable trench walls shall project at least 50mm above finished switchyard level (FSL).

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
170.	Volume-2 of 3, Technical specification Sec-10 (Buildings and Civil Engineering Works) 11.2 (STRUCTURE ARRANGEMENT)	We trust that, all girders, towers and equipment support structure shall be of steel lattice type connected with their foundation by foundation bolts with base plate. Please confirm.	Please follow the bidding document.
171.	Volume -2, Section -6, Specification of Auxiliary Power and Control Cables, Clause.No.6.12.4 Trays and Racks	We propose to lay cables on support angles in outdoor trenches. For control building, cables shall be laid in trays. Please confirm.	Trays and Racks shall be used for all cases.
172.	Dismantling work	We are not envisaging any dismantling work in New & extension stations. Please confirm.	As per tender.
173.	General	Please furnish the standard GA drawings (Plan & Section) for 33kV switchyard.	Please see the Layouts of all SS.
174.	General	Please confirm if GIS of different makes can be supplied for different voltage level for the proposed switchyard	As per tender.
175.	Volume 2 of 3, Technical specification Sec-10 (Buildings and Civil Engineering Works) 10A.3.3/ 10B.3.6	The type of drain & provision of drain is not specified in the tender document. We presume that, the drain shall be brick masonry type and the same shall be provided on one side of the road. Please confirm.	Type of drain will be finalized during execution stage.
176.	Volume 2 of 3, Technical specification Sec-10 (Buildings and Civil Engineering Works) 10A, 10B & Building Drawings	As per the referred clause, all the external walls for the buildings shall be 230mm thick and internal walls shall be of 115mm thick. Whereas, as per the building drawings provided, it is mentioned that "Periphery wall should be 250mm thick and all interior partition wall shall be 125mm thick" Kindly confirm which clause needs to be considered.	All the external walls for the buildings shall be 250mm thick and internal walls shall be of 125mm thick including Plaster.

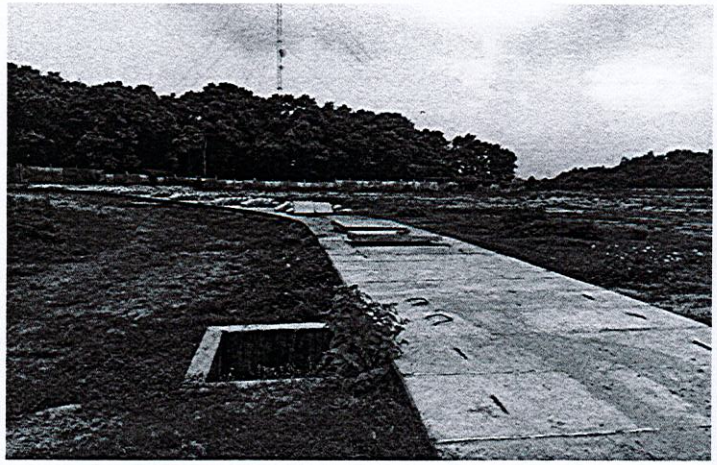
No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
177.	Volume 2 of 3, Technical specification Sec-10 (Buildings and Civil Engineering Works) Volume 3 of 3, Schedule 4 Civil Works -	If multiple terraces levels are obtained within the substation boundary, kindly suggest in which item shall the cost be included for the retaining wall required for the terrace separation or else pls add a separate item for the same in the Price Schedule.	Please follow the bidding document.
178.	Volume 2 of 3, Technical specification Sec-10 (Buildings and Civil Engineering Works) Volume 3 of 3, Schedule 4 Civil Works Kaliakoir Schedule 4: 2M3 iii a,b. Other New Stations: Schedule4, Civil Works	As per the BPS for Kaliakoir Extn. Station, Boundary wall with retaining wall and without retaining wall are provided separately whereas for the other new stations, such separate items are not provided. We understand that retaining wall is not necessary for the periphery of all the new stations. We also undertand that if any such requirement arises during the detailed engineering stage, same shall be payable as a separate line item with mutually agreed rates.	Please follow the bidding document.
179.	Volume 2 of 3, Technical specification Sec-10 (Buildings and Civil Engineering Works) Volume 3 of 3, Price Schedule -	As per scope of work & layout, the outdoor busduct foundation is in bidders scope. However in price schedule there is no separate item for outdoor bus duct foundation. Kindly add an item for the same in price schedule.	Please follow the bidding document.
180.	Volume 2 of 3, Electrical layout of Hi-Tech 230/132kV GIS SS & Price shedule (Schedule 4 (Hi-Tech)) Drawing No.: Hi-Tech/1.2 & 1M3 v	In referred layout, 3nos of 230/33kV Transformer Foundations are indicated. However in price schedule only 2 nos of Transformer Foundations are given. Kindly confirm the total nos of Transformer Foundations required.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
181.	Volume 2 of 3, Electrical layout of Kaliakoir AIS SS & Price shedule (Schedule 4 (Kaliakoir)) Drawing No.: Kaliakoir/2.2	As per the BPS Schedule 4 for Kaliakoir SS, We understand that only 4.5m wide road is in scope of the bidder as 6m wide road is not mentioned in the BPS. Kindly confirm if our understanding is correct.	Please follow the bidding document.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
	& 2M3 iv		
182.	Volume 2 of 3, Electrical layout of Anowara 230/132/33kV GIS SS & Price shedule (Schedule 4 (Anwara)) Drawing No.: Anowara/3.2 & 3M3 vii	In referred layout, 3nos of 400/230/33kV Transformers, 3nos of 230/33kV Transformer Foundations and 3nos of 132/33kV Transformers are indicated. However in price schedule only 4 nos of Transformer Foundations are given. Kindly confirm the total nos of Transformer Foundations required.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
183.	Volume 2 of 3, Electrical layout of Anowara 230/132/33kV GIS SS & Price shedule (Schedule 4 (Anwara)) Drawing No.: Anowara/3.2 & 3M3 xiii	As per the BPS Schedule 4 for Anwara SS, there is no item for 8m wide road, whereas as per the referred elec layout, 8m wide road is provided. Kindly include the item for the same in the price schedule and also pls provide the section drawing and specification for 8m wide road.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
184.	Volume 2 of 3, Electrical layout of Anowara 230/132/33kV GIS SS & Price shedule (Schedule 4 (Anwara)) Drawing No.: Anowara/3.2 & 3M3 xxiii	Request you to provide the detailed specification and drawings for the RCC culvert mentioned in the BPS as well as the referred electrical layout.	As per tender technical specifications. Necessary drawings are attached in section-20 of volume-2 of bid document.
185.	Volume 2 of 3, Electrical layout of Anowara 230/132/33kV GIS SS & Price shedule (Schedule 4 (Anwara)) Drawing No.: Anowara/3.2 & Schedule 4 (Anwara)	We understand that the 400kV Building and its subsediary towers, equipments, transformer foundations etc. are not in the scope of the bidder. Pls confirm.	Confirmed.

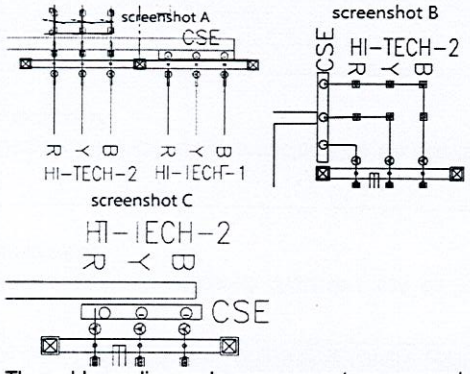
No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
186.	Volume 2 of 3, Electrical layout of Cox's Bazar 132/33kV GIS SS & Price shedule (Schedule 4 (Cox's Bazar)) Drawing No.: Cox's Bazar/4.2 & 4M3 v	In referred layout, 3nos of 230/33kV Transformer Foundations and 3nos of 132/33kV Transformers are indicated. However in price schedule only 3 nos of Transformer Foundations are given. Kindly confirm the total nos of Transformer Foundations required.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
187.	Volume 2 of 3, Electrical layout of Cox's Bazar 132/33kV GIS SS & Price shedule (Schedule 4 (Cox's Bazar)) Drawing No.: Cox's Bazar/4.2 & 4M3 vi	In referred layout, 3nos of blast walls with foundations are indicated. However in price schedule 4 nos of blast walls with foundations are given. Kindly confirm the total nos of blast walls with foundations required.	Please see the layout carefully. Moreover, Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
188.	Volume 2 of 3, Electrical layout of Cox's Bazar 132/33kV GIS SS & Price shedule (Schedule 4 (Cox's Bazar)) Drawing No.: Cox's Bazar/4.2 & Schedule 4 (Cox's Bazar)	In referred layout, Dormitory Building is provided. However in price schedule there is no item for the same. Hence, We understand that the same is not in the bidders scope. Kindly confirm if our understanding is correct or else pls provide the detailed specification and drawings for the same and also include the item in the Price Schedule.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
189.	Volume 2 of 3, Electrical layout of Cox's Bazar 132/33kV GIS SS & Price shedule (Schedule 4 (Cox's Bazar)) Drawing No.: Cox's Bazar/4.2 & 4M4	In the referred layout, 2 nos. of GIS and Control Room Buildings are shown as per the attached image. Whereas, only one no. of 132kV GIS and Control Room Building is provided in the BPS. Hence we understand that only one no. of 132kV GIS and Control Room Building is in the scope of the bidder. Kindly confirm is our understanding is correct.	Please see the layout carefully. One is 132kV GIS Building and another one is 230kV GIS Building. The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).

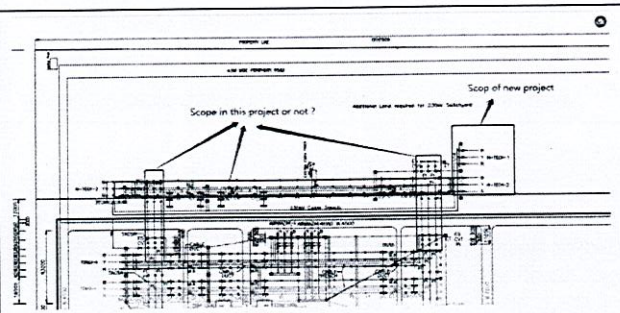
No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
			
190.	Volume 2 of 3, Electrical layout of Teknaf 132/33kV GIS SS & Price shedule (Schedule 4 (Teknaf)) Drawing No.: Teknaf/5.2 & 5M4	In the referred layout, 33kV GIS Building and Control room Building is shown whereas in the Price Schedule, no item is provided for the same. We understand that 33kV Building is not in the scope of the bidder. Kindly confirm if our understanding is correct or else pls provide the detailed specification and drawings for the same and also include an item for the same in the Price Schedule.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
191.	Volume 2 of 3, Electrical layout of Teknaf 132/33kV GIS SS & Price shedule (Schedule 4 (Teknaf)) Drawing No.: Teknaf/5.2 & 5M4	In the referred layout, Residential Building is shown whereas in the Price Schedule, no item is provided for the same. We understand that Residential Building is not in the scope of the bidder. Kindly confirm if our understanding is correct or else pls provide the detailed specification and drawings for the same and also include an item for the same in the Price Schedule.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).

