POWER GRID COMPANY OF BANGLADESH LTD

Project Name: Construction of 230kV Transmission Line and Substation at Araihazar JEZ Area (Package 2)

[OCB No.: PGCB/JICA/ BD-P86/BD-P108/IDJEZA/230kV/SS-TL]

IFB No. 27.21.0000.101.07.421.23.3932; August 16, 2023

CLARIFICATION-01

Pre-bid meeting was held on September 03, 2023 as per clause 7.4 of Instruction to Bidders of Volume 1 of 3 of the Bidding document. Some queries were received from the prospective Bidders regarding the Bidding Documents prior the Pre-bid meeting as well as some of the bidders have submitted queries after pre-bid meeting. Clarifications on the above queries are given below, which will form part of the bidding documents.

Sl. No.	Reference and Queries of Prospective Bidders		Reply of PGCB
1	Section 1, Instruction to Bidders ITB(A)-6	4. Eligible Bidders [Inquiry] In case the bidder formed JV by 2 parties and both parties bought Bidding Documents individually, is it necessary to buy another Bidding Document under the name of JV? Kindly confirm.	It is not necessary to buy another Bidding Document under the name of JV.
2	Section 1, Instruction to Bidders ITB(A)-6	4. Eligible Bidders [Inquiry] We understood that "JV" is acceptable. We understand that "Consortium" formed by the letter of Intent is also acceptable in JICA project. Kindly confirm.	Confirmed.

3	Section 1, Instruction to Bidders ITB(A)-18	19. Bid Security [Inquiry] Is the bid security (bank guarantee) issued by a major bank in Japan such as MUFG Bank, Ltd. or Mizuho Bank, Ltd. acceptable?	Yes, it is acceptable provided that all the requirements under ITB-Clause 19 regarding Bid Security has been met.
4	Section IV. Bidding Forms	Form of Bid Security (Bank Guarantee) "This guarantee shall expire and be returned to us: (a) if the Applicant is the successful Bidder, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security issued to the Beneficiary in relation to such contract agreement; or (b) if the Applicant is not the successful Bidder, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the bidding process; or (ii) twenty-eight days after the end of the Bid Validity Period." [Inquiry 1] Can we add the actual date of expiry as a condition (c) after this sentence? [Inquiry 2] If the answer for the above inquiry 1 is "No", the bidder who mentioned the date of expiry will be disqualified?	Yes, you may add the actual date of expiry as a condition (c) provided that it does not conflict with any other conditions mentioned in the Bid Security letter.
5	Section VIII. Particular Conditions (Part A: Contract Data) PC-2	Time for Completion "The Time for Completion of the whole of the Facilities shall be 540 days from the Effective Date." [Inquiry] Is this working days or calendar days?	Here, it means Calendar days.

6	Section II. Bid Data Sheet BDS(A)-3 BDS(1)-1	ITB 14.2 "Bidders shall quote for the entire Plant and Installation Services on a single responsibility basis. The Plant specified in Price Schedule No.1 shall be exempted from the payment of import duties and taxes upon importation Sub-Clause 14.2 of the Conditions of Contract." ITB2.1 "The number of the JICA Loan Agreement is: BD-P86 and BD-P108" [Inquiry] Kindly provide copies of the above Loan Agreement BD-P86 and BD-P108. We would like to know descriptions relating to the tax exemptions.	Please follow what is specified in the Bid Document.
7	Section 1, Instruction to Bidders ITB(A)-21	22. Deadline for Submission of Bids "22.2 The Employer may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding Document in accordance with ITB 8, in which case all rights and obligations of the Employer and the Bidders subject to the previous deadline shall thereafter be subject to the deadline as extended." [Inquiry] In the Bidding Document, there is no detailed information about soil conditions in and around construction area. We understand that foundation and civil volume in this area will effect huge impact on the construction cost so the bidder needs to study well on designing for bid proposal. Therefore, for making a competitive proposal for this bid, we need to have more time for the preparation of the bid proposal. We kindly request you to extend the deadline of the bid submission for 4 weeks.	Please follow the already extended deadline for submission. Bidders are requested to visit the site regarding Soil Investigation, at their own arrangement, if required. Employer may help get necessary permit, if requested by the Bidder.
8	Volume 3 Page 2 Table of Contents Schedule H: Drawings and Documents to be	This Schedule H is missing in the tender document. Thus, we understand the bidder does not need to provide any drawings with the bid.	An addendum is issued in this regard. Please see Addendum-1.

	submitted with the Bid and after contract		
9	Volume 2 (Substation Part) Page 656 Drawing 230kv Building 01 and all other building drawings Notes 1)	It is mentioned that "Floor area and height of the building provided here are minimum required sizes. If a larger size is required due to the Bidder's specifications, number of bays (including future), etc., the Bidder may increase the size of the building within the quoted price. **No additional payment shall be made in this regard**." But in Volume 3 Schedule B: Price Schedule Page 59, item 2K20, it is mentioned ** **actual payment shall be as per actual work at site**. Please clarify on this contradictory points.	a) "Volume 2 (Substation Part) Drawing 230kv Building 1) and all other building drawings Notes 1)" Only floor height of the building provided here are minimum required height. If a larger height is required as per specifications, the Bidder may increase the height of the building within the quoted price. No additional payment shall be made in this regard. b) If the building floor area varies as per requirement, price may be adjusted based on quoted unit price.
10	Volume 3 Page 115 GTP & requirement Form: Transformer 230/34.5kV, 120/140MVA, 3-Phase Power Transformer Clause 3.1 Short circuit impedance corrected to reference temperature of 75°C at rated frequency and rated power	It is only mentioned "Insert" for the Minimum Requirements for the GTP clause 3.1.1& 3.1.2. There is no specific requirement for the short circuit impedance of transformer. But the mentioned value will influence the design of transformer, please clarify it that is there any requirement for the above-mentioned data or not.	An addendum is issued in this regard. Please see Addendum-1.

