The Power Grid Company of Bangladesh Limited (PGCB)

IFB No. PGCB/KfW/2014.67.976/2018/Package 1.1

Design, Supply, Installation, Testing & Commissioning of 230/132 kV and 132/33 kV Substations, on Turnkey Basis, Package 1.1

Contract No. PGCB/KfW/BMZ.2014.67.976/2018/Package-1-1

ICB No. PGCB/KfW/ BMZ.2014.67.976/2018/Package-1-1

Clarification-2

Pre Bid meeting was held on 10th February 2019 at 11:00 o'clock at the PGCB Headquarter
All comments, queries and requests for clarification, regarding the Tender documents, received from prospective Bidders, and relevant replies and clarifications prepared by PGCB, and associated addendums (if any), are part of Tender documents

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
1	Clause 2.7 on page III-11, Section III of Volume 1	**Manufacturer/Subcontractor** 2. Gas Insulated Switchgear : At least twenty(20) years of manufacturing experiences of 220kV or higher rating GIS. 1. Please clarify, whether both 230kV and 132kV GIS should be from same manufacturer, same factory and same country of Origin.	This is preferable but not mandatory solution	
2	Clause 1.3 on page VI-1, 2, 3, 4 & 5, Section VI of Volume 1	**Type Test Requirements** Gas Insulated Switchgear : Page no. VI-3 : Type Tests shall have been performed by an internationally accredited independent testing laboratory as e.g. KEMA or equivalent not associated with manufacturer. Also, test performed at the manufacturer's laboratory and witnessed by accordingly accredited independent third party are acceptable. Accredited to the testing laboratory / third part shall be given by an accordingly signatory member of International Laboratory Accreditation Cooperation (ILAC).	Yes	

Approved by _____

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		1. Please clarify, whether this requirement is applicable for GIS or for all equipment – like, Transformer, GIS, all AIS Switchgear etc. Page no. VI-4 : …. Type Test Report shall not be older than ten (10) years at the time of submittal. 2. Please clarify, whether this requirement is applicable only for GIS or for all equipment – like, Transformer, GIS, all AIS Switchgear etc.		
		New 230/132/33 kV Substation FENI		
3	FENI/1.2 layout of Volume 2 Clause L2.X, 12 on schedule B on page B-139 of Volume 3 Clause 10.1.3.13 on page 257 of Volume 2	FENI/1.2 Substation 230/132 kV FENI - Layout of 17 Bid Drawings 12 Security Boundary Wall : 1 Lot 10.1.3.13 Guard Houses, Boundary Walls, Fences and Entrance Gates The Bidder shall base his design of boundary walls and gates following bid drawing and subsoil investigation report. 1. Please provide us with cad file of FENI LAYOUT drawing to check exact size of land development. 2. We wonder that solid line on the layout represents boundary limit. If it does not represent of boundary limit, please clarify the exact route of site boundary limit. We understand that it shall be more than 610 meter.	Bidders are kindly invited to visit all required locations	
4	Clause 10.1.3.2 on page 263 of Volume 2	10.1.3.2 (c) Site investigation At least three additional boreholes should be provided for control building and switchyard panel room building or any other buildings. 1. We wonder that at least three boreholes shall be considered for the pump house. Please clarify it.	No	
5	FENI/1.2 layout of Volume 2 Clause 10.1.1.1 on page 257 of Volume 2	FENI/1.2 Substation 230/132 kV FENI - Layout of 17 Bid Drawings 10.1.1.1 scope of works Drawing and design of septic tank and soakaway item (c) above, shall be prepared by the bidder as per requirement of clause 10.1.3.3 and shall be finalized during detailed Engineering. 1. There is no information about car port, Please provide us with typical drawing for car port in order to check the size and structure type. 2. There is no information about Substation Main gate, Please provide us with typical drawing for substation	Bidders are kindly invited to visit all required locations	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		main gate. 3. There is no information about pump house, Please provide us with typical drawing for pump house in order to check the size and structure type.		
6	Clause 10.1.3.4 on page 267 of Volume 2	10.1.3.4 Surfacing The substation plot, outside of the designated switchgear equipment areas, shall be turfed. 1. Please clarify the exact area of switchyard surface finishing for turfing. Especially space for 230kV shall be considered as switchyard surface finishing or not.	Drawings are preliminary and for Tender purpose only Bidders are kindly invited to visit all required locations	
7	Clause 10.1.1.5.1 on page 258 of Volume 2	10.1.1.5.1 Engineer's and Employer's Accommodation / Surveying Equipment On each major site the contractor shall provide an office of approx. size 5 x 8m equipped with desk, 1 executive chair, 2 visitor chairs, light, fan and air conditioner, toilet with wash basin. etc. for the sole use of the Employer's Engineer and his inspectors. Similar facilities are to be provided for the supervision consultant of the Employer. 1. We wonder the exact mean of major site for accommodation. As we understand, accommodation shall be considered only for the new substation site. Please clarify the exact mean of major site for accommodation. 2. There is no information about accommodation. Please provide us with typical drawing for accommodation in order to check the structure type.	Yes, your understanding is correct. Major site is new substation	
8	FENI/1.2 layout of Volume 2 Clause 1.2 on page 4 of Volume 2 Clause 1.2 on page 3 of Volume 3	FENI/1.2 Substation 230/132 kV FENI - Layout of 17 Bid Drawings 1.2 Description of this Package New 230kV GIS Building ~~ The building shall have a size of approximately 36 x 12 meter. New 230kV GIS Building size is specified as 36(L) x 12(W) meter on clause 1.2 New 230kV GIS Building of Volume 2 and 3. Accordingly, all new 230kV GIS Building shall be considered 36(L) x 12(W) meter. However, the building size is differently marked on the FENI Substation layout (Length: unverifiable, Width : 15m). Therefore, please clarify the exact size of new 230kV GIS Building.	36 x 12 meters	
9	FENI/1.2 layout of Volume 2 Clause 1.2 on page 4 of Volume 2 Clause 1.2 on page 4 of Volume 3	FENI/1.2 Substation 230/132 kV FENI - Layout of 17 Bid Drawings 1.2 Description of this Package New 132kV GIS and Control Building ~~ The building shall have a size of approximately 36 x 12 meter. New 132kV GIS and Control Building size is specified as 36(L) x 12(W) meter on Clause 1.2 New 132kV GIS & Control Building of Volume 2 and 3. Accordingly, all new 132kV GIS & Control Building shall be considered 36(L) x 12(W) meter. However, the building size is not able to be verified on the FENI Substation layout. Therefore, please clarify the exact size of the new 132kV GIS and Control building.	36 x 12 meters	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
10	FENI/1.1 SLD of Volume 2 FENI/1.2 layout of Volume 2	FENI/1.1 Substation 230/132 kV FENI - Single Line Diagram of 17 Bid Drawings FENI/1.2 Substation 230/132 kV FENI - Layout of 17 Bid Drawings We understand there is discrepancy between SLD and Layout about arrange of bay. In this case, can we follow the arrange of bay as per SLD?	No, generally speaking Contractor has to prepare and provide for approval of PGCB the Detail Design	
11	FENI/1.1 SLD of Volume 2 AG.1 on Schedule B on page B-1 of Volume 3	FENI/1.1 Substation 230/132 kV FENI - Single Line Diagram of 17 Bid Drawings AG.1 : Q1, Q2, Q9 - Three (3) sets of three pole, three positions, motor operated, insulated disconnector with earthing switch We understand that Q9 disconnector shall be with earthing switch. However, one of Q1 and Q2 shall be with earthing switch, and the other shall be without earthing switch. Please clarify this point.	Yes, your understanding is correct	
12	FENI/1.1 SLD of Volume 2 A6.2 on Schedule B on page B-2 of Volume 3	FENI/1.1 Substation 230/132 kV FENI - Single Line Diagram of 17 Bid Drawings A6.2 : Line trap, for digital PLC, one set shall be provided for each 230 kV Transmission Line, characteristics shall be defined during the Design : 4 Sets 1. We would like to clarify whether one set is one unit of 230kV Line Trap or two unit of 230kV Line Trap. We understand there are 4 line bays and one set means 1 unit for middle phase only as per PGCB practice. Please clarify this point. 2. Please kindly provide us the telecommunication system drawings as usual to understand the system clearly.	PLC & Line Trap Not Required. Please, see Clarification No. 1 and Addendum-1	
13	FENI/1.1 SLD of Volume 2 BG.1 on Schedule B on page B-3 of Volume 3	FENI/1.1 Substation 230/132 kV FENI - Single Line Diagram of 17 Bid Drawings BG.1 : Q1, Q2, Q9 - Three (3) sets of three pole, three positions, motor operated, insulated disconnector with earthing switch We understand that Q9 disconnector shall be with earthing switch. However, one of Q1 and Q2 shall be with earthing switch, and the other shall be without earthing switch. Please clarify this point.	Yes, your understanding is correct	
14	FENI/1.1 SLD of Volume 2 BG.3.1 on Schedule B on page B-4 of Volume 3	FENI/1.1 Substation 230/132 kV FENI - Single Line Diagram of 17 Bid Drawings A complete indoor GIS bus sectionalize bay 145 kV, 3150A busbars / 3150 A feeder, 40 kA, 50Hz, 650/275 kV BIL, equipped with: We understand there isn't current transformer on bus sectionalize bay. Please clarify this point.	Please, see Clarification No. 1 and Addendum	
15	FENI/1.2 layout of Volume 2	FENI/1.2 Substation 230/132 kV FENI - Layout of 17 Bid Drawings 1 Location GPS Coordinates are of the proposed sub-station are as follows:	Bidders are kindly invited to visit all required locations	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	Clause 3.4 on page VI-A-7 of Volume 1	North East- 23°01'0.00"N; 91°20'48.42"E North West- 23°01'0.7"N; 91°20'43.0"E South East- 23°00'55.63"N; 91°20'47.98"E South West- 23°00'56.2"N; 91°20'42.8"E We understand that GPS Coordinates are discrepancies between Layout and Environmental report. In this case, can we follow the Layout?	Drawings are preliminary and for tender purpose only	
16	G6.X on Schedule B on page B-7 of Volume 3	Tele-control & Tele-protection & Tele-metering facilities, : 1 Lot A complete lot of hardware and software, extension of the existing equipment, necessary adjustment, adaptation, modification, integration and configuration of new and existing equipment, all necessary modification works in the hardware and software of the master stations, shall be provided both at the National Load Despatch Centre (NLDC) at Aftabnagar and at the back-up station at Biddut Bhaban, for integration of the complete substation. All required electrical signals shall be transmitted to the NLDC and the back-up station through the industrial gateway of the substation automation system. All HV circuit breakers, disconnectors, tap changer, etc., shall be controlled from the NLDC through the gateway of the substation automation system using the IEC 60870-5-104 protocol. We understand that the modification scope of NLDC isn't small for this project and main bidder can't get the competitive offer during the bidding stage because it can only conduct by GE/France or India. Please make the fixed price with agreement between GE and PGCB on Schedule B as we discussed during the pre-bid meeting so that all main bidder can consider same price. Please clarify this point.	All Bidders will be in the same position. PGCB has Frame Agreement for those services and Frame Agreement can be received from PGCB on request	
17	Clause AG.4 on schedule A page 8 of Volume 3 Clause AG.4 on schedule B page B-2 of Volume 3	T5 - Three (3) single-phase, 2-winding, 132/V3 / 110/V3 / 110/V3 kV/V/V, GIS type voltage transformers : 1 Set 1. We understand that the number of GIS type voltage transformers is 6 nos. single-phase instead of 3 nos. because there are double busbar system and each busbar has 3 nos. single-phase GIS type voltage transformers. Please kindly clarify whether 1 Set is 6 nos. single-phase or 3 nos. single-phase of Three (3) single-phase GIS type voltage transformers. 2. We understand the primary voltage is 230/V3 kV instead of 132/V3 kV. Please clarify this point.	Please, see Clarification No. 1 and Addendum	
18	Clause BG.1 on schedule A page 8 of Volume 3 Clause BG.1 on schedule B page B-3 of Volume 3	A complete indoor and partly outdoor GIS Line feeder 145 kV, 3150 A busbars / 2000 A feeder, 40 kA, 50Hz, 650/275 kV BIL, equipped with: FENI/1.1 Substation 230/132 kV FENI - Single Line Diagram of 17 Bid Drawings The current rate of line feeder is mentioned 2000A on Schedule A and B. However, it is mentioned 3150A on SLD. We would like to clarify whether the current rate of line feeder is 2000A or 3150A.	Please, see Clarification No. 1 and Addendum	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	FENI/1.1 SLD of Volume 2	Please kindly advise us it.		
19	Clause BG.2 on schedule A page 9 of Volume 3 Clause BG.2 on schedule B page B-3 of Volume 3 FENI/1.1 SLD of Volume 2	A complete indoor and partly outdoor GIS Transformer feeder 145 kV, 3150A busbars / 2000 A feeder, 40 kA, 50Hz, 650/275 kV BIL, equipped with: FENI/1.1 Substation 230/132 kV FENI - Single Line Diagram of 17 Bid Drawings The current rate of transformer feeder is mentioned 2000A on Schedule A. However, it is mentioned 3150A on SLD. We would like to clarify whether the current rate of transformer feeder is 2000A or 3150A. Please kindly advise us it.	Please, see Clarification No. 1 and Addendum	
20	Clause BG.4 on schedule A page 10 of Volume 3 Clause BG.4 on schedule B page B-4 of Volume 3	T5 - Three (3) single-phase, 2-winding, 132/V3 / 110/V3 / 110/V3 kV/V/V, GIS type voltage transformers We understand that the number of GIS type voltage transformers is 6 nos. single-phase instead of 3 nos. because there are double busbar system and each busbar has 3 nos. single-phase GIS type voltage transformers. Please kindly clarify whether 1 Set is 6 nos. single-phase or 3 nos. single-phase of Three (3) single-phase GIS type voltage transformers.	Please, see Clarification No. 1 and Addendum	
21	Clause D9 on schedule A page 42 of Volume 3 Clause D9 on schedule B page 35 of Volume 3	NIFPS : 3 sets We understand that 230/132/33kV 225/300MVA transformer is design with NIFPS. Please kindly clarify this point.	NO Please, see Clarification No. 1 and Addendum	
		Extension of existing 400/230/132 kV Substation BHULTA		
22	BHUL/2.2 layout of Volume 2 Clause L2.XE, 12 on schedule B on page B-153	BHUL/2.2 Substation 400/230/132 kV BHULTA - Layout of 17 Bid Drawings 12 Security Boundary Wall : N/A 10.1.3.13 Guard Houses, Boundary Walls, Fences and Entrance Gates The Bidder shall base his design of boundary walls and gates following bid drawing and subsoil investigation re-	Bidders are kindly invited to visit all required locations	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	of Volume 3 Clause 10.1.3.13 on page 257 of Volume 2	port. 1. Please provide us with cad file of BHULTA LAYOUT drawing to check exact size of land development. As per our site survey, it has already developed by third party. Is it really under this project scope? 2. We wonder that solid line on the layout represents boundary limit. If it does not represent of boundary limit, please clarify the exact route of site boundary limit. We understand that it shall be more than 1060 meters.		
23	Clause 10.1.3.2 on page 263 of Volume 2	10.1.3.2 (c) Site investigation At least three additional boreholes should be provided for control building and switchyard panel room building or any other buildings. We wonder that at least three boreholes shall be considered for the pump house. Please clarify it.	No	
24	BHUL/2.2 layout of Volume 2 Clause 10.1.1.1 on page 257 of Volume 2	BHUL/2.2 Substation 400/230/132 kV BHULTA - Layout of 17 Bid Drawings 10.1.1.1 scope of works Drawing and design of septic tank and soakaway item (c) above, shall be prepared by the bidder as per requirement of clause 10.1.3.3 and shall be finalized during detailed Engineering. 1. There is no information about car port, Please provide us with typical drawing for car port in order to check the size and structure type. 2. There is no information about Substation Main gate, Please provide us with typical drawing for substation main gate. 3. There is no information about pump house, Please provide us with typical drawing for pump house in order to check the size and structure type.	Bidders are kindly invited to visit all required locations	
25	Clause 10.1.3.4 on page 267 of Volume 2	10.1.3.4 Surfacing The substation plot, outside of the designated switchgear equipment areas, shall be turfed. Please clarify the exact area of switchyard surface finishing for turfing. Especially space for 230kV shall be considered as switchyard surface finishing or not.	Drawings are preliminary and for Tender purpose only Bidders are kindly invited to visit all required locations	
26	Clause 10.1.1.5.1 on page 258 of Volume 2	10.1.1.5.1 Engineer's and Employer's Accommodation / Surveying Equipment On each major site the contractor shall provide an office of approx. size 5 x 8m equipped with desk, 1 executive chair, 2 visitor chairs, light, fan and air conditioner, toilet with wash basin. etc. for the sole use of the Employer's Engineer and his inspectors. Similar facilities are to be provided for the supervision consultant of the Employer. 1. We wonder the exact mean of major site for accommodation. As we understand, accommodation shall be considered only for the new substation site. Please clarify the exact mean of major site for accommodation. 2. There is no information about accommodation. Please provide us with typical drawing for accommodation in order to check the structure type.	Yes, your understanding is correct. Major site is new substation	

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27	BHUL/2.2 layout of Volume 2 Clause L2.XE on schedule B on page B-153 of Volume 3	BHUL/2.2 Substation 400/230/132 kV BHULTA - Layout of 17 Bid Drawings L2.XE : There isn't Relay House 1 and 2 We understand there are 2 Relay Houses on Layout. However, we can't find this on schedule B on page B-153 of Volume 3. Please update schedule B on page B-153 of Volume 3 as per the Layout.	Please, see items: L3.X and L3.1XE	
28	BHUL/2.2 layout of Volume 2 Clause 3.4 on page VI-A-20 of Volume 1 Clause 1.2.2 page 7 of Volume 2,	BHUL/2.2 Substation 400/230/132 kV BHULTA - Layout of 17 Bid Drawings 1 Location GPS Coordinates are of the proposed sub-station are as follows: North East- 23°45'50.1"N; 90°34'28.3"E North West- 23°45'44.30"N; 90°34'16.27"E South East- 23°45'46.0"N; 90°34'30.9"E South West- 23°45'40.21"N; 90°34'18.44"E We understand that size of land may be about 380m x 150m based on GPS Coordinates. However, Clause 1.2.2 on page 7 of Volume 2 is mentioned 5 acres only. In this case, can we follow the GPS Coordinates?	Bidders are kindly invited to visit all required locations Drawings are preliminary and for tender purpose only	
29	G6.XE on Schedule B on page B-14 of Volume 3	Tele-control & Tele-protection & Tele-metering facilities, : 1 Lot A complete lot of hardware and software, extension of the existing equipment, necessary adjustment, adaptation, modification, integration and configuration of new and existing equipment, all necessary modification works in the hardware and software of the master stations, shall be provided both at the National Load Despatch Centre (NLDC) at Aftabnagar and at the back-up station at Biddut Bhaban, for integration of the complete substation. All required electrical signals shall be transmitted to the NLDC and the back-up station through the industrial gateway of the substation automation system. All HV circuit breakers, disconnectors, tap changer, etc., shall be controlled from the NLDC through the gateway of the substation automation system using the IEC 60870-5-104 protocol. We understand that the modification scope of NLDC is not small for this project and main bidder cannot get the competitive offer during the bidding stage because it can only conduct by GE/France or India. Please make the fixed price with agreement between GE and PGCB on Schedule B as we discussed during the pre-bid meeting so that all main bidder can consider same price. Please clarify this point.	All Bidders will be in the same position. PGCB has Frame Agreement for those services and Frame Agreement can be received from PGCB on request	
		New 230/132 kV Substation BIRULIA		

Approved by _____

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
30	BIRU/3.2 layout of Volume 2 Clause L2.X, 12 on schedule B on page B-166 of Volume 3 Clause 10.1.3.13 on page 257 of Volume 2	BIRU/3.2 Substation 230/132 kV BIRULIA - Layout of 17 Bid Drawings 12 Security Boundary Wall : 1 Lot 10.1.3.13 Guard Houses, Boundary Walls, Fences and Entrance Gates The Bidder shall base his design of boundary walls and gates following bid drawing and subsoil investigation report. 1. Please provide us with cad file of BIRULIA LAYOUT drawing to check exact size of land development. 2. We wonder that solid line on the layout represents boundary limit. If it does not represent of boundary limit, please clarify the exact route of site boundary limit. We understand that it shall be more than 600 meters.	Bidders are kindly invited to visit all required locations	
31	Clause 10.1.3.2 on page 263 of Volume 2	10.1.3.2 (c) Site investigation At least three additional boreholes should be provided for control building and switchyard panel room building or any other buildings. We wonder that at least three boreholes shall be considered for the pump house. Please clarify it.	No	
32	BIRU/3.2 layout of Volume 2 Clause 10.1.1.1 on page 257 of Volume 2	BIRU/3.2 Substation 230/132 kV BIRULIA - Layout of 17 Bid Drawings 10.1.1.1 scope of works Drawing and design of septic tank and soakaway item (c) above, shall be prepared by the bidder as per requirement of clause 10.1.3.3 and shall be finalized during detailed Engineering. 1. There is no information about car port, Please provide us with typical drawing for car port in order to check the size and structure type. 2. There is no information about Substation Main gate, Please provide us with typical drawing for substation main gate. 3. There is no information about pump house, Please provide us with typical drawing for pump house in order to check the size and structure type.	Bidders are kindly invited to visit all required locations	
33	Clause 10.1.3.4 on page 267 of Volume 2	10.1.3.4 Surfacing The substation plot, outside of the designated switchgear equipment areas, shall be turfed. Please clarify the exact area of switchyard surface finishing for turfing. Especially space for 230kV shall be considered as switchyard surface finishing or not.	Drawings are preliminary and for Tender purpose only Bidders are kindly invited to visit all required locations	
34	Clause 10.1.1.5.1 on page 258 of Volume 2	10.1.1.5.1 Engineer's and Employer's Accommodation / Surveying Equipment On each major site the contractor shall provide an office of approx. size 5 x 8m equipped with desk, 1 executive chair, 2 visitor chairs, light, fan and air conditioner, toilet with wash basin. etc. for the sole use of the Employer's	Yes, your understanding is correct. Major site is new substation	

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		Engineer and his inspectors. Similar facilities are to be provided for the supervision consultant of the Employer. 1. We wonder the exact mean of major site for accommodation. As we understand, accommodation shall be considered only for the new substation site. Please clarify the exact mean of major site for accommodation. 2. There is no information about accommodation. Please provide us with typical drawing for accommodation in order to check the structure type.		
35	BIRU/3.2 layout of Volume 2 Clause 1.2 on page 4 of Volume 2 Clause 1.2 on page 3 of Volume 3	BIRU/3.2 Substation 230/132 kV BIRULIA - Layout of 17 Bid Drawings 1.2 Description of this Package New 230kV GIS Building ~~ The building shall have a size of approximately 36 x 12 meter. New 230kV GIS Building size is specified as 36(L) x 12(W) meter on clause 1.2 New 230kV GIS Building of Volume 2 and 3. Accordingly, all new 230kV GIS Building shall be considered 36(L) x 12(W) meter. However, the building size is not able to be verified on the BIRULIA Substation layout. Therefore, please clarify the exact size of new 230kV GIS Building.	36 x 12 meters	
36	BIRU/3.2 layout of Volume 2 Clause 1.2 on page 4 of Volume 2 Clause 1.2 on page 4 of Volume 3	BIRU/3.2 Substation 230/132 kV BIRULIA - Layout of 17 Bid Drawings 1.2 Description of this Package New 132kV GIS and Control Building ~~ The building shall have a size of approximately 36 x 12 meter. New 132kV GIS and Control Building size is specified as 36(L) x 12(W) meter on Clause 1.2 New 132kV GIS & Control Building of Volume 2 and 3. Accordingly, all new 132kV GIS & Control Building shall be considered 36(L) x 12(W) meter. However, the building size is differently marked on the BIRULIA Substation layout (Length: unverifiable, Width : 12m). Therefore, please clarify the exact size of the new 132kV GIS and Control building.	36 x 12 meters	
37	BIRU /3.1 SLD of Volume 2 BIRU/3.2 layout of Volume 2	BIRU /3.1 Substation 230/132 kV BIRULIA - Single Line Diagram of 17 Bid Drawings BIRU/3.2 Substation 230/132 kV BIRULIA - Layout of 17 Bid Drawings We understand there is discrepancy between SLD and Layout about arrangement of bay. Especially, we can't find the section bay on Layout. In this case, can we follow the arrangement of bay as per SLD?	NO, generally speaking Contractor has to prepare and provide for approval of PGCB the Detail Design	
38	BIRU /3.1 SLD of Volume 2 AG.1 on Schedule B on page B-19 of Volume 3	BIRU /3.1 Substation 230/132 kV BIRULIA - Single Line Diagram of 17 Bid Drawings AG.1 : Q1, Q2, Q9 - Three (3) sets of three pole, three positions, motor operated, insulated disconnector with earthing switch	Yes, your understanding is correct	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		We understand that Q9 disconnector shall be with earthing switch. However, one of Q1 and Q2 shall be with earthing switch, and the other shall be without earthing switch. Please clarify this point.		
39	BIRU /3.1 SLD of Volume 2 A6.2 on Schedule B on page B-20 of Volume 3	BIRU /3.1 Substation 230/132 kV BIRULIA - Single Line Diagram of 17 Bid Drawings A6.2 : Line trap, for digital PLC, one set shall be provided for each 230 kV Transmission Line, characteristics shall be defined during the Design : 4 Sets 1. We would like to clarify whether one set is one unit of 230kV Line Trap or two unit of 230kV Line Trap. We understand there are 4 line bays and one set means 1 unit for middle phase only as per PGCB practice. Please clarify this point. 2. Please kindly provide us the telecommunication system drawings as usual to understand the system clearly.	PLC & Line Trap **Not** required. Please, see Clarification No. 1 and Addendum	
40	BIRU /3.1 SLD of Volume 2 BG.1 on Schedule B on page B-21 of Volume 3	BIRU /3.1 Substation 230/132 kV BIRULIA - Single Line Diagram of 17 Bid Drawings BG.1 : Q1, Q2, Q9 - Three (3) sets of three pole, three positions, motor operated, insulated disconnector with earthing switch We understand that Q9 disconnector shall be with earthing switch. However, one of Q1 and Q2 shall be with earthing switch, and the other shall be without earthing switch. Please clarify this point.	Yes, your understanding is correct	
41	BIRU /3.1 SLD of Volume 2 BG.3.1 on Schedule B on page B-22 of Volume 3	BIRU /3.1 Substation 230/132 kV BIRULIA - Single Line Diagram of 17 Bid Drawings A complete indoor GIS bus sectionalize bay 145 kV, 3150A busbars / 3150 A feeder, 40 kA, 50Hz, 650/275 kV BIL, equipped with: We understand there isn't current transformer on bus sectionalize bay. Please clarify this point.	Please, see Clarification No. 1 and Addendum	
42	BIRU/3.2 layout of Volume 2 Clause 3.4 on page VI-A-27 of Volume 1	BIRU/3.2 Substation 230/132 kV BIRULIA - Layout of 17 Bid Drawings 1 Location GPS Coordinates are of the proposed sub-station are as follows: North East- 23°51'9.94"N; 90°20'10.06"E; North West- 23°51'10.90"N; 90°20'5.72"E South East- 23°51'4.62"N; 90°20'8.99"E South West- 23°51'5.33"N; 90°20'5.22"E We understand that GPS Coordinates are discrepancies between Layout and Environmental report. In this case, can we follow the Layout?	Bidders are kindly invited to visit all required locations Drawings are preliminary and for tender purpose only	
43	G6.X on Schedule B on page B-24 of Volume 3	Tele-control & Tele-protection & Tele-metering facilities, : 1 Lot A complete lot of hardware and software, extension of the existing equipment, necessary adjustment, adaptation, modification, integration and configuration of new and existing equipment, all necessary modification works in the hardware and software of the master stations, shall be provided both at the National Load Despatch Cen-	All Bidders will be in the same position. PGCB has Frame Agreement for those	