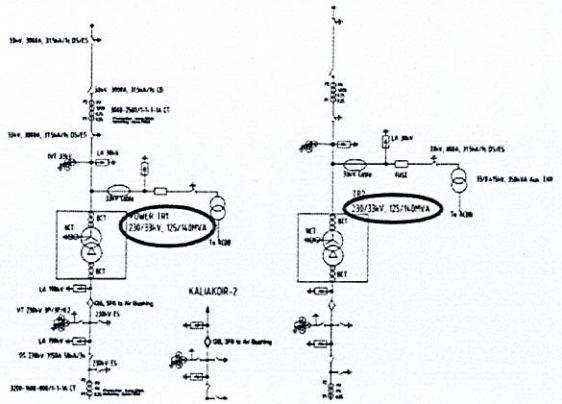
No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
192.	Volume 2 of 3, Electrical layout of Teknaf 132/33kV GIS SS & Price shedule (Schedule 4 (Teknaf)) Drawing No.: Teknaf/5.2 & 5M3 vi	In referred layout, 2nos of blast walls with foundations are indicated. However in price schedule 3 nos of blast walls with foundations are given. Kindly confirm the total nos of blast walls with foundations required.	Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
193.	General -	We understand from the Price Schedule and Electrical Layouts provided for all the stations that the future bays are not in the scope of the bidder. Kindly confirm if our understanding is correct.	Confirmed.
194.	230kV GIS bay extension at existing Kaliakoir Substation:	We understand that continuation with 230KV Bus is required with conductor and the conductors will cross the existing road. As the existing system BUS is made Tubular Conductor, so kindly clarify if the road crossing conductor should be provided with Tubular conductor or with Flexible Conductor?	As per tender.
195.	230kV GIS bay extension at existing Kaliakoir Substation:	As the Amin Bazar 1,2 terminal tower is close to the area of our scope of work & the conductors are just above the area of work scope, so kindly clarify that if there are sufficient clearance available with electrical equipment. We understand that if re-location of that terminal tower is required, it will be done by PGCB. Kindly confirm over our understandings.	As per tender. (Sufficient clearance of the electrical equipment under the present scope is available from the existing tower) For further dimensional information, please have a look at the tender layout of kaliakoir ss as attached in section-20 of volume-2 of bid document.
196.	230kV GIS bay extension at existing Kaliakoir Substation:	We understand that, new 230 KV CRP panels should be placed at the existing 230 KV SPR room. If so kindly confirm, existing SPR has sufficient space of allocation and no modification or extension is required.	Confirmed, existing SPR has sufficient space for panels allocation.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
197.	230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir):	We have found one cable trench within proposed site area constructed already. There is certain possibility that we need to transport heavy equipment over this cable trench. Kindly confirm, the cable trench's strength is adequate for this purpose. 	It is the contractor's responsibility to make necessary arrangement for ensuring transport of any type of equipment required in the substation area to complete the project work.
198.	132/33kV GIS Substation at Cox's bazar:	As we understand that two sets of 50MVAR Capacitor bank shall be connected at 132kV level, kindly confirm about the placement of these reactor and also confirm if any blast walls to be constructed for reactor or not.	There is empty space kept in the layout drawing. Blast wall requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
199.	Volume 2 of 3/Section-5/Clause 5.1.1/87L function/Page 1 of 70	Requirement of Line current differential protection scheme for 230kV and 132kV Overhead lines:- Please clarify the transmission line lengths of various overhead line lengths of 230kV and 132kV line feeders involved in the tender package to determine the requirement of 87L protection function. For the remote end substations which are not part of this tender package, please clarify the following **in case if 87L protection function is required**	Protection functions and schemes shall be as per tender technical requirement and PSLD. For any information related to existing line/ substation, the bidders are requested to visit sites/ substations and contact project office. Remote end relay/ other issues shall be as per tender requirement.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
		based on the respective transmission line lengths. If any line current differential protection schemes (which is a unit protection) are already available in the remote end substations connected with any of the substation involved in this tender package, please mention the make and model of the respective existing relays. If the remote end is applicable with new supply scope under present tender requirements, we understand only loose line current differential relays need to be delivered (which would be mounted in the existing/upcoming new protection panels). Please confirm. Please clarify about make and model of existing SAS in case if integration works with existing SAS is required at remote end substations.	
200.	Volume 2 of 3/ Section- 20. DRAWINGS FORMING PART OF THE SPECIFICATION	From the price schedule requirement, we presume that control & protection scheme for 230kV and 132kV spare & future overhead line feeders are not required. Please confirm.	Control & protection scheme for 230kV and 132kV spare bays is under the present project scope (Please refer to item no 8 & 10 of addendum-1) Future bays are out of this project scope.
201.	Schedule-B_Price-Schedule, Schedule 4, 1M4**, 3M4** and 4M4** Volume 2 of 3 of tender document, chapter 20.2 list of bid drawing, General Civil Drawings, 132kV and 230kV GIS building.	1. In schedule-B price-schedule, the control room building and GIS building are separate. 2. On tender drawing of Volume 2 of 3, the control room building and GIS building are integrated together. Please clarify which one we will comply.	Control room building and GIS building are separate but they are vicinal to one another as shown in tender drawings. Hence, please follow the tender document.
202.	Volume 2 of 3 of tender document, chapter 20.2 list of bid drawing, 132/33 kV COX'S BAZAR Substation - Single Line Diagram and Substation Layout. Schedule-B_Price-Schedule, Schedule 4, 4E.4	In schedule-B price-schedule, there are two sets of 132kV 50MVAR Capacitor Banks, but on the tender drawing we do not find them, please clarify.	The Capacitor Banks are within this project scope. In drawing, empty space has been kept where the capacitor banks might be installed which shall be finalized during project execution stage.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
203.	Schedule-B_Price-Schedule, Schedule 4, 3B7, 3B10.1.a), 3B10.1.b) , 3C10.1.a), 3C10.1.b) Volume 2 of 3 of tender document, chapter 20.2 list of bid drawing, 230/132/33 kV ANOWARA Substation - Single Line Diagram and Substation Layout.	From in the schedule-B table, the quantity of 196kV lightning arrester, 230 kV gantry columns and 230 kV beams, 132 kV gantry columns and 132 kV beams respectively are 24,13,10, 8 and 6. But on the drawing of layout and plan, the quantity of 196kV lightning arrester, 230 kV gantry columns and 230 kV beams, 132 kV gantry columns and 132 kV beams respectively are 30, 15,12, 6 and 4. Please clarify, which document is right.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
204.	Volume 2 of 3 of tender document, chapter 20.2 list of bid drawing, KALIAKOIR Substation 230kV Bay Extension - Substation Layout.	The 230kV cable sealing ends arrangement is listed as below:  The cable sealing ends arrangement on screenshot B do not been protected from lightning strike by gantry, otherwise, additional lightning protection facilities should be added. Whether the cable sealing ends arrangement on screenshot A can be changed as shown on the screenshot C. Please clarify.	The Tender Layouts are tentative. Detail orientation of the cable sealing ends (CSE) shall be finalized during execution stage. Moreover, as per item no 2I2 of schedule-A & schedule-B of V-3, Required number of Lightning Mast or gantry with peak (for switchyard) shall be provided as per DSLP calculation during detail design stage.
205.	Volume 2 of 3, SECTION-17 Power Cables and Cable Terminating Accessories clause 17.3.3,	"Short circuit earth fault rating of cable metal sheath or metallic screen shall be at least 63kA/3s, 50kA/3s, 40 kA/3s and 31.5kA/3s" is quoted. However, in <Schedules of Rates and Prices - Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Abroad> 1H, "50kA/ 1 sec; 40kA/ 1 sec; 31.5kA/ 1 sec" are quoted, please clarify which are the requirements.	The referred clause (17.3.3) of V-2 shall be revised as "Short circuit earth fault rating of cable metal sheath or metallic screen for 400kV, 230kV, 132kV & 33kV cable shall be at least 63kA/1s, 50kA/1s, 40kA/1s and 31.5kA/1s respectively." In addition, please refer to item no. 15 and 16 of addendum-1.
206.	Volume 2 of 3, SECTION-17 Power Cables and Cable Terminating Accessories clause 17.3.5,	"Max. ambient air temperature: 45°C" as per this requirement for 2000A cables, the cross sectional area shall be at least 2500mm², please clarify if increasing the conductors' cross sectional area can be accepted.	Following the specification of temperature mentioned in V-2, the minimum cross-sectional area is mentioned in schedule-A & B. Detailed design & calculation shall be finalized during execution.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
207.	Volume 2 of 3, SECTION-17 Power Cables and Cable Terminating Accessories clause 17.10.2	"Conductors shall be of stranded plain annealed copper wires to IEC or BS filled to make the cables longitudinally watertight by extrusion during stranding." This will result in increasing the conductors' cross sectional area or increasing the resistance, please clarify if this is mandatory.	As per tender.
208.	Volume 2 of 3, SECTION-17 Power Cables and Cable Terminating Accessories clause 17.10.9	"After applying the bitumen compound over the aluminium sheath, the extruded MDPE outer Sheath shall be applied." Please clarify if HDPE can be used rather than MDPE for better mechanical property.	As per tender.
209.	Volume 2 of 3, SECTION-3 HV Switchgear and Neutral Earthing Equipment clause 3.4.5.8.5	"Outdoor–proof cable material shall be provided for Control cables of GIS LCC along with water proof cable glands together with special location of cable entry to give protection against rodents and termites" Please clarify if cable glands should be termite repellent.	As per tender.
210.	Volume 2 of 3, SECTION-6 Auxiliary Power and Control Cablest clause 6.5.1.4	Please clarify if embossed characters can be replaced by spray printing characters.	As per tender.
211.	Volume 2 of 3-2.2 References	Standards-AS china subcontractor, Can we add to the GB standards (china standards)?	As per tender.
212.	Does the expansion project include busbar equipment (busbar support materials, CT, PT, cutters, lightning arrester conductors, etc.)? With the original interval access point equipment (circuit breaker, isolation cutter, CT, PT, lightning arrester and other equipment) is there? Or in the scope of this tender?		As per tender. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
		Please clarify if the scope of work for the original substation expansion at Kaliakoir is simply two bays or does it include the busbars and their ancillary equipment as shown?	
213.	Tender Documents- Volume 2 of 3 Page : 656 Tender Documents- Volume 3 of 3 Page : 34 220/33kV HI-TECH GIS SUBSTATION Transformer capacity	 1E Power Transformers & Auxiliary transformers **Item No. / Description of Equipment Requirement / Unit / Quantity** 1E — Power Transformers & Auxiliary transformers (Technical data of CT/BCT & VT shall be referred to Schedule E: Technical Particulars and Guarantees, volume 3 of 3 of the bidding document) 1E.1 — 230/33 kV, 120/140 MVA (ONAN/ONAF) three phase outdoor type power transformer and Remote Tap Changer Control (RTCC) Panel.Direct Hot Spot Temperature measurement facility using fiber optic shall be available. — Set — 2 1E.2 — Auxiliary power transformer 33/0.415 kV, 350 kVA, Dyn11, ONAN, oil immersed, three phase, outdoor, with off-load tap changer; with single phase 2-core current transformers in all bushings, associated outdoor neutral CTs, including all necessary connections & support structures. The auxiliary transformer capacity shall be validated by calculation during execution stage; and if required, higher capacity transformer shall have to be provided within same price. — Set — 2 1E.3 — Design, supply and construction of Water Spray fire fighting system for 230kV transformers including water pipe network and reservoir at normal pressure for: i. 230/33 kV Power Transformer — Set — 2 The ıents as shown in the figure, please clarify the capacity of this transformer.	Capacity for 230/33kV Power Transformers is 120/140MVA (ONAN/ONAF). Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
Volume 03 of 03			
214.	Volume 3 of 3 SCHEDULE B (PRICE SCHEDULES) Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Abroad SECTION-I-item 1E1& Schedule E Technical Particulars and Guarantees 230/33kV, 120/140MVA, 3-Phase Power Transformer no.2.4	In item 1E1, Rated power is 125/140 MVA (ONAN/ONAF) in,NO.2.4 Rated power is 120/140 MVA (ONAN/ONAF) ,Please kindly confirm which one is correct?	120/140 MVA (ONAN/ONAF).
215.	Volume 3 of 3 SCHEDULE B (PRICE SCHEDULES) Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Abroad SECTION-IV-item 4E.1& SCHEDULE A - INTRODUCTION & PREAMBLE TO THE PRICE & TECHNICAL SCHEDULES - Section-IV: Cox'sbazar(N) 132/33kV (Future-230kV) Indoor GIS -132kV GIS switchyard:	In item 4E.1, the number of 132/33 kV, 80/120 MVA (ONAN/ONAF) Power Transformers is Three(03)sets.whlie Section-IV: Cox'sbazar(N) 132/33kV (Future-230kV) Indoor GIS ,the number of 132/33kV, 80/120MVA Power Transformers is Two (02) sets .Please kindly confirm which one is correct?	Three (03) Sets as per Particular requirement under this project scope i.e., Schedule-A (Schedules of Requirements/ scope of work) and Schedule-B (price schedule).
216.	Volume 3 of 3 Section-iv : Coxs Bazar (N) 132 / 33kv Indoor GIS 4C1 145kv GIS Line Feeder Bays , Set 09 &	In item 1 4C1, GIS Line Feeder Bays is 09 Set ; in NO.2.4F1 GIS Line Feeder Bays is 08 Set.Please kindly confirm which one is correct?	Please refer to item no 10 of addendum-1.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
	Section-iv : Coxs Bazar (N) 132 / 33kv Indoor GIS 4F1 Control , Protection , Monitoring including SAS Function for overheadline circuits , along with Control Protection Cubicles ,Set 08		
217.	Volume 3 of 3 SCHEDULE B Tender PRICES& SCHEDULES-Schedule No. 4. Installation and Other Services	The width of 230kV GIS building &132kV GIS building are both 12m, we think the width of 230kV GIS building is too narrow for GIS equipment operation and maintenance .and Manufacturers can hardly meet the requirement. We propose to extend to 15m width. Please kindly confirm.	Size of GIS building & control building indicated in the tender drawings are minimum building size. If larger size is required due to bidder's GIS specifications, the bidder may increase size of the building within the quoted price.
218.	Volume 3 of 3, Schedule of rates and prices ; Civil works, Building and foundation, 1.5 m walk way	Please confirm where walkway of 1.5 mts wide is to be provided.	Walkway layout will be finalized during execution stage.
219.	Volume-III-SCHEDULE-1, Clause no. 1 E3 & 1N3	As per referred clause of Price Schedule, We understand that, following Fire Fighting System shall be considered as per Technical Specification: 1. Water Spray System for Transformers 2. Fire Detection & Alarm System for GIS cum Control Buiding only. Same shall not be provided for Ansar Barack, Guard House, Fire Water Pump House, Store cum Dormetary Building etc. 3. Portable Fire Extinguisher as per relevant sections Volume 2 of 3	As per tender.
220.	Volume-III-SCHEDULE-1, Clause no. 1N3	We understand that, Addressable type Fire Detection & Alarm System shall be considered.	As per tender.
221.	Volume-III-SCHEDULE-1, Clause no. 1E3 & Volume-II- Drawing- SS Layout	There is descripancy in the layout & BPS. As per Layout, 3 nos. 220/33KV Transformers are shown, however as per BPS same shall be 2 nos. We understand that we have to follow price schedule. Please confirm.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
222.	Volume-III-SCHEDULE-1, Clause no. 1E3 & Volume-II- Drawing- SS Layout	There is descripancy in the layout & Price Schedule. As per Layout, NIFPS System is mention for 220/33KV Transformers, however as per Price schedule, Water Spray System system shall be provided. We understand that we have to follow price schedule. Please confirm.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
223.	Volume-III-SCHEDULE-1, Clause no. 1M4	In referred clause for EOT Crane GIS cum control room building & Ansar barack is also mention. We understand that EOT crane shall be provided in GIS Hall only. Please confirm.	Confirmed.
224.	Volume-III-SCHEDULE-1, Clause no. 1M4-ii	EOT crane for 230KV GIS Hall shall be consider Single Girder type. Please confirm	As per tender.
225.	Volume-III-SCHEDULE-1, Clause no. 3 E3	As per Price Schedule, we understand that no fire Protection System shall be provided for 132/33KV Transformers. Please confirm.	Confirmed.
226.	230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir): Volume 3 of 3, Schedule of rates and prices, Schedule No :4 for installation and other services : Civil works, Building and foundation; Item 1M1	From the referred item we understand that land development is not in the scope of work. Hence may confirm the amount of cutting/filling in the S/S area. Also may please confirm the scope of soil investigation and site surveying. If not in scope may provide the soil report and if in scope may add in the schedule.	As per tender. For Land development please follow the item 19 of addendum-1. Soil investigation and site surveying is in the bidders scope. Moreover, for collecting any data/information for the existing substation apart from the data/ drawing provided in the bid doc., bidder may visit the site and furnish whatever is required.
227.	230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir): Volume 3 of 3, Schedule of rates and prices, Schedule No :4 for installation and other services : Civil works, Building and foundation; Item 1M1	From the referred item we understand that land development and slope protection are not in the scope of work. Hence please confirm that boundary wall may be considered without retaining wall.	For Land development and slope protection please follow the item 19 of addendum-1.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
228.	230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir): Schedule-1, S.No-1H7	230kV GIL requirement is given in Schedule 1. However, the same is not reflecting in Schedule 4. Please clarify.	Please refer to item no. 3 and 19 of Addendum-1.
229.	230/132/33kV GIS Substation at Anwara: Schedule-1, S.No-3C7	As per Schedule, "198kV rated voltage..... Surge Arresters, outdoor type" We understand that the requirement is for 145kV AIS equipment. Please clarify.	Your understanding is correct. In addition, Rating and specifications of all types of LA shall be as per schedule-E (GTP).
230.	230/132/33kV GIS Substation at Anwara: Schedule-1, S.No-3H2	Please confirm the "memontary short ciruit current of metallic sheath" of 145kV EHV Cable.	Detail design, engineering and calculation shall be finalized during execution stage.
231.	230/132/33kV GIS Substation at Anwara: Volume 3 of 3, Schedule of rates and prices, Schedule No :4 for installation and other services : Civil works, Building and foundation;	Please confirm the scope of soil investigation and site surveying.	Soil investigation and site surveying is in the bidders scope.
232.	Volume 3 of 3, Schedule of rates and prices, Schedule No :4 for installation and other services : Civil works, Building and foundation;	Please confirm the scope of soil investigation and site surveying.	Soil investigation and site surveying is in the bidders scope.
233.	Volume 3 of 3, Schedule of rates and prices, Schedule No :4 for installation and other services : Civil works, Building and foundation; Item 4M1(ii) a	We understand that to cater for level difference in the periphery of the plot, slope protection with turfing shall be provided and Boundary wall without retaining wall shall be provided. Please confirm.	Please follow the bidding document.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
234.	Volume-III-SCHEDULE-1, Clause no. 4N3	As per referred clause of Price Schedule, We understand that, following Fire Fighting System shall be considered as per Technical Specification: 1. Fire Detection & Alarm System for GIS cum Control Buiding only. Same shall not be provided for Ansar Barack, Guard House, Fire Water Pump House, Store cum Dormetary Building etc. 2. Portable Fire Extinguisher as per relevant sections Volume 2 of 3	As per tender.
235.	132/33kV GIS Substation at Teknaf: Schedule-1, S.No-5E3	we presume that, there are a typo error and need to consider only 2nos of Auxiliary power transformer 33/0.415 kV, 350 kVA and not 4nos. Please confirm.	Confirmed. Please refer to item no. 2 of addendum-01.
236.	132/33kV GIS Substation at Teknaf: Schedule-1, S.No-5H2	Please confirm the "momentary short circuit current of metallic sheath" of 145kV EHV Cable.	Detail design & calculation shall be finalized during execution
237.	Volume 3 of 3, Schedule of rates and prices, Schedule No :4 for installation and other services : Civil works, Building and foundation;	Please confirm the scope of soil investigation and site surveying.	Soil investigation and site surveying is in the bidders scope.
238.	Volume 3 of 3, Schedule of rates and prices, Schedule No :4 for installation and other services : Civil works, Building and foundation; Item 5M1(ii) a	We understand that to cater for level difference in the periphery of the plot, slope protection with turfing shall be provided and Security boundary wall without retaining wall shall be provided. Please confirm.	Please follow the bidding document.
239.	230kV AIS bay extension at existing Kaliakoir Substation: Schedule-1, S.No-2B5	Please clarify the scope of 400kV CVT at 230kV Swtichyard bay extension	As per tender
240.	230kV AIS bay extension at existing Kaliakoir Substation: Schedule-1, S.No-2B8	Please clarify the scope of 400kV BPI at 230kV Swtichyard bay extension	As per tender