11	Volume 3 Page 116 GTP & requirement Form: Transformer 230/34.5kV, 120/140MVA, 3-Phase Power Transformer Clause 3.2 Zero-sequence impedance, with tap changer in middle position there any requirement for the above-mentioned data or not. at 120MVA base: HV/LV	It is only mentioned "Insert" for the Minimum Requirements for the GTP clause 3. There is no specific requirement for the Zero-sequence impedance of transformer. But the mentioned value will influence the design of transformer, please clarify it that is There any requirement for the above-mentioned data or not.	An addendum is issued in this regard. Please see Addendum-1.
12	Volume 2 Page 622 Single Line Diagram of BSEZ 230/33kV Substation (33kV Side) Clause 17.5.2 The cable routes on the drawings attached to the Bidding Documents are provided for information only, and it is Contractor's responsibility to establish the exact quantities of cables and	In Single Line diagram of BSEZ 230/33kV Substation (33kV Side), it is found that feeder 1 to 8, feeder 9 to 16 are supply to BSEZ. And in clause 17.5.2, it mentioned that it is contractor's responsibility to establish the exact quantity of cables. But these load location information cannot be found in the drawings and PO, we cannot figure the distance between 33kV GIS and 33kV feeder. Please indicate how to determine these cables length.	This package does not cover the exit cables that connect the 33kV GIS to the external loads of BSEZ.

	accessories required to complete the whole of the works as described in the Specification.		
13	Vol. Vol-1 of 3, Section-IX. Contract Forms, Appendix-1 Page in PDF 212 to 213 of 230 Clause: (A) Terms of Payment	Advance payment mention 10% but no mention deduction/ adjustment of advance payment from IPC	10% of the amount will be deducted from every invoice until the total advance payment is recovered.
14	Vol-1of 3, Section-VIII. Particular Condition of Contract Vol-1of 3, Section-VIII. Particular Condition of Contract	No mention about Retention Money	Yes, there is no mention of "Retention Money" separately in the Bid Document. However, 5% of the contract price shall paid upon issuance of the Completion Certificate and another 5% upon issuance of the Operational Acceptance Certificate.
15	Vol-1of 3, Section-VIII. Particular Condition of Contract Vol-1of 3, Section-VIII. Particular Condition of Contract	No specified Limitation of Engineer Power	The question is too broad and requires a precise question or referred clause on the Bid Document. JICA SBD Plant does not mention about limitation of Engineer Power.
16	Vol- 1of 3, Section-IV. Bidding Forms, Appendix-1 Pages: 89 to 150 of 230	Request to provide the soft copy (native MS Word or Excel files) of the Tender forms in the PGCB's website since there is no electronic copy or CD provided during purchase of the bidding documents.	Tender forms can be found in PDF format in PGCB website.

17	Vol-1of 3, Section-II. Bid Data Sheet Page in PDF 47 to 48 of 230 Clause ITB 22.1	Tender preparation period is from 16 August 2023 to 02 October 2023. Since this is a Design and Build, we think that 47 days is not enough to complete the preparation of design and other tender documents. So, we humbly request for an extension of Tender submission period for about 90 days (until 02 January 2024).	Please follow the already extended deadline for submission.
18	Volume-3 of 3 Two LILO of the transmission line to be supplied and constructed under this Contract includes but is not limited to the following main components: • Construction of two temporary by-pass lines using ERS towers, demolition all when complete the transmission line: Removing of the existing tower no.75 • Construction of two new double circuit angle lattice steel towers (named 75A,75B) under the route of	1. Please specify the tower type of 2DT6, 2QT6 and ESR tower. Do you have typical tower or Contractor could use their own design? If you have the typical requirement, please provide. 2. Please provide existing transmission line information, such as plan and profile drawing, tower stake table, design, and usage condition, etc	1.Please refer to Annex 8-3 of volume-2 (Transmission Line part) of the bid document for definition of towers. Furthermore, ERS refers to Emergency Restoration System which is temporarily used to bypass existing line during maintenance/construction works. All of those tower/ERS structures are predesigned. 2. Detailed survey is required to be carried out during execution stage by the Contractor. Please refer to updated drawing no. PGCB/230kV LILO/ ARAIHAZAR-1, Rev.A for necessary information. Plan & Profile drawing, tower stake table are required to be prepared by the Contractor. Predesigned tower drawings and conductor usage condition has already been

	existing transmission line and one new four circuit lattice steel terminal tower (named 75C). • Conducting of two LILO from the existing transmission line to proposed 230/33kV Substation using three above new towers (75A, 75B, 75C) with Twin ACSR Mallard conductor per phase and 7x4.00steel earthwire and 7x4.00 steel earthwire equivalent OPGW. • Conducting necessary adjustments of on neighboring tower (if necessary). The		provided in the bid document.

	Contractor can propose another construction method, with or without ERS tower, the new construction method should be approved by the Employer and the Licensee (PGCB/NLDC).		
19	GTP & requirement Form: Transformer 230/34.5kV, 120/140MVA/3-Phase Power Transformer/Schedule-E: Power Transformer Package 5:/Volume-3 of 3 3.1 Short circuit impedance corrected to reference temperature of 75°C at rated frequency and rated power & 3.2 Zero sequence impedance, with tap changer in middle position at 120MVA base: HV/LV	Please specify the two impedance data. or Shall we design by manufacturer themselves?	An addendum is issued in this regard. Please see Addendum-1.

20	ITEMS 2K7/Schedule B4.1. Installation and Other Services Pump shed including deep tubewell, motor, pump, water reservoir, water pipe line, electrical connection etc.	Please specify substation water source by underground water or municipal water supply?	Please follow article 10B.3.9 Water Supply (Section 10: Building & Civil Engineering Works) in this regard.
21	Items 2C12/Schedule B1 Plant, Equipment & Mandatory Spares Supplied from Outside the Employer's Country Complete design, supply, delivery, installation, testing & commissioning of hardware and software to provide the telecontrol & telemetering facilities required at the existing National Load Dispatch Centre (NLDC) at Rampura and backup station at Siddhirganj for integration of complete new 230/33kV substation and also, hardware and necessary works required on other sides	Whether additional equipment is required on the dispatch side of the NLDC and BNLDC, or whether the existing equipment has sufficient capacity to connect the new station to the NLDC and BNLDC through software commissioning only.	Please refer to section 12 of volume 2 of 3 (substation)

	of the 230 kV transmission line (Ghorashal station, New Bhulta Substation).		
22	Volume 2 of 3, Section 21: Drawings-SS 02B and Price Schedule, Section III- Line Item : 3B	As per Price Schedule & Single Line Diagram, Bidder need to supply one no 230kV GIS Bus Coupler Bay & 2nos Bus Section Bay. But as per our understanding, having 2nos Bus section & Double Busbar system for 230kV GIS Switchgear, 2nos Bus coupler bay is required. Please clarify our understanding. If yes, then please revise the price schedule.	Please follow the bidding document.
23	Price Schedule, Section II- Line Item : 2A3 and Guaranteed Technical Particular (GTP): 3.2-33/0.415 KV AUXILARYT RANSFORMER	In GTP & SLD, the Vector Group of Auxiliary Transformer is Dyn11. But as per Price Schedule, the Vector Group of Auxiliary Transformer is Dyn1. Please clarify us the correct Vector Group of Auxiliary Transformer.	The correct Vector Group of Auxiliary Transformer is Dyn11.
24	Volume 2 of 3, Section 21: Drawings-SS 02B and Price Schedule, Section III- Line Item : 3F1	"19/33KV, 1x800sqmm copper, XLPE, single core cable with terminations." As per SLD, the mentioned cable is only for inter-connection of 4nos 33kV GIS Bus Section Bay. Please confirm our understanding. 3F | Power cables, primary and secondary cables 3F1 | 19/33KV, 1x800sqmm copper, XLPE, single core cable with terminations | Lot | 1	Please read the bidding document carefully.