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		tre (NLDC) at Aftabnagar and at the back-up station at Biddut Bhaban, for integration of the complete substation. All required electrical signals shall be transmitted to the NLDC and the back-up station through the industrial gateway of the substation automation system. All HV circuit breakers, disconnectors, tap changer, etc., shall be controlled from the NLDC through the gateway of the substation automation system using the IEC 60870-5-104 protocol. We understand that the modification scope of NLDC isn't small for this project and main bidder can't get the competitive offer during the bidding stage because it can only conduct by GE/France or India. Please make the fixed price with agreement between GE and PGCB on Schedule B as we discussed during the pre-bid meeting so that all main bidder can consider same price. Please clarify this point.	services and Frame Agreement can be received from PGCB on request	
44	Clause AG.4 on schedule A page 28 of Volume 3 Clause AG.4 on schedule B page B-20 of Volume 3	T5 - Three (3) single-phase, 2-winding, 132/V3 / 110/V3 / 110/V3 kV/V/V, GIS type voltage transformers : 1 Set 1. We understand that the number of GIS type voltage transformers is 6 nos. single-phase instead of 3 nos. because there are double busbar system and each busbar has 3 nos. single-phase GIS type voltage transformers. Please kindly clarify whether 1 Set is 6 nos. single-phase or 3 nos. single-phase of Three (3) single-phase GIS type voltage transformers. 2. We understand the primary voltage is 230/V3 kV instead of 132/V3 kV. Please clarify this point.	Please, see Clarification No. 1 and Addendum	
45	Clause BG.1 on schedule A page 28 of Volume 3 Clause BG.1 on schedule B page B-21 of Volume 3 BIRU /3.1 SLD of Volume 2	A complete indoor and partly outdoor GIS Line feeder 145 kV, 3150 A busbars / 2000 A feeder, 40 kA, 50Hz, 650/275 kV BIL, equipped with: BIRU /3.1 Substation 230/132 kV BIRULIA - Single Line Diagram of 17 Bid Drawings The current rate of line feeder is mentioned 2000A on Schedule A and B. However, it is mentioned 3150A on SLD. We would like to clarify whether the current rate of line feeder is 2000A or 3150A. Please kindly advise us it.	Please, see Clarification No. 1 and Addendum	
46	Clause BG.2 on schedule A page 29 of Volume 3 Clause BG.2 on schedule B page B-22 of Volume 3 BIRU /3.1 SLD of Volume 2	A complete indoor and partly outdoor GIS Transformer feeder 145 kV, 3150A busbars / 2000 A feeder, 40 kA, 50Hz, 650/275 kV BIL, equipped with: BIRU /3.1 Substation 230/132 kV BIRULIA - Single Line Diagram of 17 Bid Drawings The current rate of transformer feeder is mentioned 2000A on Schedule A. However, it is mentioned 3150A on SLD. We would like to clarify whether the current rate of transformer feeder is 2000A or 3150A. Please kindly advise us it.	Please, see Clarification No. 1 and Addendum	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
47	Clause BG.4 on schedule A page 30 of Volume 3 Clause BG.4 on schedule B page B-22 of Volume 3	T5 - Three (3) single-phase, 2-winding, 132/V3 / 110/V3 / 110/V3 kV/V/V, GIS type voltage transformers We understand that the number of GIS type voltage transformers is 6 nos. single-phase instead of 3 nos. because there are double busbar system and each busbar has 3 nos. single-phase GIS type voltage transformers. Please kindly clarify whether 1 Set is 6 nos. single-phase or 3 nos. single-phase of Three (3) single-phase GIS type voltage transformers.	Please, see Clarification No. 1 and Addendum	
48	Clause D9 on schedule A page 31 of Volume 3 Clause D9 on schedule B page B-24 of Volume 3	NIFPS : 3 sets We understand that 230/132/33kV 225/300MVA transformer is design with NIFPS. Please kindly clarify this point.	No Please, see Clarification No. 1 and Addendum	
		New 230/132 kV Substation NAOGAON		
49	Clause 1.2.4 New 230 / 132kV Substation Naogaon on page 9 of Volume 2	1.2.4 New 230/132kV Substation Naogaon 33kV AIS Switchgear: -Three (3) 33kV transformer (230/132/33kV) / auxiliary transformer bays There is no space for 33kV Extension if we keep 132kV Control building. Please confirm we shall demolish existing control building or provide alternative space.	No Existing control room shall remain Contractor has to prepare Detail design which will be subject of PGCB approval	
50	Clause 1.2.4 New 230 / 132kV Substation Naogaon on page 9 of Volume 2	1.2.4 New 230/132kV Substation Naogaon The existing 33kV AIS switchgear has to be completely renovated with; -new 33kV single busbar, divided at four sections by three disconnectors -four (4) 33kV transformer (132/33kV) bays There is no information for the existing 33kV switchgear area. We can't get any information for this during the site survey as well. Please provide us with all relevant foundation, drainage and trench drawing including underground composite drawing which we can check total volume of renovation works.	Bidders are kindly invited to visit all required locations Drawings are preliminary and for tender purpose only	
51	Clause 1.2.4 New 230 / 132kV Substation Naogaon on page 10 of Volume 2	1.2.4 New 230/132kV Substation Naogaon The existing switchgear 132kV has to be completely dismantled and stored at the storage place, the area has to be cultivated, and not used equipment and material has to be removed. 1. There is no information for the existing 132kV switchgear area. Please provide us with all relevant foundation, drainage and trench drawing including underground composite drawing which we can check total volume of dismantling works.	Bidders are kindly invited to visit all required locations Drawings are preliminary and for tender purpose only	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		2. Please inform us the location of storage place for dismantled 132kV switchgear. If bidder has to consider the storage area, please clarify detail specification of storage area.		
52	Clause 1.2.4 New 230 / 132kV Substation Naogaon on page 9 of Volume 2	1.2.4 New 230/132kV substation Naogaon complete outdoor civil works, including 230 kV, 132 kV and 33 kV gantry foundation, 230 kV and 132 kV and 33 kV equipment foundation, power transformer and auxiliary transformer foundations, blast wall, substation main gate and guard house, security boundary wall and internal fencing, access road, internal roads and parking, concrete culvert, surface and switchyard drainage system including outfall, cable trench including soak pit, PVC pipes, etc., switchyard surface finishing and gravel surfacing 1. When we visit the site, we found that there is no blast wall for 132kV TR. Please confirm number of blast wall. We need to newly provide for new 132kV TR only. We understand that new blast wall is required for 2 sets of new 132kV TR and does not need to provide new blast wall for existing 132kV TR. Please clarify this point. 2. We understand that water spray system is required only for 2 number of 132kV TR. Please confirm if my understanding is correct.	Yes Yes	
53	NAOG/4.2 layout of Volume 2 Clause L2.X on schedule B on page B-178 of Volume 3 Clause 10.1.3.13 on page 257 of Volume 2	NAOG/4.2 Substation 230/132 kV NAOGAON - Layout of 17 Bid Drawings 12 Security Boundary Wall : 1 Lot 13. Internal fence : 1 Lot 10.1.3.13 Guard Houses, Boundary Walls, Fences and Entrance Gates The Bidder shall base his design of boundary walls and gates following bid drawing and subsoil investigation report. 1. Please provide us with cad file of NAOGAON LAYOUT drawing to check exact size of land development. 2. Please provide us with the existing Naogaon substation layout to check total volume of dismantling and renovation works. 3. We wonder that solid line on the layout represents boundary limit. If it does not represent of boundary limit, please clarify the exact route of site boundary limit. We understand that it shall be more than 600 meters. 4. There is existing boundary wall for the total land about 7 acres. Please clarify bidder shall demolish and provide a new boundary wall. 5. There is no information about internal fence. Please provide us with typical drawing for internal fencing. 6. We cannot find any specifications about internal fence area, Therefore, please inform us the route of internal fence to check total length.	Bidders are kindly invited to visit all required locations	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
54	Clause 10.1.3.2 on page 263 of Volume 2	10.1.3.2 (c) Site investigation At least three additional boreholes should be provided for control building and switchyard panel room building or any other buildings. We wonder that at least three boreholes shall be considered for the pump house. Please clarify it.	No	
55	NAOG/4.2 layout of Volume 2 Clause 10.1.1.1 on page 257 of Volume 2	NAOG/4.2 Substation 230/132 kV NAOGAON - Layout of 17 Bid Drawings 10.1.1.1 scope of works Drawing and design of septic tank and soakaway item (c) above, shall be prepared by the bidder as per requirement of clause 10.1.3.3 and shall be finalized during detailed Engineering. 1. There is no information about car port, Please provide us with typical drawing for car port in order to check the size and structure type. 2. There is no information about Substation Main gate, Please provide us with typical drawing for substation main gate. 3. There is no information about pump house, Please provide us with typical drawing for pump house in order to check the size and structure type.	Bidders are kindly invited to visit all required locations	
56	Clause 10.1.3.4 on page 267 of Volume 2	10.1.3.4 Surfacing The substation plot, outside of the designated switchgear equipment areas, shall be turfed. Please clarify the exact area of switchyard surface finishing for turfing. Especially space for 230kV shall be considered as switchyard surface finishing or not.	Drawings are preliminary and for Tender purpose only Bidders are kindly invited to visit all required locations	
57	Clause 10.1.1.5.1 on page 258 of Volume 2	10.1.1.5.1 Engineer's and Employer's Accommodation / Surveying Equipment On each major site the contractor shall provide an office of approx. size 5 x 8m equipped with desk, 1 executive chair, 2 visitor chairs, light, fan and air conditioner, toilet with wash basin. etc. for the sole use of the Employer's Engineer and his inspectors. Similar facilities are to be provided for the supervision consultant of the Employer. 1. We wonder the exact mean of major site for accommodation. As we understand, accommodation shall be considered only for the new substation site. Please clarify the exact mean of major site for accommodation. 2. There is no information about accommodation. Please provide us with typical drawing for accommodation in order to check the structure type.	Yes, your understanding is correct. Major site is new substation	
58	NAOG/4.2 layout of Volume 2	NAOG/4.2 Substation 230/132 kV NAOGAON - Layout of 17 Bid Drawings 1.2 Description of this Package	36 x 12 meters	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	Clause 1.2 on page 4 of Volume 2 Clause 1.2 on page 3 of Volume 3	New 230kV GIS Building ~~ The building shall have a size of approximately 36 x 12 meter. New 230kV GIS Building size is specified as 36(L) x 12(W) meter on clause 1.2 New 230kV GIS Building of Volume 2 and 3. Accordingly, all new 230kV GIS Building shall be considered 36(L) x 12(W) meter. However, The building size is differently marked on the NAOGAON Substation layout (Length: 38m, Width: unverifiable). Therefore, please clarify the exact size of new 230kV GIS Building.		
59	NAOG/4.2 layout of Volume 2 Clause 1.2 on page 4 of Volume 2 Clause 1.2 on page 4 of Volume 3	NAOG/4.2 Substation 230/132 kV NAOGAON - Layout of 17 Bid Drawings 1.2 Description of this Package New 132kV GIS and Control Building ~~ The building shall have a size of approximately 36 x 12 meter. New 132kV GIS and Control Building size is specified as 36(L) x 12(W) meter on Clause 1.2 New 132kV GIS & Control Building of Volume 2 and 3. Accordingly, all new 132kV GIS & Control Building shall be considered 36(L) x 12(W) meter. However, the building size is differently marked on the NAOGAON Substation layout (Length: unverifiable, Width : 12m). Therefore, please clarify the exact size of the new 132kV GIS and Control building.	36 x 12 meters	
60	NAOG /4.1 SLD of Volume 2 NAOG/4.2 layout of Volume 2	NAOG/4.1 Substation 230/132 kV NAOGAON - Single Line Diagram of 17 Bid Drawings NAOG/4.2 Substation 230/132 kV NAOGAON - Layout of 17 Bid Drawings We understand there is discrepancy between SLD and Layout about arrangement of bay. Especially, we cannot find the section bay on Layout. In this case, can we follow the arrangement of bay as per SLD?	Contractor has to prepare and provide for approval of PGCB the Detail Design	
61	NAOG /4.1 SLD of Volume 2 AG.1 on Schedule B on page B-30 of Volume 3	NAOG/4.1 Substation 230/132 kV NAOGAON - Single Line Diagram of 17 Bid Drawings AG.1 : Q1, Q2, Q9 - Three (3) sets of three pole, three positions, motor operated, insulated disconnector with earthing switch We understand that Q9 disconnector shall be with earthing switch. However, one of Q1 and Q2 shall be with earthing switch, and the other shall be without earthing switch. Please clarify this point.	Yes, your understanding is correct	
62	NAOG /4.1 SLD of Volume 2 A6.2 on Schedule B on	NAOG/4.1 Substation 230/132 kV NAOGAON - Single Line Diagram of 17 Bid Drawings A6.2 : Line trap, for digital PLC, one set shall be provided for each 230 kV Transmission Line, characteristics shall be defined during the Design : 2 Sets	PLC & Line Trap not required. Please, see Clarification No. 1 and Addendum	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	page B-31 of Volume 3	1. We would like to clarify whether one set is one unit of 230kV Line Trap or two unit of 230kV Line Trap. We understand there are 2 line bays and one set means 1 unit for middle phase only as per PGCB practice. Please clarify this point. 2. Please kindly provide us the telecommunication system drawings as usual to understand the system clearly.		
63	NAOG /4.1 SLD of Volume 2 BG.1 on Schedule B on page B-32 of Volume 3	NAOG/4.1 Substation 230/132 kV NAOGAON - Single Line Diagram of 17 Bid Drawings BG.1 : Q1, Q2, Q9 - Three (3) sets of three pole, three positions, motor operated, insulated disconnector with earthing switch We understand that Q9 disconnector shall be with earthing switch. However, one of Q1 and Q2 shall be with earthing switch, and the other shall be without earthing switch. Please clarify this point.	Yes, your understanding is correct	
64	NAOG /4.1 SLD of Volume 2 BG.3.1 on Schedule B on page B-33 of Volume 3	NAOG/4.1 Substation 230/132 kV NAOGAON - Single Line Diagram of 17 Bid Drawings A complete indoor GIS bus sectionalize bay 145 kV, 3150A busbars / 3150 A feeder, 40 kA, 50Hz, 650/275 kV BIL, equipped with: We understand there is not current transformer on bus sectionalize bay. Please clarify this point.	Please, see Clarification No. 1 and Addendum	
65	NAOG/4.2 layout of Volume 2 Clause 3.4 on page VI-A-11 of Volume 1	NAOG/4.2 Substation 230/132 kV NAOGAON - Layout of 17 Bid Drawings 1 Location GPS Coordinates are of the proposed sub-station are as follows: North East- 24°48'13.13"N; 88°57'47.65"E; North West- 24°48'13.20"N; 88°57'45.30"E South East- 24°48'7.49"N; 88°57'47.64"E South West- 24°48'08.10"N; 88°57'44.90"E We understand that GPS Coordinates does not mentioned on Layout. In this case, can we consider the GPS Coordinates as per land size?	Bidders are kindly invited to visit all required locations Drawings are preliminary and for tender purpose only	
66	G6.X on Schedule B on page B-36 of Volume 3	Tele-control & Tele-protection & Tele-metering facilities, : 1 Lot A complete lot of hardware and software, extension of the existing equipment, necessary adjustment, adaptation, modification, integration and configuration of new and existing equipment, all necessary modification works in the hardware and software of the master stations, shall be provided both at the National Load Despatch Centre (NLDC) at Aftabnagar and at the back-up station at Biddut Bhaban, for integration of the complete substation. All required electrical signals shall be transmitted to the NLDC and the back-up station through the industrial gateway of the substation automation system. All HV circuit breakers, disconnectors, tap changer, etc., shall be controlled from the NLDC through the gateway of the substation automation system using the IEC 60870-5-104 protocol.	All Bidders will be in the same position. PGCB has Frame Agreement for those services and Frame Agreement can be received from PGCB on request	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		We understand that the modification scope of NLDC is not small for this project and main bidder cannot get the competitive offer during the bidding stage because it can only conduct by GE/France or India. Please make the fixed price with agreement between GE and PGCB on Schedule B as we discussed during the pre-bid meeting so that all main bidder can consider same price. Please clarify this point.		
67	Clause 1.2.4 page 9 of Volume 2, Clause 1.2.4 on schedule A page 37 of Volume 3 NAOG/4.2 layout of Volume 2	Two (2) existing power transformers 132/33kV, 50/75MVA shall be connected to the new 132kV GIS Switchgear NAOG/4.2 Substation 230/132 kV NAOGAON - Layout of 17 Bid Drawings We understand that Two (2) existing power transformers 132/33kV, 50/75MVA is not necessary to move into new area as per layout. Please kindly advise us that it is necessary for Two (2) existing power transformers 132/33kV, 50/75MVA to shaft new area as per layout.	Yes, your understanding is correct. Existing transformers 132/33 kV, Switchgear 33 kV and Control room 132 kV will remain on the present positions	
68	Clause 1.2.5 page 9 of Volume 2, Clause 1.2.5 on schedule A page 37 of Volume 3 NAOG/4.2 layout of Volume 2	Existing 33kV AIS switchgear has to be completely renovated with : - new 33kV single busbar, divided at four sections by three disconnectors - four (4) 33kV transformer (132/33kV) bays NAOG/4.2 Substation 230/132 kV NAOGAON - Layout of 17 Bid Drawings We understand that we can use the existing 33kV AIS switchgear such as steel structure, circuit breaker, disconnector, etc. The outgoing bays are already running through the existing 33kV AIS switchgear and it is necessary to define the scope limitation clearly. Please kindly advise us it.	Yes, your understanding is correct. The existing 33 kV AIS switchgear shall be completely renovated. Scope of renovation is completely new 33 kV single busbar, divided at four sections by three disconnectors and corresponding metering bays. Also, four (4) completely new 33 kV transformer (132/33 kV) bays shall be provided and incorporated. Existing outgoing bays are not in the scope of works, only they have to be connected to the new busbars On other side, three (3) completely new 33 kV transformer (230/132/33 kV) / auxiliary transformer bays, along with three (3) three phase, 33/0.415 kV, 200 kVA, auxiliary/earthing power transformers shall be provided. 33 kV cable connection of approximately 7 x 20 meters shall be considered,	