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
241.	230kV AIS bay extension at existing Kaliakoir Substation: Schedule-1, S.No-2B9	Please Provide the Conductors Type, Details & GTP of 230kV switchyard.	For collecting any data/information from existing site, bidder may visit the site
242.	230kV AIS bay extension at existing Kaliakoir Substation: Schedule-1, S.No-2B10	Please clarify the scope of 400kV Gantry & Equipments structures at 230kV Swtichyard bay extension	As per tender
243.	230kV AIS bay extension at existing Kaliakoir Substation: Schedule-1, S.No-2H1	Please confirm the "momentary short circuit current of metallic sheath" of 245kV EHV Cable.	Detail design & calculation shall be finalized during execution
244.	230kV AIS bay extension at existing Kaliakoir Substation: Schedule-1, S.No-2I1	Please provide the existing earth mat layout, grid spacing and conductor details for 230kV switchyard	For collecting any data/information from existing site, bidder may visit the site
245.	230kV AIS bay extension at existing Kaliakoir Substation: Schedule-1, S.No-2I2	Please provide the Existing Lightning protection details for 230kV switchyard	As per tender. Detail drawing shall be finalized during execution. For collecting any data/information from existing site, bidder may visit the site
246.	230kV AIS bay extension at existing Kaliakoir Substation: Schedule-1, S.No-2J1	Please provide the Control cables size to be used for 230kV systems.	As per tender. Detail drawing shall be finalized during execution. For collecting any data/information from existing site, bidder may visit the site
247.	230kV AIS bay extension at existing Kaliakoir Substation: Schedule-1, S.No-2J1	Please provide the LV power cables size to be used for 230kV systems.	As per tender. Detail drawing shall be finalized during execution. For collecting any data/information from existing site, bidder may visit the site