25	Price Schedule, Section II- Line Item : 2C8	Replacement of existing Protection main relays with new Protection main relays (Main-1, Main-2) for Bhulta-Araihazar overhead line circuits at existing Bhulta Substation'. As per price schedule, the relay replacement only required for Bhulta substation. For Araihazar-Ghorasal Line feeder at Ghorasal substation there will be no replacement of new Protection main relays. But, as per our understandings, replacement of new Protection main relays at Ghorasal substation also required. Please clarify our understanding. If yes, then please modify the price schedule.	Replacing the relay at Ghorashal station is not required.
26	Volume 2 of 3 : 4.12.5-Water Spray System (WSS)	"One set of Standby Diesel Water Feed Pump of appropriate capacity shall be provided for WSS system. This Standby Diesel Water Feed Pump shall operate automatically once the WSS system operates and substation auxiliary power supply fails."However, this WSS system and Standby Diesel Water Feed Pump are not mentioned in Price Schedule.Please confirm the requirement of this item and provide the revised price schedule accordingly.	Please refer to item No. 2L8 of price schedule for WSS system. All the components/equipment as stipulated in clause no. 4.12.5 Water Spray System (WSS) of Volume 2 of 3 of the bidding document are deemed to be included in item No. 2L8 of price schedule.
27	Volume 2 of 3, Section 21: Drawings-SS 02B and Price Schedule, Section III- Line Item : 3B3	As per Price schedule, SLD & scope, 4panels of Bus section for 33kV GIS Switchgear is required. As per Price SLD, among 4nos 33kV GIS Bus Section Panel, 2nos 33kV GIS Bus Section comprising of DES & cable plug. Another 2nos 33kV GIS Bus Section comprising of Circuit breaker, DES, CT & Cable plug. Please confirm our understanding.	Please follow the bidding document.
28	Guaranteed Technical Particular (GTP): 3.1-TRANSFORMER 230/33kV,120/140MVA, 3-Phase Transformer	In the GTP of Power Transformer, the Short circuit impedance is not mentioned. Kindly mention the required Short circuit impedance of Power Transformer and provide the revised GTP accordingly if required.	An addendum is issued in this regard. Please see Addendum-1.

		3 **Special technical requirements** 3.1 **Short circuit impedance corrected to reference temperature of 75°C at rated frequency and rated power** 3.1.1 HV – LV, on the basis of rated power with on-load tap changer • in middle position % • in extreme plus position % • in extreme minus position % **Insert** 3.1.2 Maximum Impedance between HV – LV over tapping range % Corresponding tap Insert Insert	
29	Price Schedule, Section III- Line Item : 3B and Guaranteed Technical Particular (GTP): 1.1C - 33kV GIS Switchgear	In Price Schedule & SLD, the short circuit current rating of 33kV GIS Switchgear is 40kA/sec. However, as per GTP, the short circuit current rating of 33kV GIS Switchgear is 40kA/3sec. Please confirm the short circuit current rating of 33kV GIS Switchgear.	The short circuit current rating of 33kV GIS Switchgear is 40kA/3sec.
30	Volume 01 of 03 Section III. Evaluation and Qualification Criteria 1) 245kV Gas Insulated Switchgear (GIS): Supply Experience	Manufacturer shall have at least twenty (20) years of manufacturing experience prior to the date of bid submission for equal or over 245kV GIS Switchgear with minimum delivery of at least one hundred (100) of equal or over 245kV GIS Bays over the last twenty (20) years in the OECD countries. **As per our understanding:** At least (20) years of manufacturing experience in domestic and/or overseas for equal or over 245kV GIS Switchgear is required with minimum delivery of at least one hundred (100) of equal or over 245kV GIS Bays within the last twenty (20) years in the OECD countries. Please confirm our understanding is correct.	Your understanding is correct.
31	Volume 01 of 03 Section III. Evaluation and Qualification Criteria 2) Power Transformer: Supply Experience	Manufacturer shall have at least twenty (20) years of manufacturing experience prior to the date of bid submission for equal or over 220kV rating power transformer with minimum delivery of at least fifteen (15) nos. of equal or over 220kV power transformer over the last twenty (20) years in the OECD countries.	Your understanding is correct.

		As per our understanding: At least (20) years of manufacturing experience in domestic and/or overseas for equal or over 220kV rating power transformer is required with minimum delivery of at least fifteen (15) nos. of equal or over 220kV power transformer within the last twenty (20) years in the OECD countries. Please confirm our understanding is correct.	
32	Volume 01 of 03 Section IV - Site Organization	The Bidder shall submit the names of all personnel nominated to fill functional categories identified below and in the organization charts. - Project Manager - Engineering Representative - Lead Engineers - QA Manager (at Head Office) - Site Manager - Construction (Site) Manager - Chief Supervisor for Transmission Line - Chief Supervisor for Substation Equipment - Chief Supervisor for Civil Works - Health and Safety Manager - QA Manager (at Site Office) - Commissioning Manager (at Site Office) As per our understanding we have to provide names of the personnel as per Personnel Requirement in Section III, Clause 1.1.1. Please confirm our understanding is correct.	Your understanding is correct.
33	Volume 01 of 03 Section IV - Environmental Plan	Followings shall be attached with the Bid Document: 1.Environmental Impact Assessment (EIA) 2.Approval letter from Department of Environment, Goovernment of the Peoples Republic of Bangladesh Firstly, as per our understanding Environmental Impact Assessment is a part of Environmental Plan, So if we provide Environmental Plan	Environmental Impact Assessment (EIA) and Approval letter from Department of Environment have been uploaded in the website. Bidder has to comply with those documents and submit

		there is no need of EIA Secondly, as per our understanding If we have ISO 14001 there is no need of Approval letter from Department of Environment, Government of the Peoples Republic of Bangladesh. Please Confirm our understanding is correct.	their plan accordingly following the bid requirement.
34	Scope of works & Price Schedule/ Schedule-B4.1/ Installation and Others Services	**Description:** Whole substation surface finishing with drainage system including outlet & a network of water pits connected with pipes throughout the substation. **Bidder's Queries:** In the price schedule, there is no line item for the above-mentioned work. Our understanding is substation surface finishing with drainage system is required for this project. Please confirm and if it is required then add a line item for the above-mentioned work.	Whole substation surface finishing with drainage system including outlet & a network of water pits connected with pipes throughout the substation are in bidder's scope. The costs are deemed to be included within the quoted price of the bidder.
35	Drawing/Layout plan of JEZ Substation	**Description:** In the layout drawing, metal fence is shown between 230kV and 33kV Substation. **Bidder's Queries:** In the price schedule, there is no line item for the above-mentioned work. Please provide the drawing of metal fence and add a line item for the metal fence.	The reference drawing of chain link fence already provided in volume 2 of 3, Page No: 652 (Drawing No: CW08). In the price schedule, item no 2k5, it is mentioned clearly.
36	Drawing/Layout plan of JEZ Substation	**Description:** In the layout drawing, U/G water reservoir and U/G oil pit are shown. **Bidder's Queries:** In the price schedule, there are no line items for the above-mentioned work. Is above items in the bidder's scope? If it is in the bidder's scope then please add line item for the above-mentioned works in the price schedule.	Under Ground water reservoir and Under Ground oil pit are in bidder's scope. The costs are deemed to be included within the quoted price of the bidder.