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			but final solution shall be confirmed by the Detail design	
69	Clause AG.4 on schedule A page 39 of Volume 3 Clause AG.4 on schedule B page 31 of Volume 3	T5 - Three (3) single-phase, 2-winding, 132/V3 / 110/V3 / 110/V3 kV/V/V, GIS type voltage transformers : 1 Set 1. We understand that the number of GIS type voltage transformers is 6 nos. single-phase instead of 3 nos. because there are double busbar system and each busbar has 3 nos. single-phase GIS type voltage transformers. Please kindly clarify whether 1 Set is 6 nos. single-phase or 3 nos. single-phase of Three (3) single-phase GIS type voltage transformers. 2. We understand the primary voltage is 230/V3 kV instead of 132/V3 kV. Please clarify this point.	Please, see Clarification No. 1 and Addendum	
70	Clause BG.1 on schedule A page 40 of Volume 3 Clause BG.1 on schedule B page 32 of Volume 3 NAOG /4.1 SLD of Volume 2	A complete indoor and partly outdoor GIS Line feeder 145 kV, 3150 A busbars / 2000 A feeder, 40 kA, 50Hz, 650/275 kV BIL, equipped with: NAOG/4.1 Substation 230/132 kV NAOGAON - Single Line Diagram of 17 Bid Drawings The current rate of line feeder is mentioned 2000A on Schedule A. However, it is mentioned 3150A on SLD. We would like to clarify whether the current rate of line feeder is 2000A or 3150A. Please kindly advise us it.	Please, see Clarification No. 1 and Addendum	
71	Clause BG.2 on schedule A page 40 of Volume 3 Clause BG.2 on schedule B page 32 of Volume 3 NAOG /4.1 SLD of Volume 2	A complete indoor and partly outdoor GIS Transformer feeder 145 kV, 3150A busbars / 2000 A feeder, 40 kA, 50Hz, 650/275 kV BIL, equipped with: NAOG/4.1 Substation 230/132 kV NAOGAON - Single Line Diagram of 17 Bid Drawings The current rate of transformer feeder is mentioned 2000A on Schedule A. However, it is mentioned 3150A on SLD. We would like to clarify whether the current rate of transformer feeder is 2000A or 3150A. Please kindly advise us it.	Please, see Clarification No. 1 and Addendum	
72	Clause BG.4 on schedule A page 41 of Volume 3 Clause BG.4 on schedule B page 33 of Volume 3	T5 - Three (3) single-phase, 2-winding, 132/V3 / 110/V3 / 110/V3 kV/V/V, GIS type voltage transformers We understand that the number of GIS type voltage transformers is 6 nos. single-phase instead of 3 nos. because there are double busbar system and each busbar has 3 nos. single-phase GIS type voltage transformers. Please kindly clarify whether 1 Set is 6 nos. single-phase or 3 nos. single-phase of Three (3) single-phase GIS type voltage transformers.	Please, see Clarification No. 1 and Addendum	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
73	Clause D9 on schedule A page 42 of Volume 3 Clause D9.2 on schedule A page 42 of Volume 3 Clause D9 on schedule B page 35 of Volume 3 Clause D9.2 on schedule B page 36 of Volume 3	NIFPS : 3 sets Water spray system : 2 sets We understand that 230/132/33kV 225/300MVA transformer is design with NIFPS and 132/33kV 80/120MVA transformer is design with water spray system. In this case, we would like to clarify whether existing 132/33kV transformer need water spray system or not. Please kindly clarify this point.	NO Please, see Clarification No. 1 and Addendum No, new fire protection system of existing transformers are not in the scope of works	
		New 230/132 kV Substation PURBASADIPUR		
74	Clause 1.2.5 New 230 / 132kV Substation Purbasadipur on page 10 of Volume 2	1.2.5 New 230/132kV Substation Purbasadipur The existing 33kV AIS switchgear has to be completely renovated with; -new 33kV single busbar, divided at four sections by three disconnectors -four (4) 33kV transformer (132/33kV) bays There is no information for the existing 33kV switchgear area. We cannot get any information for this during the site survey as well. Please provide us with all relevant foundation, drainage and trench drawing including underground composite drawing which we can check total volume of renovation works.	Bidders are kindly invited to visit all required locations Drawings are preliminary and for tender purpose only	
75	Clause 1.2.5 New 230 / 132kV Substation Purbasadipur on page 11 of Volume 2	1.2.5 New 230/132kV Substation Purbasadipur The existing switchgear 132kV has to be completely dismantled and stored at the storage place, the area has to be cultivated, and not used equipment and material has to be removed. 1. There is no information for the existing 132kV switchgear area. Please provide us with all relevant foundation, drainage and trench drawing including underground composite drawing which we can check total volume of dismantling works. 2. Please inform us the location of storage place for dismantled 132kV switchgear. If bidder has to consider the storage area, please clarify detail specification of storage area.	Bidders are kindly invited to visit all required locations Drawings are preliminary and for tender purpose only	
76	PURB/5.2 layout of Volume 2 Clause 1.2.5 New 230 /	PURB/5.2 Substation 230/132 kV PURBASADIPUR - Layout of 17 Bid Drawings 1.2.5 New 230/132kV Substation Purbasadipur The existing control building should remain on the same position, if possible. If not, the existing control building	Bidders are kindly invited to visit all required locations Drawings are preliminary and for tender	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	132kV Substation Purbasadipur on page 11 of Volume 2	should be demolished under the scope of this project. 1. There is no information about the existing control building. We cannot get any information for this during the site survey as well. Please provide us with the existing control building drawings in order to check the building location and total volume of demolition works.	purpose only	
77	PURB/5.2 layout of Volume 2 Clause 1.2.5 New 230 / 132kV Substation Purbasadipur on page 11 of Volume 2	PURB/5.2 Substation 230/132 kV PURBASADIPUR - Layout of 17 Bid Drawings 1.2.5 New 230/132kV Substation Purbasadipur The scope of work under this turnkey contract includes the relocation of the existing power transformers 132/33kV (including new transformer foundations, blast walls, etc.) and the connection to the existing 33kV switchgear. 1. There is no information about the existing Transformer. We cannot get any information for this during the site survey as well. Please provide us with all relevant drawings of the existing transformer in order to check total volume of relocation works. 2. As per site condition, we cannot place 132kV TR foundation parallel. Please confirm we can keep 2 number of 132kV TR foundations as it is and demolish and reconstruct only 2 number of 132kV TR foundations.	Bidders are kindly invited to visit all required locations Drawings are preliminary and for tender purpose only Yes, of course. If site condition requires any other reasonable technical solution, the Bidder shall consider this and during design and construction phase such solution will be considered – **WITHOUT ANY PRICE IMPLICATION**	
78	Clause 1.2.5 New 230 / 132kV Substation Purbasadipur on page 11 of Volume 2	1.2.5 New 230/132kV Substation Purbasadipur De-installation and transport of two existing power transformers 132/33kV 1x20 MVA and 1x25/41 MVA at the location chosen by PGCB no longer than 100km. Please inform us the location of storage place for de-installed 132kV TR.	Like it is describe. PGCB will make decision later, during construction phase	
79	Clause 1.2.5 New 230 / 132kV Substation Purbasadipur on page 11 of Volume 2	1.2.5 New 230/132kV Substation Purbasadipur complete outdoor civil works, including 230 kV, 132 kV and 33 kV gantry foundation, 230 kV and 132 kV and 33 kV equipment foundation, power transformer and auxiliary transformer foundations, blast wall, substation main gate and guard house, security boundary wall and internal fencing, access road, internal roads and parking, concrete culvert, surface and switchyard drainage system including outfall, cable trench including soak pit, PVC pipes, etc., switchyard surface finishing and gravel surfacing 1. When we visit the site, we found that there is no blast wall for 132kV TR. Please confirm number of blast wall. We need to newly provide for new 132kV TR only. We understand that new blast wall is required for 2 sets of new 132kV TR and does not need to provide new blast wall for existing 132kV TR. Please clarify this point. 2. We understand that water spray system is required only for 2 number of 132kV TR. Please confirm if my un-	Yes, your understanding is correct Yes, your understanding is correct Yes, complete new Access road, roads inside substation, parking, path lines, etc are in the scope of works	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		derstanding is correct. 3. There is 3m width existing access road to existing 132kV substation. Please clarify if bidder shall provide a new road or extend only several meters width.		
80	PURB/5.2 layout of Volume 2 Clause L2.X on schedule B on page B-191 of Volume 3 Clause 10.1.3.13 on page 257 of Volume 2	PURB/5.2 Substation 230/132 kV PURBASADIPUR - Layout of 17 Bid Drawings 12 Security Boundary Wall : 1 Lot 13. Internal fence : 1 Lot 10.1.3.13 Guard Houses, Boundary Walls, Fences and Entrance Gates The Bidder shall base his design of boundary walls and gates following bid drawing and subsoil investigation report. 1. Please provide us with cad file of PURBASADIPUR LAYOUT drawing to check exact size of land development. 2. Please provide us with the existing PURBASADIPUR substation layout to check total volume of dismantling and renovation works. 3. We wonder that solid line on the layout represents boundary limit. If it does not represent of boundary limit, please clarify the exact route of site boundary limit. We understand that it shall be more than 1000 meters. 4. There is existing boundary wall for the total land about 10 acres. Please clarify bidder shall demolish and provide a new boundary wall. 5. There is no information about internal fence. Please provide us with typical drawing for internal fencing. 6. We cannot find any specifications about internal fence area, Therefore, please inform us the route of internal fence to check total length.	Bidders are kindly invited to visit all required locations Yes, complete new boundary wall shall be provided Yes, Internal fence shall be provided and shall include switchyard areas. Final solution will be part of Detail design which will be subject of PGCB approval	
81	Clause 10.1.3.2 on page 263 of Volume 2	10.1.3.2 (c) Site investigation At least three additional boreholes should be provided for control building and switchyard panel room building or any other buildings. We wonder that at least three boreholes shall be considered for the pump house. Please clarify it.	No	
82	PURB/5.2 layout of Volume 2 Clause 10.1.1.1 on page 257 of Volume 2	PURB/5.2 Substation 230/132 kV PURBASADIPUR - Layout of 17 Bid Drawings 10.1.1.1 scope of works Drawing and design of septic tank and soakaway item (c) above, shall be prepared by the bidder as per requirement of clause 10.1.3.3 and shall be finalized during detailed Engineering. 1. There is no information about car port, Please provide us with typical drawing for car port in order to check the size and structure type. 2. There is no information about Substation Main gate, Please provide us with typical drawing for substation main gate.	Bidders are kindly invited to visit all required locations	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		3. There is no information about pump house, Please provide us with typical drawing for pump house in order to check the size and structure type.		
83	Clause 10.1.3.4 on page 267 of Volume 2	10.1.3.4 Surfacing The substation plot, outside of the designated switchgear equipment areas, shall be turfed. Please clarify the exact area of switchyard surface finishing for turfing	Drawings are preliminary and for Tender purpose only Bidders are kindly invited to visit all required locations	
84	Clause 10.1.1.5.1 on page 258 of Volume 2	10.1.1.5.1 Engineer's and Employer's Accommodation / Surveying Equipment On each major site the contractor shall provide an office of approx. size 5 x 8m equipped with desk, 1 executive chair, 2 visitor chairs, light, fan and air conditioner, toilet with wash basin. etc. for the sole use of the Employer's Engineer and his inspectors. Similar facilities are to be provided for the supervision consultant of the Employer. 1. We wonder the exact mean of major site for accommodation. As we understand, accommodation shall be considered only for the new substation site. Please clarify the exact mean of major site for accommodation. 2. There is no information about accommodation. Please provide us with typical drawing for accommodation in order to check the structure type.	Yes, your understanding is correct. Major site is new substation	
85	PURB/5.2 layout of Volume 2 Clause 1.2 on page 4 of Volume 2 Clause 1.2 on page 3 of Volume 3	PURB/5.2 Substation 230/132 kV PURBASADIPUR - Layout of 17 Bid Drawings 1.2 Description of this Package New 230kV GIS Building ~~ The building shall have a size of approximately 36 x 12 meter. New 230kV GIS Building size is specified as 36(L) x 12(W) meter on clause 1.2 New 230kV GIS Building of Volume 2 and 3. Accordingly, all new 230kV GIS Building shall be considered 36(L) x 12(W) meter. However, The building size is differently marked on the PURBASADIPUR Substation layout (Length: unverifiable, Width: unverifiable). Therefore, please clarify the exact size of new 230kV GIS Building.	36 x 12 meters	
86	PURB/5.2 layout of Volume 2 Clause 1.2 on page 4 of Volume 2 Clause 1.2 on page 4 of Volume 3	PURB/5.2 Substation 230/132 kV PURBASADIPUR - Layout of 17 Bid Drawings 1.2 Description of this Package New 132kV GIS and Control Building ~~ The building shall have a size of approximately 36 x 12 meter. New 132kV GIS and Control Building size is specified as 36(L) x 12(W) meter on Clause 1.2 New 132kV GIS & Control Building of Volume 2 and 3. Accordingly, all new 132kV GIS & Control Building shall be considered 36(L) x 12(W) meter. However, the building size is differently marked on the PURBASADIPUR Substation layout (Length: unverifiable, Width : unverifiable). Therefore, please clarify the exact size of the new 132kV GIS and	36 x 12 meters	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		Control building.		
87	PURB/5.1 SLD of Volume 2 PURB/5.2 layout of Volume 2	PURB/5.1 Substation 230/132 kV PURBASADIPUR - SLD of 17 Bid Drawings PURB/5.2 Substation 230/132 kV PURBASADIPUR - Layout of 17 Bid Drawings We understand there is discrepancy between SLD and Layout about arrangement of bay. Especially, we cannot find the section bay on Layout. In this case, can we follow the arrangement of bay as per SLD?	Contractor has to prepare and provide for approval of PGCB the Detail Design	
88	PURB/5.1 SLD of Volume 2 AG.1 on Schedule B on page B-41 of Volume 3	PURB/5.1 Substation 230/132 kV PURBASADIPUR - SLD of 17 Bid Drawings AG.1 : Q1, Q2, Q9 - Three (3) sets of three pole, three positions, motor operated, insulated disconnector with earthing switch We understand that Q9 disconnector shall be with earthing switch. However, one of Q1 and Q2 shall be with earthing switch, and the other shall be without earthing switch. Please clarify this point.	Yes, your understanding is correct	
89	PURB/5.1 SLD of Volume 2 A6.2 on Schedule B on page B-42 of Volume 3	PURB/5.1 Substation 230/132 kV PURBASADIPUR - SLD of 17 Bid Drawings A6.2 : Line trap, for digital PLC, one set shall be provided for each 230 kV Transmission Line, characteristics shall be defined during the Design : 2 Sets 1. We would like to clarify whether one set is one unit of 230kV Line Trap or two unit of 230kV Line Trap. We understand there are 2 line bays and one set means 1 unit for middle phase only as per PGCB practice. Please clarify this point. 2. Please kindly provide us the telecommunication system drawings as usual to understand the system clearly.	Line Trap Not Required. Please, see Clarification No. 1 and Addendum	
90	PURB/5.1 SLD of Volume 2 BG.1 on Schedule B on page B-43 of Volume 3	PURB/5.1 Substation 230/132 kV PURBASADIPUR - SLD of 17 Bid Drawings BG.1 : Q1, Q2, Q9 - Three (3) sets of three pole, three positions, motor operated, insulated disconnector with earthing switch We understand that Q9 disconnector shall be with earthing switch. However, one of Q1 and Q2 shall be with earthing switch, and the other shall be without earthing switch. Please clarify this point.	Yes, your understanding is correct Please, see Clarification No. 1	
91	PURB/5.1 SLD of Volume 2 BG.3.1 on Schedule B on page B-44 of Volume 3	PURB/5.1 Substation 230/132 kV PURBASADIPUR - SLD of 17 Bid Drawings A complete indoor GIS bus sectionalize bay 145 kV, 3150A busbars / 3150 A feeder, 40 kA, 50Hz, 650/275 kV BIL, equipped with: We understand there is not current transformer on bus sectionalize bay.	Please, see Clarification No. 1 and Addendum	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		Please clarify this point.		
92	PURB/5.2 layout of Volume 2 Clause 3.4 on page VI-A-30 of Volume 1	PURB/5.2 Substation 230/132 kV PURBASADIPUR - Layout of 17 Bid Drawings 1 Location GPS Coordinates are of the proposed sub-station are as follows: North East- 25°45'19.90"N; 88°40'46.20"E; North West- 25°45'21.07"N; 88°40'37.65"E South East- 25°45'14.02"N; 88°40'44.80"E South West- 25°45'16.23"N; 88°40'36.39" We understand that GPS Coordinates does not mentioned on Layout. In this case, can we consider the GPS Coordinates as per land size?	Bidders are kindly invited to visit all required locations Drawings are preliminary and for tender purpose only	
93	G6.X on Schedule B on page B-46 of Volume 3	Tele-control & Tele-protection & Tele-metering facilities, : 1 Lot A complete lot of hardware and software, extension of the existing equipment, necessary adjustment, adaptation, modification, integration and configuration of new and existing equipment, all necessary modification works in the hardware and software of the master stations, shall be provided both at the National Load Despatch Centre (NLDC) at Aftabnagar and at the back-up station at Biddut Bhaban, for integration of the complete substation. All required electrical signals shall be transmitted to the NLDC and the back-up station through the industrial gateway of the substation automation system. All HV circuit breakers, disconnectors, tap changer, etc., shall be controlled from the NLDC through the gateway of the substation automation system using the IEC 60870-5-104 protocol. We understand that the modification scope of NLDC is not small for this project and main bidder cannot get the competitive offer during the bidding stage because it can only conduct by GE/France or India. Please make the fixed price with agreement between GE and PGCB on Schedule B as we discussed during the pre-bid meeting so that all main bidder can consider same price. Please clarify this point.	All Bidders will be in the same position. PGCB has Frame Agreement for those services and Frame Agreement can be received from PGCB on request	
94	Clause 1.2.5 page 10 of Volume 2 Clause 1.2.5 on schedule A page 49 of Volume 3	The 230/132kV substation Purbasadipur shall be also connected ~~~ We understand that the name of substation is Purbasadipur. Please change as below. The 230/132kV substation Purbasadipur shall be also connected to the existing 132kV double-circuit transmission line with substation 132/33kV Thakurgaon ~~~~.	TYPING MISTAKE	
95	Clause 1.2.5 page 10 of Volume 2 Clause 1.2.5 on schedule A	132kV GIB and/or cable connection of approximately 8 x 15 – 150 meters. We understand that the number of 132kV connection is 11 instead of 8.	Yes, your understanding is correct	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	page 49 of Volume 3	Please change as below. 132kV GIB and/or cable connection of approximately 11 x 15 – 150 meters.		
96	Clause 1.2.5 page 10 of Volume 2, Clause 1.2.5 on schedule A page 49 of Volume 3 PURB/5.2 layout of Volume 2	Two (2) existing power transformers 132/33kV, 50/75MVA shall be connected to the new 132kV GIS Switchgear PURB/5.2 Substation 230/132 kV PURBASADIPUR - Layout of 17 Bid Drawings We understand that Two (2) existing power transformers 132/33kV, 50/75MVA is not necessary to move into new area as per layout. Please kindly advise us that it is necessary for Two (2) existing power transformers 132/33kV, 50/75MVA to shaft new area as per layout.	If possible, two existing transformers and existing Switchgear 33 kV shall remain on the present position If site condition requires any other reasonable technical solution, the Bidder shall consider this and during design and construction phase such solution will be considered – **WITHOUT ANY PRICE IMPLICATION**	
97	Clause 1.2.5 page 10 of Volume 2, Clause 1.2.5 on schedule A page 49 of Volume 3 PURB/5.2 layout of Volume 2	Existing 33kV AIS switchgear has to be completely renovated with : - new 33kV single busbar, divided at four sections by three disconnectors - four (4) 33kV transformer (132/33kV) bays PURB/5.2 Substation 230/132 kV PURBASADIPUR - Layout of 17 Bid Drawings We understand that we can use the existing 33kV AIS switchgear such as steel structure, circuit breaker, disconnector, etc. The outgoing bays are already running through the existing 33kV AIS switchgear and it is necessary to define the scope limitation clearly. Please kindly advise us it.	Yes, your understanding is generally correct You can use existing facilities If possible, two existing transformers and existing Switchgear 33 kV shall remain on the present position If site condition requires any other reasonable technical solution, the Bidder shall consider this and during design and construction phase such solution will be considered – **WITHOUT ANY PRICE IMPLICATION** The existing 33 kV AIS switchgear shall be completely renovated. Scope of renovation is completely new 33 kV single busbar, divided at four sections by three disconnectors and corresponding metering bays. Also, four (4) completely new 33 kV transformer (132/33 kV) bays shall be provided and incorporated.	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
			Existing outgoing bays are not in the scope of works, only they have to be connected to the new busbars On other side, three (3) completely new 33 kV transformer (230/132/33 kV) / auxiliary transformer bays, along with three (3) three phase, 33/0.415 kV, 200 kVA, auxiliary/earthing power transformers shall be provided. 33 kV cable connection of approximately 7 x 20 meters shall be considered, but final solution shall be confirmed by the Detail design	
98	Clause AG.4 on schedule A page 51 of Volume 3 Clause AG.4 on schedule B page 42 of Volume 3	T5 - Three (3) single-phase, 2-winding, 132/V3 / 110/V3 / 110/V3 kV/V/V, GIS type voltage transformers : 1 Set 1. We understand that the number of GIS type voltage transformers is 6 nos. single-phase instead of 3 nos. because there are double busbar system and each busbar has 3 nos. single-phase GIS type voltage transformers. Please kindly clarify whether 1 Set is 6 nos. single-phase or 3 nos. single-phase of Three (3) single-phase GIS type voltage transformers. 2. We understand the primary voltage is 230/V3 kV instead of 132/V3 kV. Please clarify this point.	Please, see Clarification No. 1 and Addendum	
99	Clause BG.1 on schedule A page 52 of Volume 3 Clause BG.1 on schedule B page 43 of Volume 3 PURB/5.1 SLD of Volume 2	A complete indoor and partly outdoor GIS Line feeder 145 kV, 3150 A busbars / 2000 A feeder, 40 kA, 50Hz, 650/275 kV BIL, equipped with: PURB/5.1 Substation 230/132 kV PURBASADIPUR - SLD of 17 Bid Drawings The current rate of line feeder is mentioned 2000A on Schedule A. However, it is mentioned 3150A on SLD. We would like to clarify whether the current rate of line feeder is 2000A or 3150A. Please kindly advise us it.	Please, see Clarification No. 1 and Addendum	
100	Clause BG.2 on schedule A page 52 of Volume 3 Clause BG.2 on schedule B page 43 of Volume 3	A complete indoor and partly outdoor GIS Transformer feeder 145 kV, 3150A busbars / 2000 A feeder, 40 kA, 50Hz, 650/275 kV BIL, equipped with: PURB/5.1 Substation 230/132 kV PURBASADIPUR - SLD of 17 Bid Drawings The current rate of transformer feeder is mentioned 2000A on Schedule A. However, it is mentioned 3150A on	Please, see Clarification No. 1 and Addendum	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	PURB/5.1 SLD of Volume 2	SLD. We would like to clarify whether the current rate of transformer feeder is 2000A or 3150A. Please kindly advise us it.		
101	Clause BG.4 on schedule A page 53 of Volume 3 Clause BG.4 on schedule B page 44 of Volume 3	T5 - Three (3) single-phase, 2-winding, 132/V3 / 110/V3 / 110/V3 kV/V/V, GIS type voltage transformers We understand that the number of GIS type voltage transformers is 6 nos. single-phase instead of 3 nos. because there are double busbar system and each busbar has 3 nos. single-phase GIS type voltage transformers. Please kindly clarify whether 1 Set is 6 nos. single-phase or 3 nos. single-phase of Three (3) single-phase GIS type voltage transformers.	Please, see Clarification No. 1 and Addendum	
102	Clause D9 on schedule A page 54 of Volume 3 Clause D9.2 on schedule A page 54 of Volume 3 Clause D9 on schedule B page 45 of Volume 3 Clause D9.2 on schedule B page 46 of Volume 3	NIFPS : 3 sets Water spray system : 2 sets We understand that 230/132/33kV 225/300MVA transformer is design with NIFPS and 132/33kV 80/120MVA transformer is design with water spray system. In this case, we would like to clarify whether existing 132/33kV transformer need water spray system or not. Please kindly clarify this point.	Please, see Clarification No. 1 and Addendum No	
		Extension of the Existing 230/132kV Substation Bogra		
103	BOGR/6.2 layout of Volume 2	BOGR/6.2 Substation 230/132 kV BOGRA - Layout of 17 Bid Drawings We understand there is discrepany between Bogra layout on tender book and site condition. Please provide us with the final existing bogra substation layout.	Bidders are kindly invited to visit all required locations	
104	BOGR/6.2 layout of Volume 2 Clause 1.2.6 on schedule A page 61 of Volume 3	BOGR/6.2 Substation 230/132 kV BOGRA - Layout of 17 Bid Drawings 1.2.6 Extension 230/132kV Substation Bogra Complete civil works and facilities for adaptation of existing control building, to accommodate the equipment which is in the scope of work, including finishing works like rendering, painting, floor finishing, etc., There is no information about the existing control building. Please provide us with the existing control building drawings in order to check the building location and total volume of adaptation works. During the site survey, we	Bidders are kindly invited to visit all required locations	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		found there is not adaptation works. Please kindly clarify this point.		
105	Clause 10.1.3.4 on page 267 of Volume 2	10.1.3.4 Surfacing The substation plot, outside of the designated switchgear equipment areas, shall be turfed. Please clarify the exact area of switchyard surface finishing for turfing.	Drawings are preliminary and for Tender purpose only Bidders are kindly invited to visit all required locations	
106	Clause 10.1.1.5.1 on page 258 of Volume 2	10.1.1.5.1 Engineer's and Employer's Accommodation / Surveying Equipment On each major site the contractor shall provide an office of approx. size 5 x 8m equipped with desk, 1 executive chair, 2 visitor chairs, light, fan and air conditioner, toilet with wash basin. etc. for the sole use of the Employer's Engineer and his inspectors. Similar facilities are to be provided for the supervision consultant of the Employer. 1. We wonder the exact mean of major site for accommodation. As we understand, accommodation shall be considered only for the new substation site. Please clarify the exact mean of major site for accommodation. 2. There is no information about accommodation. Please provide us with typical drawing for accommodation in order to check the structure type.	Yes, your understanding is correct. Major site is new substation	
107	BOGR/6.2 layout of Volume 2 Clause 3.4 on page VI-A-17 of Volume 1	BOGR/6.2 Substation 230/132 kV BOGRA - Layout of 17 Bid Drawings 1 Location GPS Coordinates are of the proposed sub-station are as follows: GPS Coordinates of Existing SS are given below: North East- 24°49'50.30"N; 89°21'3.50"E; North West- 24°49'43.70N; 89°20'57.11"E South East- 24°49'49.95"N; 89°21'3.89"E South West- 24°49'41.44"N; 89°20'58.89"E GPS Coordinates of Proposed SS are given below: North East- 24°49'49.97N; 89°21'03.98"E North West- 24°49'50.30N; 89°21'03.50"E South East- 24°49'41.45"N; 89°20'59.91"E South West- 24°49'44.10"N; 89°20'56.70" We understand that GPS Coordinates does not mentioned on Layout. In this case, can we consider the GPS Coordinates as per land size?	Bidders are kindly invited to visit all required locations Drawings are preliminary and for tender purpose only	
108	G6.XE on schedule A page 63 of Volume 3	Tele-control & Tele-protection & Tele-metering facilities, : 1 Lot A complete lot of hardware and software, extension of the existing equipment, necessary adjustment, adaptation, modification, integration and configuration of new and existing equipment, all necessary modification works	All Bidders will be in the same position. PGCB has Frame Agreement for those	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	G6.XE on Schedule B on page B-52 of Volume 3	in the hardware and software of the master stations, shall be provided both at the National Load Despatch Centre (NLDC) at Aftabnagar and at the back-up station at Biddut Bhaban, for integration of the complete substation. All required electrical signals shall be transmitted to the NLDC and the back-up station through the industrial gateway of the substation automation system. All HV circuit breakers, disconnectors, tap changer, etc., shall be controlled from the NLDC through the gateway of the substation automation system using the IEC 60870-5-104 protocol. We understand that the modification scope of NLDC is not small for this project and main bidder cannot get the competitive offer during the bidding stage because it can only conduct by GE/France or India. Please make the fixed price with agreement between GE and PGCB on Schedule B as we discussed during the pre-bid meeting so that all main bidder can consider same price. Please clarify this point.	services and Frame Agreement can be received from PGCB on request	
		Extension of the Existing 230/132kV Substation Barapukuria		
109	BARA/7.2 layout of Volume 2	BARA/7.2 Substation 230kV BARAPUKURIA - Layout of 17 Bid Drawings 1. We understand there is discrepany between BARAPUKURIA layout on tender book and site condition. Please provide us with the final existing bogra substation layout. 2. There is no information for the existing 230kV switchgear area during site survey and tender book. Please provide us with all relevant foundation, drainage and trench drawing including full set of underground drawings which we can check total volume of relocation works.	Bidders are kindly invited to visit all required locations	
110	BARA/7.2 layout of Volume 2 Clause 1.2.7 on schedule A page 68 of Volume 3	BARA/7.2 Substation 230kV BARAPUKURIA - Layout of 17 Bid Drawings 1.2.7 Extension of Existing 230/132kV Substation Barapukuria Complete civil works and facilities for adaptation of existing control building, to accommodate the equipment which is in the scope of work, including finishing works like rendering, painting, floor finishing, etc., 1. There is no information about the existing control building. Please provide us with the existing control building drawings in order to check the building location and total volume of adaptation works. 2. During site survey, we found serious water leak on the roof of control building. Please confirm that bituminous membrane water proof for the whole roof floor and recover ceiling of top floor control room is bidder's scope or not.	Bidders are kindly invited to visit all required locations	
111	BARA/7.2 layout of Volume 2 Clause L2.XE on schedule	BARA/7.2 Substation 230kV BARAPUKURIA - Layout of 17 Bid Drawings 12 Security Boundary Wall - extension and adaptation : 1 Lot 13. Internal fence - extension and adaptation : 1 Lot	Drawings are preliminary and for Tender purpose only Bidders are kindly invited to visit all re-	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	B on page B-205 of Volume 3 Clause 10.1.3.13 on page 257 of Volume 2	10.1.3.13 Guard Houses, Boundary Walls, Fences and Entrance Gates The Bidder shall base his design of boundary walls and gates following bid drawing and subsoil investigation report. 1. As we understand boundary limit line has not been marked for boundary wall on the Barapukuria layout drawing. Please clarify the exact route of boundary limit to check total length of boundary wall. During site survey, we found that the whole boundary wall is constructed and well maintained. Please confirm that bidder does not need to demolish and newly construct it. 2. There is no information about internal fence. Please provide us with typical drawing for internal fencing. 3. We cannot find any specifications about internal fence area, Therefore, please inform us the route of internal fence to check total length.	quired locations Already existing conditions (like internal fence) shall be followed, and already existing facilities (like wall), if they are in good condition – shall remain.	
112	Clause 10.1.3.4 on page 267 of Volume 2	10.1.3.4 Surfacing The substation plot, outside of the designated switchgear equipment areas, shall be turfed. Please clarify the exact area of switchyard surface finishing for turfing.	Drawings are preliminary and for Tender purpose only Bidders are kindly invited to visit all required locations	
113	Clause 10.1.1.5.1 on page 258 of Volume 2	10.1.1.5.1 Engineer's and Employer's Accommodation / Surveying Equipment On each major site the contractor shall provide an office of approx. size 5 x 8m equipped with desk, 1 executive chair, 2 visitor chairs, light, fan and air conditioner, toilet with wash basin. etc. for the sole use of the Employer's Engineer and his inspectors. Similar facilities are to be provided for the supervision consultant of the Employer. 1. We wonder the exact mean of major site for accommodation. As we understand, accommodation shall be considered only for the new substation site. Please clarify the exact mean of major site for accommodation. 2. There is no information about accommodation. Please provide us with typical drawing for accommodation in order to check the structure type.	Yes, your understanding is correct. Major site is new substation	
114	BARA/7.2 layout of Volume 2 Clause 3.4 on page VI-A-14 of Volume 1	BARA/7.2 Substation 230kV BARAPUKURIA - Layout of 17 Bid Drawings 1 Location GPS Coordinates are of the proposed sub-station are as follows: North East- 25°33'19.20"N; 88°57'3.84"E North West- 25°33'18.77N; 88°57'2.55"E South East- 25°33'18.65"N; 88°57'4.06"E South West- 25°33'18.25"N; 88°57'2.79"E We understand that GPS Coordinates does not mentioned on Layout. In this case, can we consider the GPS Coordinates as per land size?	Bidders are kindly invited to visit all required locations Drawings are preliminary and for tender purpose only	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
115	G6.XE on schedule A page 70 of Volume 3 G6.XE on Schedule B on page B-57 of Volume 3	Tele-control & Tele-protection & Tele-metering facilities, : 1 Lot A complete lot of hardware and software, extension of the existing equipment, necessary adjustment, adaptation, modification, integration and configuration of new and existing equipment, all necessary modification works in the hardware and software of the master stations, shall be provided both at the National Load Despatch Centre (NLDC) at Aftabnagar and at the back-up station at Biddut Bhaban, for integration of the complete substation. All required electrical signals shall be transmitted to the NLDC and the back-up station through the industrial gateway of the substation automation system. All HV circuit breakers, disconnectors, tap changer, etc., shall be controlled from the NLDC through the gateway of the substation automation system using the IEC 60870-5-104 protocol. We understand that the modification scope of NLDC is not small for this project and main bidder cannot get the competitive offer during the bidding stage because it can only conduct by GE/France or India. Please make the fixed price with agreement between GE and PGCB on Schedule B as we discussed during the pre-bid meeting so that all main bidder can consider same price. Please clarify this point.	All Bidders will be in the same position. PGCB has Frame Agreement for those services and Frame Agreement can be received from PGCB on request	
		Extension of the Existing 230/132kV Substation Niamatpur		
116	NIAM/8.2 layout of Volume 2	NIAM/8.2 Substation 132/33kV NIAMATPUR - Layout of 17 Bid Drawings 1. We understand there is discrepany between NIAMATPUR layout on tender book and site condition. Please provide us with the final existing bogra substation layout. 2. There is no information for the existing 132kV switchgear area during site survey and tender book. Please provide us with all relevant foundation, drainage and trench drawing including full set of underground drawings which we can check total volume of relocation works.	Bidders are kindly invited to visit all required locations Drawings are preliminary and for tender purpose only	
117	NIAM/8.2 layout of Volume 2 Clause 1.2.7 on schedule A page 68 of Volume 3 L3.XE on schedule A page 80 of Volume 3	NIAM/8.2 Substation 132/33kV NIAMATPUR - Layout of 17 Bid Drawings 1.2.7 Extension of Existing 230/132kV Substation Barapukuria Complete civil works and facilities for extension of existing control building, to accommodate the equipment which is in the scope of work, including finishing works like rendering, painting, floor finishing, etc., L3.XE One(1) lot of complete design, supply and construction of civil works and facilities for adaptation of the existing control building, including finishing works such as rendering, painting, floor finishing, etc. 1. There is no information about the existing control building. Please provide us with the existing control building drawings in order to check the building location and total volume. The extension works has been mentioned at article 1.2.8 on volume 2 whereas adaptation works is required at price of schedule on volume 3. 2. There is no information about the existing control building. Please provide us with the existing control building	Bidders are kindly invited to visit all required locations Drawings are preliminary and for tender purpose only	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		drawings in order to check the building location and total volume of works.		
118	NIAM/8.2 layout of Volume 2 Clause L2.XE on schedule B on page B-212 of Volume 3 Clause 10.1.3.13 on page 257 of Volume 2	NIAM/8.2 Substation 132/33kV NIAMATPUR - Layout of 17 Bid Drawings 12 Security Boundary Wall - extension and adaptation : 1 Lot 13. Internal fence - extension and adaptation : 1 Lot 10.1.3.13 Guard Houses, Boundary Walls, Fences and Entrance Gates The Bidder shall base his design of boundary walls and gates following bid drawing and subsoil investigation report. 1. Please clarify that security boundary wall is not required for the Niamatpur substation. 2. There is no information about internal fence. Please provide us with typical drawing for internal fencing. 3. We cannot find any specifications about internal fence area, Therefore, please inform us the route of internal fence to check total length.	Drawings are preliminary and for Tender purpose only Bidders are kindly invited to visit all required locations Already existing conditions (like internal fence) shall be followed, and already existing facilities (like wall), if they are in good condition – shall remain.	
119	Clause 10.1.3.4 on page 267 of Volume 2	10.1.3.4 Surfacing The substation plot, outside of the designated switchgear equipment areas, shall be turfed. Please clarify the exact area of switchyard surface finishing for turfing.	Drawings are preliminary and for Tender purpose only Bidders are kindly invited to visit all required locations	
120	Clause 10.1.1.5.1 on page 258 of Volume 2	10.1.1.5.1 Engineer's and Employer's Accommodation / Surveying Equipment On each major site the contractor shall provide an office of approx. size 5 x 8m equipped with desk, 1 executive chair, 2 visitor chairs, light, fan and air conditioner, toilet with wash basin. etc. for the sole use of the Employer's Engineer and his inspectors. Similar facilities are to be provided for the supervision consultant of the Employer. 1. We wonder the exact mean of major site for accommodation. As we understand, accommodation shall be considered only for the new substation site. Please clarify the exact mean of major site for accommodation. 2. There is no information about accommodation. Please provide us with typical drawing for accommodation in order to check the structure type.	Yes, your understanding is correct. Major site is new substation	
121	NIAM/8.2 layout of Volume 2 Clause 3.4 on page VI-A-24 of Volume 1	NIAM/8.2 Substation 132/33kV NIAMATPUR - Layout of 17 Bid Drawings 1 Location GPS Coordinates are of the proposed sub-station are as follows: North East- 24°50'3.82"N; 88°35'4.05"E; North West- 24°50'4.02"N; 88°35'3.30"E South East- 24°50'3.13"N; 88°35'3.80"E South West- 24°50'3.34"N; 88°35'3.08"E	Bidders are kindly invited to visit all required locations Drawings are preliminary and for tender purpose only	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		We understand that GPS Coordinates does not mentioned on Layout. In this case, can we consider the GPS Coordinates as per land size?		
122	G6.XE on schedule A page 70 of Volume 3 G6.X on Schedule B on page B-62 of Volume 3	Tele-control & Tele-protection & Tele-metering facilities, : 1 Lot A complete lot of hardware and software, extension of the existing equipment, necessary adjustment, adaptation, modification, integration and configuration of new and existing equipment, all necessary modification works in the hardware and software of the master stations, shall be provided both at the National Load Despatch Centre (NLDC) at Aftabnagar and at the back-up station at Biddut Bhaban, for integration of the complete substation. All required electrical signals shall be transmitted to the NLDC and the back-up station through the industrial gateway of the substation automation system. All HV circuit breakers, disconnectors, tap changer, etc., shall be controlled from the NLDC through the gateway of the substation automation system using the IEC 60870-5-104 protocol. We understand that the modification scope of NLDC is not small for this project and main bidder cannot get the competitive offer during the bidding stage because it can only conduct by GE/France or India. Please make the fixed price with agreement between GE and PGCB on Schedule B as we discussed during the pre-bid meeting so that all main bidder can consider same price. Please clarify this point.	All Bidders will be in the same position. PGCB has Frame Agreement for those services and Frame Agreement can be received from PGCB on request	
123	Volume II, / 1.2 / page 4 of 414 New 230 kV and 132 kV GIS Switchgears --accessibility of individual bays and their drives	We understand that a mobile platform is sufficient for this purpose. Please confirm.	We don't understand your question	
124	Volume II, / 2.2 / pages 32 – 35 of 414	We understand that the IEC references shall be prevailing in case of discrepancies between the references. Please confirm.	Only generally speaking – Yes, if not otherwise explicitly defined	
125	Volume II, / 2.7.1 / page 38 of 414	The schedules also refer to "Indoor" and "Outdoor" locations. In this context the interiors of all buildings without air conditioning or forced ventilation shall be treated as "Outdoor".	Yes, your understanding is correct	