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
248.	230kV AIS bay extension at existing Kaliakoir Substation: Schedule-1, S.No-2K1	We presume that ample space is available at Existing 110V DCDB panel for connecting the proposed bay equipments. Please confirm.	As per tender. For collecting any data/information from existing site, bidder may visit the site
249.	230kV AIS bay extension at existing Kaliakoir Substation: Schedule-1, S.No-2K2	We presume that ample space is available at Existing 48V DCDB panel for connecting the proposed bay equipments. Please confirm.	As per tender. For collecting any data/information from existing site, bidder may visit the site
250.	230kV AIS bay extension at existing Kaliakoir Substation: Schedule-1, S.No-2L1	We presume that ample space is available at Existing 415V LVAC panel for connecting the proposed bay equipments. Please confirm.	As per tender. For collecting any data/information from existing site, bidder may visit the site
251.	230kV AIS bay extension at existing Kaliakoir Substation: Schedule-1, S.No-2Q	We are not considering Generator for Emergency Aux. Power. Please confirm.	As per tender.
252.	230kV AIS bay extension at existing Kaliakoir Substation: Volume 3 of 3, Schedule of rates and prices, Schedule No :4 for installation and other services : Civil works, Building and foundation;	Please confirm the scope of soil investigation and site surveying for bay extension work. If not in scope request to provide the soil report..	Soil investigation and site surveying is in the bidders scope.
253.	230kV AIS bay extension at existing Kaliakoir Substation: Volume-3, Clause no. 2N	As per Price Schedule, we understand that, there is no scope of Fire Fighting System. Please confirm	As per tender.
254.	230kV AIS bay extension at existing Kaliakoir Substation: Volume-3, Clause no. 2N	As per Price Schedule, we understand that, there is no scope of Air conditioning & ventilation system. Please confirm	As per tender.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
255.	230kV AIS bay extension at existing Kaliakoir Substation: Volume 3 of 3, Schedule of rates and prices, Schedule No :4 for installation and other services : Civil works, Building and foundation; Item 2M1(ii) a & 2M3(ii) a b	If boundary wall is provided with retaining wall and without retaining wall please confirm where slope protection with CC Block is envisaged.	Location of CC block will be finalized during execution stage.
256.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, Schedule A- 1M Civil Works building and foundation & Sl.No. 1M3 & 1M4	We understand that only 230kV GIS building cum control building, Ansar barrack Building, pump shed are in our scope of works as per referred clause. However the items indicated in layout for future scope and not indicated in referred clauses are excluded from our scope. The following are major exclusions from scope of work: a) Residential Building b) 33kV GIS hall c) 132kV GIS hall d) Equipment structure, foundations, Towers for future scope e) Security post (4 Nos) at corner) Please confirm.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
257.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, Schedule No. 4- 1E3, Fire fighting system for 230kV Transformers	As per referred clause, only Water spray system is required for Power transformers. However as per layout both Water spray system and NIFPES are shown. Please confirm actual requirement. Also, As per layout pump house is indicated in 2 places. Please check & conform the requirement of separate Pump houses.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
258.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, Schedule No. 4- 1M4,v, Single Storied Ansar Barack (5.1mx20m)	Ansar Building dimensions are given as follows: a) As per tender electrical layout of Hi-tech city, Single Storied Ansar Barack is given as 7mx21m. b) As per standard drawing for Single Storied Ansar Barack the dimension is given as 5.35mx20m. c) As per Volume-3, Schedule No. 4- 1M4,v, Single Storied Ansar Barack of dimension 5.1mx20m is indicated. As there is a discrepancy in the above dimensions, Please confirm the actual requirement.	Please follow the dimension providing in the Bid Document (Center to center dimensions is shown). Dimension in the price schedule have been corrected (measurement is considered in clear distance) as per the item no. 19 of Addendum-1.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
259.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, Schedule A- 1M Civil Works building and foundation & Sl.No. 1M3, Sl. No.i	As per Volume-2, GIS Building for 220kV tender drawings, Cable cellar is considered. However, as per electrical layout and scope of works, 220kV GIS bays are connected with GIL and hence the cable cellar is not required. Please check and revise tender drawings and price schedule accordingly.	As per tender.
260.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, Schedule A- 1M Civil Works building and foundation	We understand that, size of GIS building & control building indicated in the tender drawings are tentative and bidder can optimize the building sizes to meet the scope requirement as mentioned in section project/ scope of works. Please confirm.	Size of GIS building & control building indicated in the tender drawings are minimum building size. If larger size is required due to bidder's GIS specifications, the bidder may increase size of the building within the quoted price.
261.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, 1E1, Power Transformer	As per referred clause and GTP, the rating of 220/33kV Transformer is 120/140MVA. However, as per SLD the same is indicated as 125/140 MVA. We presume it shall be 120/140MVA as per BPS. Please confirm.	Confirmed.
262.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, Schedule-B, Schedule No 1, 1F (pg.112 of 456)	The list of items under the referred schedule for Control, protection, Monitoring including SAS are not matching with Schedule-B (Schedule-1), Sl. No. 1F. Please check & amend the schedule-B (schedule-1) w.r.t the actual scope of work.	Please refer to item no. 4 of Addendum-1.
263.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, Schedule No 1, 1F1 (pg.112 of 456)	The line item for Control, protection, Monitoring including SAS function for overhead line circuits is appearing twice in the referred schedule. Please check & amend the schedule.	Please refer to item no. 4 of Addendum-1.
264.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, Schedule-B, Schedule No 1, 1l2	Lightning protection for complete substation is mentioned as 2 lots in the referred line item of BPS. However, the same is mentioned as 1Lot in Volume-3, Schedule-A, Sl. No. 1L2. Please check & eliminate the discrepancy.	Please refer to item no. 5 of Addendum-1.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
265.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, Schedule No 1, 1I2	Please clarify the actual requirement of digital display and controller in DC Distribution panel	As per tender.
266.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, Schedule-1, 1H7, Gas Insulated Line (GIL)	We presume that the quantity of Gas Insulated Line (GIL) indicated in reference line item is measured from GIS Module (Indoor) till the SF6 to air bushing. Please confirm.	Measuring reference point shall be between center of last GIS equipment and center of SF6-Air bushing
267.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, Schedule-1, 1H7, Gas Insulated Line (GIL)	We presume that Gas Insulated Line (GIL) indicated in reference clause is for 3-Phase enclosure (or) 3x1-Ph enclosure. Please confirm. Whether the Bidder offers 1-phase enclosure (or) 3-phase enclosure design, the quantity indicated in the referred line item will be operated on per meter basis. Please confirm whether Bidder's understanding is in order.	As per tender.
268.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, Schedule-1, 1H7, Gas Insulated Line (GIL)	As it is not clear from the BPS whether the GIL quantity is 1-phase (or) 3-phase, please provide separate line items for 1-phase GIL & 3-phase GIL.	As per tender.
269.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, Brief scope of work, clause 1.5.1	As per the referred clause OPGW cable will be terminated by TL Contractor. Also in the optical communication scheme provided in Vol 2, OPGW is shown as present scope. We request PGCB to modify the scope demarcation by excluding OPGW from the substation package scope & furnish revised Communication scheme drawings.	As per tender.
270.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, 1B6, Busbar extension module	As per volume-2, clause 3.4.5.6.4, "switchgear shall be such as to with the minimum of disturbance to the installed equipment and with one busbar in service". Based on above and referred clause, we presume that busbar extension to be considered in both sides of Bus with disconnecting link. Please confirm.	As per tender.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
271.	Bangabandhu Hi Tech City 230/33kV Indoor GIS: Volume-3, 1M4, Control Room Building	Please provide the internal arrangement of 220kV GIS-cum-control building with clear dimensions of each rooms as indicated in referred clause.	As per tender. Detail drawing shall be finalized during execution.
272.	Kaliakoir 230kV AIS Bay Extension: Volume-3, Schedule No 1, 2B5,2B8,2B10	In the referred clause it is mentioned that 400kV CVTs, 400kV Post insulators, and 400kV Busbar. We understand that this is a typo error and the rating is 230kV. Please confirm.	Confirmed.
273.	Kaliakoir 230kV AIS Bay Extension: Volume-3, schedule No 1& Schedule A, 2N1	We presume that no control building in our scope as per Volume-3, Sl.no.2M. Only extension of outdoor 230kV bay is covered under present scope. Please clarify the actual requirement of Indoor lighting and arrange necessary drawings.	As per tender.
274.	Anwara 230/132/33kV Indoor GIS: Volume-3, Schedule No 1, 3B7 & 3B10.2.a	As per refereed clause,198kV Surge arrester quantity is given as 24 Nos instead of 30 Nos. Please check and arrange necessary amendments.	Please refer to item no. of addendum-1.
275.	Anwara 230/132/33kV Indoor GIS: Volume-3, Schedule No 1, 3F1	As per referred clause, Control, protection , Monitoring including SAS function for overhead line circuits is given as 6 nos. However as per scope document 8 no's line circuit is given. Please clarify the actual requirement.	Please refer to item no 8 of addendum-1.
276.	Anwara 230/132/33kV Indoor GIS: Volume-3, Schedule No. 4- 3E4, Fire fighting system for 230/132/33kV Transformers	As per referred clause, only Water spray system is required for Power transformers. However as per layout both Water spray system and NIFPES are shown. Please confirm actual requirement. Also, As per layout pump house is indicated in 2 places. Please check & conform the requirement of separate Pump houses.	Refer to Schedule-A & B. Pump house shown in the layout related to WSS of current scope for 230/132kV Transformer is required only. Pump house related to WSS of future 400kV transformer is not required in this scope.
277.	Anwara 230/132/33kV Indoor GIS: Volume-3, Schedule No. 4- 3E4, Fire fighting system for	1) We presume that Fire pump house shall be sized for 230/132kV transformer only. Please check the actual requirement. 2) We presume that no Fire fighting system required for 132/33kV Transformer. Please confirm.	As per tender

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
	230/132/33kV Transformers		
278.	Anwara 230/132/33kV Indoor GIS: Volume-3, Schedule A- 1M Civil Works building and foundation & Sl.No. 3M4, Sl. No.i	As per Volume-2, GIS Building for 220kV tender drawings, Cable cellar is considered. However, as per electrical layout and scope of works, 220kV GIS bays are connected with GIL and hence the cable cellar is not required. Please check and revise tender drawings and price schedule accordingly.	Please follow the bidding document.
279.	Anwara 230/132/33kV Indoor GIS: Volume-3, Schedule A- 1M Civil Works building and foundation	We understand that, size of GIS building & control building indicated in the tender drawings are tentative and bidder can optimize the building sizes to meet the scope requirement as mentioned in section project/ scope of works. Please confirm.	Size of GIS building & control building indicated in the tender drawings are minimum building size. If larger size is required due to bidder's GIS specifications, the bidder may increase size of the building within the quoted price.
280.	Anwara 230/132/33kV Indoor GIS: Volume-3, Schedule No 1, 3K1	Please clarify the actual requirement of digital display and controller in DC Distribution panel	As per tender
281.	Anwara 230/132/33kV Indoor GIS: Volume-3, Schedule-1, 3H7, Gas Insulated Line (GIL)	We presume that the quantity of Gas Insulated Line (GIL) indicated in reference line item is measured from GIS Module (Indoor) till the SF6 to air bushing. Please confirm.	Measuring reference point shall be between center of last GIS equipment and center of SF6-Air bushing
282.	Anwara 230/132/33kV Indoor GIS: Volume-3, Schedule-1, 3H7, Gas Insulated Line (GIL)	We presume that Gas Insulated Line (GIL) indicated in reference clause is for 3-Phase enclosure (or) 3x1-Ph enclosure. Please confirm. Whether the Bidder offers 1-phase enclosure (or) 3-phase enclosure design, the quantity indicated in the referred line item will be operated on per meter basis. Please confirm whether Bidder's understanding is in order.	As per tender
283.	Anwara 230/132/33kV Indoor GIS: Volume-3, Schedule-1, 3H7, Gas Insulated Line (GIL)	As it is not clear from the BPS whether the GIL quantity is 1-phase (or) 3-phase, please provide separate line items for 1-phase GIL & 3-phase GIL.	As per tender

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
284.	Anwara 230/132/33kV Indoor GIS: Volume-3, Brief scope of work, clause 1.5.1	As per the referred clause OPGW cable will be terminated by TL Contractor. Also in the optical communication scheme provided in Vol 2, OPGW is shown as present scope. We request PGCB to modify the scope demarcation by excluding OPGW from the substation package scope & furnish revised Communication scheme drawings.	As per tender.
285.	Anwara 230/132/33kV Indoor GIS: Volume-3, 3B6 & 3C6, Busbar extension module	As per volume-2, clause 3.4.5.6.4, "switchgear shall be such as to with the minimum of disturbance to the installed equipment and with one busbar in service". Based on above and referred clause, we presume that busbar extension to be considered in both sides of Bus with disconnecting link. Please confirm.	As per tender
286.	Anwara 230/132/33kV Indoor GIS: Volume-3, 3B6 , Busbar extension module	As per referred clause, 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.	As per tender
287.	Anwara 230/132/33kV Indoor GIS: Volume-3, 3M4, Control Room Building	Please provide the internal arrangement of 132kV GIS-cum-control building with clear dimensions of each rooms as indicated in referred clause. Also, We understand that separate control building is required for 230kV and 132kV. Please clarify the actual requirement and confirm the LT panels location.	As per tender. Detail drawing shall be finalized during execution.
288.	Cox's Bazar (N) 132/33kV Indoor GIS: Volume-3, Schedule A- 4M Civil Works building and foundation & Sl.No. 4M3 & 4M4	We understand that only 230kV GIS building cum control building, Ansar barrack building, pump shed are in our scope of works as per referred clause. However the items indicated in layout for future scope and not indicated in referred clauses are excluded from our scope. The following are major exclusions from scope of work: a) Dormitory Building b) 33kV GIS hall c) Equipment structure, foundations, Towers for future scope d) Security post (4 Nos) at corner) e) Fire fighting Pump house. Please confirm.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
289.	Cox's Bazar (N) 132/33kV Indoor GIS: Volume-3, Schedule No. 4- 4E3, Fire fighting system for 132kV Transformers	As per referred clause, fire fighting system is indicated as 0 Set for Power transformers. Please clarify the fire fighting system required for 132/33kV Transforms.	As per tender