37	Drawing/Layout plan of JEZ Substation	**Description:** In the layout drawing, besides the carport (6.5mX6m) parking areas are shown for both 33kV and 230kV side. **Bidder's Queries:** In the price schedule, there is no line item for the above-mentioned work. Is the above-mentioned item in bidder's scope? If it is in the bidder's scope please add line item for the parking area in the price schedule and what type of parking area will bidder consider? Please confirm.	In the price schedule the item is already provided (item no 2k16 & 3k7).
38	Drawing/Layout plan of JEZ Substation	**Description:** In the layout drawing, NC gate is shown between 230kV and 33kV Substation. **Bidder's Queries:** In the price schedule, there is no line item for the above-mentioned work. Please provide the drawing of the NC gate and add a line item for the NC gate in the price	Please follow the bidding document.
39	Price Schedule/ Schedule-B4.1/ Installation and Others Services/2k4	**Description:** Security boundary wall for overall plan. **Bidder's Queries:** As the filling depth is almost 6.5m, what type of boundary wall should we consider (retaining wall or shallow foundation with slope protection)?	Please follow the bidding document.
40	BOQ, Price Schedule JEZ Substation	3E4 AC-DC rectifier system for 110 VDC — Set — 2 3E5 110V Ni-cad Battery sets — Set — 2 We understand that the 2 set of 110VDC Charger meaning 2 sets of 1 x 100% DC Charger which operating in single configuration ,independently without parelleling with each others. Please confirm that our understanding is coorect.	Please follow the bidding document.

41	Vol 3-3 Page 332 Technical Specifications 8.4.5.2	Battery will be mounted in floor standing steel rack as per specification. However, for Timber board is not applicable for battery rack. 8.4.5 Battery Mounting Connections and Accessories 8.4.5.1 Batteries shall be placed on timber boards mounted in double tiers on steel stands of robust construction and treated with acid resisting enamel or gloss paint to BS 381C No.361. The cells shall be arranged so that each cell is readily accessible for inspection and maintenance and it shall be possible to remove any one cell without disturbing the remaining cells. The stands shall be mounted on insulators and be so dimensioned that the bottom of the lower tier is not less than 300mm above the floor. 8.4.5.2 Alternatively, batteries may be mounted in a similar manner on treated hardwood stands.	Please follow the bidding document.
42	General Query	In previous tender, PGCB mentioned separate chapter in Volume-2 for 33kV Protection, Metering, and Control Panel and didn't mention any specific country of origin of the 33kV Protection, Metering, and Control Panel but it was mentioned that the manufacturer of protection relays should be from ABB (Switzerland/Sweden), Alstom/GE (France / UK/USA), Siemens (Germany), or SEL (USA). **"Ref: Design, Supply, Erection, Testing & Commissioning of capacity enhancement and Capacitor Bank installation with associated switchgear in existing grid substation; Package-2; Lot-1 & Lot-2"** As per our understanding, bidder can supply 33kV Protection, Metering, and Control Panel from Bangladesh with protection relays from ABB (Switzerland/Sweden), Alstom/GE (France / UK/USA), Siemens (Germany), or SEL (USA) for this tender. Please confirm, our understanding is correct.	For 33kV GIS bays Protection relays and BCU shall be installed on the respective Local Control Panel of GIS. Moreover, protection relays and BCU shall be manufactured by ABB (Switzerland/Sweden), Alstom/GE (France /UK/USA), Siemens (Germany), or SEL (USA).

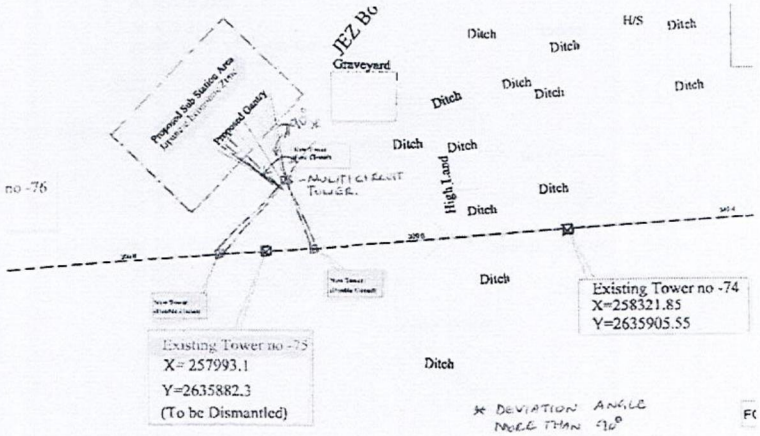
43	Site Visit	**Description:** As per the discussion during the site visit, the bidder needs to develop almost 1.3km road for material carrying from main road to project site location. But approach road to the substation showing in the layout drawing is already developed. **Bidder's Queries:** Can the bidder use that approach road for material carrying instead of developing new road for saving the cost and time?	Bidder has to develop access road for carrying materials at site at its own responsibility. The already developed approach road to the substation showing in the layout drawing will not be used. It is discussed and confirmed during site visit by bidder's arranged by BEZA and PGCB. Contractor have to construct separate access road at its own responsibility using 2nd connection road and passing beside Watch Tower-8 in the already acquired land (2nd Phase) (see the attached map). The access road will be suitable for carrying equipment's and construction materials during execution of the contract. The cost for construction of the access road are deemed to be included in contract price.
44	Site Visit	**Description:** As per the discussion during the site visit, the manpower of the contractor should use the road outside of the project area which is not fully constructed to the project area. It will create difficulties in smooth movement of the manpower and need to deal with local people and authorities. **Bidder's Queries:** Can the contractor use the internal road with proper safety and security?	The contractor shall use the existing local village road outside JEZ area (Southern Side).

