POWER GRID BANGLADESH PLC

Design, Supply, Installation, Testing & Commissioning of 400/230/132 kV AIS Substation at Pekua and associated single/double circuit 400kV/230kV/132 kV LILO Lines on turnkey basis (Package-1)" (OCB No. PGCB/ADB/400kV/PEKUA/PTSIREP/PACKAGE-1)
Invitation for Bids No.: 27.21.0000.101.07.425.24.2920 dated May 28, 2024

CLARIFICATION NO. 1

Pre-bid meeting was held on 25th June, 2024 as per clause 7.4 of Instruction to Bidders of Volume 1 of 3 of the Bidding document. Attendance Sheet of the meeting is enclosed (Attachment-1). Some queries were received from the prospective Bidders regarding the Bidding Documents prior the Pre-bid meeting as well as some of the bidders have submitted queries after pre-bid meeting. Clarifications on the above queries are given below, which will form part of the bidding documents.

Volume 01 of 03 of the bidding documents

S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
1.	General	We came to know that PGCB has adopted a new official name. As in Bid Documents, the employer's name is mentioned as Power Grid Company of Bangladesh (PGCB), should we use the newly adopted name in our Bid proposal? If yes, kindly mention the new name of the employer.	Please be noted that the Employer's name 'Power Grid Company of Bangladesh Limited' has legally changed to 'Power Grid Bangladesh PLC'. It is preferable to mention the Employer's name as 'Power Grid Bangladesh PLC' In your Bid proposal (i.e. in Letter of Technical Bid, Letter of Price Bid, Bid Security and in all instances where name of employer is to be mentioned). Besides, you are requested to replace 'PGCB' with 'Power Grid' in your proposal. However, if any bidder submits their offer in the Name of Power Grid Company of Bangladesh Ltd. (PGCB),that shall also be acceptable.	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
2.	Volume 1 Section 1: ITB	**Clause Description:** **ITB 11.2 (k) iv.** Unconditional manufacturer's full warranty certificate in its own letter head pad duly signed by both manufacturer and Supplier for a period of Three Hundred and Sixty-Five (365) days from the date of final acceptance of the goods from the respective manufacturer mentioning future availability of spare parts.**ITB 16.1 (b)** The period following completion of plant and services in accordance with provisions of the contract shall be: 5 years **Bidder's Query:** As per warranty certificate requirement, the availability for spare parts is 365 days from date of final acceptance, but the period for spare parts mentioned in itb 16.1 (b) is 5 years, please clarify.	11.2(k), Section-2, BDS is not applicable, Please refer to addendum-1	Y
3.	Volume 1 Section 1: ITB	**Clause Description:** **ITB 11.2 (k), item iv, vi, vii,viii,ix etc.** **Bidder's Query:** it requires to submit warranty certificate, country of origin …signed by both manufacturer and supplier, or submitted by supplier, please clarify if here supplier means manufacturer, or the EPC contractor?	11.2(k), Section-2, BDS is not applicable, Please refer to addendum-1	Y
4.	Volume 1 Section 8: SCC	**Clause Description:** SCC 19.3 For items or parts of the Facilities not specified in the Appendix (List of Major Items of Supply and Services and List of Approved Subcontractors for Major Items) to the Contract Agreement, the Contractor may employ such Subcontractors subject to written approval of Employer's Representative. **Bidder's Query:**	Approval is needed for any amount of subcontracting.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		Kindly specify the minimum subcontracting amount for which subcontractors need to be approval by employer's representative.		
5.	Volume 1 Section 6: Employer's Requirements	**Clause Description:** Section 6: Employer's Requirements Type Test Requirements for Major Equipment (For Substation Part) Type test certificates of Power Transformer of similar or higher specifications (voltage, short circuit rating & capacity) required by the bid shall be submitted as per relevant IEC/equivalent standard and shall be issued by STL1 member testing laboratories or from manufacturer's own testing laboratory. Test carried out at manufacturer's own testing laboratory must have been witnessed and certified by a representative from STL member testing laboratories. **Bidder's Query:** Please clarify whether the test carried out in a independent laboratory and have been witnessed and certified by a representative from STL member testing laboratories is acceptable?	Tests carried out in an independent laboratory and have been witnessed and certified by a representative from STL member testing laboratories is also acceptable.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
6.	Volume 1 Section 6: Employer's Requirements	**Clause Description:** Section 6: Employer's Requirements Type Test Requirements for Major Equipment (For Substation Part) Type test certificates of Shunt reactor, Circuit Breaker, Instrument Transformer (CT/VT), Disconnector switch (DS) and Lightning Arrester shall be issued by STL member testing laboratories. **Bidder's Query:** Please clarify whether the test carried out in an independent laboratory and have been witnessed and certified by a representative from STL member testing laboratories is acceptable?	Type test certificates of Shunt reactor, Circuit Breaker, Instrument Transformer (CT/VT), Disconnector switch (DS) and Lightning Arrester shall be issued by STL member testing laboratories.	N
7.	Volume 1, Section 6, 8. Personnel Requirement	**Clause Description:** Regarding Personnel Requirement **Bidder's Query:** Key Personnel as determined by the EMP and other safeguard management plans. As per Bidder's understanding for Personnel requiremnt we only need to consider Form EXP-6 in Section 4 and no need to consider any other certificates/documents. Please confirm Bidder's understanding is correct.	Key personnel have to fulfill the requirements as mentioned in the Environmental Management Plan (EMP), Section-4 & Section-6 of volume-1 of 3 of the bidding documents.	N