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
290.	Cox's Bazar (N) 132/33kV Indoor GIS: Volume-3, Schedule A- 4M Civil Works building and foundation	We understand that, size of GIS building & control building indicated in the tender drawings are tentative and bidder can optimize the building sizes to meet the scope requirement as mentioned in section project/ scope of works. Please confirm.	Size of GIS building & control building indicated in the tender drawings are minimum building size. If larger size is required due to bidder's GIS specifications, the bidder may increase size of the building within the quoted price.
291.	Cox's Bazar (N) 132/33kV Indoor GIS: Volume-3, Schedule No 1, 4K2	Please clarify the actual requirement of digital display and controller in DC Distribution panel	As per tender
292.	Cox's Bazar (N) 132/33kV Indoor GIS: Volume-3, Schedule-1, 4H4, Cable termination End	As per referred clause, Cable termination end is given as 33 Nos. However as per actual requirement 42 Nos are required. Kindly check and arrange necessary amendments.	Actual number may be finalized during detail engineering and payment shall be as actual.
293.	Cox's Bazar (N) 132/33kV Indoor GIS: Volume-3, Brief scope of work, clause 1.5.1	As per the referred clause OPGW cable will be terminated by TL Contractor. Also in the optical communication scheme provided in Vol 2, OPGW is shown as present scope. We request PGCB to modify the scope demarcation by excluding OPGW from the substation package scope & furnish revised Communication scheme drawings.	As per tender
294.	Cox's Bazar (N) 132/33kV Indoor GIS: Volume-3, 4C7, Busbar extension module	As per volume-2, clause 3.4.5.6.4, "switchgear shall be such as to with the minimum of disturbance to the installed equipment and with one busbar in service". Based on above and referred clause, we presume that busbar extension to be considered in both sides of Bus with disconnecting link. Please confirm.	As per tender
295.	Cox's Bazar (N) 132/33kV Indoor GIS: Volume-3, 4C7 , Busbar extension module	As per referred clause, only 2 sets of Busbar extension module are specified. However, as per bidder's understanding, for double busbar scheme with Bus-sectionalized, 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.	As per tender
296.	Cox's Bazar (N) 132/33kV Indoor GIS: Volume-3, 4M4, Control Room Building	Please provide the internal arrangement of 132kV GIS-cum-control building with clear dimensions of each rooms as indicated in referred clause.	Detail drawing shall be finalized during execution.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
297.	Volume-3, Schedule No 1,4F1	Control, Protection, Monitoring including SAS Function for overhead shall be 9 Sets instead of 8sets as indicated in referred clause. Please check and confirm the actual requirement.	Please refer to item no. 8 of addendum-1.
298.	Cox's Bazar (N) 132/33kV Indoor GIS: Volume-3, Schedule No 1,4C8	1) As per referred clause, LA voltage rating is given as 198kV instead of 120kV. Please check and revise suitably. 2) 120KV LA shall be 42 Nos instead of 39 Nos as indicated in referred clause. Please check and revise suitably.	1) Rating and specifications of all types of LA shall be as per GTP. 2) As per tender. Actual number may be finalized during detail engineering and payment shall be as actual.
299.	Cox's Bazar (N) 132/33kV Indoor GIS: Volume-3, Schedule No 1,4F3	As per BPS & Scope brief CSD is considered for 145kV capacitor bank modules. Please provide the specification for the same.	As per tender.
300.	Cox's Bazar (N) 132/33kV Indoor GIS: Volume-3, Power trafo, 4E.1	As per Volume-3, SA-26, section-4, 132/33kV transformer is indicated as 2 nos. However as per referred clause the same is indicated as 3 Nos. Please confirm the actual requirement.	Refer to Schedule-A & Schedule-B
301.	Teknaf 132/33kV Indoor GIS: Volume-3, Schedule A- 5M Civil Works building and foundation & Sl.No. 5M3 & 5M4	We understand that only 230kV GIS building cum control building, Ansar barrack Building, pump shed are in our scope of works as per referred clause. However, the items indicated in layout for future scope and not indicated in referred clauses are excluded from our scope. The following are major exclusions from scope of work: a) Residential Building b) 33kV GIS hall c) Equipment structure, foundations, Towers for future scope d) Security post (4 Nos. at corner) e) Fire fighting Pump house. Please confirm.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
302.	Teknaf 132/33kV Indoor GIS: Volume-3, Schedule No. 4- 5E3, Fire fighting system for 132kV Transformers	As per referred clause, fire fighting system is indicated as 0 Set for Power transformers. Please clarify the fire fighting system required for 132/33kV Transforms.	As per tender

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
303.	Teknaf 132/33kV Indoor GIS: Volume-3, Schedule A- 5M Civil Works building and foundation	We understand that, size of GIS building & control building indicated in the tender drawings are tentative and bidder can optimize the building sizes to meet the scope requirement as mentioned in section project/ scope of works. Please confirm.	Size of GIS building & control building indicated in the tender drawings are minimum building size. If larger size is required due to bidder's GIS specifications, the bidder may increase size of the building within the quoted price.
304.	Teknaf 132/33kV Indoor GIS: Volume-3, Schedule No 1, 5K2	Please clarify the actual requirement of digital display and controller in DC Distribution panel	As per tender
305.	Teknaf 132/33kV Indoor GIS: Volume-3, Brief scope of work, clause 1.5.1	As per the referred clause OPGW cable will be terminated by TL Contractor. Also in the optical communication scheme provided in Vol 2, OPGW is shown as present scope. We request PGCB to modify the scope demarcation by excluding OPGW from the substation package scope & furnish revised Communication scheme drawings.	As per tender
306.	Teknaf 132/33kV Indoor GIS: Volume-3, 4C7, Busbar extension module	As per volume-2, clause 3.4.5.6.4, "switchgear shall be such as to with the minimum of disturbance to the installed equipment and with one busbar in service". Based on above and referred clause, we presume that busbar extension to be considered in both sides of Bus with disconnecting link. Please confirm.	As per tender
307.	Teknaf 132/33kV Indoor GIS: Volume-3, 5M4, Control Room Building	Please provide the internal arrangement of 132kV GIS-cum-control building with clear dimensions of each rooms as indicated in referred clause.	As per tender. Detail drawing shall be finalized during execution.
308.	Teknaf 132/33kV Indoor GIS: Volume-3, Schedule No 1,5E.2 & 5E.3	As per referred clause, total 4 sets of 350kVA transformers considered in both clauses. Please check the actual requirement.	Refer to item no. 2 of addendum no. 1.
309.	Teknaf 132/33kV Indoor GIS: Volume-3, Schedule No 1,5G1	As per volume-3, SA-98, Digital Fault & Disturbance Recorder, is indicated as 0 set. However as per referred clause of BPS, the same is mentioned as 1 Set. Please check the actual requirement.	Refer to item no. 7 of addendum no. 1.
310.	Order of precedence	In case of discrepancies between Volume-3, Schedule-B & Volume-3, Schedule-1, please confirm the order of precedence to be followed.	Priority of price schedule (schedule-B) shall be higher than scope of work (schedule-A).

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
311.	Volume-3, Section-VI, clause 6.8, Mandatory spares, Erection & Test Equipment	As per referred clause, quantity for each of the spares of auto transformer and auxiliary transformer is indicated as 1 no. As per scope of works, we have 2 (or) 3 different type of transformer ratings. Hence spares indicated in referred clause is considered for highest rating as indicated in scope of works. Please confirm.	Confirmed.
312.	Volume-3, Local Control Cubical for 145kV	We understand that integrated local control cubical is also acceptable for 145kV GIS. Please Confirm.	Integrated local control cubical is acceptable for 145kV GIS subject to the condition that the operators shall have access to the LCC.
313.	Volume-3 - Technical data sheet, 220kV & 132kV XLPE Cable - Type of curing (dry) - VCV	We request PGCB to accept cables manufactured using Catenary continuous vulcanizing (CCV) process also. Please confirm.	As per tender
314.	Volume-3 - Technical data sheet, 220kV & 132kV XLPE Cable - Longitudinal water tightness & Radial moister barrier	As per referred data sheet, Following two type of layers are asked for 132kV Power cable. a) Longitudinal water tightness 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.	As per tender. Detail design and engineering shall be finalized during execution stage.
315.	Volume 3 of 3, scope of work 1.2.1	As per referred clause of scope of work, the GIS building is in bidders scope. Kindly provide the finishing details for the building in order to estimate the quantum of work.	As per tender. Detail drawing shall be finalized during execution stage
316.	Volume 3 of 3	Whether do we need to consider future scope about the design of SAS, Batteries, chargers & DC distribution system, GPS system for the four new substations?	As per tender.
317.	Volume 3 of 3	Whether does the Substation Automation system operate independently in the two control buildings (230kV control building and 132kV control building) in Anwara substation ?	As per tender. Please refer to item 3F. SAS shall be operated from 230kV control building, necessary integration is under the present scope of work.
318.	Volume 3 of 4	Whether do the manufacturer brand need to be specified for the protection relay of line Dohazari in the Anwara substation?	As per tender

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
319.	Volume 3 of 3 **Clause No.** 3F14	For the *4 Sets 33kV incomer feeder power system* in the Schedules of Rates and Prices. Whether do 2 sets of the 4 be used in auxiliary transformer system?	As per tender
320.	Volume 3 of 3 **Clause No.** 1N/3N/4N	Whether do we need to consider the fire alarm system and CCTV system of future scope for the four new substations ?	As per tender
321.	Volume 3 of 3 **Clause No.** 2F2	Whether does the Busbar protection need to install 2 extension sets for the new lines?	As per tender
322.	230kV GIS bay extension at existing Kaliakoir Substation:	Dismantling of existing fencing is not mentioned in price schedule. So kindly clarify if we should consider dismantling of existing fencing in our scope or not.	As per tender. (Please go through the item no. 2M3 of schedule-A).
323.	230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir):	In layout drawing of Bangabandhu Hi-Tech City GIS Substation, Space for Residential Building is drawn but in price schedule there is no scope of it. Kindly confirm if it is within our scope or not.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
324.	Construction of 230/132/33kV GIS Substation at Anwara:	In layout drawing of Anwara GIS Substation, 2 nos. of Car Ports are drawn but in price schedule the item no. 3M xxii refers as "Car Port"- 1 Nos. Kindly confirm the actual requirement.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
325.	132/33kV GIS Substation at Cox's bazar:	At Price Schedule Item No. 4E.4 it is written "132 KV 50MVAR Capacitor Bank with associated equipment"-2 sets. Kindly give breakdown of items as associated equipment (e.g: Surge Arrester, XLPE Cable, Cable Sealing End, Gantry Tower, Beam, Conductor, Insulator etc.)	Please refer to the item no. 20 of Addendum-01. For further understanding, please go through the Specification for Medium & High Voltage Power Capacitor Banks And Accessories (attached as annexure at the last of the volume-2 of bid document.)
326.	132/33kV GIS Substation at Cox's bazar:	In layout drawing of Cox's Bazar GIS Substation, Space for Dormitory Building is drawn but in price schedule there is no scope of it. Kindly confirm if it is within our scope or not.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
327.	132/33kV GIS Substation at Teknaf:	In layout drawing of Teknaf GIS Substation, Space for Residential Building is drawn but in price schedule there is no scope of it. Kindly confirm if it is within our scope or not.	The Tender Layouts are tentative and comprehensive with future implications. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).

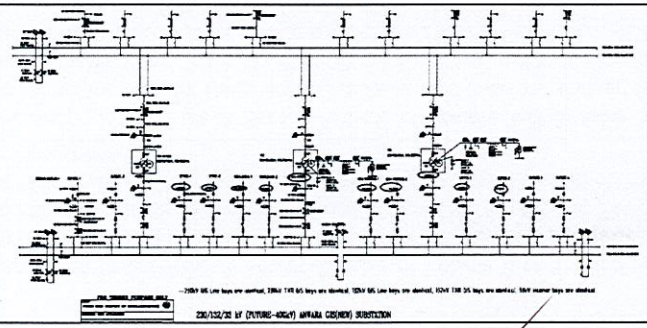
<table>
<tr><th>No.</th><th>Volume / Section / Clause / Item / Page/Reference</th><th>Description and Queries of Prospective Tenderers</th><th>Reply (PGCB)</th></tr>
<tr><td>328.</td><td>Volume 3 of 3/Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Abroad/ 1F/Schedule-1_P-2</td><td><u>SECTION-I- Hi-Tech 230/33kV Gas Insulated Substation:</u>

As the price schedule mentioned line items reference are not in line with the actual scope of work (due to typographical/format differences), kindly update the price schedule in line with the Schedule A 1F clause.