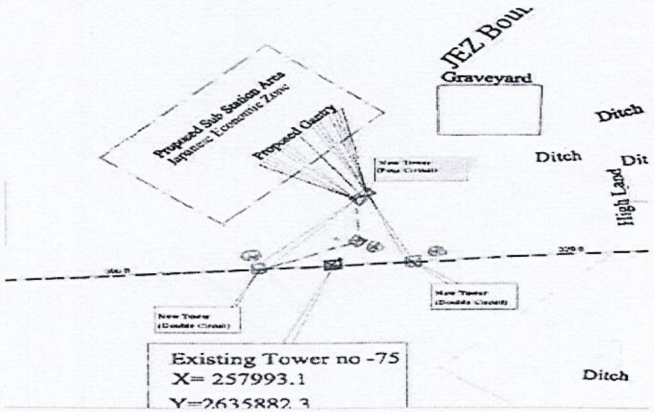
45	Price Schedule Section 3C1	In price schedule, it is not clearly mentioned about the number of panels in 33kV system's control and protection, rather only "Lot" is mentioned. We would like to propose multiple bay control and protection system in single panel, sample attached as Annexure-1. Please confirm.	For 33kV GIS bays Protection relays and BCU shall be installed on the respective Local Control Panel of GIS. Moreover, protection relays and BCU shall be manufactured by ABB (Switzerland/Sweden), Alstom/GE (France /UK/USA), Siemens (Germany), or SEL (USA).
46	Volume 2 of 3 Section 5.1.2.1	It is mentioned in Section 5 that "The Main 1 & Main 2 relays of the same protected object shall be from different manufacturers or different model from same manufacturer." In case of protection relays from different manufacturers, PGCB's support is required to get service support from different relay manufacturer, during execution stage.	It is contractor's responsibility to ensure service support from different relay manufacturers, during execution stage.
47	Volume 2 of 3 Section 5.19.4.1 and Price Schedule 2C9	It is mentioned in Section 5 that "The equipment shall be an independent stand-alone system to monitor analogue and digital signals from all 230 kV & 33 kV feeders, including transformer and bus coupler bays that require to be monitored." And in price schedule 2C9 it is mentioned "Digital Fault and Disturbance recorder (DFDR) to monitor complete 230kV station and 33kV incomers of 230/33kV transformers" Please confirm whether DFDR shall monitor 230kV station and only 33kV incomers of 230/33kV transformers.	Digital Fault and Disturbance Recorder (DFDR) shall monitor complete 230kV station and 33kV incomers of 230/33kV transformers.
48	Volume 2 of 3 Section 5.22.5.1	It is mentioned in Section 5 that " The SAS design shall consider Rapid Spanning tree Protocol (RSTP) for 230kV level." Please confirm that Rapid Spanning tree Protocol (RSTP) is applicable for 33kV level as well.	Please follow the bidding document.

49	Volume 2 of 3 Section 5.22.5.8	It is mentioned in Section 5 that " Energy meters need to be connected to SAS and energy values displayed in SAS have to be extracted from Energy meters." We understand that only Main Energy meters are needed to be integrated in SAS. Check Energy Meters are not required for integration in SAS.	Both main and check energy meters are needed to be integrated in SAS.
50	Volume 2 of 3 Section 5.22.25.20	It is mentioned in Section 5 that " For 230kV system, Main 1 protection, Main 2 protection & BCU shall be provided separately. For 33kV system, protection & BCU shall be provided separately." In section 5.22.25.14, 230kV BCU specfication is provided. Please provide specification for 33kV BCU as well.	For GTP of 33kV BCU, please see Addendum-1.
51	Volume 2 of 3 Section 5.1	For overhead line circuits, Main 1 & Main 2 Line Protection Relays shall be communicating with remote end Main 1 & Main 2 relays through Multiplexer Equipment only (As clearly indicated in Price Schedule Line Item 2D) for the purpose of sending protection commands as well as line differential protection communication, please confirm.	Please follow the bidding document.
52	General Query	Please provide line circuit's distance from Araihazar to Bhulta and Araihazar to Ghorashal substations.	Please follow the bidding document.
53	Volume 3 of 3 Section 1.1.1.4	In GTP "Bay Control Unit (BCU) & Protection Unit (BCPU)" minimum 60 Binary Inputs and 20 Binary Outputs to be provided.Please provide separate GTP for 33kV BCU since number of binary inputs and outputs mentioned in existing GTP is over estimated if considered for 33kV BCU as well.	For GTP of 33kV BCU, please see Addendum-1.
54	Volume 3 of 3, Price Schedule-Substation Part (II) Schedule B1 Section II.	2C8. Replacement of existing Protection main relays with new Protection main relays (Main-1, Main-2) for Bhulta-Araihazar overhead line circuits at existing Bhulta Substation Queries:Please share as CRP scheme drawing of existing substation.	Please follow the bidding document.

55	Volume 3 of 3, Price Schedule-Substation Part (II) Schedule B1 Section II.	2C11. Integration, with necessary hardwares, of new Protection main relays (Main-1, Main-2) for Bhulta-Araihazar overhead line circuits with the existing SAS at existing Bhulta Substation. Existing SAS is ABB, Switzerland make Queries:Please confirm make and model of exiting SAS and also share as built SAS architecture of existing substation. In additio, we request PGCB's support to get offer from ABB for exisiting SAS integration purpose.	The current SAS at existing Bhulta substation is ABB, Switzerland make. For more information (if needed), the bidders are requested to visit the site. It is bidder's own responsibility to collect offer from ABB, Switzerland for integration with existing SAS purpose.
56	General Query	Please confirm, whether is it required to supply new Main 1 & Main 2 line protection relays at Ghorasal substation as well.	Replacing the relay at Ghorashal station is not required.
57	General Query	Please confirm make and model of line protection relays and SAS at exisiting Ghorasal substation.	Please follow the bidding document.
58	Volume 3 of 3, Section 1.5: International Training	This is mentioned "HV GIS Substation & Equipment Design, Testing and MRE (as per IEC)". We understand that International Training related to this clause is applicable for 230kV GIS only and not for 33kV GIS. Please confirm	Confirmed.
59	Volume 3 of 3, Price Schedule-Substation Part (II) Schedule B1 Section II & III.	Price Schedule Line Item 2E7 "Inverter, Input- AC & DC, output -AC 230V, 5kVA 60min" We understand that the purpose of this Inverter System is to provide power to Substation Automation System and no other Inverters need to be considered for Substation Automation System as mentioned in Price Schedule's Line Items 2C10 and 3C3. Please confirm.	Price Schedule's Line Items 2C10 and 3C3 are revised. Please see **Addendum-1**.
60	Volume 3 of 3, Price Schedule-Substation Part (II) Section IV 4A Mandatory Spare Parts for 230kV Station	We understand as mentioned in 4A5 "One nos. for each type of relay" means 1 No Line protection main 1 and main 2 relay, 1 No Transformer, Main 1 and main 2 relay, 1 No Busbar protection relay (Bay unit), Busbar protection relay (central unit) is not in spare list as per Price Schedule. Please confirm.	In Price Schedule-Substation Part (II), Section IV, 4A Mandatory Spare Parts for 230kV Station, the description of item 4A5 "One nos. for each type of relay" means 1 No. Line protection main 1 relay, 1 No. Line protection main 2 relay, 1 No. Transformer protection Main 1 relay, 1 No. Transformer protection main 2 relay and 1 No. Busbar protection relay