Approved by _____

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		We understand that 132kV GIS is indoor. Please confirm		
126	Volume II, / 2.20 / page 56 of 414	"Should any difficulty arise in the decision as to whether a particular vessel shall comply with a pressure vessel code, the vessel shall be "coded" unless specifically excluded in clause U- 1 of the US ASME Boiler and Pressure Code, Section VIII, division 1, dealing with the scope of that code." Offered GIS shall conform to pressure vessels designed as per CENELEC code. Please accept.	We don't understand your question	
127	Volume II, / 2.27.3 / page 59 of 414	Indoors only in totally enclosed rooms with provision for limiting ingress of dust: IP 31 · Indoors, except as noted otherwise: IP 54 · Outdoors, and indoors in areas subject to water spray, or heavy condensation: IP 55W We understand that bidder to supply indoor type GIS. Please confirm.	Yes, your understanding is correct. Please, see other answers	
128	Volume II, / 2.33 / page 63 of 414	Panels shall be rigidly constructed from folded sheet steel of 3mm minimum thickness to support the equipment mounted thereon, above a channel base frame to provide a toe recess. We propose the thickness of integrated cubicle as 1.5 mm and 2 mm for the door. Please confirm.	No Please, follow the Tender requirements	
129	Volume II, / 2.33 / page 64 of 414	All cubicles, desks and panels shall be painted externally with a high gloss paint of Munsell 5Y7/1 colour. The interiors of all cubicles, desks and panels shall be painted matt white. We propose RAL coding colour for panel. Please confirm.	Yes	
130	Volume II, / 2.37 / page 67 of 414, 1.5 mm² except where specified otherwise, & Volume II, / 3.4.6.41 / page 112 of 414	We propose usage of 1 mm² for internal wiring of cubicles. Please confirm.	No, not acceptable Please, follow the Tender requirements	
131	Volume II, / 3.3.2 / page 82 of 414	Maintenance, repair or extension (MRE) and HV testing on one busbar with directly connected apparatuses shall be possible with the other busbar in normal operation.	Please, provide the testing methodology	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		During maintenance, extension or repair it will work. If SOAK testing instead of HV-Testing with Equipment is allowed, the requirement can be fulfilled. If it is not accepted, then testing must be allowed between live part and an earthed part. Please confirm.		
132	Volume II, / 3.4.1 / page 83 of 414	The switchgear shall be suitable for outdoor installation and capable of continuous operation under the climatic conditions existing on site. The GIS will be offered as Indoor solution, because they are in a building. Please confirm.	Please, see other answers	
133	Volume II, / 3.4.6.3 / page 88 of 414	Busbars shall be passive busbars. Busbars disconnectors shall not be part of the busbars. They shall be installed in independent/separate gas zones. Also, both disconnectors shall not be installed in the same gas zone. Please note that we have proven design with disconnectors in the same compartment as of Busbar. This design is in successful operation for many years now. Please accept.	Please, follow the tender requirements	
134	Volume II, / 3.4.6.4 / page 88 of 414	Maintenance, Repair, HV Testing and Extension on one busbar with directly connected apparatuses shall be possible with the other busbar in normal operation. HV Testing on one switchgear bay shall be possible with all other switchgear bays in normal operation on one busbar. HV Testing of bus coupler bay shall be possible with one busbar at the time in normal operation and all switchgear bays in normal operation. During maintenance, extension or repair it will work. If SOAK testing instead of HV-Testing with Equipment is allowed, the requirement can be fulfilled. If it is not accepted, then testing must be allowed between live part and an earthed part. Please confirm.	Please, provide the testing methodology	
135	Volume II, / 3.4.6.26 / page 101 of 414	When fully charged the spring mechanism shall have sufficient stored energy to permit the operating sequence 0-C-0/2 C-0 to be performed following the loss of supply to the charging motor	Please, follow the tender requirements	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		The full charged spring operating mechanism is able to do a O – CO cycle in our design. Please accept.		
136	Volume II, / 3.4.6.30 / page 104 of 414	Current transformers shall be supplied suitable for the duty specified and comply with the requirements of IEC 60044-1 and BS 3938 as appropriate. Please note that the current transformer shall be supplied as per new IEC 61869-1. Please confirm.	Noted	
137	Volume II, / 3.4.6.31 / page 106 of 414	Voltage transformers shall comply with the common sections of this Specification, comply with the requirements of IEC 60044-2 The voltage transformer shall be supplied as per new IEC 61869-2. Please confirm.	Noted	
138	Volume II, / 3.4.6.33 / page 107 of 414	Indoor GIS surge arresters and outdoor GIS surge arresters shall be of the type metal oxide arresters without gaps complete with surge counters and shall fulfill requirements as per IEC 60099-4, IEC 60099-5 and PGCB specification. We understand that all Surge Arresters shall be outdoor type. We don't envisage aby indoor type surge arresters. Please confirm.	Please, see previous answers, Clarification No. 1 and Addendum	
139	Volume III, / 1.2.1 Table BG.1 / page 8 of 272	Q0 – One (1) set of three pole, GIS type, SF6 gas circuit breaker with three spring-stored energy operating mechanism We understand that it shall be Single pole operated for the (8) transmission Line bays of 132 kV GIS. Please confirm.	Yes, your understanding is correct	
140	Volume III, / 1.2.1 Table BG.1 / page 9 of 272	· T1 –Three (3) single-phase, 5-core, multi ratio, 3200-1600-800/1/1/1/1/1A, GIS type current transformers Please note that the requirement of 200% extended current shall not be possible on Ratio 3200/1. Please clarify.	OK, noted and this is acceptable	
141	Volume III, / 4. Current transformer / page 130	4.2 Core I 200% In	OK, noted and this is acceptable	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	of 272	Core 2 200% In Above Values are not feasible at ratio of 3200/1.Please clarify.		
142	Volume III, / 5.2.2.3. B1.2 Circuit Breaker/ page 135 of 272	2.6 Rated current Ir A ≥ 20000 We understand that it is a typographical error. Rated current should be mentioned as Ir A ≥ 2000. Please correct.	Yes, of course TYPING MISTAKE	
143	Volume 1 – Section VI: Employer's Require-ments – Page VI-4 – (P91/953)	Type test reports shall be subject to the approval of Employer/ Engineer. Type-test reports shall not be older than ten (10) years at the time of their submittal. Please kindly note that type tests have been done according to IEC standards in force at the date of the conception of the equipment. No type test will be done again if no change has been done on the equipment. Please accept.	Please, follow the tender requirements All type test reports shall be provided along with the Bid	
144	Volume 2 – Scope of work – 3.3.1 General Requirement – Page 82 (P99/481)	In the event of leakage of SF_6 gas from any compartment, equipment shall withstand rated volt-age with SF_6 at atmospheric pressure Please note that GIS equipment is not designed to withstand rated voltage at atmospheric pres-sure. For the 0-gauge pressure test, our GIS can withstand the 291kV (so 1.2*Un/√3) at 0b rel-ative during 15 minutes. A withstand at rated voltage during unlimited time is not a realistic value for a GIS substation. In fact, even in a case of a sudden loss of pressurization of the compart-ment, the protections will detect it and will operate the circuit breaker in order to put the sub-station in a safe condition in a short time. Please accept.	Noted	
145	Volume 2 – Scope of work – 3.4.6.3 Design Principles – Page 88 (P105/481)	Busbars disconnectors shall not be part of the busbars. They shall be installed in independ-ent/separate gas zones. Please note that in our design, busbar disconnectors are part of the busbar even if they are inde-pendent gas zones. This is a proven design and is in successful operation for many years now. Please accept.	Please, follow the tender requirements	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
146	Volume 2 – Scope of work – 3.4.6.8 Enclosures – Page 91 (P108/481)	Each enclosure shall be tested and stamped by the inspecting authority issuing the test certificate. Please clarify which inspection authority is requested for the certificates.	We don't understand your question	
147	Volume 2 – Scope of work – 3.4.6.34 Outdoor Bushings (HV GIS Equipment) – Page 108 (P125/481)	A test tap at the bushing flange shall be provided for capacitance and dissipation factor measurement, suitable for the dielectric test with a test voltage of 2 kV 50 Hz and duration of 1 min Please note that in our design, SF6/Air bushing are not of capacitance type. Hence said clause is not applicable to our design.	Noted	
148	Volume 2 – Scope of work – 3.4.10 Surge Arresters Page 133 (P150/481)	It is not applicable as Surge arresters are not in GIS scope on 220kV SLD of FENI, BIRULIA, NAOGAON and PURBASADIPUR (DRAWINGS FORMING PART OF THE SPECIFICATION – § 17.3 Drawings)	Please, see Clarification No. 1 and Addendum	
		Commercial Queries		
149	Volume 1/Section VII GCC/10/Employer's Responsibilities /Page No VII-8 to VII-9	We understand that the Contractor will be entitled to extension of time for any delays not attributable to the Contractor, including delays on account of inaccurate or incorrect information supplied by Employer. Please confirm.	No	
150	Volume 1/Section VII GCC/15.2/Intellectual Property /Page No VII-12	Please modify the clause as below: The copyright in all drawings, documents, and other materials containing data and information furnished to the Employer by the Contractor herein shall remain vested in the Contractor or, if they are furnished to the Employer directly or through the Contractor by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party. However, the Employer shall be obligated to use such drawings, documents and other material for the intended purpose only and shall indemnify and keep Contractor indemnified against any losses, claims, damages, penalty and compensation arising out of or in connec-	No	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		tion thereto.		
151	Volume 1/Section VII GCC/17.1/Execution of the facilities – Representative/Page No VII-13	Please modify the clause as below: All notices, instructions, information, and other communications given by the Contractor to the Employer under the Contract shall be **in writing** given to the Project Manager, except as herein otherwise provided.	No	
152	Volume 1/Section VII GCC/22.6/Emergency Work/Page No VII-24	If, by reason of an emergency arising in connection with and during the execution of the Contract, any protective or remedial work is necessary as a matter of urgency to prevent damage to the Facilities, the Contractor shall immediately carry out such work. If the Contractor is unable or unwilling to do such work immediately, the Employer may do or cause such work to be done as the Employer may determine is necessary in order to prevent damage to the Facilities. In such event the Employer shall, as soon as practicable after the occurrence of any such emergency, notify the Contractor in writing of such emergency, the work done and the reasons therefor. If the work done or caused to be done by the Employer is work that the Contractor was liable to do at its own expense under the Contract, the reasonable costs incurred by the Employer in connection therewith shall be paid by the Contractor to the Employer. Otherwise, the cost of such remedial work shall be borne by the Employer. We understand that contractor shall be entitled to claim reasonable actual cost. Please confirm.	No	
153	Volume 1/Section VII GCC/27.8/Defect Liability/Page No VII-32	If the Facilities or any part thereof cannot be used by reason of such defect and/or making good of such defect, the Defect Liability Period of the Facilities or such part, as the case may be, shall be extended by a period equal to the period during which the Facilities or such part cannot be used by the Employer because of any of the aforesaid reasons. Notwithstanding anything contained herein the liability of the Contractor shall cease to exist beyond [….. months] from the completion of Facilities or from the date of Operational Acceptance of facilities whichever is earlier. Kindly make the suggested changes. We request that warranty for replaced items shall have a cut-off date beyond which all obligations of Contractor for warranty shall cease to exist.	No	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		We cannot accept evergreen warranty clause under the agreement.		
154	Volume 1/Section VII GCC/29.1/Patent Indemnity/Page No VII-33	Please modify the clause as below: Such indemnity shall not cover any use of the Facilities or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, any infringement resulting from the use of the Facilities or any part thereof, or any products produced thereby in association or combination with any other equipment, plant or materials not supplied by the Contractor, pursuant to the Contract Agreement. Notwithstanding anything contained herein, the Contractor shall have no obligation or liability with respect to any Claim based upon (a) Products or Services that have been modified, or revised, (b) failure of Employer to implement any update provided by Contractor that would have prevented the Claim, or (c) Products or Services made or performed to Employer 's specifications.	No	
155	Volume 1/Section VII GCC/30.1/Limitation of Liability/Page No VII-34	Except in cases of criminal negligence or willful misconduct: (a)… (b)… Please add the following text to the said clause. The terms Gross Negligence and Wilful Misconduct shall have following meaning: 1.1 "Gross Negligence" means tortious acts or omissions by Seller's Managerial or Supervisory Personnel, well in excess of negligence and amounting to an intentional disregard of a grave, known risk, where such disregard constitutes an extreme deviation from even minimal care. 1.2 "Willful Misconduct" means, on the part of a Party's Managerial or Senior Supervisory Personnel, an intentional and wrongful act, or an intentional and wrongful omission of some act, in either case with the intent to inflict damage or injury. 1.3 "Managerial or Senior Supervisory Personnel" means any person employed by a party that is not an hourly worker, clerk, craft laborer, mechanic, foreman, subcontractor, engineer, inspector, Technical Advisor ("TA"), TA Site Manager, Customer Performance Manager, first level of managerial or supervisory personnel, or Senior Supervisory Personnel, an intentional and wrongful act, or an intentional and wrongful omission of some act, in either case with the intent to inflict damage or injury.	No	
156	Volume 1/Section VII GCC/33.1/ Loss of or	Please modify the clause as below:	No	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	Damage to Property; Accident or Injury to Workers; Indemnification /Page No VII-36 to VII-37	Subject to GCC Sub - Clause 33.3, the Contractor shall indemnify and hold harmless the Employer and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, in respect of the death or injury to any third party ~~of any person~~ or loss of or damage to any third party property (other than the Facilities whether accepted or not), arising in connection with the supply and installation of the Facilities and by reason of the negligence of the Contractor or its Subcontractors, or their employees, officers or agents, except any injury, death or property damage caused by the negligence of the Employer, its contractors, employees, officers or agents. Also, please add the following as new Clause 33.5 Employer (as an "indemnifying party") shall indemnify the contractor (as an "indemnified party") from and against claims brought by a third party, on account of personal injury or damage to the third party's tangible property, to the extent caused by the negligence of the indemnifying party in connection with this contract. In the event the injury or damage is caused by joint or concurrent negligence of the Employer and contractor, the loss or expense shall be borne by each party in proportion to its degree of negligence. For purposes of contractor's indemnity obligation, no part of the products or site is considered third party property		
157	Volume 1/Section VII GCC/42.2.3.e / Termination for Contractor's Default/Page No VII-49	"deliver to the Employer all drawings, specifications and other documents prepared by the Contractor or its Subcontractors as of the date of termination in connection with the Facilities." We understand that such sharing of documents would mean only non-proprietary information in readable format.	Please, follow the tender requirements	
158	Volume 1/Section VII GCC/42.3.3.d.iii / Termination for Contractor/Page No VII-50	"deliver to the Employer all drawings, specifications and other documents prepared by the Contractor or its Subcontractors as of the date of termination in connection with the Facilities." We understand that such sharing of documents would mean only non-proprietary information in readable format.	Please, follow the tender requirements	
159	Volume 1/Section VII GCC/43.1 / Assignment /Page No VII-52	Please add the following text at the end of the Clause: Nothing herein shall affect the right of the Contractor to assign receivable under the Contract by way of factoring.	No	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
160	New Clause: No Nuclear Use	Please add new Clause as below: The Material/ equipment/ services sold by the Contractor are not intended for use in connection with any nuclear facility or activity, and Employer warrants that it shall not use or permit other to use the material/equipment/services for such purpose, without advance written consent of Contractor. If in breach of this, any such use occurs, Contractor (and its parent, affiliate, suppliers and subcontracts) disclaims all liability for any nuclear or other damage, injury or contamination, and, in addition to any other rights of Contractor, Employer shall indemnify against all such liability. Consent of Contractor under this section to any nuclear use, if any, will be conditioned upon additional terms and conditions that Contractor determines acceptable for protection against nuclear liability.	No	
161	New Clause: Safety	Please add new Clause as below: Contractor has no responsibility or liability for the pre-existing condition of Employer's equipment or the Site. Prior to Contractor starting any work at Site, Employer will provide documentation that identifies the presence and condition of any Hazardous Materials existing in or about Employer's equipment or the Site that Contractor may encounter while performing under this Contract. Employer shall disclose to Contractor industrial hygiene and environmental monitoring data regarding conditions that may affect Contractor's work or personnel at the Site. Employer shall keep Contractor informed of changes in any such conditions.	No	
162	New Clause: Intellectual Property Rights	Please add new Clause as below: Each party shall retain ownership of all Confidential Information and intellectual property it had prior to the Contract. All rights in and to Firmware and software not expressly granted to Employer are reserved by Contractor. All new intellectual property conceived or created by Contractor in the performance of this Contract, whether alone or with any contribution from Employer, shall be owned exclusively by Contractor. Employer agrees to deliver assignment documentation as necessary to achieve that result.	No	
163	Consortium Agreement	Please clarify that PGCB will accept Invoices from the Joint Venture partners separately with certification by the Lead partner.	No	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		Common		
164	General	Bidder understands that boundary wall will be constructed at the property line from EGL (Existing Ground Level) and land development slope will be done inside the boundary wall. Kindly confirm.	**Your understanding is not correct. Please follow the tender requirement.**	
165	General	Please provide the following: 1. Plan view for 230kV GIS Building, including Cable basement and GIS floor with proper dimension 2. Plan view for 132kV GIS Building, including Cable basement, GIS floor & Control Room 3. Proper dimension (length, width, height) of 230kV GIS Building is required 4. Proper dimension (length, width, height) of 132kV GIS Building is required 5. Required illuminace (Lux) for 230kV GIS room & 132kV GIS Room 6.Height of GIS Room. 7. Height of Control Room.	All required information are already provided Building is 36 x 12 meters Basement height 3 meters GIS room height according to the design, including the necessary height for the motorized crane Control room height 4 meters	
166	**Volume 2/ Section 1/ Scope of Works/ 1.2 Description of this page** The civil design and backfilling has to consider and incorporate protection measures against flooding. The sufficient ground level height for land formation is required at the Contractor's responsibility and will	Bidder requests PGCB to confirm the number of years bidder should consider as reference for the HFL. For example: whether bidder should consider the HFL from the year 2008 to 2019.	No, please follow the Bangladesh law	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	be subject of the Employer's approval. Finishing ground level (FGL) shall be at least 500 mm above the highest flooding level (HFL). The Bidders has to inform themselves about the HFL			
167	**Volume 1, Section I: Instructions to Bidders4. Eligible Bidders**4.1 A Bidder may be a private entity or a government-owned entity - subject to ITB 4.5 - or any combination of such entities with the intent to enter into an agreement supported by a letter of intent or under an existing agreement in the form of a joint venture, consortium, or association (JV).In the case of a JV:(a) all partners shall be jointly and severally liable, and(b) the JV shall nominate a Representative who shall have the authority to conduct all business for and on be-	**Bidder request for the following:**1. Separate Contract Agreements to be placed by PGCB, one for Lead Partner and separate Contract for other Joint Venture/ Consortium partner. 2. In case one Contract Agreement is placed in the name of JV/ Consortium, then bidder request for following points:a) Separate billing schedule of each partner to be mentioned in the contract.b) We request you to accept separate tax invoices from each JV/ Consortium partner for their respective scope of work.c) We also request that PGCB will issue requisite applicable Exemption/ Concessional Tax Certificates, TDS / WCT Certificates and any other applicable statutory forms / certificates to each JV/ Consortium member as per the Invoices submitted by the consortium member for the defined scope of work.d) Since Escrow Account/ similar arrangement is not applicable as per present banking system of Bangladesh, hence bidder understand that PGCB/ KfW will make payment directly to each Joint Venture/ Consortium member located in different countries.	No	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	half of any and all the partners of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution.			
168	**Volume 1, Section VI: Employer's Requirements** **5. Bank Guarantees and Certificates** **5.1 Form of Performance Security/ 5.2 - Form of Advance Payment Security** Additional Clause	**Please add the below clause at the end of the Performance Security/ Advance Payment Security Format:** This Guarantee is subject to Uniform Rules for Demand Guarantees, ICC Publication No. 758.	Yes TYPING MISTAKE	
169	**Volume 1, Section VII: General Conditions of Contract (GCC) 24. Completion of the FacilitiesClause 24.6 -** If the Project Manager fails to issue the Completion Certificate and fails to inform the Contractor of any defects and/or deficiencies within fourteen (14) days after receipt of the Contractor's notice under GCC Sub-Clause 24.4 or within seven (7) days after receipt of the	**Following Completion and Deemed Completion clause to be added to the Conditions:**(a) As soon as the Contractor achieves the Works Completion of the contract works, it shall issue to the Employer a notice (Notice of Works Completion) informing about the completion of the work.(b) Within 14 days following receipt of the notice of works completion, the Employer shall issue the Completion Certificate to Contractor, failure to which it shall be considered that the work has been successfully completed as on the date of the contractor's notice & Deemed Completion Certificate will be considered to have been issued. (c) Completion is also deemed to have taken place if the Works or any part thereof are put to use by the Employer.(d) If Commissioning is delayed due to reasons not attributable to Contractor, Contractor shall be allowed to demobilize the site after 2 months waiting and shall provide commissioning support as & when required. Consequently retention payment (if any) to be released against BG.The Defect Liability Period shall be deemed to have be started from the date of the such Deemed Completion Certificate.	No	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	Contractor's repeated notice under GCC Sub-Clause 24.5, or if the Employer makes use of the Facilities or part thereof, then the Facilities or that part thereof shall be deemed to have reached Completion as of the date of the Contractor's notice or repeated notice, or as of the Employer's use of the Facilities, as the case may be.**25. Commissioning and Operational Acceptance25.5 Delayed Pre commissioning and/or Guarantee TestClause 25.5.1 -** In the event that the Contractor is unable to proceed with the Pre commissioning of the Facilities pursuant to Sub-Clause 24.3, or with the Guarantee Test pursuant to Sub-Clause 25.2, for reasons attributable to the Employer either on account of non-availability of other facilities under the responsibilities of other contrac-			

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	tor(s), or for reasons beyond the Employer's control, the provisions leading to "deemed" completion of activities such as Completion, pursuant to GCC Sub-Clause 24.6, and Operational Acceptance, pursuant to GCC Sub-Clause 25.3.4, and Contractor's obligations regarding Defect Liability Period, pursuant to GCC Sub-Clause 27.2, Functional Guarantee, pursuant to GCC Clause 28, and Care of Facilities, pursuant to GCC Clause 32, and GCC Clause 41.1, Suspension, shall not apply. In this case, the following provisions shall apply.			
170	**Volume 1, Section VIII: Special Conditions of Contract (SCC) 14. Taxes and DutiesThe following paragraph is added at the end of the Sub-Clause 14.1:**While making payment to the Contractor or instructing the respective bank to effect the payment to the Con-	1. We understand that Advance Income Tax (AIT) shall be applicable on the Total Contract. However, it will be deducted only for onshore portion from Contractor's Bill and not from offshore supplies/services payments. For Offshore supplies/services, AIT shall be directly submitted by PGCB to Government of Bangladesh without any deduction from contractors payments. Please confirm.2. Please confirm the rate of applicable Advance Income Tax (AIT) in Bangladesh.	Please, follow the tender requirements	

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	tractor, the Employer is entitled to deduct advance income tax (AIT) at source at applicable rate(s), which is required as per law of the Employer's country. In the event of withholding of AIT, the same shall be withheld and deposited to the govt. exchequer in the credit of Contractor by the Employer as per prevailing law of the Employer's country and evidence thereof shall be furnished to the Contractor.**Sub-Clause 14.2 is replaced with the following:**a. 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			

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	(AIT) and other charges, which imposed by the law of the country, that are to be incorporated into the facilities.			
171	Volume 1, Section VIII: Special Conditions of Contract (SCC) 22. Installation Rights of Way and Facilities Unless otherwise specified in the Contract, the Employer shall provide effective access to and possession of the Site including special and/or temporary rights-of-way which are necessary for the Works. The Contractor shall obtain, at his risk and cost, any additional rights of way or facilities outside the Site which he may require for the purpose of the Works.	Bidder request the following: The Employer shall provide effective access to and possession of the Site including special and/or temporary rights-of-way which are necessary for the Works and also any additional rights of way or facilities outside the Site which he may require for the purpose of the Works.	No	
172	**Section I: Instructions to Bidders4. Eligible Bidders**4.1 A Bidder may be a private entity or a government-owned entity - subject to ITB 4.5 - or any combination of such	Bidder may participart in the form of a Consortium with other entities, however, we understand that by forming this consortium, there will no be no legal requirement to form a new corporation or a company or any form of partnership or association of persons registered as a new entity for the project in Bangladesh.	Your understanding is correct in the part of legal requirements	

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	entities with the intent to enter into an agreement supported by a letter of intent or under an existing agreement in the form of a joint venture, consortium, or association (JV).In the case of a JV:(a) all partners shall be jointly and severally liable, and(b) the JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the partners of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution.			
173	**Volume 2/ Section 1/ Scope of Works/ 1.2 Description of this page**The civil design and backfilling has to consider and incorporate protection measures against flooding. The sufficient ground level height for land formation is required at the Contractor's responsibility and	Please clarify which of the section 1 or section 10 shall be considered to determine the Finished Ground Level.In case the crown of the Public road nearby then it will the crown point which shall be exactly the substation width drawn parallal on the public road. Kindly Confirm.	Please, follow the tender requirements	

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	will be subject of the Employer's approval. Finishing ground level (FGL) shall be at least 500 mmabove the highest flooding level (HFL). The Bidders has to inform themselves about the HFL**Volume 2/ Section 10 Buildings and Civil Engineering Works/ 10.1.1.4 Site Survey Drawings:** The final ground/formation level of the site will be 500mm above the crown of the nearest public road or the highest flood level whichever is greater. The building plinth level will be 450mm above the final ground/formation level.			
173	General	Bidder understands that tree cutting for site clearance as per tender specifications is in the scope of bidder and Approval for tree cutting from relevant authorities along with any other statutary approval if any will be aranged by PGCB. Kindly Confirm.	Both, works & services and necessary approvals are in the Bidder's scope of works. PGCB will provide necessary support	
174	General	Bidder request to clarify whether temporary fencing is required to be considered in bidders scope of work untill completion of boundary wall.	Of course, not only temporary fencing… The Contractor is responsible for ensuring that all and/or any item(s) of work required for the safe, efficient and satisfactory completion and functioning of	

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			the works, are included in the Bid Price whether they be described in the specification or not…	
175	Bidding document/Vol-2/3. HV Switchgear and Neutral Earthing Equipment **3.4.6.35 Bus-Ducts (HV GIS Equipment)** Sections of bus-duct housings and their associated conductors shall have similar lengths, single phase encapsulated bus-duct assemblies shall be of symmetrical design.	Bidder understand that the specification of Bus duct & GIS Busbar (single phase encapsulated) is only applicable for 230 kV GIS. In 132 kV level none of the qualified manufacturer are having single phase encapsulated design. Hence bidder understand that for 132kV GIS three phase encapsulated design for Bus duct & GIS Busbar will be acceptable, which is a prevailing practice of PGCB. Please confirm.	Yes, your understanding is correct	
176	Bidding document/Vol-3/ 2. Schedule B: Bid Prices & Schedules **B: 132 kV switchgear, equipment connection and steel structures:** **Q0 - One (1) set of three pole, GIS type, SF6 gas circuit breaker with three spring-stored energy operating mechanism**	Bidder understands that three spring-stored energy operating mechanism for enabling Auto-reclosing function of Circuit Breaker. At 132 kV level which is not applicable as per Grid Practice of Bangladesh. Hence Bidder understands that circuit breaker with single spring-stored energy operating mechanism is acceptable for 132 kV GIS. Please confirm.	No Please, follow the tender requirements	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
177	Bidding document/Vol-2/ 5. Protection, Metering and Control / Clause 5.2For standardisation of operating performance, facilities and spare requirements, the protection relays and control systems, together with complete panels to be supplied under this project shall be manufactured by ABB (Switzerland/Sweden), Alstom/GE (France / UK) Siemens (Germany) or SEL (USA).	Bidder understand that the country of origin of complete CRP Panels and SAS should be from following: ABB (Switzer-land/Sweden), Alstom/GE (France / UK) Siemens (Germany) or SEL (USA). Please confirm	Yes	
178	Bidding document/Vol-3/ 2. Schedule B: Bid Prices & Schedules As per feeder protection (Ref BOQ Sl no: G1 for each substation), other end protection are also included for 230 & 132 line bays.	As per feeder protection (Ref BOQ Sl no: G1 for each substation), other end protection are also included for 230 & 132 line bays. Bidder understands that the distance protection (ANSI 21) is to be offered in Line protection as per the specification and other end protection will be covered in the relay control panels of other end substation. Hence no need to supply any additional / loose protection for the line bays. Please confirm.	Your understanding is correct	
179	Bidding document / Vol-3 / 5. Schedule E: Technical Particulars and Guarantees / Section 5.2.4 :300 MVA Transformer/ Clause 2.2.1 & 2.2.2	Bidder understands that Tertiary winding (34.5kV) will be connected with Auxiliary Transformer. Hence the KVA rating of that Auxiliary Tx should be considered as capacity of tertiary winding. Please confirm.	Yes and No The Auxiliary Transformer will have double function, for earthing and for auxiliary supply Part of Detail design will be consideration of both functions and confirmation of technical solution	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	Rated Power: Tertiary		**WITHOUT ANY PRICE IMPLICATION**	
180	Bidding document / Vol-3 / 5. Schedule E: Technical Particulars and Guarantees / Section 5.2.4 :300 MVA Transformer/ Clause 2.3 **Tapping range**	Bidder understand that Tap changer should have 230kV ± 10% variation with each tap @ 1.25%. Please confirm	Yes Please, follow the Technical Data Schedule	
181	Bidding document / Vol-3 / 5. Schedule E: Technical Particulars and Guarantees / Section 5.2.4 :300 MVA Transformer/ Clause 2.4 **Tap changer location**	Location of Taps is not mentioned in clause no. 2.4. As per PGCB practice bidder understand location of taps will be at 135kV winding. Please confirm.	Noted	
182	Bidding document / Vol-3 / 5. Schedule E: Technical Particulars and Guarantees / Section 5.2.4 :300 MVA Transformer/ Clause 3.6 **Insulation Level of Neutral**	Insulation Level of Neutral is not mentioned in the GTP Sl No. 3.6. Bidder understand as per regular practice of PGCB neutral Insualtion will be LI 95kVp & AC 38kVrms. Please confirm.	Please, follow the tender requirements	
183	Bidding document / Vol-3 / 5. Schedule E: Technical Particulars andGuarantees / Section 5.2.4 :300 MVA Trans-	Detail of neutral bushing is not mentioned in GTP. Bidder understand that Neutral bushing of 17.5kV class with LI 95kVp & AC 38kVrms will be acceptable to PGCB. Please confirm.	Please, follow the tender requirements	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	former/ Clause 5**Neutral bushing**			
184	Bidding document / Vol-3 / 5. Schedule E: Technical Particulars and Guarantees / Section 5.2.4 :300 MVA Transformer/ Clause 5.1.3 & 5.2.3 **Bushing Manufacturer**	Type of bushing is OIP as per specification 4.9.1 (Volume-2, Section-4). Since Bushing is an important component of Tranformer, bidder request for acceptance of RIP bushing only and confirm make (like Trench, ABB, HSP, MGC, Yash, GE).	Bushings CAN be also RIP type	
185	Bidding document / Vol-3 / 5. Schedule E: Technical Particulars and Guarantees / Section 5.2.4 :300 MVA Transformer/ Clause 12 **Cooling groups**	4 groups as mentioned in the document is applicable for unit coolers & not for radiator cooling. Therefore acceptance of tank mounted radiators wih 1x100% or 2x50% cooling. Accordingly there will be no standby radiators however 2 nos. standby fans will be provided. Please confirm acceptance.	NO, such solution is not acceptable It shall be like in Technical schedule: 75 % of the cooling system shall be enough for rated power 25% of the cooling system is reserve	
186	Bidding document/Vol-2/ 4. Power Transformer, Clause 4.3.4 **300 MVA Auto Transformer** **Ability to Withstand Short Circuit**	The ability to withstand short circuit shall be proved and demonstrated with the help of calculations. No dynamic short circuit test is considered to be performed during execution period. In addition, Type test certificates of SC Test done on higher ratings shall be submitted along with the bid.	Yes, your understanding is correct	
187	Bidding document/Vol-2/ 4. Power Transformer, Clause 4.7.2 **300 MVA Auto Transformer** **On-Load Tap changer:**	Technical specification has acceptability for both type of OLTC (**OIL** type or **VACUUM** type) Bidder have choice to provide any one of type of **OLTC** (either **OIL** type or **VACUUM** type). Kindly confirm.	Yes, your understanding is correct	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	Type			
188	Bidding document/Vol-2/ 4. Power Transformer, Clause 4.7.2 **300 MVA Auto Transformer** **On-Load Tap changer: Current rating**	Techincal Specification and Guarantee Technical Paticulars are not having details of current rating of tap changer. Bidder wants to supply OLTC with current rating of 1000 Amps (Minimum). Please Confirm	Please, follow the technical requirements	
189	Bidding document / Vol-3 / 5. Schedule E: Technical Particulars and Guarantees / Section 5.2.4.2: 120 MVA Transformer, Clause 3.6.2 **Insulation Level of MV: LI 270 AC 70**	Insulation level of MV as per the IEC 600076-3 for Um=36kV. Therefore insulation level of MV will be **LI 270 AC 70.** Please confirm.	Yes TYPING MISTAKE	
190	Bidding document / Vol-3 / 5. Schedule E: Technical Particulars and Guarantees / Section 5.2.4.2: 120 MVA Transformer, Clause 12 **Cooling groups**	4 groups as mentioned in the document is applicable for unit coolers & not for radiator cooling. Therefore acceptance of tank mounted radiators wih 1x100% cooling. Accordingly there will be no standby radiators however 2 nos. standby fans will be provided. Please confirm acceptance.	NO, such solution is not acceptable It shall be like in Technical schedule: 75 % of the cooling system shall be enough for rated power 25% of the cooling system is reserve	
191	Bidding document/Vol-2/ 4. Power Transformer, Clause 4.3.4**120 MVA Power TransformerAbility to Withstand Short Circuit**	The ability to withstand short circuit shall be proved and demonstrated with the help of calculations. No dynamic short circuit test is considered to be performed during execution period. In addition, Type test certificates of SC Test done on higher ratings shall be submitted along with the bid.	Yes, your understanding is correct	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
192	Bidding document/Vol-2/ 4. Power Transformer, Clause 4.7.2 **120 MVA Power Transformer** **On-Load Tap changer: Type**	Technical specification has acceptability for both type of OLTC (**OIL** type or **VACUUM** type) Bidder have choice provide any one of type of **OLTC** (either **OIL** type or **VACUUM** type). Kindly confirm.	Yes, your understanding is correct	
New 230/132kV Substation, Feni				
193	**Bidding document/Vol-2/Section-10/Building and Civil Engineering Works/10.1.1.3 Way Leaves, Land Purchase and Planning Permission/FENI/1.1/**The Employer will be responsible for the purchase of all land within the permanent site boundary and the purchase of all land required to the base of the fill of any batter slopes. **The Employer will also be responsible for obtaining land to provide a permanent single access to site from a nearby road or waterway.**During the construction period the Bidder shall be responsi-	Kindly confirm whether the construction of the Access road is in the scope of the bidder. Bidder also requests PGCB to confirm to provide all necessary ROW & authority permission for construction of access road.	Yes, your understanding is correct Complete new Access road, roads inside substation, parking, path lines, etc are in the scope of works	

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	ble for maintaining this access road in a reasonable condition by reinstating any damage caused by his construction traffic and Employer's traffic.Should the Bidder require more than one single access to a site or require additional land for construction activities outside the permanent site boundary, he shall be responsible for the purchase or way leave of the required land.The Employer will be responsible for applying for planning permission.			
194	General	As per bidders site visit, existing plot is being used for plying vehicles and soil mining is being carried out at adjacent plots. Bidder request PGCB to confirm that this land is fully acquired and no movement will take place once the work is awarded to sucessful bidder	Yes	
195	General	Since no boundary is presently constructed and soil is being excavated from adjacent plots there is possiblity that from this plot also the soil will be excavated and ponds will be created. Since the survey of the plot is done by us presently, in case of any change in the plot to the position of survey done like depth increase due to mining of soil then necessary compensation to be provided to the bidder for those additional depths. Bidder requests PGCB to confirm to ensure the evaluation & scope consideration to be done as is where is basis.	Yes	
196	Bidding document/Vol-	No. of 230kV Line bays is 4, 230 kV Transformer bays is 3, 132 kV Line bays is 8 &	Preferable connection between GIS Switchgear and Power transformers and	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	3/Schedule B/Price Schedule 1 & 2 **New 230/132kV Substation, Feni S. No. Q : GIB and/or Cable connections**	132 kV Transformer bays is 3 for Feni S/S. No. of Line Bays & Trafo Bays Qty are very high in this S/S, hence Bidder understand that all line bays with XLPE cable will be a technically better solution. Transformer bays can be considered either on GIB or Cable based on the switchyard layout. Please Confirm	Transmission Lines is with GIB (Gas Insulated Busbars) In that case, Outdoor GIS Surge arrester shall be foreseen … In case of remote connection, cable connection can be considered also In case of cable connection, AIS Surge arresters shall be provided. Contractor shall confirm during the design stage that those Surge arresters are enough. If this is not the case, the Contractor shall provide INDOOR GIS Surge arresters also, in front of the GIS Switchgear So, Indoor GIS Surge arrester will maybe be necessary in case of cable connection. *** **In FENI Substation all 230 kV and 132 kV connections SHALL be GIB and all Surge Arresters SHALL be outdoor GIS. Only four transmission lines 132 kV CAN be connected by cable and Surge Arresters can be AIS** **In BIRULIA Substation all 230 kV and 132 kV connections SHALL be GIB**	

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			and all Surge Arresters SHALL be outdoor GIS. **In NAOGAON Substation all 230 kV and 132 kV connections SHALL be GIB and corresponding Surge Arresters SHALL be outdoor GIS. Only transformers 132/33 kV and transmission lines 132 kV CAN be connected by cable and Surge Arresters can be AIS** **In PURBASADIPUR Substation all 230 kV and 132 kV connections SHALL be GIB and corresponding Surge Arresters SHALL be outdoor GIS.** **If proposed 132 kV Gantry position shown in the Layout is not practical, the existing gantries 132 kV can be used.** **In this case, both GIB or Cable 132 CAN be used and appropriate Surge Arresters** **Transformers 132/33 kV CAN be connected by cable and Surge Arresters can be AIS** Drawings are PRELIMINARY and FOR TENDER PURPOSE ONLY	
		230/132kV Substation, Bhulta		
197	General: Scope of Works	As per our site visit, the land proposed for 132kV S/s is already levelled and only necessary compaction has to be done. Bidder request PGCB to confirm that compacted land will be handed over to the sucessful bidder for carrying out civil works	No, please, follow the tender requirements Land development is in the scope of	

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		and no levelling is in scope of the bidder	works	
198	General: Scope of Works	As per our site visit, Boundary wall is already getting constructed and hence no boundary wall is in scope of the bidder. We need to do necessary fencing only to demark the portion of 132 KV AIS. Kindly confirm.	No, please, follow the tender requirements Part of Boundary wall is in the scope of works	
199	General: Scope of Works	As per our site visit, the 230 kV Relay room space is available in the SPR-2 / SPR-1 for keeping the panels required for extension of two transformer bays. Bidders request PGCB to confirm that this space can be used for providing the new panels.	No, please, follow the tender requirements Extension of existing Relay house is in the scope of works	
200	General: Scope of Works	Cable trench existing from SPR to control romm can be used for laying of control /power cables. No separate trench is required. Kindly confirm.	Yes	
201	General	Since its existing substation and newly constructed. Bidder requests you to provide soil investigation and contour survey of the plot.	Bidders are kindly invited to visit all required locations	
		New 230/132kV Substation, Birulia		
202	General	As per Bidders Site Visit; Bidder understands that Land acquisition is not complete yet. We faced protests & obstacle from local people for site survey & could not access the site. Bidder requests PGCB to confirm to provide encumberance free land to the successful bidder. We are not having access to carry out detailed survey and hence furnish us with the contour survey report and soil investigation binding for Birulia substation for us to provide the right costs.	Both, works & services and necessary approvals are in the Bidder's scope of works. PGCB will provide necessary support	
203		As per Bidders Site Visit; Bidder understands that land development height should be above 500mm from nearest public road adjacent to the site not from nearest highway. Kindly clarify our doubt. Please refer to the picture.	Nearest public road shown in the picture is not accessible for heavy load/ Truck/ Long vehicle. In that case, Access road has to be constructed from the nearest highway shown in the picture. Land development has to be considered accordingly.	