<table>
<tr><td>1F</td><td>Control, Protection, Substation Automation and Metering</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td>230kV Circuits</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>1F1</td><td>Control, Protection, Monitoring including SAS Function for overhead line circuits, along with Control & Protection Cubicles</td><td></td><td>2</td><td>sets</td><td></td><td></td></tr>
<tr><td>1F2</td><td>Control, Protection, Monitoring including SAS Function for Power transformer (140MVA) circuits, along with Control & Protection</td><td></td><td>2</td><td>sets</td><td></td><td></td></tr>
<tr><td></td><td>Control, Monitoring, Protection & Substation Automation System for two (2) sets of 420kV bus coupler bays</td><td></td><td>0</td><td>lot</td><td></td><td></td></tr>
<tr><td></td><td>Control, Monitoring, Protection & Substation Automation System for two (2) sets of 420kV bus section bays</td><td></td><td>0</td><td>lot</td><td></td><td></td></tr>
<tr><td></td><td>Control, Monitoring, Protection & Substation Automation System for one (1) lot of 420KV busbars</td><td></td><td>0</td><td>lot</td><td></td><td></td></tr>
<tr><td></td><td>Tariff metering for 400kV system</td><td></td><td>0</td><td>lot</td><td></td><td></td></tr>
<tr><td></td><td>Digital Disturbance Recorder with Analysis Computor for 400kV system and 230kV system</td><td></td><td>0</td><td>lot</td><td></td><td></td></tr>
<tr><td></td><td>Line differential protection relays for the transmission lines to Meghnaghat-1/2 and Barishhali-1/2 at remote end substation</td><td></td><td>0</td><td>sets</td><td></td><td></td></tr>
<tr><td></td><td>245kV Circuits</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>1F1</td><td>Control, Protection, Monitoring including SAS Function for overhead line circuits, along with Control & Protection Cubicles</td><td></td><td>2</td><td>sets</td><td></td><td></td></tr>
<tr><td>1F3</td><td>Control, Protection, Monitoring including SAS Function for Bus Coupler circuits, along with Control & Protection Cubicles</td><td></td><td>1</td><td>sets</td><td></td><td></td></tr>
<tr><td>1F4</td><td>Control, Protection, Monitoring including SAS Function for Bus section circuits, along with Control & Protection Cubicles</td><td></td><td>0</td><td>sets</td><td></td><td></td></tr>
<tr><td>1F5</td><td>Busbar Protection including SAS Function (230kV Circuit)</td><td></td><td>1</td><td>sets</td><td></td><td></td></tr>
<tr><td>1F6</td><td>Tariff meter</td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
</td><td>Revised.
Please refer to item no. 4 of addendum-1.</td></tr>
<tr><td>329.</td><td>Volume 3 of 3/ Clause. 1.4.4 Scope of Work and Supply at New Substations / Page SA-14</td><td>We presume that the requirement of "05 (Five) nos. of 33kV outgoing feeders (BCU and panels)" is not required for the present scope of work. Please confirm.</td><td>Confirmed.
Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).</td></tr>
<tr><td>330.</td><td>Schedule-B_Price-Schedule, Schedule 4, 1F, Control, Protection, Substation Automation and Metering</td><td>There are two item 1F1, whether it is repeated, please clarify.</td><td>Revised.
Please refer to item no. 4 of addendum-1.</td></tr>
</table>

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
331.	Schedules of Rates and Prices Schedule No. 1. 5E2 & 5E3	"Auxiliary power transformer 33/0.415 kV, 350 kVA – 2 sets" are in column 5E2 and 5E3, whether it is repeated, please clarify.	Revised. Please refer to item no. 2 of addendum-1.
332.	Tender Documents- Volume 3 of 3 Page : 45,53,74,90,106 Generator requirement	2Q **Generator for Emergency Aux. Power** **Item No.** / **Description of Equipment Requirement** / **Unit** / **Quantity** 2Q / Generator for Emergency Aux. Power (with smoke reduction device) / / / 2Q1 / 250kW, 0.415kV, 50Hz Diesel generator • Expected Operation Time 24h • Noise level Less than 55dB at a distance of 10m • Fuel Tank Capacity: Adequate capacity for three days continuous operation • With Smoke reduction device / Set / 0 In the volume III of the tender document, all substations' diesel generators are required to be indoor type, but almost no supplier can meet the noise requirement of less than 55dB at a distance of 10m without increasing the noise enclosure, so please confirm whether you accept the diesel generator with the noise enclosure or reduce the noise requirement.	As per tender. In addition, Detailed engineering, design & calculation shall be finalized during execution.
333.	Volume 3 of 3-Schedule E Technical Particulars and Guarantees Volume 3 of 3	Country of origin- According to the equipment requirement Form, the country of origin has restrictions to USA/Japan/ Europe, Is it OK to add China ? Please confirm.	As per tender.
334.	Tender Documents- Volume 3 of 3 Page : 23 The description of the yellow marked part is not clear	- 230kV double busbar scheme, 4000A, 50kA/3s. Jointing plugs shall be kept in GIS hall for adding future bays and jointing plugs required for connecting GISof different makes. - One (01) set of 230kV, 4000A, 50kA/3s Bus Coupler Bay (BCB) - Two (02) sets of 230kV, 3150A, 50kA/3s Line Circuit Bayswith GIL termination& SF6 to Air Bushings for Kaliakoir-1 & -2, with future space provision for two (02) sets of same rated line bays - Two (02) sets of 230kV, 3150A, 50kA/3s Transformer Bays with GIL termination & SF6 to Air Bushings for 230/33kV Transformer-1 & -2, with future space provision for three (03) sets of same rated Transformer bay - Two (02) sets of 230/33kV, 120/140MVA Power Transformers with 33kV incomer AIS switchgear, future space provision for one (01) set of 230/33kV, 120/140MVA & two (02) sets of 230/132kV, 350/450MVA Power Transformer 03 or 01 Please confirm the number marked with circle in the figure is 3 or 1?	As per tender.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
335.	Tender Documents- Volume 3 of 3 Page : 23 Part of the 132kV GIS building in the new 230/33kV substation.	50kA/3s. Other present scope of facility shall be as below in brief (details are referred in schedule-A &SLD): - [redacted] - [redacted] - One (01) set of 230kV, 4000A, 50kA/3s Bus Coupler Bay (BCB) - Two (02) sets of 230kV, 3150A, 50kA/3s Line Circuit Bay complete with GIS to Air Bushings for [redacted] - Two (02) sets of 230kV, 3150A, 50kA/3s Transformer Bay complete with GIS to Air Bushings for 230/33kV Transformer [redacted] with future space provision for three (03) sets of same rated Transformer bay - Two (02) sets of 230/33kV, 120/160MVA Power Transformer [redacted] - Future space provision of 132kV GIS switchyard with GIS building including six (06) sets of line circuit bays, two (02) sets of transformer bays, BCB, etc. - Two (2) sets of station auxiliary transformers with the capacity of 3-phase, 33/0.415kV, 350kVA with necessary 33kV AIS switchgear - Necessary LV power & control cables, steel structures, insulators, fittings, terminations, conductors, jumpers, etc. - 230kV GIS building with minimum capacity of present scope & future extensions as SA-23 According to the description of the 230/33kV new substation construction, the 132kV GIS building in the station is all planned for the future, Please clarify if ground hardening is included here? For example, concrete or brick paving?	As per tender. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
336.	Volume 3 of 1.4.4 Scope of Work and Supply at New Substations 2.Volume 3 of SCHEDULE A INTRODUCTION & PREAMBLE TO THE PRICE & TECHNICAL SCHEDULES	1. Bay Level : 05 (Five) nos. of 33kV outgoing feeders (BCU and panels). 2. 33kV AIS switchyard: In case of 33kV, PGCB scope shall include 33kV incomer portion which shall be AIS as mentioned above. 33kV indoor GIS shall be made by other utility. Please confirm that only control &protection devices of 33kV incomer bays is required for PGCB tender scope , other control& protection devices of 33kV busbar、outgoing lines, etc. bays are not included in the tender scope.	As per tender. Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
337.	Volume 3 of SCHEDULE A INTRODUCTION & PREAMBLE TO THE PRICE & TECHNICAL SCHEDULES	230kV GIS bay extension at existing Kaliakoir Substation For 230kV GIS bay extension at existing Kaliakoir Substation, please confirm : 1.The control system architecture of existed SAS control system（ABB） ; 2.The protection configuration of existed 230kV busbar protection（ABB） ; 3.Whether there are enough backup circuits for DC power feeder, GPS synchronizing and DFR？ 4. Number of spare panels' position in 230kV local control house 1&2.	As per tender. Please go through the item 2F, 2K, 2L of schedule-A and schedule-B of V-3 and PSLD in V-2. In addition to the above, the bidders might visit existing substation and project office for gathering further information if required.
338.	Resettlement Plan (RP) 1.4 Table 1.4 -Physical Features of Four Substations 2. Volume 2 of 3 4.13.1Fire Protection/Prevention System 3. Volume 3 of 3	Fire Protection System for Four Substations : Auto fighting water spray System 2. Design, supply and construction of Water Spray fire fighting system for 230/132kV transformers including water pipe network and reservoir at normal pressure 3. General: The new power (auto) transformers shall be provided with Fast Depressurization System (FDS).	As per tender. Particular requirement for Fire Protection System for transformers under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
	SCHEDULE A-SCHEDULES OF REQUIREMENTS Section-I: 1E3 Section-III: 3E4 Section-IV: 4E3 Section-V: 5E3	Please confirm that water spray system is needed for 230KV transformers in 230KV stations, for other substations, it is not needed. Fast Depressurization System (FDS) for transformers are not needed in those substations.	
339.	Volume 3 of 3-1.3.2-Architecture of the Overall Telecommunication System	The length of the communication links is indicated in the provided drawing: •Map of Bangladesh Tele-communication system: A scheme of the overall telecommunication system is attached at following drawings: SDH Telecommunication System and Digital PLC System. Please provided the communication drawings.	Communication related drawings are already attached in the section- 20 of Volume-2 of bid document.
340.	Volume 3 of 3- SCHEDULE A, O : Fibre optic multiplexer equipment for communication and protection Volume 2 of 3- Communication drawings : communication System Architecture	SCHEDULE A : 10～50, Telecommunication System Fibre optic multiplexer equipment for communication and protection Communication drawings : Typical Communication System Scheme for Grid Substation (Proposed Optical Communication Scheme for Tender Purpose Only, Red Marked are scope of this project) Volume 3 of 3- communication list in the SCHEDULE A do not agree with Volume 2 of 3- communication scope of drawings. Please Confirm the scope of communication system.	Particular requirement under this project scope shall be as per Schedule-A (scope of work) and Schedule-B (price schedule).
341.	Volume 3 of 3 Schedule A Section-II Item 2A	There is no 400kV switchgear according to the Item 2A of Schedule A Section-ii of Volume 3 of 3. But 400kV is mentioned in the item 2B5 and 2B8, please clarify there is an error and provide the right parameters.	The same shall be 230kV in the item 2B5 and 2B8 of Schedule-A (scope of work) and Schedule-B (price schedule) following the heading of the item 2B.
342.	Volume 3 of 3 Schedule A Section-III		Revised. Please refer to item no. 9 of addendum-1.

No.	Volume / Section / Clause / Item / Page/Reference	Description and Queries of Prospective Tenderers	Reply (PGCB)
		According to Schedule A Section-III table of Volume 3 of 3, there are eight outgoing line bays for Anwara Substation and two transformer bays, ten sets of outdoor surge arrester shall be provided(30 pcs.), but there is only 24 pcs surge arrester in Item 3B7 of the table. Please clarify the correct quantity of this kind of surge arrester.	
343.	Volume 3 of 3 Schedule A Section-IV	According to Schedule A Section-IV table of Volume 3 of 3, there are nine outgoing line bays for Cox's Bazar Substation and three transformer bays and two capacitor bank bays, fourteen sets of outdoor surge arrester shall be provided(42 pcs.), but there is only 39 pcs surge arrester in Item 4C7 of the table. Please clarify the correct quantity of this kind of surge arrester.	
344.	Volume 3 of 3-Schedule E Technical Particulars and Guarantees- GTP & requirement Form: Surge Arresters 245kV Schedules of Rates and Prices-Schedule No. 1. Plant and Mandatory Spare Parts Supplied from Abroad-1B7 &3B7	GTP & requirement Form: Surge Arresters 245kV -2.4 Rated voltage of surge arrester Ur is 210kV ,while 1B7,Ur is 198kV.Please confirm .	Rated voltage of 230kV surge arrester is 210kV. Moreover, the exact value shall be finalized during execution upon detailed design and calculation.
345.	Volume 3 of 3-Schedule ETechnical Particulars and Guarantees- GTP & requirement Form: 230kV XLPE Power Cable-No.06 Average Thickness &132kV XLPE Power Cable-No.06 Average Thickness	GTP &technical requirement form: the Average Thickness of 230kV XLPE Power Cable is 23-25mm, while the Average Thickness of 132kV XLPE Power Cable is same as 23-25mm. Please confirm.	As per tender. Moreover, the exact value shall be finalized during execution upon detailed design and calculator.