8.	General/ Transmission line/ land acquisition	**Clause Description:** Land acquisition for transmission tower. **Bidder's Query:** Our understanding is the land acquisition for the transmission line tower foundation will be done by the employer. Please confirm our understanding.	A consultant will be appointed for this and with the assistance of the employer consultant will do the land acquisition.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
9.	Volume 1 Section 3 Evaluation and Qualification Criteria on Page No. 62/321 Clause No. 11 Communication Equipment (Fiber Optic Multiplexer & PLC)	**Clause Description:** Existing Fiber Optic Multiplexers used in PGCB,s grid network are ABB(Hitachi) make FOX515/615, Huawei Make OSN1800V and Areva make MSE5001 type. The Proposed Fiber Optic Multiplexer shall have to be integrated with existing telecommunication Network Management System and compatible with existing equipment. **Bidder's Query:** Please provide make and model no of existing Network Management System. Please confirm whether PGCB is using existing Network Management System for monitoring and control of speech, data transfer and line distance and line differential protection coupler from existing Network Management System.	PGCB is currently using U2000 (Huawei, China) and FOXMAN-UN (Hitachi, Switzerland) Network Management Systems. Within a few months U2000 will be upgraded by NCE-T (Huawei, China). Monitoring and controlling of voice & data can be done from both of the existing NMS. Although tele-protection facility is only present in FOXMAN-UN.	N
10.	Volume 1 Section 4 - Bidding Forms - Letter of Technical Bid- Point g	**Clause Description:** Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract, are not subject to, or not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the Asian Development Bank or a debarment imposed by the Asian Development Bank in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the Asian Development Bank and other development banks. **Bidder's Query:** Our Company listed with stock exchange. Therefore, it is not possible to give the similar declaration for Point	It is clarified that the reference to 'direct and indirect shareholders" in the clause does not pertain to any retail shareholders owning small quantities. The reference is to any shareholder who has a significant stake and are able to influence the decision-making process. No change in the Bid Document is required.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		g in letter of Technical Bid for our direct and indirect shareholders. We request to accept the following statement, "Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract, are not subject to, or not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the Asian Development Bank or a debarment imposed by the Asian Development Bank in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the Asian Development Bank and other development banks.		
11.	Volume 1 Section 4 - Bidding Forms - Letter of Technical Bid- Point h	**Clause Description:** Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract, are not under ongoing investigation and/or sanctions proceedings by the Asian Development Bank or any multilateral development bank. **Bidder's Query:** Our Company listed with stock exchange. Therefore, it is not possible to give the similar declaration mention for Point h in letter of Technical Bid for our direct and indirect shareholders. We request to accept the	It is clarified that the reference to 'direct and indirect shareholders" in the clause does not pertain to any retail shareholders owning small quantities. The reference is to any shareholder who has a significant stake and are able to influence the decision-making process. No change in the Bid Document is required.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		following statement, "Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the contract, are not under ongoing investigation and/or sanctions proceedings by the Asian Development Bank or any multilateral development bank."		
12.	Volume 1 Section 4 - Bidding Forms - Letter of Technical Bid- Point i	**Clause Description:** Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the Contract, are not temporarily suspended, debarred, declared ineligible, or subject to any national and/or international sanctions by any country, any international organization, any multilateral development bank and other donor agency. If so temporarily suspended, debarred, declared ineligible, or subject to any national and/or international sanctions by any country, any international organization, any multilateral development bank and other donor agency, please state details (as applicable to each Joint Venture partner, their respective direct or indirect shareholders, directors, key officers, key personnel, associate, parent company, affiliate, subsidiaries, Subcontractors, consultants,subconsultants, manufacturers, service providers and/or Suppliers):	It is clarified that the reference to 'direct and indirect shareholders" in the clause does not pertain to any retail shareholders owning small quantities. The reference is to any shareholder who has a significant stake and are able to influence the decision-making process. No change in the Bid Document is required.