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204	Bidding document/Vol-3/Schedule B/Price Schedule 1 & 2 **New 230/132kV Substation, Birulia** **S. No. Q : GIB and/or Cable connections**	No. of 230kV Line bays is 4, 230 kV Transformer bays is 3, 132 kV Line bays is 4 & 132 kV Transformer bays is 3 for Birulia S/S. No. of Line Bays & Trafo Bays Qty are very high in this S/S, hence Bidder understand that all line bays with XLPE cable will be a technically better solution. Transformer bays can be considered either on GIB or Cable based on the switchyard layout. Please Confirm		No Please, see Answer No. 196 and Clarification No. 1 and Addendum	
		New 230/132kV Substation, Naogaon			
205	Bidding document/Vol-3/Section 2/Schedule B: Bid Prices & Schedules/New 230/132kV Substation, Naogaon	As per our site visit, we understand we have to dismantle one store building at PDB area for 33kv AIS swtichgear extension and also the existing road being used by PDB has to be diverted and reconstructed for access to the quarters. Price shcedule or scope does not consider these points. Kindly confirm if it is under bidders scope of work.		Please, see previous answers	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
206	General	As per our Site visit, a number of Trees have to be cut on proposed area which has not been mention on price schedule. Bidder requests PGCB to confirm to do necessary clearing of tress and hand over the encumberance free land to the bidder. In case necessary tree cutting is in scope of the bidder, all permissions from any relevant authorities/ consultant, auction of trees if any govt rules will be for the customer to do and give necessary clearances for doing thejob shall be provided by PGCB; Kindly confirm.	Both, works & services and necessary approvals are in the Bidder's scope of works. PGCB will provide necessary support	
207	General: Scope of Works	Bidder requests PGCB to clarify whether any Un-used transformers need to be shifted to their selective store or not. Please confirm where Un-used equipment & dismantled equipment will be stored (or whether to be stored inside substation area) . In case these unused equipments getting stored will PGCB ask us to provide any firm surface like plain cement concrete / brick bat soiling or this can be handed over as per the existing condition/ surface available at the time of handing over.	Please, follow the tender requirements	
208	General: Scope of Works	We understand that new boundary wall is not required for the entire Substation area, existing boundary wall can be repaired by only paintng & plastering. New portion will be constructed only where boundary wall is not available. Please confirm.	Only generally speaking – NO New boundary wall shall be provided Already existing facilities (like wall), if they are in very good condition – can remain. This will subject of PGCB approval Bidders are kindly invited to visit all required locations	
209	General: Scope of Works	As per bidders site visit, existing 132 KV switchgear has to be removed entirely and handed over in stores. The area is spread with gravel. Kindly clarify if that gravel removal will be part of bidders scope of work and corresponding cultivation has to be done.	Yes, of course	
210	General: Scope of Works	As per bidders site visit, there is fencing between existing control room building and proposed GIS building kindly confirm whether it needs to be removed.	Yes, of course. And new fence shall be constructed	

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211	General: Scope of Works	As per bidders site visit, existing boundary wall is covering PDB area and PGCB area. Kindly clarify if any boundary wall is required under bidders scope of work for demarcation of the Proposed GIS separately.	No	
212	General: Scope of Works	As per the understanding during site visit, land filling in the proposed GIS locations and balance area within the boundary has to be done matching the existing 132 /33 kV switchgear level. Kindly confirm.	Yes	
213	General: Scope of Works	As per bidders site visit, bidder understands that since no cut outs or space is available in the existing control room the new panels for 33kV Aux bays can be placed only in the 132kV control panel area (which will be removed once the 132 KV GIS is commissioned with New panels). Kindly confirm our undersanding.	Yes and No Existing Control room will not be removed	
214	General	Bidder requests PGCB to clarify whether one SCADA monitor/ panel will be provided in 132 KV GIS building. Please clarify whether SCADA has to be provided in 33 KV control room building separately.	No	
215	General	Bidder requests PGCB to provide the following: **Sheme of existing RTCC panel/Transformer**	Bidders are kindly invited to visit all required locations	
216	Bidding Document/ Volume 3/ Schedule B: Bid Prices & Schedules	Bidder understands that there is no scope of work for Control, Protection and SAS for 33kV System. Kindly confirm our understanding.	No, your understanding is not correct Please, follow the tender requirements and Price Schedule	
217	General: Scope of Works	We understand that the existing switchgear foundation is not required to be removed & cultivation will be done in rest of free space. Please confirm.	No, your understanding is not correct. All – NOT USED – foundations shall be removed.	
218	General: Scope of Works	As per bidders site visit, bidder understands the existing switchgear has open foundation, hence there is no requirement of piling work. Kindly confirm our understanding.	No, your understanding is not correct.	
219	Bidding document/Vol-2/17 Bid Drawing/ Layout: New 230/132kV Substation, Naogaon	As per bidders site visit & Layout; the incoming 230kV Transmission Line enters the switchyard from the south Side. There is free space available on the West side. Kindly confirm that the transmission line orientation will remain unchanged during execution.	This will be part of Detail Design	
220	**Bidding Document/ Volume 3/ Schedule A/Description of this**	As per our site visit the two (2) existing power transformer 132/33 kV, 50/75 MVA, that has to be connected to the new 132 kV GIS Switchgear has no fire protection	Yes, your understanding is correct	

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	Package/ 1.2.4 New 230/132 kV Substation Naogaon/ D 9.2 Water Spray System	system available. Bidder understands that it is not under bidders scope of works to provide the fire protection system for the existing transformers. Kindly confirm.		
221	Bidding document/Vol-2/17 Bid Drawing/ Lay-out: New 230/132kV Substation, Naogaon	Kindly confirm if cable can be installed as buried cable for connection from 132kV Transformer & 132kV Transmission Line bays	No	
222	**Bidding Document/ Volume 3/ Schedule A/Description of this Package/ 1.2.4 New 230/132 kV Substation Naogaon** De-installation and transport of two existing power transformers 132/33 kV 1x25/41 MVA and 1x50/75 MVA at the location chosen by PGCB no longer than 100 km	Kindly specify the place for transformer transportation & unloading. As per the scope of works, bidder shall be responsible for only removal of existing transformer and its transportation to the PGCB chosen location. Bidder shall **not** be responsible for any sort of re-installation, erection, testing & commissioning work of the transported transformer.	PGCB will make decision during the construction phase	
223	Bidding document/Vol-3/Schedule B/Price Schedule 1 & 2**New 230/132kV Substation, NaogaonS. No. Q : GIB and/or Cable connec-tions**	No. of 230kV Line bays is 2, 230 kV Transformer bays is 3, 132 kV Line bays is 6 & 132 kV Transformer bays is 7 for Naogaon S/S.No. of Line Bays & Trafo Bays Qty are very high in this S/S, hence Bidder understand that all line bays with XLPE cable will be a technically better solution. Transformer bays can be considered either on GIB or Cable based on the switchyard layout. Please Confirm	No Please see answer 196 and Clarification No 1 and Addendum	
		New 230/132kV Substation, Purbasadipur		
224	General: Scope of Works	We understand that new boundary wall is not required for the entire Substation area, existing boundary wall can be repaired by only paintng & plastering. New portion will be constructed only where boundary wall is not existing. Please con-	Only generally speaking – NO New boundary wall shall be provided	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		firm.	Already existing facilities (like wall), if they are in very good condition – can remain. This will subject of PGCB approval Bidders are kindly invited to visit all required locations	
225	General: Scope of Works	As per our site visit, the existing 33kV control room building is enough to support the new extension hence it is not required to be demolished and no new building has to be constructed. Only necessary painting / repair plaster will be sufficient. Kindly confirm.	Yes, your understanding is correct	
226	General	As per our Site visit, a number of Trees have to be cut on proposed area which has not been mention on price schedule. Bidder requests PGCB to confirm to do necessary clearing of tress and hand over the encumberance free land to the bidder. In case necessary tree cutting is in scope of the bidder, all permissions from any relevant authorities/ consultant, auction of trees if any govt rules will be for the customer to do and give necessary clearances for doing thejob shall be provided by PGCB; Kindly confirm.	Both, works & services and necessary approvals are in the Bidder's scope of works. PGCB will provide necessary support	
227	General	As per our site visit, we understand that existing approach / access road into the switchyards and substation can be used as it is and it will be considered as main road . Kindly confirm.	Yes, complete new Access road, roads inside substation, parking, path lines, etc are in the scope of works	
228	General	As per our site visit, we understand that no work is required at the existing 132kV Control Room Building as per the scope of work. Kindly confirm.	Yes, your understanding is correct	
229	General: Scope of Works	As per bidders site visit, existing 132 KV switchgear has to be removed entirely and handed over in stores. The area is spread with gravel. Kindly clarify if that gravel removal will be part of bidders scope of work and corresponding cultivation has to be done.	Yes	
230	General: Scope of Works	Bidder requests PGCB to clarify whether any Un-used transformers need to be shifted to their selective store or not. Please confirm where Un-used equipment & dismantled equipment will be stored	Yes PGCB will make decision during construction phase	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		(or whether to be stored inside substation area)		
231	General: Scope of Works	We understand that the existing switchgear foundation is not required to be removed & cultivation will be done in rest of free space. Please confirm.	No, your understanding is not correct. All – NOT USED – foundations shall be removed.	
232	**Bidding Document/ Volume 3/ Schedule A/Description of this Package/ 1.2.4 New 230/132 kV Substation Purbasadipur/ D 9.2** Water Spray System	As per our site visit the two (2) existing power transformer 132/33 kV, 50/75 MVA, that has to be connected to the new 132 kV GIS Switchgear has no fire protection system available. Bidder understands that it is not under bidders scope of works to provide the fire protection system for the existing transformers. Kindly confirm.	Yes, your understanding is correct	
233	General: Scope of Works	As per our site visit we understand that rerouting of 33 KV outgoing transmision lines / modifications are not part of bidders scope of work. Kindly confirm	Yes, your understanding is correct	
234	General	Bidder requests PGCB to provide the following: **Sheme of existing RTCC panel/Transformer**	Bidders are kindly invited to visit all required locations	
235	Bidding Document/ Volume 3/ Schedule B: Bid Prices & Schedules	Bidder understands that there is no scope of work for Control, Protection and SAS for 33kV System. Kindly confirm our understanding.	No Please follow the tender requirements and Price Schedule	
236	**Bidding Document/ Volume 3/ Schedule A/Description of this Package/1.2.5 New 230/132 kV Substation Purbasadipur**The existing 33 kV switchgear shall remain on the same position. If possible, all connections with the existing 33 kV switchgear shall remain on the same position. All necessary	As per our site visit, 4 Circuit Breakers and 2 relay panels of 33 KV are not in working condition and these items are not included in the Price schedule. Hence bidder understands it is not under bidders scope of works.	Yes, your understanding is correct Only what is mentioned in Scope of works and in Price Schedule	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	equipment and works shall be provided for connection and integration of existing and new equipment.			
237	General: Scope of Works	As per the understanding during site visit, land filling in the proposed GIS locations and balance area within the boundary has to be done matching the existing 132 /33 kV switchgear level. Kindly confirm.	Yes	
238	**Bidding Document/ Volume 3/ Schedule A/Description of this Package/1.2.5 New 230/132 kV Substation Purbasadipur** De-installation and transport of two existing power transformers 132/33 kV 1 x 20 MVA and 1x25/41 MVA at the location chosen by PGCB no longer than 100 km	Kindly specify the place for transformer transportation & unloading. As per the scope of works, bidder shall be responsible for only removal of existing transformer and its transportation to the PGCB chosen location. Bidder shall **not** be responsible for any sort of re-installation, erection, testing & commissioning work of the transported transformer. Kindly confirm.	PGCB will make decision during the construction phase	
239	Bidding document/Vol-3/Schedule B/Price Schedule 1 & 2 **New 230/132kV Substation, Purbasadipur S. No. Q : GIB and/or Cable connections**	No. of 230kV Line bays is 2, 230 kV Transformer bays is 3, 132 kV Line bays is 4 & 132 kV Transformer bays is 7 for Purbasadipur S/S. No. of Line Bays & Trafo Bays Qty are very high in this S/S, hence Bidder understand that all line bays with XLPE cable will be a technically better solution. Transformer bays can be considered either on GIB or Cable based on the switchyard layout. Please Confirm	Please, see answer 196, Clarification No. 1 and Addendum	
		Extension of existing 230/132kV Substation, Barapukuria		
240	Bidding document/Vol-3/Schedule A/Page No 68	Bidder understands that relocation scope of existing 230kV Transformer bay (Station Transformer for unit 3) is only limited to disconnection of overhead conductor	No All related works and services are in the	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	1.2.7 Extension of the Existing 230/132 kV Substation Barapukuria: The scope of work under this turnkey contract is design, supply, delivery, installation, testing & com- missioning of: • two (2) 230 kV AIS transmission line bays • re-location of the exist-ing 230 kV transformer bay • 230 kV cable connec-tion of one existing 230 kV transformer bay and one new 230 kV trans-mission	& connection thru 230kV XLPE Cable. Same equipment (like LA, BPI etc.) presently connected before station transformer will be reused by the bidder. Bidder do not have any scope to change anything in the existing Relay control panel & SAS for the station transformer bay. Please confirm.	Bidder's scope of works	
	-	One number 230 kV Cable circuit will be used for evacuation of power vis one line and another 230 kV Cable circuit will be used for energization of station transform-er. Both the cable can run in the same underground cable trench which can be con-structed in the available space near fencing area of unit 2 & unit 3. Please confirm.	Yes	
	-	Existing Structure & Foundation of Barapukuria site is not in line with specification of PGCB. Bidder understand that they can follow PGCB specification for structure & foundation for extension area. Please confirm.	Yes and No Bidder has to consider both Bidder has to prepare and provide for approval the Detail design	
241	Bidding document/Vol-2/1. Scope of Work/Clause 1.2.7	Bidder understands that TIE bay protection equipment's (relay etc) are not part of the BOQ items, bidder has to supply the TIE Bay protection equipments as part of adjacent line bay panels. Please confirm.	Complete solution is in the scope of works Bidder has to consider all options Bidder has to prepare and provide for	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	Extension of the Existing 230/132 kV Substation Barapukuria.		approval the Detail design	
242	Bidding document/Vol-2/1. Scope of Work/Clause 1.2.7 Extension of the Existing 230/132 kV Substation Barapukuria.	From the site visit bidder understand that 230/132 KV Bakarpuria Substation is having Mosaic control panel which is not in line with the specification of PGCB. During extension of control panels bidder understand that new control panels should be supplied as per the present specification of PGCB. Please confirm.	Yes and No Bidder has to consider both Bidder has to prepare and provide for approval the Detail design	
243	Volume 3, Page 184, D1: Transformers 5.2.4.1, Sr. no. 2.3	<u>300MVA, 230/132/33kV 3 Phase Auto Transformer</u> As per BOQ of all package and relevant drawings, LV Voltage & Tertiary Voltage requirements are 132kV & 33kV respectively. Where as in GTP, LV voltage & Tertiary Voltage requirements are 135kV & 34.5kV. Both BOQ & GTP are contradictory. So kindly confirm the final requirement of LV voltage & Tertiary voltage.	There are no contradictory Please, follow the tender requirements The name (Nominal voltage) of 300 MVA transformer is: **230/132/33 kV** Rated voltage of 300 MVA transformer windings are: **230 (± 10 x 1,25 %) / 135 / 34,5 kV**	
244	Volume 3, Page 185, D1: Transformers 5.2.4.1, Sr. no. 3.1	<u>300MVA, 230/132/33kV 3 Phase Auto Transformer</u> Since 300MVA is autotransformer, Impedance pattern is very important to make optimum design. As per technical specification or GTP, it is not clear whether autotransformer required with constant ohmic impedance or constant percentage impedance. In past we have quoted both the type of pattern. Also in addition to above, Impedance between HV-TV & LV-TV are also most important parameter to make optimum design. So kindly confirm following two points 1) Impedance Pattern: Constant ohmic or Constant Percentage 2) Impedance requirement of HV-TV & LV-TV at 300MVA.	Please, follow the tender requirements	
245	Volume 3, Page 188,	<u>300MVA, 230/132/33kV 3 Phase Auto Transformer</u>	It shall be like in Technical schedule:	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	D1: Transformers 5.2.4.1, Sr. no. 12	as per GTP, Cooling Groups : total 4 : 3 working + 1 standby. Where as in technical specification, transformer shall be fitted with two coolers or two banks of radiators each capable of dissipating 50%of the losses. Both GTP & technical specification are contradictory. So kindly recheck and reconfirm the final requirement of cooling group.	75 % of the cooling system shall be enough for rated power 25% of the cooling system is reserve	
246	Volume 3, Page 190, D2: Transformers 5.2.4.2, Sr. no. 2.3	<u>120MVA, 132/33kV 3 Phase Power Transformer</u> As per BOQ of all package and relevant drawings, LV Voltage requirement is 33kV. Where as in GTP of all package, LV voltage requirement is 34.5kV. Both BOQ & GTP are contradictory. So kindly confirm the final requirement of LV voltage.	There are no contradictory Please, follow the tender requirements The name (Nominal voltage) of 120 MVA transformer is: **132/33 kV** Rated voltage of 120 MVA transformer windings are: **132 ± 10 x 1,25 % / 34,5 kV**	
247	Volume 3, Page 190, D2: Transformers 5.2.4.2, Sr. no. 3.6.2	<u>120MVA, 132/33kV 3 Phase Power Transformer</u> As per Specifications LV Insulation Level: LI 270 AC 70 (i.e. Instead of LI 170, mentioned value is 270). So kindly reconfirm the LV Insulation Level.	Yes, you are right TYPING MISTAKE 170 kV	
248	Volume 3, Page 193, D2: Transformers 5.2.4.2, Sr. no. 12	<u>120MVA, 132/33kV 3 Phase Power Transformer</u> as per GTP, Cooling Groups: total 4: 3 working + 1 standbys. Where as in technical specification, transformer shall be fitted with two coolers or two banks of radiators each capable of dissipating 50%of the losses. Both GTP & technical specification are contradictory. So kindly recheck and reconfirm the final requirement of cooling group.	It shall be like in Technical schedule: 75 % of the cooling system shall be enough for rated power 25% of the cooling system is reserve	
249	Volume 2, Section-5, Page 212, Clause 5.27	For standardization of operating performance, facilities and spare requirements, the metering devices, together with complete panels to be supplied under this project shall be manufactured by Landis Gyr (Switzerland), CEWE (Sweden), Elster (USA) or SEL (USA) For each substation, the contractor has to foresee one (or more) separate cubicles. During the Design stage, the contractor has to propose the final solution, which shall be subject to the Employer's final approval.	No Please, follow the tender requirements	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		Reputed Global Manufacturing Companies only make complete Meters and never make Metering Panel & Accessories by themselves. Further, as far tariff requirement, the Main and Backup Meters may be from two different manufacturers, in that case panel manufacturing by themselves shall not be feasible. As the expertise of designing of panel lies with reputed companies manufacturing CRP Panel and MV panels such as, ABB, Siemens, GE and others, it is suggested to accept the metering panel manufactured by reputed CRP Panel / MV Panels manufacturers with the approved make of PGCB.		
250	Volume 2, Section-5, Page 212, Clause 5.27.1	Meter Requirements 1. Programmable meter 2. Adjustable different tariff 3. 110-400V flexible input voltage setting 4. 1(10) A current rating 5. Accuracy class to be ±0.2 for kWh and ±0.5 for kVARh 6. RS232/485 port for modem interface 7. Standard metering protocol for remote interface 8. Data storage of 16 channel@30min interval and of 90 days 9. Optical head and software to upload and download of meter data 10. Password protection for programming and for configuration 11. Configurable display, including meter ID, power quadrant display, etc. 12. Provision for quick reading scroll, reset, etc. (programmable) In our opinion, these types of bulk tariff metering require some additional information as below: 1. **Programmable meter:** The Energy meter should be programmable type, so that it can be programmed as 3P3W (3 Phase 3 wire) & 3P4W (3 Phase 4 wire) , CT/PT ratio depending on applications & site requirements. 2. **Energy Meter standard compliance:** All the energy meters across the Bangladesh are complaint to different IEC & EN Standards (IEC 62052-11, IEC 62053-22, IEC 62053-23, IEC 62053-24, IEC 62056-52, IEC 61010-1, IEC 61010-2-030, CE, MID (EN 50470-1, EN 50470-3), so it should be mentioned in tender document to avoid any confusion at later stage. 3. **Communication Protocol for Modem Communication through RS232 or RS485:** All across Bangladesh the open communication protocol named "DMLS-IEC 62056-26" protocol is	Noted	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		used for Modem Communication, so it should be mentioned in the Tender document to avoid any confusion at later stage. 4. **Inbuilt Modem Support:** The modem to be powered up by Energy meter itself to avoid requirement of external auxiliary supply. 5. **Communication Protocol for SAS/ SCADA Communication:** To integrate the Energy meter with SAS/ SCADA generally Modbus / IEC61850 communication is used. So it should be mentioned that Energy meter must be having inbuilt Modbus & IEC61850 communication protocol support considering the ease of integration of energy meter with SAS/SCADA. In most of the European countries IEC61850 is preferred for SAS/SCADA communication due to fast speed, reduction in wiring & integration cost. 6. **Meter Sealing & Temper proof feature :** As per the IEC requirement all revenue meter should be compliant to all meter sealing feature and temper proof. So Energy meters must have 5 Nos. of meter sealing points (CT/ PT Terminals, MD Button sealing, Terminal cover sealing, Optical Port sealing, ETBC cover sealing). 7. **Alarms & Events:** The Energy meters should be able to record more than 100+ Events and alarms defined in IEC standard. So it should be mentioned in the tender document considering the safety and security feature. Please confirm the above information to be provided with the Meter Requirement.		
251	Section III: Evaluation and Qualification Criteria (Volume 1 and volume 2) Clause 2.7 Manufacturers/Subcontractors (item no. 7 -Substation Automation system and Protection Relays)	We understand that any manufacturer / supplier who meets the mentioned qulification requirements can be cnsidered by contractor for suppling the equipment for this project. Please confirm.	We don't understand your question	
252	Section III: Evaluation and Qualification Criteria (Volume 1 and volume 2) Clause 2.7 Manufacturers/Subcontractors (item no. 6 - Surge arrester)	We understand that any manufacturer / supplier who meets the mentioned qulification requirements can be cnsidered by contractor for suppling the equipment for this project. Please confirm.	We don't understand your question	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
253	Section III: Evaluation and Qualification Criteria (Volume 1 and volume 2) clause 2.7 Manufacturers/Subcontractors (item no. 2 - Gas Insulated Switchgear)	We uderstand that we can offer 132 kV GIS from manufacturer who meets the qualification requirements of min. 132 kV instead of 220 kV. Pls confirm.	We don't understand your question Please, follow the tender requirements	
254	Section III: Evaluation and Qualification Criteria (Volume 1 and volume 2) clause 2.7 Manufacturers/Subcontractors (item no. 2 - Gas Insulated Switchgear)	We understand that independent lab type test report will also be accepted. Pls confirm	We don't understand your question Please, follow the tender requirements	
255	General	We request you to furnish us the geo-tech report for all 8 site locations.	Bidders are kindly invited to visit all required locations	
256	General	Since the design for civil engineering is in Bidder's scope, we request you to furnish us the coutour survey report for all locations for us to be able to estimate the earthfilling correctly.	Bidders are kindly invited to visit all required locations	
257	Volume 3 - Schedule A: Introduction and Preamble to the Price and Technical Schedules clause 1.1 Description of the Overall Project	We request you to let us have the drawings referred to in the mentioned clause.	Bidders are kindly invited to visit all required locations	
258	Volume 3 - Schedule A: Introduction and Preamble to the Price and Technical Clause 1.2.1 New 230/132 kV Substation Feni	We understand that the referred connection of 500 metres is not in Bidder's scope. Pls confirm.	We don't understand your question If the question is related to transmission line, the answer is yes, the transmission line is not in the scope of work	
259	Volume 3 - Schedule A: Introduction and Preamble to the Price and Technical Schedules clause 1.2.1 New 230/132	We eunderstand that the referred connections of 2,500 metres and 4,000 metres are not in Bidder's scope. Pls confirm.	We don't understand your question If the question is related to transmission line, the answer is yes, the transmission line is not in the scope of work	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	kV Substation Feni			
260	Volume 3 - Schedule A: Introduction and Preamble to the Price and Technical Schedules clause 1.2.4 New 230/132 kV Substation Naogaon	Please clarify whether the mentioned transformers are required to be re-installad and commissioned?	No	
261	Volume 3 - Schedule A: Introduction and Preamble to the Price and Technical Schedules clause 1.2.4 New 230/132 kV Substation Naogaon	Contractor shall not be responsible for warranty of the mentioned transformers after relocation. Pls confirm.	Confirmed	
262	Volume 3 - Schedule A: Introduction and Preamble to the Price and Technical Schedules clause 1.2.4 New 230/132 kV Substation Naogaon	We understand that the strengthening of roads / bridges if required for shifting the mentioned transformers shall not be in contractor's scope. Please confirm.	No, all related works and services ARE in the scope of works	
263	Volume 2 clause 1. Scope of Works	We request you to let us know the length of access road to be constructed for all substation sites.	Bidders are kindly invited to visit all required locations	
264	General	We understand that the land for carrying out the construction works in thisproject at all locatons is under PGCB possession.	Yes	
265	Volume 1 Article 3 Effective Date	Please confirm the duration of handing over of land for all the sites after issuance of NOA by PGCB.	According to the tender documents	
266	Volume 1 - Location of Bogra Substation	As per co ordinates mentioned in Volume 1, plot of the site crosses road (Bogra). However, as per the image posted in Volume 1, the plot is limited to one side of the road. Pls confirm exact site location.	Bidders are kindly invited to visit all required locations	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
				
267	General	We understand all the ROW and liasioning pertaining to land acquisition shall be in PGCB scope. Please confirm.	Yes	
268	IFB	Please confirm whether the Contract will be divisible (Supply+ Civil+ Erection) OR a Single Contract.	Please, follow the tender requirements	
269	Volume 3 GTP 5.2.4.2 sr.no. 2.3 in Package 1.1, 5.2.3.1 sr.no. 2.3 in Package 2.1, 3.1 & 4.1 & BOQ	Both BOQ & GTP are contradictory. So kindly confirm the final requirement of LV voltage.	We don't understand your question If this is related to power transformer, please see the previous answers	
270	Volume 3 GTP 5.2.4.2 sr.no. 3.6.2 in Package 1.1, 5.2.3.1 sr.no. 3.6.2 in Package 2.1, 3.1 & 4.1	seem its look like typographical error (i.e.instead of LI 170, mentioned value is 270). So kindly reconfirm the LV Insulation Level.	Yes, your understanding is correct TYPING MISTAKE 170 kV	
271	Volume 3 GTP 5.2.4.2 sr.no. 12 in Package 1.1, 5.2.3.1 sr.no. 12 in Package 2.1, 3.1 & 4.1 & 4.3.1 in technical specification.	Both GTP & technical specification are contradictory. So kindly recheck and reconfirm the final requirement of cooling group.	It shall be like in Technical schedule: 75 % of the cooling system shall be enough for rated power 25% of the cooling system is reserve	
272	Volume 3 GTP 5.2.4.1 sr.no. 2.3 in Package 1.1,	Both BOQ & GTP are contradictory. So kindly confirm the final requirement of LV voltage & Tertiary voltage.	We don't understand your question If this is related to power transformer, please see the previous answers	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	& BOQ			
273	Volume 3 GTP 5.2.4.1 sr.no. 3.1in Package 1.1	Since 300MVA is auto transformer, Impedance pattern is very important to make optimum design. As per technical specification or GTP, it is not clear whether auto transformer required with constant ohmic impedance or constant percentage impedance. In past we have quoted both the type of pattern. Also in addition to above, Impedance between HV-TV & LV-TV are also most important parameter to make optimum design. So kindly confirm following two points 1) Impedance Pattern : Constant ohmic or Constant Percentage 2) Impedance requirement of HV-TV & LV-TV at 300MVA.	Please, follow the tender requirements	
274	Volume 3 GTP 5.2.4.2 sr.no. 12 in Package 1.1, & 4.3.1 in technical specification.	Both GTP & technical specification are contradictory. So kindly recheck and reconfirm the final requirement of cooling group.	It shall be like in Technical schedule: 75 % of the cooling system shall be enough for rated power 25% of the cooling system is reserve	
275	Section VIII: Special Conditions of Contract (SCC) clause 14 Taxes and duties	Kindly clarify ABB India Limited being an Exporter for the said Bid how to pay Customs Duty for Plant and Equipment being imported in Bangladesh	Please follow the bid documents.	
276	Section VIII: Special Conditions of Contract (SCC) clause 14 Taxes and duties	Kindly clarify ABB India Limited being an Exporter for the said Bid how to pay VAT on Plant and Equipment being imported in Bangladesh.	Please follow the bid documents.	
277	Section VIII: Special Conditions of Contract (SCC) clause 14 Taxes and duties	We understand that all the Customs duties, VAT, AIT and other relevant duties and taxes shall be borne by the employer. Pls confirm our understanding.	Your understanding is not correct. Please follow the bid documents.	
278	Section VIII: Special Conditions of Contract (SCC) clause 14 Taxes and duties	We understand that the VAT is applicable only on on-shore services quoted in Price Schedule No.4. Pls confirm our understanding.	Please follow the bid documents. It is clearly explained in the clause SCC 14.1 & 14.2.	
279	Section VIII: Special Conditions of Contract (SCC) clause 14.1 Taxes and duties	Please let us know for price quoted in which Price schedule shall AIT be deducted.	Please follow the bid documents. It is clearly explained in the clause SCC 14.1 & 14.2	
280	Section VIII: Special Conditions of Contract (SCC)	We request you to let us know the % of AIT that shall be deducted fro our payment.	AIT shall be deducted as per law of the Employer's country	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	clause 14.1 Taxes and duties			
281	Section IX: Contract Forms Appendix 1 - Terms and Procedures of Payment B. Payment Procedures	We request you to disburse the payment through irrevocable Letter of credit to be opened in the name of the contractor, within 30 days from effectiveness of contract..	No	
282	Section IX: Contract Forms Appendix 3 - Insurance Requirements	We request you to allow us to avail project specific insurance from other agency apart from Sadharan Bima Corporation, Bangladesh	No	
283	Section IX: Contract Forms Article 3 Effective Date	If all of the above are not achieved latest within 2 months from date of the Notification of the Award for reasons attributable to the Employer then contract price and schedule shall be adjusted in mutual agreement between the Parties.	No	
284	Volume 1 GCC Clause 9.3	The Contractor shall acquire all other permits, approvals and or licenses that are required on Contractor's name and that are applicable to its scope of the work and that are not the responsibility of the Employer under GC Sub-Clause 10.3 hereof and that are necessary for the performance of the Contract.	No	
285	GCC and SCC	All obligations under the contract shall be treated as site wise obligations and we understand the payment / LD / guarantees / warranties shall be site wise. Pls confirm.	No	
286	Volume 1 Section IX: Contract Forms Appendix 3 - Insurance Requirements	We request you to let us know a contact in Sadharan Bima Corporation to discuss the insurance cover to be availed for this project.	Bidders are kindly requested to inform themselves	
287	Volume 1 Section VII: General Conditions of Contract (GCC) clause 43. Assignment (43.1	Notwithstanding anything stipulated in the Tender ABB may transfer or assign, directly or indirectly, any or all of its rights or obligations under this agreement without the prior written consent of the other party to another legal entity of ABB Group or to an affiliate of the ABB-SNC Lavalin joint venture created by both SNC Lavalin and ABB Group in the context of EPC substations or any subsidiary of this joint venture. This agreement, and the obligations hereunder, shall be binding upon the parties hereto, their successors and permitted assigns.	No	
288	Bid price schedule Mandatory spares	We request you to furnish us a list of mandatory spares to be quoted in this Bid.	Please, follow the tender requirements There are no separate list of spare parts SPECIAL TOOLS: One complete portable SF6 gas filling & evacuation plant (DILO) and one SF6 gas leak detector shall be provided for complete lot (not for each substation)	

<table>
<tr><th>No.</th><th>Volume / Section / Clause / Item / Page</th><th>Bidder's comment / Query / Clarification</th><th>PGCB's Reply / Clarification</th><th>Add. Y/N</th></tr>
<tr><td></td><td></td><td></td><td>Price shall be included in GIS equipment, not separately

You can use those equipment for installation testing and commissioning

You have to provide training at site during installation, testing and commissioning for PGCB personal</td><td></td></tr>
<tr><td>289</td><td>Volume 2 scope of works and price schedule</td><td>We request you to specify the quantity of earth filling in the price schedule for all sites.</td><td>Bidders are kindly invited to visit all required locations</td><td></td></tr>
<tr><td>290</td><td>Volume 2 scope of works and price schedule</td><td>We request you to specify the quantity of boundary wall to be constructed for respective sites in the price schedule.</td><td>Bidders are kindly invited to visit all required locations</td><td></td></tr>
<tr><td>291</td><td>Volume 2 scope of works and price schedule clause 1.2.4</td><td>Please let us know whether the contractor is required to dismantle the foundations of the equipment.</td><td>YES
All – NOT USED – foundations shall be removed.</td><td></td></tr>
<tr><td>292</td><td>Volume 2 scope of works and price schedule clause 1.2.4</td><td>If the foundtions are to be dismantled, please let us know upto what depth are we required to carry out the dismantlng works below ground.</td><td>1 meter</td><td></td></tr>
<tr><td>293</td><td>Volume 2 scope of works 5. Protection, Metering and Control - Clause 5.27</td><td>We request you to allow us to propose metering panels from vendors other than those mentioned, since these manufacturers do not manufacture tariff metering panels.</td><td>Noted</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>294</td><td></td><td>FENI 230 kV GIS SS
From the clarification number 27, Clarification 1 w understand that in Feni 230 kV GIS SS all 230 kV Surge Arrester should be outdoor GIS type in that case there is no requirement of outdoor type AIS Surge Arrester if so the quantity of line item related to 192 kV Surge Arrester should be amended in the following way
<table>
<tr><td>A5</td><td>Surge arrester 245kV, 192kV continuous operating voltage, 10kA nominal discharge current, 50Hz, single phase, heavy duty, station class, gapless, metal oxide type</td><td>Set</td><td>0</td></tr>
</table></td><td>Please, see Addendum</td><td></td></tr>
<tr><td>295</td><td></td><td>FENI 230 kV GIS SS
From the clarification number 27, Clarification 1 we understand that 4r set 132 kV</td><td>Please, see Addendum</td><td></td></tr>
</table>

<table>
<tr><th>No.</th><th>Volume / Section / Clause / Item / Page</th><th>Bidder's comment / Query / Clarification</th><th>PGCB's Reply / Clarification</th><th>Add. Y/N</th></tr>
<tr><td></td><td></td><td>GIS line feeder should be cable connection type and rest four set line feeder & 3 set TR feeder should be GIB connection type. We also understand that for GIB connection type feeder all surge arrester should be outdoor GIS type. For only four set cable connection type 132 kv GIS feeder, outdoor AIS LA should be used. If so the quantity of line item related to 132 kV Surge Arrester should be amended in the following way
<table>
<tr><td>B5</td><td>Surge arrester 145kV, 120 kV continuous operating voltage, 10kA nominal discharge current, 50Hz, single phase, heavy duty, station class, gapless, metal oxide type</td><td>Set</td><td>12</td></tr>
</table></td><td></td><td></td></tr>
<tr><td>296</td><td></td><td>FENI 230 kV GIS SS
From the clarification number 27, Clarification 1 we understand that 4 set 132 kV GIS line feeder should be cable connection type. In line item BG.1, outdoor type GIS surge arrester (SA) is mentioned as equipment details for all 8 set.