POWER GRID COMPANY OF BANGLADESH LIMITED

Construction of 230/132/33kV GIS Substation at Anwara, 230/33kV GIS Substation at Bangabandhu Hi-Tech City (Kaliakoir), 132/33kV GIS Substation at Cox'sbazar & Teknaf and 230kV GIS bay extension at existing Kaliakoir Substation (Package-1)

Under

Southern Chattogram and Kaliakoir Transmission Infrastructure Development Project.
[Bid Identification No.: PGCB/AIIB/000308-BGD/SS/Package-1]

Addendum No. 1

1. The following items in price schedule (B1, B2 & B4) shall be replaced as mentioned below:

Current items:

3E	**Power Transformers and Earthing/Auxiliary Transformers**					
3E.1	230/132/33 kV, 250/350 MVA (ONAN/ONAF), three phase outdoor type power (auto) transformer		2	sets		
3E.2	132/33 kV, 80/120 MVA (ONAN/ONAF), three phase outdoor type power transformer		2	sets		
3E.3	Auxiliary power transformer 33/0.415 kV, 400 kVA		2	sets		
3E.3	Water Spray fire fighting system for 230/132/33 kV Power Transformer		2	sets		

Shall be replaced by the following revised items:

3E	**Power Transformers and Earthing/Auxiliary Transformers**					
3E.1	230/132/33 kV, 250/350 MVA (ONAN/ONAF), three phase outdoor type power (auto) transformer		2	sets		
3E.2	132/33 kV, 80/120 MVA (ONAN/ONAF), three phase outdoor type power transformer		2	sets		
3E.3	Auxiliary power transformer 33/0.415 kV, 400 kVA		2	sets		
3E.4	Fire fighting system for 230/132/33 kV Power (Auto) Transformer		2	sets		

2. The following items in price schedule (B1, B2 & B4) shall be replaced as mentioned below:

Current items:

5E	**Power Transformers and Earthing/Auxiliary Transformers**		
5E.1	132/33 kV, 80/120 MVA (ONAN/ONAF), three phase outdoor type power transformer	2	sets
5E.2	Auxiliary power transformer 33/0.415 kV, 350 kVA	2	sets
5E.3	Auxiliary power transformer 33/0.415 kV, 350 kVA	2	sets
5E.3	Water Spray fire fighting system	0	sets
5E.4	33kV Capacitor Bank with associated equipment	0	sets

Shall be replaced by the following revised items:

5E	**Power Transformers and Earthing/Auxiliary Transformers**		
5E.1	132/33 kV, 80/120 MVA (ONAN/ONAF), three phase outdoor type power transformer	2	sets
5E.2	Auxiliary power transformer 33/0.415 kV, 350 kVA	2	sets
5E.3	Water Spray fire fighting system	0	sets
5E.4	33kV Capacitor Bank with associated equipment	0	sets

3. The item no. 1H in price schedule-B4 (only) shall be replaced as mentioned below:

Current items:

1H	**230kV & 132kV & 33kV Power Cables, associated Outdoor Terminations and GIL (Deleted)**	0	sets				

Shall be replaced by the following revised items:

1H	**230kV & 132kV & 33kV Power Cables, associated Outdoor Terminations and GIL**			
1H1	2000 mm2 (least), 245 kV, 2,000A, 50kA/ 1 sec, 50Hz, 1,050/460 kV BIL, single phase XLPE cable.		0	m
1H2	2000 mm2 (least), 145 kV, 2,000A, 40kA/ 1 sec, 50Hz, 650/275kV BIL, single phase XLPE cable.		0	m
1H3	245 kV, 2,000A, 50kA/ 1 sec, 50Hz, 1,050/460 kV BIL, cable terminal end & associated support structures for single phase XLPE cable.		0	Nos.
1H4	145 kV, 2,000A, 40kA/ 1 sec, 50Hz, 1,050/460 kV BIL, cable terminal end & associated support structures for single phase XLPE cable.		0	Nos.
1H5	36kV, 800mm2, 31.5kA/ 1 sec, 50Hz, 170/70 kV BIL, single phase XLPE cable.		0	m
1H6	36kV, 31.5kA/ 1 sec, 50Hz, 170/70 kV BIL, appropriate current capacity cable terminal end & associated support structures for		0	Nos.
1H7	230kV, 3150A GIL		120	m

4. The item no. 1F in price schedule-B1 (only) shall be replaced as mentioned below:

Current items:

1F	**Control, Protection, Substation Automation and Metering**					
	230kV Circuits					
1F1	Control, Protection, Monitoring including SAS Function for overhead line circuits, along with Control & Protection Cubicles		2	sets		
1F2	Control, Protection, Monitoring including SAS Function for Power transformer (140MVA) circuits, along with Control & Protection		2	sets		
	Control, Monitoring, Protection & Substation Automation System for two (2) sets of 420kV bus coupler bays		0	lot		
	Control, Monitoring, Protection & Substation Automation System for two (2) sets of 420kV bus section bays		0	lot		
	Control, Monitoring, Protection & Substation Automation System for one (1) lot of 420KV busbars		0	lot		
	Tariff metering for 400kV system		0	lot		
	Digital Disturbance Recorder with Analysis Computor for 400kV system and 230kV system		0	lot		
	Line differential protection relays for the transmission lines to Meghnaghat-1/2 and Banskhali-1/2 at remote end substation		0	sets		
	245kV Circuits					
1F1	Control, Protection, Monitoring including SAS Function for overhead line circuits, along with Control & Protection Cubicles		2	sets		
1F3	Control, Protection, Monitoring including SAS Function for Bus Coupler circuits, along with Control & Protection Cubicles		1	sets		
1F4	Control, Protection, Monitoring including SAS Function for Bus section circuits, along with Control & Protection Cubicles		0	sets		
1F5	Busbar Protection including SAS Function (230kV Circuit)		1	sets		
1F6	Tariff meter					
1F6.1	Meters (Main & Check)		4	sets		
1F6.2	Complete Panel (Front opening, Swing frame type) including wiring, lighting, heater, humidity controller, TTB, MCBs & other		1	lot		

Shall be replaced by the following revised items:

1F	**Control, Protection, Substation Automation and Metering**		
	230kV Circuits		
1F1	Control, Protection, Monitoring including SAS Function for overhead line circuits, along with Control & Protection Cubicles	2	sets
1F2	Control, Protection, Monitoring including SAS Function for Power transformer (140MVA) circuits, along with Control & Protection Cubicles	2	sets
1F3	Control, Protection, Monitoring including SAS Function for Bus Coupler circuits, along with Control & Protection Cubicles	1	sets
1F4	Control, Protection, Monitoring including SAS Function for Bus section circuits, along with Control & Protection Cubicles	0	sets
1F5	Busbar Protection including SAS Function (230kV Circuit)	1	sets
1F6	Tariff meter		
1F6.1	Meters (Main & Check)	4	sets
1F6.2	Complete Panel (Front opening, Swing frame type) including wiring, lighting, heater, humidity controller, TTB, MCBs & other accessories	1	lot

5. The item no. 1I2 in price schedule-B1, B2 & B4 shall be revised as mentioned below:

Current items:

1I2	Lightning Protection System for complete substation		2	lot		

Shall be replaced by the following revised items:

1I2	Lightning Protection System for complete substation		1	lot

6. The following items in Schedule-A (Scope of Work) shall be replaced as mentioned below:

Current items:

3E Power Transformers & Auxiliary transformers

Item No.	Description of Equipment Requirement	Unit	Quantity
3E	**Power Transformers & Auxiliary transformers (Technical data of CT/BCT & VT shall be referred to Schedule E: Technical Particulars and Guarantees, volume 3 of 3 of the bidding document)**		
3E1	230/132/33 kV, 250/350 MVA (ONAN/ONAF), three phase outdoor type power (auto) transformer and Remote Tap Changer Control (RTCC) Panel.Direct Hot Spot Temperature measurement facility using fiber optic shall be available.	Set	2
3E2	132/33 kV, 80/120 MVA (ONAN/ONAF), three phase outdoor type power transformer and Remote Tap Changer Control (RTCC) Panel.Direct Hot Spot Temperature measurement facility using fiber optic shall be available.	Set	2
3E2	Auxiliary power transformer 33/0.415 kV, 400 kVA, ZNyn11, ONAN, oil immersed, three phase, outdoor, with off-load tap changer; with single phase 2-core current transformers in all bushings, associated outdoor neutral CTs, including all necessary connections & support structures. The auxiliary transformer capacity shall be validated by calculation during	Set	2

Item No.	Description of Equipment Requirement	Unit	Quantity
	execution stage; and if required, higher capacity transformer shall have to be provided within same price.		
3E4	Design, supply and construction of Water Spray fire fighting system for 230kV auto transformers including water pipe network and reservoir at normal pressure for:		
	i. 230/132/33 kV Power Transformer	Set	2

Shall be replaced by the following revised items:

3E Power Transformers & Auxiliary transformers

Item No.	Description of Equipment Requirement	Unit	Quantity
3E	**Power Transformers & Auxiliary transformers (Technical data of CT/BCT & VT shall be referred to Schedule E: Technical Particulars and Guarantees, volume 3 of 3 of the bidding document)**		
3E1	230/132/33 kV, 250/350 MVA (ONAN/ONAF), three phase outdoor type power (auto) transformer and Remote Tap Changer Control (RTCC) Panel.Direct Hot Spot Temperature measurement facility using fiber optic shall be available.	Set	2
3E2	132/33 kV, 80/120 MVA (ONAN/ONAF), three phase outdoor type power transformer and Remote Tap Changer Control (RTCC) Panel.Direct Hot Spot Temperature measurement facility using fiber optic shall be available.	Set	2
3E3	Auxiliary power transformer 33/0.415 kV, 400 kVA, ZNyn11, ONAN, oil immersed, three phase, outdoor, with off-load tap changer; with single phase 2-core current transformers in all bushings, associated outdoor neutral CTs, including all necessary connections & support structures. The auxiliary transformer capacity shall be validated by calculation during	Set	2
	execution stage; and if required, higher capacity transformer shall have to be provided within same price.		
3E4	Design, supply and construction of Fire Fighting system for 230kV auto transformers including water pipe network and reservoir at normal pressure for:		
	i. 230/132/33 kV Power Transformer	Set	2

7. The following items in Schedule-A (Scope of Work) shall be revised as mentioned below:
Current items:

4G Digital Fault & Disturbance Recorder System

Item No.	Description of Equipment Requirement	Unit	Quantity
4G1	**Digital Fault & Disturbance Recorder, each comprising**	**Lot**	**00**
	i. DFDR processor and Card for each bay including A/D Converter, Digital& Analog data acquisition system	Lot	01
	ii. Ethernet Switch	Lot	01
	iii. GPS system	set	01
	iv. Complete Panel (Front opening, Swing frame type) including wiring, lighting, heater, humidity controller, MCBs & other accessories	set	01
	v. Engineering PC latest version configuration	set	01
	vi. Cables &Other Accessories	Lot	01

5G Digital Fault & Disturbance Recorder System

Item No.		Description of Equipment Requirement	Unit	Quantity
5G		**Digital Fault & Disturbance Recorder, each comprising**	**Lot**	**00**
	i.	DFDR processor and Card for each bay including A/D Converter, Digital& Analog data acquisition system	Lot	01
	ii.	Ethernet Switch	Lot	01
	iii.	GPS system	set	01
	iv.	Complete Panel (Front opening, Swing frame type) including wiring, lighting, heater, humidity controller, MCBs & other accessories	set	01
	v.	Engineering PC latest version configuration	set	01
	vi.	Cables &Other Accessories	Lot	01

Shall be replaced by the following revised items:

4G Digital Fault & Disturbance Recorder System

Item No.		Description of Equipment Requirement	Unit	Quantity
4G1		**Digital Fault & Disturbance Recorder, each comprising**	**Lot**	**01**
	i.	DFDR processor and Card for each bay including A/D Converter, Digital& Analog data acquisition system	Lot	01
	ii.	Ethernet Switch	Lot	01
	iii.	GPS system	set	01
	iv.	Complete Panel (Front opening, Swing frame type) including wiring, lighting, heater, humidity controller, MCBs & other accessories	set	01
	v.	Engineering PC latest version configuration	set	01
	vi.	Cables &Other Accessories	Lot	01

5G Digital Fault & Disturbance Recorder System

Item No.		Description of Equipment Requirement	Unit	Quantity
5G1		**Digital Fault & Disturbance Recorder, each comprising**	**Lot**	**01**
	i.	DFDR processor and Card for each bay including A/D Converter, Digital& Analog data acquisition system	Lot	01
	ii.	Ethernet Switch	Lot	01
	iii.	GPS system	set	01
	iv.	Complete Panel (Front opening, Swing frame type) including wiring, lighting, heater, humidity controller, MCBs & other accessories	set	01
	v.	Engineering PC latest version configuration	set	01
	vi.	Cables &Other Accessories	Lot	01