			(Bay unit). Busbar protection relay (central unit) is not in spare list as per Price Schedule.
61	Volume 3 of 3, Price Schedule-Substation Part (II) Section IV 4B Mandatory Spare Parts for 33kV Station	We understand as mentioned in 4B2; "One no. for each type of relay, 2 nos of BCU" For 33kV system, all relays are Overcurrent relay, so we will consider 1 nos overcurrent relay and 2 nos BCU i.e Total 3 nos relays as spare. Please confirm.	Confirmed.
62	Volume 2 of 3, Section- 21, Drawings 33kV SAS Architecture	Four Nos IPC considered in 33kV SAS architecture including one number Gateway. Queries: We will consider the same. Please confirm.	Please follow the bidding document.
63	Volume 2 of 3, Section- 21, Drawings SAS Architecture	Queries: Please share IPC requirement specially processor type, Hard disc capacity.	Please follow the bidding document.
64	Volume 3 of 3, GTP 1.1.3 Digital Fault and Disturbance Recorder (DFDR)	(B) Analogue inputs Number of channel: As per required number of signals for particular feeders Queries: From volume 2 of 3, 5.19 Digital Fault and Disturbance Recorder (DFDR) Signal list table has been given. So we will consider the signal list for the particular feeders as per given table. Please confirm.	Please follow the bidding document.
65	Volume 3 of 3, GTP1.1.3 Digital Fault and Disturbance Recorder (DFDR)	(C) Digital inputsNumber of channel: As per required number of signals for particular feedersQueries: From volume 2 of 3, 5.19 Digital Fault and Disturbance Recorder (DFDR) Signal list table has given. So we will consider the signal list for the particular feeders as per given table. Please confirm.	Please follow the bidding document.

66	**VOL 2/Annex 1-3/Temporary Bypass Lines**	Please Confirm the following Points 1. Temporary Bypass Line shall be constructed for Single Circuit or Double Circuit Line. The space availability for Construction of Temporary Bypass shall be provided by client.	Temporary bypass line shall be double circuit transmission line (each circuit separately). Employer will cooperate for space availability of temporary bypass line.
67	**VOL 2/Annex 23-1/Line Route Map**	1. As per Design standard Practice the Dead-End Tower, we can be able to stringing the deviation angle up to 60°. The Line route map for LILO refers to Proposed New towers (Double Circuit) nearer to Existing Tower No 75. Whereas we found that the deviation angle in Multi Circuit (Four Circuit) Tower is more than 90° which is connected to Gantry. Please confirm.  2. Let us have the nearest Tension tower nearer to Location no 75 also provide the distance between from the Tension Tower to Location No	Please refer to updated drawing no. PGCB/230kV LILO/ ARAIHAZAR-1, Rev. A for necessary information. The existing line LILO is technically possible with predesigned 2DT6 and 2QT6 type tower configuration as shown in the drawing.

		75. These details are required for the construction of a Temporary Bypass Line. 3. If the Multicircuit (Four Circuit) Tower notwithstanding the 90° angle. We are proposing Option-2 by using 3 Nos (Double Circuit) Tension Towers and 1 No of Multi Circuit (Four Circuit) Towers.  For Option -3 instead of Multicircuit (Four Circuit) Tower we can propose 2 Nos of Double Circuit dead Towers.	
68	**VOL 3/Transmission Line/ Schedule E: Technical Particulars and Guarantees**	Our Manufacturer requested you to fill in the Bid requirement data in GTP to enable us to submit the GTP. Also we request you to provide the soft copy in excel or word.	Please refer to volume-2 (Transmission Line part) of the bid document for required specification of conductor, OPGW etc.
69	Volume-1 of 3, Section III, Evaluation and Qualification Criteria **Seq. Page No** EQC(A)(II)-5	Test carried out at manufacturer's own testing laboratory must have been witnessed or reviewed and certified by a representative from STL member testing laboratories. [Inquiry]	Test carried out at manufacturer's own testing laboratory must ensure that it has been witnessed or

		If the test carried out at manufacturer's own testing laboratory witnessed or reviewed and certified by a representative from "STL member or STL related testing laboratories" is acceptable or not? Kindly confirm.	reviewed and certified by a representative from STL member testing laboratories.
70	Volume-1 of 3, Section III, Evaluation and Qualification Criteria **Seq. Page No** EQC(A)(II)-23	2. Substation (1) 245kV Gas Insulated Swithgear (GIS) Manufacturer shall have at least twenty (20) years of manufacturing experience prior to the date of bid submission for equal or over 245kV GIS Switchgear with minimum delivery of at least one hundred (100) of equal or over 245kV GIS Bays over the last twenty (20) years in the OECD countries. [Inquiry] If "Manufacturer shall have at least seven (7) years of manufacturing experience prior to the date of bid submission for equal or over 245kV GIS Switchgear with minimum delivery of at least one hundred (100) of equal or over 245kV GIS Bays over the last twenty (20) years ~~in the OECD countries~~" is acceptable or not? Kindly confirm.	Please follow the Bid Document.
71	Volume-3 of 3 Schedule A, Section II, 2B1 245kV double busbar with sections, Indoor Gas Insulated Switchgear (GIS) **Seq. Page No** 2B1-1	iii. 245kV, 4000A, 50kA/3s, three phase busbar Disconnector with earth switch, complete with motor operating mechanism. iv. 245kV, 4000A, 50kA/3s, three phase busbar Disconnector, complete with motor operating mechanism. [Inquiry1] For Rated Current "4000A" in above requirement, we would like to know if "2500A" is acceptable or not. [Inquiry 2] For three phase busbar in above requirement, we would like to know if "Single Phase Busbar" is acceptable or not. Kindly confirm.	Please follow the bidding document.

72	Volume-3 of 3 Schedule E, GIS **Seq. Page No** 1	No.1 GIS Switchgear 230kV – General & Electrical No. 1.3 Minimum Requirements: Indoor Double, passive [Inquiry] For the requirement of "passive", if [same gas compartment for main busbar and busbar disconnector] is acceptable or not. Kindly confirm.	Please follow the bidding document.
73	10B.3.1 Architectural and Structural Requirements of Buildings & Price Schedule/ Schedule-B4.1/ Installation and Others Services	**Description:** Electric overhead traveling crane(s) shall be provided in the 400kV, 230 kV and 132 kV GIS switchgear room to facilitate erection and maintenance of the equipment **Bidder's Queries:** In the price schedule, there is a line item for a 5-ton EOT crane installation arrangement for 33 kV GIS switchgear. As per tender drawing 33kV GIS switchgear room height is 5.3m and no crane arrangement is shown. Our understanding is that if the crane is required for 33 kV GIS switchgear, then the floor height should be increased by 2m. Please confirm if EOT crane arrangement and supply of 5 ton EOT crane are required or not.	Floor height of the building provided here are minimum required height. If a larger height is required as per specifications, the Bidder may increase the height of the building within the quoted price. No additional payment shall be made in this regard.
74	10A.1.1 Scope of Work/10A.1.4 Site Survey Drawings	**Description:** The Final Ground/formation Level (FGL) of the site will be 500mm above the crown of the nearest public road or 500mm above the Highest Flood Level (HFL) whichever is greater. **Bidder's Queries:** As per our site visit, the project area is already filled. Our understanding is that the existing ground level is the final ground level, and there is no further filling needed for the project area. Please confirm.	Confirmed.