For cable connection type GIS, outdoor GIS type surge arrester (which is mentioned in product description) will not be provided. Hence, we request you to amend the price schedule deleting outdoor type GIS SA for 4 set 132 kV cable connection type line feeder. Otherwise will create a big problem during FAT, PLI, despatch clearance, bill claim & project audit period.</td><td>Please, see Addendum</td><td></td></tr>
<tr><td>297</td><td></td><td>BIRULIA 230 kV GIS SS
From the clarification number 27, Clarification 1 w understand that in Birulia 230 kV GIS SS all 230 kV Surge Arrester should be outdoor GIS type in that case there is no requirement of outdoor type AIS Surge Arrester if so the quantity of line item related to 192 kV Surge Arrester should be amended in the following way
<table>
<tr><td>A5</td><td>Surge arrester 245kV, 192kV continuous operating voltage, 10kA nominal discharge current, 50Hz, single phase, heavy duty, station class, gapless, metal oxide type</td><td>Set</td><td>0</td></tr>
</table></td><td>Please, see Addendum</td><td></td></tr>
<tr><td>298</td><td></td><td>BIRULIA 230 kV GIS SS
From the clarification number 27, Clarification 1 we understand that 4 set 132 kV GIS line feeder should be GIB connection type & 3 set TR feeder should be GIB connection type. We also understand that for GIB connection type feeder all surge arrester should be outdoor GIS type. If so the quantity of line item related to 132 kV Surge Arrester should be amended in the following way</td><td>Please, see Addendum</td><td></td></tr>
</table>

<table>
<tr><th>No.</th><th>Volume / Section / Clause / Item / Page</th><th>Bidder's comment / Query / Clarification</th><th>PGCB's Reply / Clarification</th><th>Add. Y/N</th></tr>
<tr><td></td><td></td><td><table><tr><td>B5</td><td>Surge arrester 145kV, 120 kV continuous operating voltage, 10kA nominal discharge current, 50Hz, single phase, heavy duty, station class, gapless, metal oxide type</td><td>Set</td><td>9</td></tr></table></td><td></td><td></td></tr>
<tr><td>299</td><td></td><td>NAOGAON 230 kV GIS SS
From the clarification number 27, Clarification 1 w understand that in Naogaon 230 kV GIS SS all 230 kV Surge Arrester should be outdoor GIS type in that case there is no requirement of outdoor type AIS Surge Arrester if so the quantity of line item related to 192 kV Surge Arrester should be amended in the following way<table><tr><td>A5</td><td>Surge arrester 245kV, 192kV continuous operating voltage, 10kA nominal discharge current, 50Hz, single phase, heavy duty, station class, gapless, metal oxide type</td><td>Set</td><td>0</td></tr></table></td><td>Please, see Addendum</td><td></td></tr>
<tr><td>300</td><td></td><td>Naogaon 230 kV GIS SS
From the clarification number 27, Clarification 1 we understand that for 3 set 132 kV outdoor GIB type GIS TR feeder, outdoor GIS type surge arrester will be used. If so the quantity of line item related to 132 kV Surge Arrester should be amended in the following way<table><tr><td>B5</td><td>Surge arrester 145kV, 120 kV continuous operating voltage, 10kA nominal discharge current, 50Hz, single phase, heavy duty, station class, gapless, metal oxide type</td><td>Set</td><td>30</td></tr></table></td><td>Please, see Addendum</td><td></td></tr>
<tr><td>301</td><td></td><td>Naogaon 230 kV GIS SS
From the clarification number 27, Clarification 1 we understand that 4 set 132 kV TR feeder & 6 set 132 kV Line feeder will be cable connection type. We also understand that for GIB connection type feeder all surge arrester should be outdoor GIS type.

For cable connection type GIS, outdoor GIS type surge arrester (which is mentioned in product description) will not be provided. Hence, we request you to amend the price schedule deleting outdoor type GIS SA for cable connection type 4 set 132 kV TR feeder & 6 set 132 kV Line feeder. Otherwise will create a big problem during FAT, PLI, despatch clearance, bill claim & project audit period.</td><td>Please, see Addendum</td><td></td></tr>
<tr><td>302</td><td></td><td></td><td></td><td></td></tr>
</table>

<table>
<tr><th>No.</th><th>Volume / Section / Clause / Item / Page</th><th>Bidder’s comment / Query / Clarification</th><th>PGCB’s Reply / Clarification</th><th>Add. Y/N</th></tr>
<tr><td>303</td><td></td><td>PURBASADIPUR 230 kV GIS SS
From the clarification number 27, Clarification 1 w understand that in Purbasadipur 230 kV GIS SS all 230 kV Surge Arrester should be outdoor GIS type in that case there is no requirement of outdoor type AIS Surge Arrester if so the quantity of line item related to 192 kV Surge Arrester should be amended in the following way
<table>
<tr><td>A5</td><td>Surge arrester 245kV, 192kV continuous operating voltage, 10kA nominal discharge current, 50Hz, single phase, heavy duty, station class, gapless, metal oxide type</td><td>Set</td><td>0</td></tr>
</table></td><td>Please, see Addendum</td><td></td></tr>
<tr><td>304</td><td></td><td>Purbasadipur 230 kV GIS SS
From the clarification number 27, Clarification 1 we understand that for 3 set 132 kV outdoor GIB type GIS TR feeder & 4 set 132 kV outdoor GIB type GIS line feeder, outdoor GIS type surge arrester will be used. If so the quantity of line item related to 132 kV Surge Arrester should be amended in the following way
<table>
<tr><td>B5</td><td>Surge arrester 145kV, 120 kV continuous operating voltage, 10kA nominal discharge current, 50Hz, single phase, heavy duty, station class, gapless, metal oxide type</td><td>Set</td><td>12</td></tr>
</table></td><td>Please, see Addendum</td><td></td></tr>
<tr><td>305</td><td></td><td>Purbasadipur 230 kV GIS SS
From the clarification number 27, Clarification 1 we understand that 4 set 132 kV TR feeder will be cable connection type. We also understand that for GIB connection type feeder all surge arrester should be outdoor GIS type.

For cable connection type GIS, outdoor GIS type surge arrester (which is mentioned in product description) will not be provided. Hence, we request you to amend the price schedule deleting outdoor type GIS SA for cable connection type 4 set 132 kV TR feeder. Otherwise will create a big problem during FAT, PLI, despatch clearance, bill claim & project audit period.</td><td>Please, see Addendum</td><td></td></tr>
<tr><td>306</td><td></td><td>NAOGAON 230 kV SS

We understand that drawing provided for tender is only for preliminary purpose, as several material and equipment are provided in lot, we need to calculate several items based on the provided layout.

Following the layout provided in tender document new 132 kV gantry location is placed with-in the existing SS. Should we consider this position or the existing 132 kV gantry position for</td><td>Yes</td><td></td></tr>
</table>

<table>
<tr><th>No.</th><th>Volume / Section / Clause / Item / Page</th><th>Bidder’s comment / Query / Clarification</th><th>PGCB’s Reply / Clarification</th><th>Add. Y/N</th></tr>
<tr><td></td><td></td><td>new 132 kV line.</td><td></td><td></td></tr>
<tr><td>307</td><td></td><td>Naogaon 230 kV SS & Purbasadipur 230 kV SS

Line item Q3.1 referred to the requirement of 33 kV 800 A cable for the connection of for 4 set 132/33 kV TR with existing 33 kV switchyard and for the connection of tertiary side of 230/132/33 kV with 33 kV earthing TR

a) If so existing 33 kV switchyard is parallel and very close to 132/33 kV TR location. Hence requirement of 33 kV 800 A cable for this purposes is not foreseen. We request you to amend the requirement.

Also 33 kV 800 A cable is not the proper requirement for the connection between tertiary side of 230/132/33 kV with 33 kV earthing TR. We request you to amend the requirement.</td><td>Please, see Addendum</td><td></td></tr>
<tr><td>308</td><td></td><td>Naogaon 230 kV SS & Purbasadipur 230 kV SS

We understand that several existing building & existing switchyard are required to be demolished and uprooted. If so Can we use the existing gravel, which will be available after the uprooting of switchyard?</td><td>Conditionally Yes, if the quality of material is sufficient and according to the requirements</td><td></td></tr>
<tr><td>309</td><td></td><td>Bogra 230 kV SS
As per price schedule line item G1.1; SAS would be used for two line bays of 230 kV SS. But for extension of two line bays using SAS is not cost efficient. If so the quantity of line item related to 230 kV should be amended in the following way.Otherwise will create a big problem during FAT, PLI, despatch clearance, bill claim & project audit period.
<table>
<tr><td>G1.1</td><td>Control, Protection and set for 230 kV Overhead Line circuit, (including the other end)</td><td>Set</td><td>2</td></tr>
</table></td><td>Please, see Addendum

Extension of SAS is not required for Substation BOGRA, BARAPUKURIA and NIAMATPUR</td><td></td></tr>
</table>

<table>
<tr><th>No.</th><th>Volume / Section / Clause / Item / Page</th><th>Bidder's comment / Query / Clarification</th><th>PGCB's Reply / Clarification</th><th>Add. Y/N</th></tr>
<tr><td>310</td><td></td><td>Niamatpur 132 kV SS
As per price schedule line item G1.1; SAS would be used for one line bay. However, for extension of one line bay using SAS is not cost efficient. If so the quantity of line item related to 230 kV should be amended in the following way. Otherwise will create a big problem during FAT, PLI, despatch clearance, bill claim & project audit period.
<table><tr><td>G1.1</td><td>Control, Protection and set for 132 kV Overhead Line circuit, (including the other end)</td><td>Set</td><td>1</td></tr></table></td><td>Please, see Addendum

Extension of SAS is not required for Substation BOGRA, BARAPUKURIA and NIAMATPUR</td><td></td></tr>
<tr><td>311</td><td></td><td>From the clarification number 125, 185,189 , Clarification 1 we understand that irrespective of the description of testing equipment as per section 3, Volume 2; we only need to provide 1 set of complete SF6 Gas filled & evacuation plant (DILO) and 1 set SF6 gas leak detector for each lot/ package not for each SS. Kindly clarify</td><td>No, your understanding is not correct.

The minimum required SPECIAL TOOLS for SF6 gas operation is:

One complete portable SF6 gas filling & evacuation plant (DILO) and one SF6 gas leak detector shall be provided for complete lot (not for each substation)

Price shall be included in GIS equipment, not separately

You can use those equipment for installation testing and commissioning

You have to provide training at site during installation, testing and commissioning for PGCB personal

All other necessary testing and other equipment shall be provided according to the tender requirements</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td>Commercial & Contractual Queries</td><td></td><td></td></tr>
<tr><td>312</td><td>Volume 2, Clause 5.2,</td><td><u>Clause 1:</u> For standardization of operating performance, facilities and spare re-</td><td>Your understanding is partly correct.</td><td></td></tr>
</table>

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	Page 173 Volume 2, Clause 14.1, Page 360	quirements, the protection relays and control systems, together with complete panels to be supplied under this project shall be manufactured by ABB (Switzerland/Sweden), Alstom/GE (France / UK), Siemens (Germany), or SEL (USA). *Clause 2:* The Manufacturer of Telecommunication system - Fibre optic multiplexer equipment for communication and protection shall be: ABB, GE (former Alstom), ZTE or HUAWEI. Only Manufacturer Authorization Letter is required to be submitted with the bid. Since, above mentioned manufacturers are approved, all other requirements mentioned in sub-clause 2.7. of Section 3 of Volume 1 are not required. **In *clause 2* it is mentioned Manufacturer Authorization Letter only is required for approved manufacturers. From this, we understand that Manufacturer authorization letter is only required to be submitted for the above approved CRP & SAS Manufacturers and all other requirements mentioned in sub-clause 2.7. of Section 3 of Volume 1 for CRP & SAS Manufacturer is not required. Kindly confirm**	For Qualification, only Manufacturer's Authorization letter is required But all other technical documents: technical data sheets, drawings, etc shall be provided	
313	Volume 2, Clause 5.18, Page 190 Volume 2, Clause 14.1, Page 360	*Clause 1:* For the purpose of standardization, the DFDR to be supplied under this project shall be from Qualitrol (Belgium), SIEMENS (Germany) or SEL (USA). *Clause 2:* The Manufacturer of Telecommunication system - Fibre optic multiplexer equipment for communication and protection shall be: ABB, GE (former Alstom), ZTE or HUAWEI. Only Manufacturer Authorization Letter is required to be submitted with the bid. Since, above mentioned manufacturers are approved, all other requirements mentioned in sub-clause 2.7. of Section 3 of Volume 1 are not required. **In clause 2 it is mentioned Manufacturer Authorization Letter only is required for approved manufacturers. From this, we understand that Manufacturer au-**	Your understanding is partly correct. For Qualification, only Manufacturer's Authorization letter is required But all other technical documents: technical data sheets, drawings, etc shall be provided	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		thorization letter is only required to be submitted for the above approved DFDR Manufacturers and all other requirements mentioned in sub-clause 2.7. of Section 3 of Volume 1 for DFDR Manufacturer is not required. Kindly confirm		
314	Volume 1, Appendix 1 - Terms and Procedures of Payment, Page IX-7	*Clause:* • Five percent (5%) of the total or pro rata CIP or amount upon issue of the Completion Certificate, within forty-five (45) days after receipt of invoice. • Five percent (5%) of the total or pro rata CIP or amount upon issue of the Operational Acceptance Certificate, within forty-five (45) days after receipt of invoice. **We understand that completion certificate and operational certificate can be obtained location wise and payment of final 10% will be released location wise. Kindly confirm.**	No, your understanding is not correct	
315	Volume 1, SCC 27, Page VIII-15	Clause: The Defect Liability Period shall be twelve (12) months from the date of Operational Acceptance of facilities for all equipment/materials. We understand that Defect liability period will be applicable location wise. i.e., Defect liability period will start for a particular location on operational acceptance of that particular location. Kindly confirm.	No, your understanding is not correct	
316	PGCB Clarification sl.no 620	*Sl.no 620 Query:* "As per clause 1.3, Section VI, Vol 1 of 3 (type test requirements) we understand that, Type test requirements..... We understand that, notwithstanding with any other statements/clauses to meet the type test requirements we need to fulfill the above criteria irrespective of issuance date of type test report/certificate. Kindly confirm over our understanding." **From the PGCB clarification for the above query, we understand that type test for GIS shall not be older than 10 years at the time of submittal and for other equipment it can be of any issuance date. Kindly confirm.**	Yes, your understanding is generally correct Please, follow the tender requirements	
317	Volume 1, EQC 2.7, Page III-11	*Clause* : Minimum average delivery over the last 3 years of one hundred (100) 220 kV or higher rating circuit breakers/Disconnectors/Instrument transformers/Surge arrester.	Please, follow the tender requirements Not only average delivery in last X years shall be confirmed	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		We understand that for the qualification of above, supply record for last 3 years on manufacturer letter head will be sufficient. Kindly confirm that our understanding is correct. If not kindly specify the documents required to submit against the referred clause.	Manufacturer's official documents and required number of customer's confirmation are required	
318	Volume-I, SCC 14.2 b, Page VIII-7 Price schedules PGCB clarification No. 6	*Clause :* 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. **(i) EOT Crane** **(ii) Steel required for building construction and foundations** **Above mentioned items are to be included in civil works under price schedule No.4. Kindly confirm if these items are imported, whether VAT and custom duties will be borne by employer.**	No Please, follow the tender requirements	
319	Volume-I, Section IV, 4. Bid security.	We presume that following to be filled in Address of beneficiary (contracting agency) in bid security: **The Company Secretary** **Power Grid Company of Bangladesh Limited** **Institution of Engineers Bangladesh (IEB) Building, 4th Floor** **8/A Ramna, Dhaka-1000, Bangladesh.** Kindly confirm.	No Please follow the information from Time Extension Notice and Head Office Address Change	
320	Site visit points	We understand from site visit that there are large trees present in the proposed substation locations like Naogoan and Purbasadipur and tree cutting charges will be borne by contractor. We presume that approvals required (if any) for tree cutting shall be obtained by Employer. Kindly confirm.	Both, works & services and necessary approvals are in the Bidder's scope of works. PGCB will provide necessary support	
		Electrical Queries		
321A	Vol-1, 3.4 Environmental and Social Features of the Subproject, Table -3-2, Feni Substa-	In the referred clause, all substation plot co-ordinates are specified. However, these plot co-ordinated are not matching with drawings co-ordinates which is given in vol.2, Chapter -17. As the plot co-ordinates are contradicting in the Vol.1 & drawings, please furnish the actual plot co-ordinates or plot dimension for Feni station.	Drawings are preliminary and for tender purpose only	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	tion Page VI-A-7			
321B	Vol-1, Table 3-3: Summary of Important Features of Naogaon Substation Area Page VI-A-11	Based on the plot co-ordinates given in the referred table, we understand that co-ordinates given are only for new plot area. However as per drawing we understand that existing substation area also shall be utilized for the new Naogaon substation. Please check and confirm.	Drawings are preliminary and for tender purpose only	
322	Vol-2, Drawing no. FEN/1.1/2, NEW 230/132 kV GIS SUB-STATION FENI SIN-GLE LINE DIAGRAM	As per referred drawing, Voltage transformer is shown in 132kV transformer bay alone. However, as per bid price schedule, Sl No. BG.1, Voltage transformer has been envisaged for 132kV line bay instead of transformer bay. Please check and confirm the requirement of voltage transformer in 132kV GIS line & transformer bays.	Please, follow the Price Schedule Please, see Clarification No. 1 and Ad-dendum	
323	Vol.3, GTP 5.2.4.1 sr.no. 3.1	Please furnish the following parameter regarding 300MVA, 230/132/33kV auto-transformer: 1) Impedance Pattern : Constant ohmic or Constant Percentage type? 2) Impedance between HV-TV and LV-TV at 300MVA.	Please, follow the tender requirements	
324	Vol.3, GTP 5.2.4.2 sr.no. 3.1	Please furnish the impedance pattern of 132/33kV, 120MVA transformer i.e. Con-stant ohmic or Constant Percentage type?	Please, follow the tender requirements	
325	Vol.2, Clause no. 13.25 & 13.26	As per referred clause, Security lighting around the perimeter wall/fence is to be provided. However, there is no line item available for security lighting in BPS. Please check and add a separate line item for security lighting if required.	Lighting shall be included in item N1.X or N1.XE	
326	Vol.2, Chapter -16-Power Cables and Cable Terminating Ac-cessories	Please furnish the GTP for 230kV & 132kV Power cable & Cable Terminating Ac-cessories as the same is not available in vol.3	Please, follow the tender requirements	
327	Vol.2, Extension of ex-isting 230/132kV sub-station at Bogra & Ex-tension of existing 132/33kV AIS substa-tion at Nimatpur	As per site visit we understand that MS flat is used as main earth mat conductor in existing Bogra & Niamatpur station. However as per specification, clause no. 7.7.3, Main earth mat conductor shall be copper strip. In this regard, please check and con-firm that which material shall be used for extension of existing earth mat in exten-sion station.	According to the tender requirement, earth conductor shall be Cu	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
328	Vo.I.2, New 230/132kV Substation Naogaon & Purbasadipur	As per scope of work, LV side of 132/33kV,120MVA transformer shall be connected with 33kV cable. However as per vol.3, sl no. Q3.1, 33kV cable rating shall be 36 kV, 800 A, 25 kA / 1 sec, 50 Hz. But based of transformer rating, 33kV side current rating shall be 2100A approx. Hence please check and confirm the ampacity requirement of 33kV cable for LV side of 132/33kV transformer connection.	Yes, your understanding is correct Please, see Addendum and revised Price Schedule	
329	Vo.I.3, Schedule -1, New 230/132kV Substation Purbasadipur, SL no.Q2.1	As per referred item, 132kV Bus duct or cable quantity is given for only 8 lot. However as per scope of work, total 132kV bays including line & transformer bays shall be 11 numbers. Please check and revise the bid price schedule accordingly.	Yes, your understanding is correct Power transformers 230/132 kV shall be connected by GIB (included in the item BG2.1) Power transformers 132/33 kV and Transmission Lines 132 kV shall be connected by the Cable 132 kV (item Q2.1) Please, see Addendum and revised Price Schedule	
330	Vo.I.3, Schedule -1, Extension of 230/132 kV Substation Barapukuria, Sl no. Q 1.2	Please furnish the following for Barapukuria station: a) MVA Loading of 230kV Line b) Capacity of existing Generator transformer in MVA	Bidders are kindly invited to visit all required locations	
331	Vo.I.2, Clause-5.2, The protection relays and control systems, together with complete panels to be supplied under this project shall be manufactured by ABB (Switzerland/Sweden), Alstom/GE (France / UK) Siemens (Germany) or	We presume that only main relays and SAS has to be procured from the list of manufacturers mentioned in Cl.5.2. In this regard we presume the following: a) Bidder can supply Indian make panels & auxiliary relays b) Assembly and testing of can be done at local factory in India. Please confirm.	No Please, follow the tender requirements	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	SEL (USA) Page-173			
332	Vo.I.3, Schedule -1, Sl no. BG.3.1, Bus sectionalizer bay (Applicable for Feni, Birulia, Naogaon & Purbasadipur)	For Bus sectionalizer bay, current transformers are not indicated in the BPS & SLD. In this regard, we request PGCB to check how the protection requirements of Circuit breaker is taken care without Current transformers.	Please, follow the tender requirement	
333	Vo.I.3, Schedule -1, Sl no. BG.3.1, Bus sectionalizer bay (Applicable for Feni, Birulia, Naogaon & Purbasadipur)	As Bus sectionalizers are envisaged, please check and confirm the requirement of Bus-coupler bays on both sides of the Bus sections.	Please, follow the tender requirement	
334	Vo.I.3, Schedule -1, Sl no. G4.XE, Extension of existing tariff metering	We understand that extension shall mean supply of tariff meters for the new bays & installation of the same in the existing tariff metering panel. Please confirm.	Yes and No Extension means new metering for new bays But, they may or may not be install in the existing panels, depend on the actual situation on site	
335	Vo.I.3, Clause 1.2.5, Page-49	As per the scope of works for Purbasadipur substation, dismantling of existing 132kV Switchyard is envisaged in the present scope. In this regard, please clarify the following: a) Whether de-energised substation will be handed over to the Bidder? (or) Planned shut down is envisaged? b) Where the existing loads will be diverted till such time the new substation is constructed?	Obviously, because of limited space, interruption of continuous operation of the substation can't be avoided, but has to be kept on minimum PGCB will work together with Contractor to minimize the impact on the substation operation during the construction	
336	Clarification-1, Sl. No. 93, Page-25	The response given by PGCB to the referred clarification regarding PQ tests for EHV cables is "All bidders are informed". However, in packages-2.1, 3 & 4.1, the response to the same query is "Yes, your understanding is correct".	Yes	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		Hence, based on the clarifications given in package-2.1, 3 & 4, we understand that PQ tests are not required for EHV cables. Please confirm.		
337	Clarification-1, Sl no. 174,Current rating of 230kV cable, Page-42	We understand from the referred clarification that 230kV cable has to be sized for 2000A. In this regard, we request PGCB to once again check this point & inform the actual loading in MVA. Because, 2000A ampacity will demand cables of higher size (say 2000 sq.mm or more) or multiple runs of smaller size cables per phase. This will impose restrictions on cable terminations in the GIS modules. Please check and confirm the actual MVA loading.	We don't understand your question	
338	Clarification-1, Sl no. 172 & 174, Current rating of 132kV cable, Page-41 & 42	As per clarification, Sl no. 174, we understand that for 132kV line bays & transformer bays, current carrying capacity shall be 1000A and 1600A respectively. However as per BPS, Rev.B, Sl no. Q2.1 & Q2.2, current carrying capacity of all 132kV line & transformer bays shall be 1600A. As the above requirements are contradicting, please clarify the actual MVA loading for the 132kV Line bays & transformer bays.	1.600 A & 1.000 A Please, see revised Price Schedule for Substations Naogaon and Purbasadipur	
339	Addendum -1, Sl no. Q2.1, Current rating of 132kV cable for 132/33kV transformer bay	Based on 132/33kV,120MVA transformer, 132kV side current rating shall be 525A only. However as per addendum-1, BPS, sl no. Q2.1, 132kV cable rating shall be 1600A. Please check and confirm actual ampacity of 132kV cable for 132/33kV transformer bay.	Please, see answer 338	
340	Clarification-1, Sl. No. 395, 132/33kV transformer, 33kV side Insulation level - 270kV, Page-100	As per referred clarification,132/33kV transformer, 33kV side insulation level shall be 270kV. However as per clarification, Sl no. 259 of package 2.1, 170kV insulation level for 33kV side of 132/33kV transformer is accepted. As the specifications are common for all packages, please clarify whether insulation level of 33kV side shall be 170kV or 270kV.	Yes, your understanding is correct TYPING MISTAKE	
341	Clarification-1, Sl. No. 499, Transmission capacity for SDH equipment, Page-124	The transmission capacity for SDH equipment as per the referred clarification is specified as STM-4/16. However, as per clarification no. 116, the transmission capacity is mentioned as STM-16/64. As the above points are contradicting, please specify the transmission capacity required for this package.	**STM 4** Please ignore the answer nos. 116 & 499 of Clarification-1	
342	Clarification-1, Sl. No. 528, GIS building size,	From the clarification, we understand that the GIS building size indicated in the specification is for tender purpose only. Hence, we understand that the size of the	No, your understanding is not correct Size of the GIS building is 36 x 12 me-	

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	Page-137	building can be optimized by Bidder. Further, as it is lump sum contract, we request PGCB to clarify how this point will be ascertained during bid evaluation.	ters Contractor shall prepare the Detail Design – which will be subject of PGCB Approval	
343	Clarification-1, Sl. No. 564 & 586, GIS building size for 230kV & 132kV, Page-146 & 153	As per the referred clarifications, the GIS building size for both 230kV & 132kV GIS shall be 36x15m. But as per the clarifications received for other packages (2.1, 3 & 4), the 132kV GIS building size is mentioned as 36x12m. In this regard, we request PGCB to once again confirm the building size required for 230kV & 132kV GIS.	36 x 12 meters	
344	Clarification-1, Sl. No. 540, 230kV relay house extension at Bhulta station, Page-140	As per the referred clarification, we understand that Bidder will not be responsible for the extension of 230kV relay house at Bhulta substation. We request PGCB to check & confirm as this clarification is contradicting with the scope of works and clarification no. 417.	We don't understand your question According to the answer 417, Bidder is responsible for extension: ''Extension of one existing relay house in 230 kV Switchyard and two new relay houses in 132 kV Switchyard''	
345	Volume-3, Clause no. 5.2.5.2 F2: 33/0.415 kV 200 kVA, Dyn11, Auxiliary Transformer, Sl no. 5.1.1, MV bushing	As per the referred clause, Quantity of 33kV bushing shall be 3+1 for auxiliary transformer. However, auxiliary transformer 33kV side is delta connected. So neutral bushing will not be required. Please check and confirm the actual requirement.	In case of D connection on primary side only three bushing will be required	
346	General - Rerouting of transmission lines	From our site visit, we observed that certain transmission line towers & distribution poles are present in the substation plot. We presume the dismantling of towers/poles and rerouting of the transmission lines is in the scope of PGCB. Please confirm.	We don't understand your question But, generally speaking - yes	
		Civil Queries		
347	Clarification -1 'Sl no -140	As per referred clarification reply it is mentioned that "Fencing drawing can be found in the tender ". We wish to inform that the fencing drawing is not attached in the tender document. Please attach the same.	We don't understand your question	
348	Clarification -1 'Sl no -603	As per referred clarification reply , the existing road which is falling in proposed switchyard area to be reconstructed in different route. We trust that the required	Yes	