8. The following items in Schedule-A (Scope of Work) shall be revised as mentioned below:
Current items:

230kV Circuits				
3F1	**Control, Protection, Monitoring including SAS Function for overhead line circuits, along with Control & Protection Cubicles**		Set	6
		Each comprising		
	i.	BCU, Multi-function meter and Backup Mimic panel with all accessories including monitoring		
	ii.	Protection main relay (Main-1, Main-2), different make		
	iii.	Auxiliary relays (TCS, Lockout etc.) & accessories (TTB etc.) *** TTBs have to be placed at the front side of the respective panel. 2 nos. of associated Test plugs should be supplied for each substation as spares.		
	iv.	Complete Protection Panel (Front opening, Swing frame type) including wiring, lighting, heater, Contactors, humidity controller, MCBs & other accessories		

Shall be replaced by the following revised items:

230kV Circuits				
3F1	**Control, Protection, Monitoring including SAS Function for overhead line circuits, along with Control & Protection Cubicles**		Set	8
		Each comprising		
	i.	BCU, Multi-function meter and Backup Mimic panel with all accessories including monitoring		
	ii.	Protection main relay (Main-1, Main-2), different make		
	iii.	Auxiliary relays (TCS, Lockout etc.) & accessories (TTB etc.) *** TTBs have to be placed at the front side of the respective panel. 2 nos. of associated Test plugs should be supplied for each substation as spares.		
	iv.	Complete Protection Panel (Front opening, Swing frame type) including wiring, lighting, heater, Contactors, humidity controller, MCBs & other accessories		

The item no. 4F1 in price schedule-B1, B2 & B4 shall be revised as mentioned below:
Current items:

3F1	Control, Protection, Monitoring including SAS Function for overhead line circuits, along with Control & Protection Cubicles		6	sets

Shall be replaced by the following revised items:

3F	**Control, Protection, Substation Automation and Metering**			
	145kV Circuits			
3F1	Control, Protection, Monitoring including SAS Function for overhead line circuits, along with Control & Protection Cubicles		8	sets

9. The item **3B7 & 3B.10.ii.a** in schedule-A and **3B7 & 3B.10.2.a** in price schedule (schedule B1, B2 & B4) shall have its quantity to be 30 instead of 24.

10. The following items in Schedule-A (Scope of Work) shall be revised as mentioned below:
Current items:

4F1	**Control, Protection, Monitoring including SAS Function for overhead line circuits, along with Control & Protection Cubicles**		Set	8
		Each comprising		
	i.	BCU, Multi-function meter and Backup Mimic panel with all accessories including monitoring		
	ii.	Protection main relay & Protection back up relay		
	iii.	Auxiliary relays (TCS, Lockout etc.) & accessories (TTB etc.) *** TTBs have to be placed at the front side of the respective panel. 2 nos. of associated Test plugs should be supplied for each substation as spares.		
	iv.	Complete Protection Panel (Front opening, Swing frame type) including wiring, lighting, heater, Contactors, humidity controller, MCBs & other accessories		

Shall be replaced by the following revised items:

132kV Circuits				
4F1	**Control, Protection, Monitoring including SAS Function for overhead line circuits, along with Control & Protection Cubicles**		Set	9
		Each comprising		
	i.	BCU, Multi-function meter and Backup Mimic panel with all accessories including monitoring		
	ii.	Protection main relay & Protection back up relay		
	iii.	Auxiliary relays (TCS, Lockout etc.) & accessories (TTB etc.) *** TTBs have to be placed at the front side of the respective panel. 2 nos. of associated Test plugs should be supplied for each substation as spares.		
	iv.	Complete Protection Panel (Front opening, Swing frame type) including wiring, lighting, heater, Contactors, humidity controller, MCBs & other accessories		

The item no. 4F1 in price schedule-B1, B2 & B4 shall be revised as mentioned below:
Current items:

4F1	Control, Protection, Monitoring including SAS Function for overhead line circuits, along with Control & Protection Cubicles		8	sets

Shall be replaced by the following revised items:

4F	**Control, Protection, Substation Automation and Metering**			
	145kV Circuits			
4F1	Control, Protection, Monitoring including SAS Function for overhead line circuits, along with Control & Protection Cubicles		9	sets

11. The description of the following sub-item 4C1 in Schedule-A (Scope of Work) shall be revised as mentioned below:
Current items:

xi.	Complete set of miscellaneous items required for safe and efficient operation of the switchgear, terminal arrangements for single-core cables, busbar end covers or link to adjacent switchgear panel, cables, metal support structure, grounding, etc. as appropriate	Lot	1

Shall be replaced by the following revised items:

xi.	Complete set of miscellaneous items required for safe and efficient operation of the switchgear, terminal arrangements for single-core cables, busbar end covers or link to adjacent switchgear panel, cables, metal support structure, grounding, etc. as appropriate. Spare bay shall have cable termination chamber and sealing plug in place of cable connection.	Lot	1

12. The following clause in Schedule-A (Scope of Work) shall be revised as mentioned below:
1.6 Training and Inspection
b) International Witnessing: The following engineers nominated by the Employer shall participate in the inspection and witnessing of factory acceptance tests at manufacturers' works as follows:

SL	Description	No. of Engineers	Duration (Days) excluding travelling time	No. of Trip/ Visit (Minimum)
		Each Visit		
1.	Transformers 230/132/33kV, 250/350MVA	02	10	1
2.	Transformers 230/33kV, 120/140MVA	02	10	1
3.	Transformers 132/33kV, 80/120MVA	02	10	3
4.	230kV GIS	02	10	1

5.	132kV GIS	02	10	2
6.	Circuit Breaker (400 & 230kV)		0	0
7.	Bus Reactor & Shunt Reactor		0	0
8.	Disconnector (400 & 230kV)		0	0
9.	Instrument Transformer (400 & 230kV)		0	0
10.	Lightning Arrester (400 & 230 kV)		0	0
11.	Control, protection & SAS	02	7	1
12.	Communication Equipment and SCADA gateway	02	7	1
13.	DC system (Battery & Charger system	02	7	0

13. The following items in Schedule-E (GTP & requirement Form: Transformer 230/132/33kV, 250/350MVA, 3-Phase Auto Transformer, 230/33kV, 120/140MVA, 3-Phase Power Transformer and 132/33kV, 80/120MVA, 3-Phase Power Transformer) shall be replaced as mentioned below:

3.4	**Guaranteed losses**			
3.4.1	No-load losses with tap changer in nominal position: a) at rated voltage and rated frequency b) at 110 % rated voltage, at rated frequency	 kW kW	 Insert Insert	
	c) No-load losses with tap changer in plus (+) extreme position: (at 110 % rated voltage, at rated frequency)	kW	Insert	
	d) No-load losses with tap changer in minus (-) extreme position: (at 90 % rated voltage, at rated frequency)	kW	Insert	
	Average No-Load Loss of the above item no. a, b, c & d **(this average value will be evaluated)**	kW	Insert	
3.4.2	No-load losses capitalized value	BDT/kW	As per Tender Requirement	
3.4.3	Tolerance to be applied to no-load losses in % of the guaranteed value	%	10	
3.4.4	On-load losses at 75°C			

	On-load losses at 75°C with tap changer in nominal position: a) at rated voltage and rated frequency b) at 110 % rated voltage, at rated frequency	kW kW	Insert	
	c) On-load losses at 75°C, with tap changer in plus (+) extreme position (at 110 % rated voltage, at rated frequency)	kW	Insert	
	d) On-load losses at 75°C, with tap changer in minus (-) extreme position (at 90 % rated voltage, at rated frequency)	kW	Insert	
	Average On-load losses of the above item no. a, b, c & d **(this average value will be evaluated)**	kW	Insert	
3.4.5	On-load losses capitalized value	BDT/kW	As per Tender Requirement	
3.4.6	Tolerance to be applied to on-load losses in	%	10	

14. The clause 4.3.11 Losses and Evaluation of Losses of Volume-2 of Bid Document shall be modified as follows:
Explanation of the N & L in the formula of Evaluated price of transformer loss = (N * a + L * b + M * c) shall be revised as follows:
N= Average No-load loss (core-loss) at rated voltage in kW
L= Average Load loss (copper-loss) at 75 °C, 50 Hz maximum continuous rating in kW
15. Volume 2 of 3, SECTION-17, Power Cables and Cable Terminating Accessories clause 17.3.3
The referred clause (17.3.3) of V-2 shall be revised as "Short circuit earth fault rating of cable metal sheath or metallic screen for 400kV, 230kV, 132kV & 33kV cable shall be at least 63kA/1s, 50kA/1s, 40kA/1s and 31.5kA/1s respectively."

16. The item 16 & 17 of the 230kV and 132kV XLPE Power Cables shall be revised as follows:
Current items:

16	Conductor short circuit current cable loaded as above prior to short circuit	KA/1sec	Insert	
	Carrying capacity for three second cable loaded	KA/3sec	Insert	
	Short circuit capacity of cable for 3sec	KA/3sec	Insert	
	Final conductor temperature	°C	Insert	
17	Sheath Earth Fault Current Carrying capacity for three second cable loaded as above prior to each fault	KA/1sec	50	
	Final Conductor temperature	°C	250°	

Shall be replaced by the following revised items:

16	Conductor short circuit current carrying capacity for one second cable loaded	KA/1sec	Insert	
	Conductor short circuit current carrying capacity for three second cable loaded	KA/3sec	Insert	
	Short circuit capacity of cable for 3sec	KA/3sec	Insert	
	Final conductor temperature	°C	250	
17	Sheath Earth Fault Current Carrying capacity for three second cable loaded	KA/3sec	Insert	
	Sheath Earth Fault Current Carrying capacity for one second cable loaded	KA/1sec	50	
	Final temperature	°C	Insert	

17. The following clause 5.8.25 of section-5 of volume-2 of bid document shall be modified as follows:

5.8.25 **In addition to the mentioned requirements, the OEM of protective relays should have registered office in the employer's country.**

The above clause shall be replaced by-

5.8.25 Deleted.

18. The following items in the GTP of capacitor bank and equipment 132kV (mentioned in schedule-E of V-3) shall be revised as follows:

Current items:

1.6	Nominal reactive power output at 132kV	MVar	**50**	
1.7	Rated reactive power output	MVar	**204.** **60.33**	

Shall be replaced by the following revised items:

1.6	Nominal reactive power output at 132kV	MVar	**50**	
1.7	Rated reactive power output at 145kV	MVar	**≥60.33**	

19. Volume 3 of 3, Schedule B Tender PRICES & SCHEDULES, Schedule No. 4. Installation and Other Services, SECTION-I for Hi-Tech 230/33kV Gas Insulated Substation:

Item 1M1 is revised; Item 1M3 ii. b) is added after Item 1M3 ii. a) and Item 1M4 v. is revised as follows:

1M	Civil Works, Building and Foundation			
1M1*	Complete land development and slope protection			
	i.	Complete compacted land development with carried/dredged earth filling including approach road	cubic meter	10658
	ii.	Slpoe protection		
	a)	Slpoe (1V:2H) protection with turfing	sqm	650
1M3*	ii.	Outdoor equipment foundation in 230kV switchyard		
	b)	GIL support structure foundation	Lot	1
1M4**	GIS cum control room building & Ansar barack			
	v.	Single Storied Ansar Barack (5.1mx19.75m)	sqm	10.725
	* actual payment shall be as per actual work at site during execution stage ** measurement method = clear length x clear width x no. of story			

20. The item no. 4E4 in price schedule-B1, B2 & B4 shall be revised as mentioned below:

Current items:

4E.4	132kV 50MVAR Capacitor Bank with associated equipment		2	sets		

Shall be replaced by the following revised items:

4E.4	132kV 50MVAR Capacitor Bank with associated equipment		2	sets		
i)	132kV 50MVAR Capacitor Bank		2	sets		
ii)	Damping Reactor		6	nos		
iii)	Neutral Current Transformer for unbalanced protection		2	nos		
iv)	Key Interlocking System		2	sets		
v)	LA & other associated & necessary equipment (e.g. XLPE Cable, Cable Sealing End, Gantry Column, Beam, Conductor, Insulator, Fittings etc.)		1	lot		