75	Volume 2/Drawings/Guard House	**Description:** In the drawing of the guard house pile foundation is shown. **Bidder's Queries:** Is it mandatory to use pile foundation for the guard house? Can we use shallow foundation as per soil condition?	It will be decided during the execution stage based on sub-soil investigation report.
76	General	**Description:** Soil investigation report. **Bidder's Queries:** As per visual inspection of the site, the land was agricultural land which is has been filled with approximately 6.5m sand. So the soil condition seems very poor. Therefore detailed engineering and accurate costing of substation building, transformer, gantry and transmission tower etc. we need soil investigation report. As we are not getting permission for conducting soil investigation at JEZ area at our own cost, please provide the soil investigation report of the proposed site.	Bidders are requested to visit the site regarding Soil Investigation, at their own arrangement, if required. Employer may help get necessary permit, if requested by the Bidder.
77	Items:2C8/Schedule B1 : Plant, Equipment & Mandatory Spares Supplied from Outside the Employer's Country **Employers Requirements** Replacement of existing Protection main relays with new Protection main relays (Main-1, Main-2) for Bhulta-Araihazar overhead line circuits at existing Bhulta Substation	Please specify the Replacement of existing Protection main relays with new Protection main relays (Main-1, Main-2) for Ghorashal-Araihazar overhead line circuits at existing Ghorashal 230/132 KV SS Substation included this tender?	Replacing the relay at Ghorashal station is not required.
78	Items : 2F1&3F1, Schedule B1 : Plant, Equipment & Mandatory Spares	Does it need to be armored or is it a bare sheath structure? What is the sheath material?	Please follow the bidding document.

	Supplied from Outside the Employer's Country **Employers Requirements** 1.In the part of 2F1, original description is "19/33KV, 1x800sqmm copper, XLPE, single core cable with terminations (Up to incomer panel inside 33kV building)"		
79	Items : 2F2, Schedule B1 : Plant, Equipment & Mandatory Spares Supplied from Outside the Employer's Country **Employers Requirements** 2.In the part of 2F2, original description is "19/33KV, ≥95sqmm copper, XLPE three phases cable with terminations to RMU"	Does it need to be armored or has a bare sheath structure? What is the sheath material and what are the specifications? Is it a three-core cable?	19/33KV, ≥95sqmm copper, XLPE three phases cable is a three-core cable. For specifications of this cable please follow the bidding document.
80	Items : 2L2,3L2 Schedule B1 : Plant, Equipment & Mandatory Spares Supplied from Outside the Employer's Country **Employers Requirements** 5.In the part of 2L2 and 3L2, the description of 5 and 6 is Temperature	What is the structure and specifications of the cable?	Please follow the bidding document.

	sensing cable 85°C and 105°C.		
81	GTP & requirement Form: Charger/ Schedule-E Guaranteed Technical Particular GTP/Volume 3/3 of Bidding documents **Employers Requirements** 1.3 Type :Thyristor controlled&1.13 Type of rectifiers :IGBT controlled	Please specify Which type shall we follow?	Type of rectifiers shall be "Thyristor controlled".
82	GTP & requirement Form: Charger/ Schedule-E Guaranteed Technical Particular GTP/Volume 3/3 of Bidding documents **Employers Requirements** 1.6 Rated input voltage : 3 x 400 / 230V &2.1 Voltage :415V	Please specify Which Voltage shall we follow?	Please follow the bidding document.
83	Cl. 1.1.3.3 Type Test Requirements	Short Circuit Test (Special Test) certificate of Power Transformer, GIS, AIS Circuit Breaker and Lightning Arrester of similar or higher specifications (voltage & capacity) required by the tender shall be submitted as per relevant IEC/equivalent standard and shall be issued by STL*2-member testing laboratories or from manufacturer's own testing laboratory. Test carried out at manufacturer's own testing laboratory must have been witnessed or reviewed and certified by a representative from STL member testing laboratories. Type test certificates except Short Circuit Test (Special Test) of Power Transformer, GIS, AIS Circuit Breaker and Lightning Arrester of similar	Please follow the Bid Document.

		or higher specifications (voltage & capacity) required by the tender shall be submitted as per relevant IEC/equivalent standard and shall be issued from manufacturer's own testing laboratory. Test carried out at manufacturer's own testing laboratory must have been witnessed or reviewed and certified by a representative from STL member testing laboratories.	
84	Price adjustment - Formula proposed by PGCB do not cover variation of Insulation and Insulating Oil	We will propose the IEEMA price variation formula for price adjustment. Please request PGCB or their consultant to accept IEEMA price variation formula.	Please follow the Bid Document.
85	Completion time	The delivery of power transformer has long delivery period and the completion of project in 18 months is very tight. This type of project requires a minimum of 30 months. Kindly consider the project completion period is 30 months instead of 18 months.	Please follow the time specified in the Bid Document.
86	Access roads.	As per Price schedule Item 2K1**, Approach Road (pavement width 6m) quantity is 66m. But as per site visit, the approach road between substation entrances to the nearest main road is 1400m (approx.). Kindly clarify.	Approach Road mentioned in the price schedule is within the site boundary. For the access road between substation entrances to the nearest main road please follow the reply of the clarification-01 Sl. No. 43.
87	Volum 1/3,Page 80, Note: The manufacturing experiences of the manufacturer's	Does the reference from other factory in the same organization should be accepted as the Manufacturer reference	The reference from other factory in the same organization is not acceptable.

	predecessor company including the origin of its manufacturer are also considered as that of the manufacturer. The manufacturer shall submit the manufacturer's company history which shows name of their all the predecessor company as the supporting document. "Manufacturer" indicates all the predecessor, origin, organization, and factory. NOT indicating specific manufacturing factory.		
88	Volume 2/3,Page 3-28, 3.4.5.25.5 Spring Charged Mechanisms	Could the Spring Charged Hydraulic operation mechanisms(Hitachienergy/ABB type: HMB) be accepted?	Please follow the bidding document.
89	Volume-1 of 3 Section III. Evaluation and Qualification Criteria EQC(A)(II)-5 Cl. 1.1.3.3 Type Test Requirements Type test certificates of Power Transformer, GIS, AIS Circuit Breaker and	Amendment required as - Short Circuit Test (Special Test) certificate of Power Transformer, GIS, AIS Circuit Breaker and Lightning Arrester of similar or higher specifications (voltage & capacity) required by the tender shall be submitted as per relevant IEC/equivalent standard and shall be issued by STL*2 member testing laboratories or from manufacturer's own testing laboratory. Test carried out at manufacturer's own testing laboratory must have been witnessed or reviewed and certified by a representative from STL member testing laboratories. Type test certificates except Short Circuit Test (Special Test) of Power Transformer, GIS, AIS Circuit Breaker and Lightning Arrester of similar or higher specifications (voltage & capacity) required by	Please follow the Bid Document.