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		land to reconstruction of road shall be provided by client. Please confirm.		
349	Vol-2, 17. Bid Drawings 'Naogaon layout Drg. No -NAOG/4.2	As per Naogaon substation layout ,The existing 132kV Towers whether can be used for proposed outgoing line or to be demolished. Please confirm.	Yes, if possible and if it's for the purpose – existing structure will be used	
350	Addendum-1 & Revised BPS (Schedule -4) 'Item no L- 'Civil Works	As per referred clause, it is mentioned that, The firefighting system shall be water spray system. Hence firefighting pump house (FFPH) and fire water tank are required for all new substation, however the same line item not found in the Civil BPS. Kindly include the same.	All related items for fire fighting system shall be included in item D9	
351	Addendum-1 & Revised BPS (Schedule -4) 'Bhulta Extension-'Item no.D9	As per referred clause , the water spray system required. Please clarify whether existing Fire fighting pump house shall be used or bidder has to construct new Fire fighting pump house. Please clarify.	Bidders are kindly invited to visit all required locations	
352	Vol-2, 10 (Civil work) 'Clause no 10.2.3.28 & 10.2.2.2	As per referred clause , it is mentioned that "minimum characteristic strength of trial mix of concrete at 28 days as 30 N/mm2 . Also in the same clause it is specified that the contractor's design shall be based on a 28 day crushing strength of 20 N/mm2. As per BS: 8110 the minimum grade to be used for moderate exposure of concrete is C25. So we are presuming that the minimum grade of concrete to be used for the design is C30. Please confirm.	Yes	
353	Vol-2, 11 (Supporting structures) 'Clause no 11.3.5 & Anx to section 11	In the Annex to section-11 it is given qref= 3.54 kN/m2 and in Clause: 11.3.5 it is given Cshp = 2.8 for lattice structures. By calculating the force according to the given formula in the clause: 11.3.5 wind load value is getting very high. So please confirm whether the provided values can be modified according to ASCE 10-90 for the safe design.	Yes	
354	Clarification -1 'Sl no -496 & Vol -III (Schedule -4) item no -L1.X	As per referred clarification reply, it is mentioned that, the land development work & boundary wall will be done present active area only. However in price schedule, the land development work & boundary wall it is given whole plot area i.e; (5 acres to 10 acres) including future.	We don't understand your question For which location?	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		kindly clarify which one to be followed.		
355	Vol-2, 10 (Civil work) 'Clause no 10.2.3.7	As per referred clause, it is mentioned that "The substation plot, outside of the designated switchgear equipment area, shall be turfed." However in BPS, the substation plot area is mentioned as 5 acre in Feni S/S, We consider the following points. i) out of 5 acres, present switchyard area is 3 acres, for which gravel spreading shall be done. ii) remaining 2 acres of unused area shall be turfed. Kindly confirm if our above understanding is correct. If yes, we trust that the same shall be applicable to all substations in the package. In line with the above query, if our understanding is not correct, kindly clarify the areas where turfing has to be done.	Could be considered on that way, but very generally speaking	
		Mechanical Queries		
356	Pre bid clarification, S.No. 155	kindly clarify whether reserve water tank for water spray system need to be provided.	Yes	
357	Vol-2, Scope of work, Water Spray System, Page -167, Cl.No. 4.12.4	we have considering design capacity of pressurizing air vessel shall meet only 5 minutes water requirements of transformer water requirement as per specification. Kindly confirm.	Yes, but this is not only one criteria	
358	Pre bid clarification, S.No. 160	As per the referred clause, we understand, hydrant system is required for all substations. So Kindly include in price schedule	Shall be include in item D9 and in price of the building and water supply system	
359	Pre bid clarification, S.No. 161	As per the referred clause, we understand, FDA system is required for all substations. So Kindly include in price schedule	Shall be included in price of the building	
360	Pre bid clarification, S.No. 162	As per the referred clause, we understand Panel flooding system is required for all substations. We presume the gas shall be of CO_2 type Kindly confirm the same & include in price schedule	We don't understand your question	
361	Pre bid clarification, S.No. 163	Please clarify the pipe specification required for FPS system	We don't understand your question	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
362	Pre bid clarification, S.No. 165	As per the referred clause, we understand common Air conditioning system will serve all AC areas through ducting with standby units. Please clarify	Please, follow the tender requirements Yes, this is one of possible systems	
363	Vol-2, Scope of work, Air Conditioning , Cl.No 13.30.2	As per the referred clause, all air conditioning rooms need to be provided with supply and extract system. We understand this fan will in operation during fire/smoke condition. Pls clarify	The Contractor shall prepare and provide Detail Design, which have to include all relevant safety aspects	
364	Vol-2, Scope of work, Air Conditioning and Ventilation, , Cl.No 13.30	we are considering ventilation system for 230/132kV GIS halls with standby units. Kindly confirm	Please, follow the tender requirements	
365	Package 1.1/Naogaon	**Naogaon 230 kV GIS SS** So far we understand that 132 kV line feeder will be terminated at existing gantry location; if so should we use existing gantry tower and beam for termination purpose. Kindly clarify	Yes	
366	Package 1.1/Naogaon	**Naogaon 230 kV GIS SS** (a) For minimum interruption of existing SS may we use existing equipment foundation? (b) For minimum interruption of existing SS may we use existing Cable Trench; if usable? (c) For minimum interruption of existing SS may we use existing road with required modification, if required?	Only VERY generally speaking yes. Only in case that there is no other acceptable option and in case that existing facility is suit for the purpose All of this will be subject of PGCB Approval	
367	Package 1.1/Naogaon	**Naogaon 230 kV GIS SS** (a) So far we understand that, Existing TR which will be used further will be kept on same position. Should we use the existing TR foundation for this Existing transformers or not? Kindly clarify In existing SS there are no blast wall, If we need to construct blast wall as per tender requirement existing location of TR cannot be maintained and new foundation along with new gantry structure will be required for new and existing TR. Moreover, complete shutdown of SS will be required for a long period. Kindly confirm whether blast wall is required or not?	Yes – for existing transformers – if they will not be moved Blast walls are required only for new Power transformers	
368	Package 1.1/Purbasadipur	**Purbasadipur 230 kV GIS SS** (a) So far we understand that, Existing TR which will be used further will be kept on	Please see answer 367	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		same position. Should we use the existing TR foundation for this Existing transformers or not? Kindly clarify In existing SS there are no blast wall, If we need to construct blast wall as per tender requirement existing location of TR cannot be maintained and new foundation along with new gantry structure will be required for new and existing TR. Moreover, complete shutdown of SS will be required for a long period. Kindly confirm whether blast wall is required or not?		
369	Package 1.1/Purbasadipur	**Purbasadipur 230 kV GIS SS** We appreciate Employer position to rely on contractor's ability on engineering and design; Contractors are fully able to find out the total requirement, which is given in LOT basis, like length of cable etc. But so much uncertainty or assumption we lead to bad engineering, Likewise, if we do not have a clear picture of termination of 132 kV line feeder even the tendering stage design cannot be completed. If we follow tender layout, new 132 kV line feeder will be terminated at a very distant place than current termination location Kindly clarify Whether, should we consider the 132 kV GIS line feeder location which is indicated at tender layout or should we consider cable reconnection of new 132 kV line feeder at existing termination location?	PGCB decided that Transmission Lines 132 kV will be terminated on existing positions Connection between the lines and GIS Building will be via Cable (but Contractor can propose other solution during Detail Design phase) Please, see Addendum and Revised Price Schedule	
370	Package 1.1/Purbasadipur	**Purbasadipur 230 kV GIS SS** In tender document, connection between 33 kV side of 132 /33 kV TR and 33 kv switchyard is indicated as cable connection. But the proposed/existing TR location is so close to 132 kV Switchyard that cable connection in this purpose is not feasible In that regard, if we consider overhead conductor connection, for minimum interruption of SS should we consider to use existing gantry tower and beam? Kindly be noted for this SS if we use any single gantry tower then we cannot dismantle other gantry tower and beam.	Yes, your understanding is correct PGCB decided that both option could be possible Please, see Addendum and Revised Price Schedule	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
371	Package 1.1/Purbasadipur	**Purbasadipur 230 kV GIS SS** (a) For minimum interruption of existing SS may we use existing Cable Trench; if usable? (b) For minimum interruption of existing SS may we use existing road with required modification, if required?	Please, see answer 366	
		New 230/132/33 FENI GIS Substation		
372	Volume 2, Clause 1.2, Clause 10.2.3.5, Clause 10.1.3.1 & Drawing PGCB/KFW/2012.66.436/SSWZ/3.3	Volume 2, Clause 1.2 states that "The new 132 kV GIS and Control Building has to be with cable basement, but no full cable basement is required. Generally, the cable basement will be only for primary and secondary cables." Volume 2, Clause 10.2.3.12 states that "No cable basement shall be used. Cable shall enter into building through ground floor." Volume 2, Clause 10.1.3.1 states that " The height of ground floor of two storey control building shall be 3.0 metre and the minimum height of first floor control room shall be 4.0 metre." And drawing PGCB/KFW/2012.66.436/SSWZ/3.3 shows basement (cable vault) of 3 meter height above ground level. Based on above details we understant that basement/cable vault in building shall be provided as required with clear height of 3m above ground level. Kindly confirm our understanding.	Yes, your understanding is correct Cable basement of 3 meters height shall be provided and can be used only for cables	
373	Tender drawing PGCB/KFW/2012.66.436/SSWZ/3.3	Typical cross section of 132KV GIS and Control building shows a cable vault above roof floor level. We understand that cable vault shall be above second floor for cables entries to control room. Height of this cable vault may be taken as 2.1M. Please confirm our understanding.	We don't understand your question This question will be part of Detail Design	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		New 230/132 kV Substation Birulia		
374	Volume 2, Clause 1.2, Clause 10.2.3.5, Clause 10.1.3.1 & Drawing PGCB/KFW/2012.66.436/SSWZ/3.3	Volume 2, Clause 1.2 states that "The new 132 kV GIS and Control Building has to be with cable basement, but no full cable basement is required. Generally, the cable basement will be only for primary and secondary cables." Volume 2, Clause 10.2.3.12 states that "No cable basement shall be used. Cable shall enter into building through ground floor." Volume 2, Clause 10.1.3.1 states that " The height of ground floor of two storey control building shall be 3.0 metre and the minimum height of first floor control room shall be 4.0 metre." And drawing PGCB/KFW/2012.66.436/SSWZ/3.3 shows basement (cable vault) of 3 meter height above ground level. Based on above details we understant that basement/cable vault in building shall be provided as required with clear height of 3m above ground level. Kindly confirm our understanding.	Please, see answer 372	
375	Volume 2, Clause 1.2, Clause 10.2.3.5, Clause 10.1.3.1 & Drawing PGCB/KFW/2012.66.436/SSWZ/3.3	Typical cross section of 132KV GIS and Control building shows a cable vault above roof floor level. We understand that cable vault shall be above second floor for cables entries to control room. Height of this cable vault may be taken as 2.1M. Please confirm our understanding.	Please, see answer 373	
		New 230/132 kV Substation Naogaon		
376	Volume 2, Clause 1.2, Clause 10.2.3.5, Clause 10.1.3.1 & Drawing PGCB/KFW/2012.66.4	Volume 2, Clause 1.2 states that "The new 132 kV GIS and Control Building has to be with cable basement, but no full cable basement is required. Generally, the cable basement will be only for primary and secondary cables."	Please, see answer 372	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
	36/SSWZ/3.3	Volume 2, Clause 10.2.3.12 states that "No cable basement shall be used. Cable shall enter into building through ground floor." Volume 2, Clause 10.1.3.1 states that " The height of ground floor of two storey control building shall be 3.0 metre and the minimum height of first floor control room shall be 4.0 metre." And drawing PGCB/KFW/2012.66.436/SSWZ/3.3 shows basement (cable vault) of 3 meter height above ground level. Based on above details we understant that basement/cable vault in building shall be provided as required with clear height of 3m above ground level. Kindly confirm our understanding.		
377	Volume 2, Clause 1.2, Clause 10.2.3.5, Clause 10.1.3.1 & Drawing PGCB/KFW/2012.66.436/SSWZ/3.3	Typical cross section of 132KV GIS and Control building shows a cable vault above roof floor level. We understand that cable vault shall be above second floor for cables entries to control room. Height of this cable vault may be taken as 2.1M. Please confirm our understanding.	Please, see answer 373	
378	Volume 2, Clause 1.2, Clause 10.2.3.5, Clause 10.1.3.1 & Drawing PGCB/KFW/2012.66.436/SSWZ/3.3	Volume 2, Clause 1.2 states that "The new 132 kV GIS and Control Building has to be with cable basement, but no full cable basement is required. Generally, the cable basement will be only for primary and secondary cables." Volume 2, Clause 10.2.3.12 states that "No cable basement shall be used. Cable shall enter into building through ground floor." Volume 2, Clause 10.1.3.1 states that " The height of ground floor of two storey control building shall be 3.0 metre and the minimum height of first floor control room shall be 4.0 metre." And drawing PGCB/KFW/2012.66.436/SSWZ/3.3 shows basement (cable vault) of 3 meter	Please, see answer 372	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		height above ground level. Based on above details we understant that basement/cable vault in building shall be provided as required with clear height of 3m above ground level. Kindly confirm our understanding.		
379	Volume 2, Clause 1.2, Clause 10.2.3.5, Clause 10.1.3.1 & Drawing PGCB/KFW/2012.66.436/SSWZ/3.3	Typical cross section of 132KV GIS and Control building shows a cable vault above roof floor level. We understand that cable vault shall be above second floor for cables entries to control room. Height of this cable vault may be taken as 2.1M. Please confirm our understanding.	Please, see answer 373	
		General		
380	Section III: Evaluation and Qualification Criteria (Volume 1 and volume 2) clause 2.7 Manufacturers/Subcontractors (item no. 2 - Gas Insulated Switchgear)	We have separate factories for manufacturing of 220 kV and 132 kV GIS. We understand that we can offer the the 220 kV and 132 kV GIS from separate factories. Our 132 kV factory which is established for more than 20 years only supplies GIS upto 132 kV GIS. Pls confirm we can supply 132 kV GIS from this unit.	Please, follow and fulfil the all requirements defined in Volume 1, Section 3, Item 2.7. Manufacturers	
381	Volume 1 Section VII: General Conditions of Contract (GCC) clause 43. Assignment (43.1)	Notwithstanding anything stipulated in the Tender ABB may transfer or assign, directly or indirectly, any or all of its rights or obligations under this agreement without the prior written consent of the other party to another legal entity of ABB Group or to an affiliate of the ABB-SNC Lavalin joint venture created by both SNC Lavalin and ABB Group in the context of EPC substations or any subsidiary of this joint venture. This agreement, and the obligations hereunder, shall be binding upon the parties hereto, their successors and permitted assigns.	We don't understand your question	
382	clarification from PGCB for package 1.1 Clarification number 116 and 499.	Clarification no. 116 says STM-16/64" is required by PGCB. However in clarification no. 499, it is said "STM-4/16" is re-quired by PGCB. According to today's PGCB standard, STM-4 is used for 132kV and	**STM 4** Please ignore the answer nos. 116 & 499 of Clarification-1	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		230kV fiber optics, and STM-16 is used for 400kV. To our knowledge, this is the case for PGCB previous and on-going projects. Keeping today PGCB's standard has the advantage of having clear rules of operation and maintenance for the whole network, and lower cost : • with STM-16 extra Boosters will be required for longer lines,compared to STM-4 for same lines. These Boosters are costlier and an extra point of failure, which should be avoided as much as possible by PGCB. • Since existing 230 kV lines are only STM-4 today, hav-ing STM-16 for some parts / lines (new lines of this project) will not help PGCB in any way unless and until they upgrade all links to STM16, all the way to NLDC, which is a very expensive and unneeded investment at this point of time • Using STM-16 requires higher cost in money and time oferection/commissioning. Operation and maintenance will be difficult for PGCB as differentoptical links will have different compo-nents and structure thorough the network for the same volt-age level (230kV in this case).		
383	Package 1.1, Volume 2, paragraph 1.4.3 "Scope of work and Supply".	In this document, two (2) digital PLC shall be provided for each 230kV OHL at every involved Substation. We understand it is two (2) PLC per single circuit line (OHL) and per substation, so a total of 4 PLC in a link. Can you please confirm this point ? According to today's PGCB standard, 1x PLC equipment per OHL (per single circuit) and per substation is sufficient. This technical solution is accepted in previous and ongoing pro-jects for PGCB. • PLC links are only 'back-up' to FO communication sys-tem, and with today's digital PLC, 'one' such link is more than enough to have a back-up system for a few voice, data and teleprotecion channels, and no need of 'double' PLC links for each and every line • In case of 2x PLC per OHL (single circuit) and per sub-station is required, the cost will be double and the equipment will occupy double space in the control rooms, with no real-world advantage for PGCB as PLC is only back-up for FO system.	PLC Not Required. Please see clarification-1 & Addendum-1	
384	Schedule 4 - Item Z4	Applicable for For all sites - We will take care and manage only those waste and hazardous products that we are required to deal with for supply of our works. Unforeseen hazardous and waste management will be in PGCB scope. Pls confirm.	Yes	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
385	Schedule 4 - Item Z6	Please furish the detailed items to be carried out against these works.	Please, follow the tender requirements	
386		We understand that the payment to the contractors shall be disbursed directly by kfW. Pls confirm.	Yes, for the foreign part	
387	Dismantling works at Purbasadipur and Naogaon	Since dismantling of below ground structures is in Bidder's scope, pls. let us know whether complete foundation including pile to be dismantled or pile cap is to be dismantled.	No, 1 meter below the zero level	
388	General for all existing sites	Please furnish the drawings of existing foundations to be dismantled.	Bidders are kindly invited to visit all required locations	
389	Co-ordinates of site	Since all the civil works is in lot, we understand that if co-ordinates change during execution, contractor shall be entitled for variation order of lump sum items also. Pls confirm.	We don't understand your question	
		220/132kV New Feni Substation		
390	Bid price schedule - item 220kV Surge arrestor type	Please note that as per BPS line item AG.1, it is given that the surge arrestor for 220kV system shall be of GIS type. However, as per line item no. A5, surege arrestor shall be of AIS type. Kindly clarify.	Please, see Clarifications and Addendums	
391	Bid price schedule - item 132kV Surge arrestor type	Please note that as per BPS line item BG.1, it is given that the surge arrestor for 132kV system shall be of GIS type. However, as per line item no. B5, surege arrestor shall be of AIS type. Kindly clarify.	Please, see Clarifications and Addendums	
392	Bid price schedule - item 132kV Wave trap	Please note that as per BPS, we have not considered any wave trap for 132kV system in present scope of work.	Wave Trap Not Required	
293	General	Please note that we have not considered the PLCC/FOTE equipment at remote end substations in scope of work. Kindly confirm.	PLC Not Required	
394	General	We presume that Bus-bar protection to be provided for present scope of work only & not for future bays. Kindly confirm our understanding.	Yes and No Bay units shall be provided for the present scope only Central unit shall be provided including future bays	
395	General	Request you to furnish Type of Conductor to be used at each voltage level for Feni SS.	Please, follow the tender requirements	
396	General	We presume that in case of any discrepency between tender provided SLD, layout and price schedule, the bid price schedule shall govern.	Yes	
397	General	Request to furnish the burden & protection / metering class for 220kV / 132kV CTs and VTs.	We don't understand your question. All required data are already provided	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
398	General	Please note that we have considered the ambient temparature of 45 deg C. Kindly confirm.	Yes, according to Volume 2, Item 1.7	
399	General	Please note that we have considered 220kV wave trap in one phase only as per BPS in present scope of work. Kindly confirm.	Wave Trap Not Required	
400	General	Please let us know the total area to be considered for the construction of boundary wall for the new Feni substation.	According to tender requirement	
401	General	We have considered the creepage distance of 25mm/kV. Kindly confirm.	Yes, only generally speaking	
402	General	Please furnish the distance for below metioned links, a) 230kV Feni SS to 220kV Commila north SS b) 230kV Feni SS to 220kV Hathazari SS c) 230kV Feni SS to 220kV NLDC	Bidders are kindly invited to visit all required locations	
403	General	Please note that as per volume-1 (Clause 1.3), type test shall be as follows: - Temperature rise tests - Dielectric tests - Short circuit withstand test. However, as per vol-2 (Clause 4.16.1), the type tests shall be as follows: - Temperature rise tests. Kindly clarify.	Volume 1, Section 6 shall be followed	
405	General	We understand that the 220kV and 132kV both GIS can be either three phase segregated or single phase segregated. Kindly confirm.	Yes	
406	Access road	Village road connected to site is narrow and will pose difficulty in transportation. Please advise which route to be used. Will PGCB arrange construction/widening of access road.	Access road is in Contractor's scope	
407	Access road	We understand that all the necessary permits / lisences pertaining to the cutting of trees / clearing of access road shall be availed by PGCB.	Both, works & services and necessary approvals are in the Bidder's scope of works. PGCB will provide necessary support	
		220/132kV New Birulia Substation		
408	Earth filling	We request you to let us know the reference level from where earth filling is to be considered. Whether from adjacent village road or Dhaka-Birulia highway.	Please see answer 203	
409	Site clearing	We understand that all the necessary permits / lisences pertaining to the cutting / clearing of site shall be availed by PGCB.	No. This is in the Contract's scope of work. PGCB will provide all necessary support	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
410	Approach road	Please let us know the length of approach road to be constructed. Is it from Village road or Dhaka-Birulia Highway.	Please see answer 203	
411	Access road	Village road is connected to highway through foot over birge and sharp turn which cannot be used for material transportation. Please advise which route to be used. Will PGCB arrange construction of access road to station from highway	Please see answer 203	
412	Bid price schedule - item 220kV Surge arrestor type	Please note that as per BPS line item AG.1, it is given that the surge arrestor for 220kV system shall be of GIS type. However, as per line item no. A5, surege arrestor shall be of AIS type. Kindly clarify.	Please, see previous Clarifications and Addendums and Revised Price Schedule	
413	Bid price schedule - item 132kV Surge arrestor type	Please note that as per BPS line item BG.1, it is given that the surge arrestor for 132kV system shall be of GIS type. However, as per line item no. B5, surge arrestor shall be of AIS type. Kindly clarify.	Please, see previous Clarifications and Addendums and Revised Price Schedule	
414	Bid price schedule - item 132kV Wave trap	Please note that as per BPS, we have not considered any wave trap for 132kV system in present scope of work.	Wave Trap Not Required	
415	General	Please note that we have not considered the PLCC equipment at remote end substations in scope of work. Kindly confirm.	PLC Not Required	
416	General	We presume that Bus-bar protection to be provided for present scope of work only & not for future bays. Kindly confirm our understanding.	Please, see answer 394	
417	General	Request you to furnish Type of Conductor to be used at each voltage level for Biruila SS.	Please, see answer 395	
418	General	We presume that in case of any discrepency between tender provided SLD, layout and price schedule, the bid price schedule shall govern.	Yes	
419	General	Request to furnish the burden & protection / metering class for 220kV / 132kV CTs and VTs.	Please, see answer 397	
420	General	Please note that we have considered the ambient temparature of 45 deg C. Kindly confirm.	Please, see answer 398	
421	General	Please note that we have considered 220kV wave trap in one phase only as per BPS in present scope of work. Kindly confirm.	Wave Trap Not Required	
422	General	We have considered the creepage distance of 25mm/kV. Kindly confirm.	Please, see answer 401	
423	General	Please furnish the distance for below metioned links, a) 230kV Birulia SS to 220kV Aminbazar SS b) 230kV Birulia SS to 220kV Kaliakori SS c) 230kV Birulia SS to 220kV NLDC	Please, see answer 402	
424	General	Please note that as per volume-1 (Clause 1.3), type test shall be as follows: - Temperature rise tests	Please, see answer 403	

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		- Dielectric tests - Short circuit withstand test. However, as per vol-2 (Clause 4.16.1), the type tests shall be as follows: - Temperature rise tests. Kindly clarify.		
425	General	We understand that approach road around 1.5km with small village bridge extension shall be included in preent scope of work. Kindly confirm.	Yes	
426	General	We understand that the 220kV and 132kV both GIS can be either three phase segregated or single phase segregated. Kindly confirm.	Please, see answer 405	
		Queries for 220/132kV New Naogaon Substation		
427	Bid price schedule - item 220kV Surge arrestor type	Please note that as per BPS line item AG.1, it is given that the surge arrestor for 220kV system shall be of GIS type. However, as per line item no. A5, surege arrestor shall be of AIS type. Kindly clarify.	Please, see previous Clarifications and Addendums and Revised Price Schedule	
428	Bid price schedule - item 132kV Surge arrestor type	Please note that as per BPS line item BG.1, it is given that the surge arrestor for 132kV system shall be of GIS type. However, as per line item no. B5, surege arrestor shall be of AIS type. Kindly clarify.	Please, see previous Clarifications and Addendums and Revised Price Schedule	
429	Bid price schedule - item 132kV Wave trap	Please note that as per BPS, we have not considered any wave trap for 132kV system in present scope of work.	Wave Trap Not Required	
430	General	Please note that we have not considered the PLCC equipment at remote end substations in scope of work. Kindly confirm.	PLC Not Required	
431	General	We presume that Bus-bar protection to be provided for present scope of work only & not for future bays. Kindly confirm our understanding.	Please, see answer 394	
432	General	Request you to furnish Type of Conductor to be used at each voltage level for Naogaon SS.	Please, see answer 395	
433	General	We presume that in case of any discrepency between tender provided SLD, layout and price schedule, the bid price schedule shall govern.	Yes	
434	General	Request to furnish the burden & protection / metering class for 220kV / 132kV CTs and VTs.	Please, see answer 397	
435	General	Please note that we have considered the ambient temparature of 45 deg C. Kindly confirm.	Please, see answer 398	
436	General	Please note that we have considered 220kV wave trap in one phase only as per BPS in present scope of work. Kindly confirm.	Wave Trap Not Required	
437	General	We have considered the creepage distance of 25mm/kV. Kindly confirm.	Please, see answer 401	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
438	General	Please furnish the distance for below metioned links, a) 230kV Naogaon SS to 220kV Bogra SS b) 230kV Naogaon SS to 220kV NLDC	Please, see answer 402	
439	General	Please note that as per volume-1 (Clause 1.3), type test shall be as follows: - Temperature rise tests - Dielectric tests - Short circuit withstand test. However, as per vol-2 (Clause 4.16.1), the type tests shall be as follows: - Temperature rise tests. Kindly clarify.	Please, see answer 403	
440	General - Dismentaling work	We presume that dismentaling of whole existing 132kV switchyard shall be included in present scope of work. Kindly confirm. Also let us know whether the same shall be reused or disposed.	Yes	
441	General - Dismentaling work	We presume that dismentaling of pre-existing buildings located in switchyard land shall be included in present scope of work. Kindly confirm.	Yes	
442	General - Dismentaling work	We presume that Dismanlting of existing Boundary wall, Drain & 3mwide RCC Road of existing 132kV switchyard shall be included in present scope of work. Kindly confirm.	Yes	
443	General - Dismentaling work	We presume that Dismanlting of two existing 80MVA power transformers of existing 132kV switchyard shall be included in present scope of work. Kindly confirm.	Yes	
444	General - Dismentaling work	We presume that dismentaling of chain link fence of approx 200m shall be included in present scope of work. Kindly confirm.	Yes	
445	General - Dismentaling work	We presume that dismentaling of existing Guard Room of 132kV switchyard shall be included in present scope of work. Kindly confirm.	YesYes	
446	General - Gas insulated switchgear operation	We understand that the 220kV and 132kV both GIS can be either three phase segregated or single phase segregated. Kindly confirm.	Please, see answer 405	
447	Dismentaling work	Kindly Confirm Existing (abandoned)building dismantling is excluded in Bidder's scope. If not , kindly indicate the disposal area for debris.	Yes	
448	Dismentaling work	We understand that once 230/132kv Substation (new) is energized existing 132kv Substation shall need to be dismantled including foundation . Kindly Confirm our understanding.kindly indicate the disposal area for debris. Bidder cannot hand over material in usable condition.	Yes	
449	Site clearing	We understand that all the necessary permits / lisences pertaining to the cutting of trees / clearing of site shall be availed by PGCB.	Both, works & services and necessary approvals are in the Bidder's scope of	

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			works. PGCB will provide necessary support	
450	Dismantling	We shall carry out the dismantling works of fundation upto FGL only. We have not considered dismantling of structures below ground. Pls confirm our understanding.	No, all civil constructions up to 1 meters below zero level shall be dismantled	
451	new building for workers	The layout drawing number NAO/2 shows a new building for workers. In case the same is in Bidder's scope, please furnish the dimensions, no. of storeys and drawing for the same. Also pls furnish line item in Price schedule.	It's already in the Price Schedule: Item L3.3X and following lines	
452		**Queries for 220/132kV New Purbasadipur Substation**		
453	Bid price schedule	Please note that as per BPS line item AG.1, it is given that the surge arrestor for 220kV system shall be of GIS type. However, as per line item no. A5, surege arrestor shall be of AIS type. Kindly clarify.	Please, see previous Clarifications and Addendums and Revised Price Schedule	
454	Bid price schedule	Please note that as per BPS line item BG.1, it is given that the surge arrestor for 132kV system shall be of GIS type. However, as per line item no. B5, surege arrestor shall be of AIS type. Kindly clarify.	Please, see previous Clarifications and Addendums and Revised Price Schedule	
455	Bid price schedule 4 -	Please note that as per BPS, we have not considered any wave trap for 132kV system in present scope of work.	Wave Trap Not Required	
456	Bid price schedule	We understand that we are not required to construct new control room building as the same is not mentioned in Price schedule. If the same is in our scope, pls induce a line item for the same in price schedule.	It's already in the Price Schedule: Item L3.2X and following lines	
457	General	Please note that we have not considered the PLCC equipment at remote end substations in scope of work. Kindly confirm.	PLC Not Required	
458	General	We presume that Bus-bar protection to be provided for present scope of work only & not for future bays. Kindly confirm our understanding.	Please, see answer 394	
459	General	Request you to furnish Type of Conductor to be used at each voltage level for Purbasadipur SS.	Please, see answer 395	
460	General	We presume that in case of any discrepency between tender provided SLD, layout and price schedule, the bid price schedule shall govern.	Yes	
461	General	Request to furnish the burden & protection / metering class for 220kV / 132kV CTs and VTs.	Please, see answer 397	
462	General	Please note that we have considered the ambient temparature of 45 deg C. Kindly confirm.	Please, see answer 398	
463	General	Please note that we have considered 220kV wave trap in one phase only as per BPS in present scope of work. Kindly confirm.	Wave Trap Not Required	
464	General	Please let us know the total area to be considered for the construction of boundary wall for the new Purbasadipur substation.	Bidders are kindly invited to visit all required locations	