	Lightning Arrester of similar or higher specifications (voltage & capacity) required by the tender shall be submitted as per relevant IEC/equivalent standard and shall be issued by STL*2 member testing laboratories or from manufacturer's own testing laboratory. Test carried out at manufacturer's own testing laboratory must have been witnessed or reviewed and certified by a representative from STL member testing laboratories. *2 STL: Short-Circuit Testing Liaison (Refer to http://www.stl-liaison.org/web/02_About.php) (i) Power Transformer (a) Temperature rise test. (b) Dielectric tests (Induced over voltage	the tender shall be submitted as per relevant IEC/equivalent standard and shall be issued from manufacturer's own testing laboratory. Test carried out at manufacturer's own testing laboratory must have been witnessed or reviewed and certified by a representative from STL member testing laboratories. If the manufacturer had not successfully carried out complete type test and short circuit test as per IEC as on the originally scheduled date of bid opening, bidder has to submit undertaking letter along with bid to carry out the mentioned test in respective laboratory from offered Manufacturer with extra cost to Employer.	

	test, Lightning impulse voltage withstand test, Separate source voltage withstand test/Applied voltage test). (c) Short circuit test (special test		
90	Volume-1 of 3 Section IV. Bidding Forms BF-9 Price adjustment - Formula proposed by PGCB do not cover variation of Insulation and Insulating Oil.	We will propose IEEMA price variation formula for price adjustment. Requesting PGCB to accept IEEMA price variation formula.	Please follow the Bid Document.
91	Volume-1 of 3 Section III. Evaluation and Qualification Criteria EQC(A)(II)-9 1.4 Completion time – Overall project completion time is 540 days (18 months)	Our present delivery time of Power Transformer is around 23 months from PO on FCA Works, Vadodara basis. Requesting for extension of project completion time.	Please follow the Bid Document.
92	Volume-2 of 3 (Substation Part) 5.2 Protection Relay - General ABB (Switzerland/Sweden)	Please be informed that ABB Power Grids is now Hitachi Energy. Hence, we request you to change ABB (Switzerland/Sweden) to Hitachi Energy (Switzerland/Sweden).	As ABB Power Grids is now Hitachi Energy, so Hitachi Energy (Switzerland/Sweden) is also acceptable as the manufacturer of Protection Relay, BCU & SAS.

93	Volume-3 of 3 Price Schedule JEZ Substation, Schedule No. B1: Plant and Mandatory Spare Parts Supply from Abroad Replacement of existing Protection main relays with new Protection main relays (Main-1, Main-2) for Bhulta-Araihazar overhead line circuits at existing Bhulta Substation	Existing Bhulta substation is equiped with Main I and Main II with line distance protection scheme. Under present contract, it is noted that the existing Main I and Main II protection IED's shall be replaced with Line current differential protection scheme (matching with Araihazar end supply), please confirm.	Replacement of existing Protection main relays at Existing Bhulta substation with new Protection main relays (Main-1, Main-2) shall be done. In new Main-1 & Main-2 relays there shall have Line Differential Protection (87L) & Distance (21) protection functions as well as other protection functions as per PSLD provided with the bidding document. 87L protection shall be established through optical multiplexer.
94	Volume-2 of 3 (Substation Part) Drawing, SS-01-Schematic of revision network Protection scheme for Ghorasal end	We understand that Main I and Main II line distance protection scheme shall be offered for line feeders towards 230kV Ghorasal end. Please clarify.	Your understanding is correct.
95	Volume-3 of 3 Price Schedule JEZ Substation, Schedule No. B1: Plant and Mandatory Spare Parts	We understand that Main I and Main II line distance protection scheme shall be offered for line feeders towards 230kV Ghorasal end. Please clarify.	Your understanding is correct.

	Supply from Abroad Control, Monitoring, Protection & Substation Automation System including event recording function for line circuit bay (2x towards Ghorasal end)		
96	Volume-3 of 3Price Schedule JEZ Substation, Schedule No. B1: Plant and Mandatory Spare Parts Supply from AbroadIntegration, with necessary hardwares, of new Protection main relays (Main-1, Main-2) for Bhulta-Araihazar overhead line circuits with the existing SAS at existing Bhulta Substation. Existing SAS is ABB, Switzerland make.	Please be informed that ABB Power Grids Switzerland is now Hitachi Energy Switzerland. Hence, we request you to change ABB (Switzerland) to Hitachi Energy (Switzerland) make.	As ABB Power Grids is now Hitachi Energy, so Hitachi Energy (Switzerland/Sweden) is also acceptable as the manufacturer of Protection Relay, BCU & SAS.
97	Volume 2 of 3, Page 14-1	For standardization of operation performance, facilities and spare requirements, the fibre optic multiplexer equipment for communication and protection to be supplied under this project shall consist of equipment which can totally be integrated into the existing telecommunication system in PGCB's network, including the telecommunication network management system. Please confirm whether Distance Protection coupler part of Telecommunication System should be fully integrated with existing Network Management System.	Please follow the bidding document.

98	Volume 2 of 3, Page 14-1, Section 14 Fiber Optic Multiplexer Equipment for Communication and Protection	We understand that current specification is asking only for SDH Technology. Current Life Cycle of SDH Technology is limited in view of this we request you to go for Hybrid Equipment with SDH and MPLS-TP features simultaneously with True Hybrid Functionality. This will ensure long terms life cycle for PGCB and smooth Transition from SDH to MPLS-TP' Fiber Optic Multiplexer Equipment for Communication and Distance Protection Coupler must support SDH as well as MPLS-TP Technology.	Please follow the bidding document.
99	Volume 2 of 3, Page 14-1, Section 14 Fiber Optic Multiplexer Equipment for Communication and Protection	Cyber Security is extremely important for Utility Specific Telecommunication System. We request you to confirm whether IEC62443 Standard Compliance for Product Capability assessment and Company Process Capability assessment required for Telecommunication System for the subject project.	Please follow the bidding document.
100	Volume 2 of 3, Drawing No. TCS 01	MPLS-TP - 10G is asked. We understand for all Core Ring in the Network it should be 10G MPLS-TP and STM-4 and Separate Ring Network it should be 1G MPLS-TP and STM-4. Hybrid for connecting with existing SDH Network and Pure MPLS-TP for new Network. Please confirm our understanding is correct.	Please follow the bidding document.
101	Price Schedule LILO-JEZ Araihazar: Schedule No. B4. Installation and Other Services Item No.11.2	It seems we have to collect ERS for bypass line from PGCB.Is there any rent for that? In that case, what will be the rent of ERS for bypass line?	Yes, there will be applicable rent. Rent for ERS materials for bypass line is 8900 taka per ERS structure per day. No of ERS structures and no of days are variable. It will be finalized during execution of the project based on the actual site condition.

JAPANESE ECONOMIC ZONE
(BANGLADESH SEZ Ltd.)