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465	General	We have considered the creepage distance of 25mm/kV. Kindly confirm.	Please, see answer 401	
466	General	Please furnish the distance for below metioned links, a) 230kV Purbasadipur SS to 220kV Barapukuria SS b) 230kV Purbasadipur SS to 220kV NLDC	Please, see answer 402	
467	General	Please note that as per volume-1 (Clause 1.3), type test shall be as follows: - Temperature rise tests - Dielectric tests - Short circuit withstand test. However, as per vol-2 (Clause 4.16.1), the type tests shall be as follows: - Temperature rise tests. Kindly clarify.	Please, see answer 403	
468	General	We presume that dismentaling of whole existing 132kV switchyard shall be included in present scope of work. Kindly confirm. Also let us know whether the same shall be reused or disposed.	Yes	
469	General	We presume that dismentaling of pre-existing building located in switchyard land shall be included in present scope of work. Kindly confirm.	Yes	
470	General	We understand that the 220kV and 132kV both GIS can be either three phase segregated or single phase segregated. Kindly confirm.	Please, see answer 405	
471	Dismentaling work	Kindly Confirm Existing double storied (abandoned)building dismantling is excluded in Bidder's scope. If not , kindly indicate the disposal area for debris.	No, it's not excluded	
472	Dismentaling work	We understand that once 230/132kv Substation (new) is energized existing 132kv Sub-station shall need to be dismantled including foundation . Kindly Confirm our understand-ing.kindly indicate the disposal area for debris. Bidder cannot hand over material in usable condition.	Yes	
473	Dismantling	We shall carry out the dismantling works of fundation upto FGL only. We have not con-sidered dismantling of structures below ground. Pls confirm our understanding.	Please see answer 450	
		Queries for 220/132kV Bhulta Extn. Substation		
474	General	Please let us know the total area to be considered for the construction of boundary wall for Bhulta substation.	Bidders are kindly invited to visit all re-quired locations	
475	General	We presume that shutdown whenever required at extension substation for carrying out present scope of work shall be provided by PGCB. Please confirm.	Please see answer 335	
476	General	Request PGCB to provide soil investigation reports for existing substation.	This is in the Contractor's scope of work and services	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
477	General	Request PGCB to provide soil resistivity for existing substation.	See answer 476	
478	General	Request PGCB to let us know the existing earthmat spacing for existing substation.	Bidders are kindly invited to visit all required locations	
479	General	Please confirm whether Main Bus is to be extended for present scope of Bay works.	Bidders are kindly invited to visit all required locations	
480	General	We presume that New Control & protection panels for present scope of work as per section project will be placed in Switchyard Relay Room. Please confirm.	Only generally speaking yes. Bidders are kindly invited to visit all required locations Please, follow the tender requirements Contract shall prepare Detail Design which will be subject of PGCB Approval	
481	General	We have considered the creepage distance of 25mm/kV. Kindly confirm.	Please, see answer 401	
482	General	Please specify conductors to be used for Main Bus, jack bus & equipment interconnection for existing SS.	Bidders are kindly invited to visit all required locations Please, follow the tender requirements Contract shall prepare Detail Design which will be subject of PGCB Approval	
483	General	We have considered the extension of existing earthmat in present scope of work. Kindly confirm.	Yes	
484	General	Please furnish us the standard drawing for relay house used for 220kV & 132kV system.	Bidders are kindly invited to visit all required locations	
485	General	Please note that we have not considered any extension work related with existing control building except finishing works such as rendering, painting, floor finishing, etc. in present scope of work.	Yes	
486	General	Please note that we have considered the ambient temperature of 45 deg C. Kindly confirm.	Please, see answer 398	
487	General	We presume that construction of boundary wall shall not be included in present scope of work.	Yes	
488	Shutdown/Permit to work	PGCB to arrange permit to work and availability of necessary shutdown for interface activities. Kindly Confirm	Please see answer 335	
489	Relay houses	Pls furnish the size / drawing of relay houses to be constructed at Bhulta s/s.	Minimum tender dimensions: 6 x 12 meters	

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		Queries for 220kV Bogra Extn. Substation		
490	General	Please let us know the total area to be considered for the construction of boundary wall for Bogra substation.	Approximate dimensions can be found at provided LAYOUT	
491	General	We presume that shutdown whenever required at extension substation for carrying out present scope of work shall be provided by PGCB. Please confirm.	Please see answer 335	
492	General	Request PGCB to provide soil investigation reports for existing substation.	See answer 476	
493	General	Request PGCB to provide soil resistivity for existing substation.	See answer 476	
494	General	Request PGCB to let us know the existing earthmat spacing for existing substation.	Bidders are kindly invited to visit all required locations	
495	General	Please confirm whether Main Bus is to be extended for present scope of Bay works.	YES and not only Main bus	
496	General	We presume that New Control & protection panels for present scope of work as per section project will be placed in Switchyard Relay Room. Please confirm.	No – in existing Control room	
497	General	We have considered the creepage distance of 25mm/kV. Kindly confirm.	Please, see answer 401	
498	General	Please specify conductors to be used for Main Bus, jack bus & equipment interconnection for existing SS.	Bidders are kindly invited to visit all required locations Please, follow the tender requirements Contract shall prepare Detail Design which will be subject of PGCB Approval	
499	General	We have considered the extension of existing earthmat in present scope of work. Kindly confirm.	Yes	
500	General	Please furnish us the standard drawing for relay house used for 220kV system.	Please, see answer 489 But, relay house is not required for Bogra Substation	
501	General	Please note that we have not considered any extension work related with existing control building except finishing works such as rendering, painting, floor finishing, etc. in present scope of work.	Yes, your understanding is correct	
502	General	Please note that we have considered the ambient temparature of 45 deg C. Kindly confirm.	Please, see answer 398	
503	Dismantling	Kindly confirm the disposal area of dismantled boundary wall.	Please, follow the tender requirements	
504	Site clearing	We understand that all the necessary permits / lisences pertaining to the cutting of trees / clearing of site shall be availed by PGCB.	Both, works & services and necessary	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
			approvals are in the Bidder's scope of works. PGCB will provide necessary support	
		220kV Barapukuria Extn. Substation		
505	Volume 3 Pg 68 - 1.2.7 Extension of the Existing 230/132 kV Substation Barapukuria	Request you to let us know the exact scope of re-location of transformer bay as mentioned in scope of works. Also, let us know where the same are to be re-located.	One of the existing transformers bay (left-up on Layout) shall be relocated in the Diamater with another existing bay (right-up), but access to the bay will remain on the present position. To do this, cable connection is necessary By this, one Diamater (left) will be set free for two new transmission lines. Again, one the transmission lines (left-down on Layout) will be in free (left) Diamater, but another transmission line shall be connected in the same Diamater with transformers, but on other, free side (right-down). Because of this, cable connection is necessary.	
506	General	Please let us know the total area to be considered for the construction of boundary wall for Barapukuria substation.	Bidders are kindly invited to visit all required locations	
507	General	Please note that as per SLD, total six no. of bays are included in scope of work. However as per BPS , total three no. of bays shall be included in present scope of works. Kindly clarify.	Two Diamaters (6 CBs) shall be considered	
508	General	We presume that shutdown whenever required at extension substation for carrying out present scope of work shall be provided by PGCB. Please confirm.	Please see answer 335	
509	General	Request PGCB to provide soil investigation reports for existing substation.	See answer 476	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
510	General	Request PGCB to provide soil resistivity for existing substation.	See answer 476	
511	General	Request PGCB to let us know the existing earthmat spacing for existing substation.	Bidders are kindly invited to visit all required locations	
512	General	Please confirm whether Main Bus is to be extended for present scope of Bay works.	YES and not only Main bus	
513	General	We presume that New Control & protection panels for present scope of work as per section project will be placed in Switchyard Relay Room. Please confirm.	No – in existing Control room	
514	General	We have considered the creepage distance of 25mm/kV. Kindly confirm.	Please, see answer 401	
515	General	Please specify conductors to be used for Main Bus, jack bus & equipment interconnection for existing SS.	Bidders are kindly invited to visit all required locations Please, follow the tender requirements Contract shall prepare Detail Design which will be subject of PGCB Approval	
516	General	We have considered the extension of existing earthmat in present scope of work. Kindly confirm.	Yes	
517	General	Please furnish us the standard drawing for relay house used for 220kV system.	Please, see answer 489 But, relay house is not required for Barapukuria Substation	
518	General	Please note that we have not considered any extension work related with existing control building except finishing works such as rendering, painting, floor finishing, etc. in present scope of work.	Yes, your understanding is correct	
519	General	Please note that we have considered the ambient temparature of 45 deg C. Kindly confirm.	Please, see answer 398	
520	Shutdown/Permit to work	PGCB to arrange permit to work and availability of necessary shutdown for interface activities. Kindly Confirm	Please see answer 335	
521	General	We request you to let us know the exact location for construction of 230 kV Diameter in the existing swyd.	Bidders are kindly invited to visit all required locations	
522	Schedule 4 item no. L2 XE - 12 Security boundary wall	We understand from site visit that boundary wall is existing and hence is not required to be constructed.Pls confirm.	Bidders are kindly invited to visit all required locations Please, follow the tender requirements Contract shall prepare Detail Design which will be subject of PGCB Approval Only generally speaking - yes	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		132kV Niamatpur Extn. Substation		
523	General	Please let us know the total area to be considered for the construction of boundary wall for Niamatpur substation.	Bidders are kindly invited to visit all required locations Please, follow the tender requirements Contract shall prepare Detail Design which will be subject of PGCB Approval	
524	General	We presume that shutdown whenever required at extension substation for carrying out present scope of work shall be provided by PGCB. Please confirm.	Please see answer 335	
525	General	Request PGCB to provide soil investigation reports for existing substation.	See answer 476	
526	General	Request PGCB to provide soil resistivity for existing substation.	See answer 476	
527	General	Request PGCB to let us know the existing earthmat spacing for existing substation.	Bidders are kindly invited to visit all required locations	
528	General	Please confirm whether Main Bus is to be extended for present scope of Bay works.	YES and not only Main bus	
529	General	We presume that New Control & protection panels for present scope of work as per section project will be placed in Switchyard Relay Room. Please confirm.	No – in existing Control room	
530	General	We have considered the creepage distance of 25mm/kV. Kindly confirm.	Please, see answer 401	
531	General	Please specify conductors to be used for Main Bus, jack bus & equipment interconnection for existing SS.	Bidders are kindly invited to visit all required locations Please, follow the tender requirements Contract shall prepare Detail Design which will be subject of PGCB Approval	
532	General	We have considered the extension of existing earthmat in present scope of work. Kindly confirm.	Yes	
533	General	Please furnish us the standard drawing for relay house used for 132kV system.	Please, see answer 489 But, relay house is not required for Bogra Substation	
534	General	Please note that we have not considered any extension work related with existing control building except finishing works such as rendering, painting, floor finishing, etc. in present scope of work.	Yes, your understanding is correct	
535	General	Please note that we have considered the ambient temparature of 45 deg C. Kindly confirm.	Please, see answer 398	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
536	Shutdown/Permit to work	PGCB to arrange permit to work and availability of necessary shutdown for interface activities. Kindly Confirm	Please see answer 335	
537	Schedule 4 item no. L2 XE - 12 Security boundary wall	We understand from site visit that boundary wall is existing and hence is not required to be constructed. Pls confirm.	Bidders are kindly invited to visit all required locations Please, follow the tender requirements Contract shall prepare Detail Design which will be subject of PGCB Approval Only generally speaking - yes	
538	Package 1.1/Naogaon	**Naogaon 230 kV GIS SS** So far we understand that 132 kV line feeder will be terminated at existing gantry location; if so should we use existing gantry tower and beam for termination purpose. Kindly clarify	Yes	
539	Package 1.1/Naogaon	**Naogaon 230 kV GIS SS** (d) For minimum interruption of existing SS may we use existing equipment foundation? (e) For minimum interruption of existing SS may we use existing Cable Trench; if usable? (f) For minimum interruption of existing SS may we use existing road with required modification, if required?	Please, see answer 366	
540	Package 1.1/Naogaon	**Naogaon 230 kV GIS SS** (b) So far we understand that, Existing TR which will be used further will be kept on same position. Should we use the existing TR foundation for this Existing transformers or not? Kindly clarify In existing SS there are no blast wall, If we need to construct blast wall as per tender requirement existing location of TR cannot be maintained and new foundation along with new gantry structure will be required for new and existing TR. Moreover, complete shutdown of SS will be required for a long period. Kindly confirm whether blast wall is required or not?	Please see answer 367	
541	Package 1.1/Purbasadipur	**Purbasadipur 230 kV GIS SS** (b) So far we understand that, Existing TR which will be used further will be kept on same position. Should we use the existing TR foundation for this Existing transformers or not? Kindly clarify In existing SS there are no blast wall, If we need to construct blast wall as per tender requirement existing location of TR cannot be maintained and new foundation	Please see answer 367	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		along with new gantry structure will be required for new and existing TR. Moreover, complete shutdown of SS will be required for a long period. Kindly confirm whether blast wall is required or not?		
542	Package 1.1/Purbasadipur	**Purbasadipur 230 kV GIS SS** We appreciate Employer position to rely on contractor's ability on engineering and design; Contractors are fully able to find out the total requirement, which is given in LOT basis, like length of cable etc. But so much uncertainty or assumption we lead to bad engineering, Likewise, if we do not have a clear picture of termination of 132 kV line feeder even the tendering stage design cannot be completed. If we follow tender layout, new 132 kV line feeder will be terminated at a very distant place than current termination location Kindly clarify Whether, should we consider the 132 kV GIS line feeder location which is indicated at tender layout or should we consider cable reconnection of new 132 kV line feeder at existing termination location?	Please see answer 369	
543	Package 1.1/Purbasadipur	**Purbasadipur 230 kV GIS SS** In tender document, connection between 33 kV side of 132 /33 kV TR and 33 kv switchyard is indicated as cable connection. But the proposed/existing TR location is so close to 132 kV Switchyard that cable connection in this purpose is not feasible In that regard, if we consider overhead conductor connection, for minimum interruption of SS should we consider to use existing gantry tower and beam? Kindly be noted for this SS if we use any single gantry tower then we cannot dismantle other gantry tower and beam.	Please see answer 370	
544	Package 1.1/Purbasadipur	**Purbasadipur 230 kV GIS SS** (c) For minimum interruption of existing SS may we use existing Cable Trench; if usable? (d) For minimum interruption of existing SS may we use existing road with required modification, if required?	Please, see answer 366	
545	NLDC; Vol.2, 1.3.2 Adaptation & Configuration of	As per technical specification Vol.2, 1.3.2 Adaptation & Configuration of NLDC specified as ALSTOM Platform. Whereas database update of NLDC on ABB network manager platform. Hence please clarify the existing make of NLDC.	Please, see previous answers	

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	NLDC, Page 17			
546	230kV Disconnector - Rated Shortcircuit current; Vol.3, 230kV Disconnector GTP Sl. No. 5.2.1.4 to 5.2.1.6, Page 113 to 120	As per Technical schedule for 230kV outdoor Disconnector rated short circuit current indicated 50kA for 3 sec. Whereas technical specification Vol. 2,Cl. 1.6 system parameter calls for 50kA for 1sec for 230kV system . Hence please clarify.	1 s	
547	132kV Disconnector - Rated Shortcircuit current; Vol.3, 230kV Disconnector GTP Sl. No. 5.2.2.8 to 5.2.1.13, Page 150 to 161	As per Technical schedule for 132kV outdoor Disconnector rated short circuit current indicated 40kA for 3 sec. Whereas technical specification Vol. 2,Cl. 1.6 system parameter calls for 40kA for 1sec for 132kV system . Hence please clarify.	1 s	
548	Auxilary/Earthing Transformer; Single Line diagram for Feni, Bhulta, Birulia Nagoan & Purbasadipur	As per Price schedule, vector group of the 200kVA Auxilary transformer calls for Dyn11 under Sl.No.D1. Whereas Single line diagram indicated ZNyn11 for Feni, Bhulta, Birulia Nagoan & Purbasadipur. Please clarify the discrepancy.	The vector group of Earthing/Auxiliary transformer shall be confirmed by detail design. Bidders shall consider both options	
549		Please note that Guranteed technical particulars for 230kV & 132kV EHV cables & accessories are missing. Hence Please provide the same.	Please, follow the tender requirements	
550		Please note that Guranteed technical particulars for 230kV Line Trap are missing. Hence Please provide the same.	Wave Trap Not Required	
551	Digital PLC	As per technical specification of Digital PLC for 230kV lines are under presence scope of work. Whereas price schedule for Digital PLC missing in price schedule. Please clarify the discrepancy.	PLC Not Required	
552	Standby Diesel Generator	Please note that standby diesel generator requirement for new substations not avilable with bid documents. Hence please clarify.	Diesel generator is not required	
553	Nitrogen Injection Fire protection system	Please confirm the requirement of Nitrogen Injection Fire protection system for 80/120MVA, 132/33kV Power transformer	No Please see Clarification No. 1 and Addendum	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
554	water spray system	Please confirm the requirement of water spray system for 225/300MVA, 230/132kV Power transformer.	Yes Please see Clarification No. 1 and Addendum	
555	Price schedule:; Schedule 5 Grand Summary, Page B-217	While reviewing Price Schedule 1 & 2 in Package 1.1, under Schedule B: Bid Prices & Schedules are mentioned as plant & Equipment (including Mandatory Spare Parts) whereas in Price schedules the mandatory Spare Parts is not mentioned this needs to be incorporated into the price schedule.	Only Special Tools shall be provided Please see previous Clarifications	
556	Vol.2 17. Bid drawings; Existing Layout	Please provide the overall layout drawings for existing substations.	Bidders are kindly invited to visit all required locations	
557	Vol.2 17. Bid drawings; Single Line diagram for Feni, Bhulta, Birulia Nagoan & Purbasadipur	Please note that, single line diagram 33kV Auxilary transformer connected through 33kV CB & 33kV Disconnector between tertiary winding of power tranformer, whereas layout shown Earthing/Auxilary transformer & 230/132kV Power tranformer directly connected through 33kV XLPE power cable. Hence please clarify.	Drawings are preliminary and for tender purpose only In this case SLD represent much better the requirements	
558	230/132kV Barapukuria S/S - Scope of work; Vol. 2, 1.2.7 Extension of existing 230/132kV Barapukuria S/S, Page 12 and 13 & Single line diagram Dwg. No BAR/7.1	As per scope of work of Barapukuria S/S, 2 No. of 230kV AIS transmission line bay & relocation of existing 230kV transformer bay (one complete one and half Dia) . Whereas Single line diagram & Layout not clear information for present scope. Hence please clarify.	Please, see answer 505	
559	33kV CT Metering Core; Vol. 3, Technical pariticulars & Gurantees 5.2.3.4 C3: Current Transformer 33 kV, 2000/1A, Page 178 & Single Line diagram for Feni, Bhulta, Birulia Nagoan & Purbasadipur	As per technical schedule for 33kV Current transofomer metering core 1 & 2 shall be Class 0.2. Whereas Single line diagram indicated as Core 1 and 2 as Cl. 0.2 & Cl. 0.5 respectively. Hence please clarify.	Please, follow the Price Schedule and Technical Data Sheets	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
560	230kV Current transformer for 400/230/132 kV Bhulta Substation; A3.1, 4000-2000/1A, 230kV CT	As per Single line diagram & Price schedule for outdoor type, 230kV Current transformer ratio indicated 4000-2000/1A for 400/230/132 kV Bhulta Substation. Whereas technical schedule 5.2.1.8 specified as 2000-1000/1A for transformer bays. Hence please clarify.	Please, follow the Price Schedule (and Technical Data Sheets)	
561	132kV Current transformer for 400/230/132 kV Bhulta Substation; B3.2 2000-1000/1A, 132kV CT for Transformer bays	As per Single line diagram & Price schedule for outdoor type, 132kV Current transformer indicated 5 core CT (2000-1000/1A) for 400/230/132 kV Bhulta Substation. Whereas technical schedule 5.2.2.15 specified as 4 core CT (2000-1000/1A). Hence please confirm requirment of number of cores.	Please, follow the Price Schedule	
562	132kV Current transformer for 400/230/132 kV Bhulta Substation; B3.1 2000-1000/1A, 132kV CT for Buscoupler bay	As per Technical schedule 5.2.2.14 & Price schedule for outdoor type, 132kV Current transformer specified 5 core CT (4000-2000/1A) for 132kV Buscoupler bay for Bhulta Substation. Whereas Single line diagram 5.2.2.15 indicated as 3 core CT (2000-1000/1A). Hence please confirm requirment of number of cores.	Please, follow the Price Schedule	
563	400/230/132 kV Bhulta Substation; Single line diagram for Bhulta dwg., No. BHU/2.1	As per technical specification, scope of work for extension of the existing 400/230/132 kV Substation Bhulta indicated as six (6) 132 kV transmission line bays. whereas SLD BHU/2.1 shows 4 No. of line bays with 8 bays for future extension instead of proposed 6 line bays. Hence Please clarify.	Please, follow the Price Schedule	
564	Price schedule & Technical Particulars & Guarantees	Provide Price schedule & Technical Particulars and Guarantees in editable file formats.	Price Schedules have been provided	
		New 230/132KV GIS Substation Feni		
565	General	As per tender document Vol 1 page 125/353, item no 7. HFL as per last 10years data is 4.5Feet to 5Feet. But during our site visit we have understood from local people that water level raised upto nearby Bituminous road. So we assumed that finish ground level should be Bituminous road Top + 500mm. Please confirm	Please, follow the tender requirements	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
566	General	During site visit we have observed that proposed land has paddy field. We understand that encumbrance free land shall be handed over to successful bidder. Please confirm.	What do you mean with word: ''encumbrance''?	
567	Tree cutting	During our site visit, we observed that few trees were existed within proposed area, which to be uprooted. We understand that, uprooting of all trees is in Bidder's scope. We further understand that, PGCB will made available necessary statutory permission/environmental clearance for tree cutting from the site. Please also provide us the location of disposal of trees. Please confirm.	Both, works & services and necessary approvals are in the Bidder's scope of works. PGCB will provide necessary support	
568	Vol 3 page 241/503 item no – L2.X 12 & 20	As per item no 12.: Security boundary wall – 1Lot" & Item no 20. "Boundary wall – 577Mtr." Both line items are apparently same and creating confusion. Please revised your price schedule as per actual requirement.	Item no. 20 of L2.XE is deleted. Please, find revised Price Schedule	
		Extension of 400/230/132KV Bhulta		
569	Tender doc. Vol.3 Page 253/503, Item no L1.XE	" .. Land development of required switchyard area by cutting, land filling, compacting up to a suitable level. The approximate required area is 5acres. payment will be on actual based ----" But in quantity column you have mentioned Zero, so kindly describe the mode of measurement & payment.		
570	Vol 3 page 253 & 254/503 item no – L2.X 12 & 20	As per item no 12.: Security boundary wall – Lot NA " & Item no 20. "Boundary wall – m 0." Both line items are apparently same and creating confusion. Please revise price schedule as per actual requirement.	Boundary Wall is not required. Item no. 20 of L2.XE is deleted. Please, find revised Price Schedule	
		230/132KV GIS Birulia		
571	General	During our site visit we observed that proposed land located beside two different dimen-sional road, one is Birulia Akram road towards Turag River and other towards Birulia launch terminal. And the proposed area is not under flood zone, so kindly specify the proposed FGL to be considered for land development work.	Please, see answer 203	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
572	Vol 3 page 267/503 item no – L2.X 14 , "Access road"	Kindly specify length of access road.	Please see answer 203	
		Naogaon S/S		
573	Vol 3 page 279/503 item no – L1.X	"Land development of complete switchyard" We observed that there is an existing 132/33KV substation. We trust that finish ground level of proposed substation will be matched with existing sub-station. Please confirm.	Confirmed	
574	General	We observed during site visit that many trees have to be uprooted. We understand that, uprooting of all trees is in Bidder's scope. We further understand that, PGCB will made available necessary statutory permission/environmental clearance for tree cutting from the site. Please also provide us the location of disposal of trees. Please confirm.	Both, works & services and necessary approvals are in the Bidder's scope of works. PGCB will provide necessary support	
575	General	As per our site visit and views of local authorities one abandoned quarter & one Ansar block are to be dismantled, but there have no such items in price schedule, Please recheck and revised your scope of work & price schedule accordingly.	We don't understand your question All required works and services shall be provided…	
576	General	During our site visit, we have observed that existing fencing between existing yard & proposed substation is to be dismantled, but there is no line item in price schedule. kindly recheck & revised your price schedule accordingly.	Please, see previous answer	
577	Vol 3 page 279/503 item no – L2.X. 12, "Security boundary wall"	During our site visit, we observed that proposed area was covered with existing boundary wall. but conditionally not in a good shape. Please clarify that whether new boundary wall is required or repairing and strengthening of existing boundary wall to be adopted. Please confirm.	New Boundary wall is required	
578	General	As per proposed layout, existing 132KV Transformer & line feeders are to be connected with new GIS. So kindly specify whether existing control & relay panel will be in new control room or it will be kept as it is. Kindly confirm.	Complete Relay Protection, Control, Telecommunication, Auxiliary Power Suplly etc. shall be in NEW Control building	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
579	General	Within proposed location of new 132KV GIS building, several electrical equipment, transformer & cable drums were kept. We trust that removal of same not in bidder scope. Please confirm.	No, your understanding is not correct	
580	Vol 3 Page 280/503 item no – L3.3X., "Construction of civil works and facilities for one new building for security workers"	Kindly provide the drawings with all dimensions.	Bidders are kindly invited to visit all required locations	
		Purbasadipur		
581	Vol 3 Page 280/503 item no – L1. X., "Land development of complete switchyard"	We assumed that proposed FGL of 230/132KV GIS will be matched with existing 132/33KV AIS substation. Please confirm.	Confirmed	
582	General	During our site visit, we observed that proposed area is covered with many of trees and bushes. We understand that, uprooting of all trees/bushes is in Bidder's scope. We further understand that, PGCB will made available necessary statutory permission/environmental clearance for tree cutting from the site. Please also provide us the location of disposal of trees.	Both, works & services and necessary approvals are in the Bidder's scope of works. PGCB will provide necessary support	
583	General	During our site visit, we have observed that 8 Nos abandoned building existed within proposed area which to be dismantled. We trust that dismantling of these buildings are not in bidder scope and encumbrance free land to be handed over to successful bidder. Please confirm.	No, your understanding is not correct	
584	General	During our site visit, we have observed that existing transformer location is not matching with the tender layout. Kindly recheck and revised your tender layout as per existing substation.	Drawings are preliminary and for tender purpose only	
585	General	We have observed during site visit that Proposed line orientation is not matching with existing substation line feeder. So, we are unable to calculate actual BUS DUCT quantity.	Please, see several previous answers and Clarification No. 1 and Addendums	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
		Please recheck and revised your layout as per actual condition.		
586	General	We trust that type of foundation for Tower, equipment & transformer will be considered as per soil investigation report & recommendation. Please confirm.	Yes	
		Bogra S/S		
587	Vol 3 Page 299/503 item no – L1. XE, 'Land development of required switchyard area"	We trust that FGL will be matching with the existing 230/132KV switchyard. Please confirm.	Confirmed	
588	General	During our site visit, we have observed that approx. 275Mtr. Boundary wall is to be dismantled but not in price schedule, so, please revise your price schedule as per actual requirement.	We don't understand your question Please, follow the tender requirements All items are already included in the Price Schedule	
589	General	During our site visit, we have observed that few portions of proposed land encroached by local people, we trust that encumbrance free land will be handed over to successful bidder. Please confirm.	Yes	
590	General	Please note that as per scope, existing Road & street light are to be dismantled, but not in BPS, kindly recheck and revise as per actual requirement.	We don't understand your question Please, follow the tender requirements All items are already included in the Price Schedule	
591	General	We trust that all new panels shall be kept in existing Control room. Please confirm.	Yes	
592	General	We trust that type of foundation for Tower, equipment & transformer shall be considered as per soil investigation report & recommendation Please confirm.	Yes	
		Niamatpur S/S		
593	General	For bay extension, existing gravel and brick soling are to be removed, which are not in price schedule, so kindly include the same.	We don't understand your question Please, follow the tender requirements All items are already included in the Price Schedule	

No.	Volume / Section / Clause / Item / Page	Bidder's comment / Query / Clarification	PGCB's Reply / Clarification	Add. Y/N
594	General	New cut outs are to be required for installation of new panel in control room, which is not included in BPS. Kindly recheck & revised your price schedule accordingly.	We don't understand your question Please, follow the tender requirements All items are already included in the Price Schedule	
595	General	We trust that existing sub trench can be used for proposed bay extension. Please confirm.	Only VERY generally speaking yes. Only in case that there is no other acceptable option and in case that existing facility is suit for the purpose All of this will be subject of PGCB Approval	
596	General	As per site condition, new gantry beams are to be connected with existing tower. Kindly provide existing beam drawing with weight.	Bidders are kindly invited to visit all required locations	

List of Addendum-2 (Package-1.1)

No.	No. of Query	Volume / Section / Clause / Item / Page	Addendum
1	196	GENERAL – IMPORTNAT	Preferable connection between GIS Switchgear and Power transformers and Transmission Lines is with GIB (Gas Insulated Busbars) In that case, Outdoor GIS Surge arrester shall be foreseen … In case of remote connection, cable connection can be considered also In case of cable connection, AIS Surge arresters shall be provided. Contractor shall confirm during the design stage that those Surge arresters are enough. If this is not the case, the Contractor shall provide INDOOR GIS Surge arresters also, in front of the GIS Switchgear So, Indoor GIS Surge arrester will maybe be necessary in case of cable connection. *** **In FENI Substation all 230 kV and 132 kV connections SHALL be GIB and all Surge Arresters SHALL be outdoor GIS. Only four transmission lines 132 kV CAN be connected by cable and Surge Arresters can be AIS** **In BIRULIA Substation all 230 kV and 132 kV connections SHALL be GIB and all Surge Arresters SHALL be outdoor GIS.** **In NAOGAON Substation all 230 kV and 132 kV connections SHALL be GIB and corresponding Surge Arresters SHALL be outdoor GIS. Only transformers 132/33 kV and transmission lines 132 kV CAN be connected by cable and Surge Arresters can be AIS** **In PURBASADIPUR Substation all 230 kV and 132 kV connections SHALL be GIB and corresponding Surge Arresters SHALL be outdoor GIS.** **If proposed 132 kV Gantry position shown in the Layout is not practical, the existing gantries 132 kV can be used. In this case, both GIB or Cable 132 CAN be used and appropriate Surge Arresters**

Approved by _____

No.	No. of Query	Volume / Section / Clause / Item / Page	Addendum
			Transformers 132/33 kV CAN be connected by cable and Surge Arresters can be AIS Drawings are PRELIMINARY and FOR TENDER PURPOSE ONLY
2	294	Price Schedule AG.1	AG.1 has been modified in three tables on four place = 12 changes
		Price Schedule AG.2	AG.2 has been modified in three tables on four place = 12 changes
		Price Schedule A5	A5 has been modified (A5 = 0) in three tables on four place = 12 changes
		Price Schedule Q1.1	Q1.1 has been modified (Q1.1 = 0) in three tables on four place = 12 changes
		Price Schedule BG.1	BG.1 has been modified in three tables on three places = 9 changes
		Price Schedule BG.1.1. & BG.1.2	BG.1 split on BG.1.1. and BG.1.2. and modified in three tables on one place = 6 changes
		Price Schedule BG.2	BG.2 has been modified in three tables on two places = 6 changes
		Price Schedule BG.2.1. & BG.2.2	BG.2 split on BG.2.1. and BG.2.2. and modified in three tables on three places = 18 changes
		Price Schedule B5	B5 has been modified in three tables on four place = 12 changes
		Price Schedule Q2.1	Q2.1 has been modified in three tables on four place = 12 changes
3	-	Price Schedule Q3.1	Q.3.1 has been modified in three tables on three places = 9 changes
		Price Schedule Q3.1.1 & Q.3.1.2	Q.3.1 split on Q.3.1.1. and G.3.1.2 and modified in three tables on two places = 8 changes
4	-	Vol 3, Price Schedule G1.1	Item G1.1 has been modified on three places for Substations BOGRA, BARAPUKURIA & NIAMATPUR
5		Vol 3, Price Schedule, Feni, L2X20	Substation FENI : Item L2.X20 has been deleted
6	-	Vol 3, Price Schedule, Bhulta, L2.XE20	Substation BHULTA : Item L2.XE20 has been deleted
7	203	Vol 3, Price Sched-	Substation BIRULIA: Access road shall be from Highway (not local road) and Land development shall be according to this

No.	No. of Query	Volume / Section / Clause / Item / Page	Addendum
		ule, Birulia, L1X & L2X14	level
8	338	Vol 3, Price Sched-ule	Item Q2.1. has been split on item Q2.2.1. and Q.2.2.2.
9	-	Vol 2, Item 10.1.4.9. page 281	New sentence **Admixture shall not be used in concrete mix design** added at the end of paragraph
10	-	Vol 2, Item 10.2.4.9. page 313	New sentence **Admixture shall not be used in concrete mix design** added at the end of paragraph