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		Bidder's Query: Our Company listed with stock exchange. Therefore, it is not possible to give the similar declaration mention for Point i in letter of Technical Bid for our direct and indirect shareholders. We request to accept the following statement," Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, parent company, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers for any part of the Contract, are not temporarily suspended, debarred, declared ineligible, or subject to any national and/or international sanctions by any country, any international organization, any multilateral development bank and other donor agency.If so temporarily suspended, debarred, declared ineligible, or subject to any national and/or international sanctions by any country, any international organization, any multilateral development bank and other donor agency, please state details (as applicable to each Joint Venture partner, their respective direct or indirect shareholders, directors, key officers, key personnel, associate, parent company, affiliate, subsidiaries, Subcontractors, consultants,subconsultants, manufacturers, service providers and/or Suppliers):		
13.	Volume 1 Section 4 - Bidding Forms - Letter of Technical Bid- Point k	**Clause Description:** Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers, can make and receive electronic fund transfer payments through the international banking	It is clarified that the reference to 'direct and indirect shareholders" in the clause does not pertain to any retail shareholders owning small quantities. The reference is to any shareholder who has a significant stake and are able to influence the decision-making process. No change in the Bid Document is required.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		system or otherwise discharge the Employer's obligation upon initiation of wire transfer. **Bidder's Query:** Our Company listed with stock exchange. Therefore, it is not possible to give the similar declaration for Point k in letter of Technical Bid for our direct and indirect shareholders. We request to accept the following statement. " Our firm, Joint Venture partners, our respective direct and indirect shareholders, directors, key officers, key personnel, associates, affiliates or subsidiaries, including any Subcontractors, consultants, subconsultants, manufacturers, service providers or Suppliers, can make and receive electronic fund transfer payments through the international banking system or otherwise discharge the Employer's obligation upon initiation of wire transfer."		
14.	Volume 1 Section 3: Evaluation and Qualification Criteria 2.6 Subcontractors - Substation related items Disc Insulator	**Clause Description:** Manufacturer's proposed factory shall have at least ten (10) years of manufacturing experience prior to the date of bid submission for similar or higher rating post insulator and/or disc insulator with minimum delivery of at least one hundred (100) similar to proposed type insulator or higher rating insulator over the last ten (10) years. **Bidder's Query:** We understand the referred clause is indicating Qualification requirement is for Disc insulators for substation only. Please confirm.	Your understanding is correct.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
15.	Volume 1 Section 9: Contract Forms Appendix 2 - Price Adjustment (For transmission related works)	**Clause Description:** - **Bidder's Query:** Existing Price Adjustment clause is applicable for Substation Items - Transformer & Transmission Line Items - ACSR Conductor Considering the high volatility in Commodities, we request to allow Price adjustment for Transmission Line Towers, Substation Structures & Shunt Reactor also.	Price Adjustment for Tower has been added. Please refer to Addendum-1.	Y
16.	Volume 1 Section 1: ITB 18.6 (b), Section 2: ITB 18.6 & Section 9: Appendix 2: Price Adjuctment / Condition no (f)	**Clause Description:** In the case of Adjustable Price, ... A Bid submitted with a fixed price quotation will be treated as nonresponsive and be rejected. ..... subject to clarification with the Bidder. The prices quoted by the Bidder shall be: Adjustable If no data is entered for any item in the above table, the price adjustment does not apply to this item. **Bidder's Query:** As per clause ITB 18.6, the bids submitted with the firm price shall be rejected. However as per Appendix-2, if there is no data shared for price adjustment, the price adjustment does not apply to that item, hence we understand that the same will be treated as firm. Please clarify.	Your understanding is correct. If no data entered against all items, the quoted price shall be considered as firm and the bid will be rejected.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
17.	Volume 1, Volume 2 (SS Part) & Volume 3(SS Part) Clause 1.1/Section-1/Volume 2 (SS Part), Clause 16.1/Section-16/Volume 2 (SS Part) Schedule-A/Volume 3 (SS Part) Item no 2A/Schedule 1D and 2D/Section-4/Volume 1	**Clause Description:** " The scope of work may also include four three Phase Shunt Reactor with its capacity size for 400KV line bays and associated switchgears including all necessary works and services if necessary after EMTP study(to be performed by the Contractor) as specified in Section 16, Volume 2 of 3 of the Bidding Document. " "These clauses describe the General Technical Requirements for 400kV Shunt Reactor and associated switchgears including all necessary works and services for installing Shunt Reactor and associated switchgears at 400KV substation and shall be read in conjunction with the Requirements in Volume 2 of 3 if necessary after EMTP study (study to be performed by the contractor) and size of the above reactor shall be based on the above study report." "400kV Air Insulated Switchgears (AIS) New 400kV AIS switchyard for Four(4) 400kV line bays to connect Line in-out of existing 400kV Matarabari-Bashkhali 400kV double circuit overhead line (Matarbari 1 & 2 and Bashkhali 1 & 2); Four(4) shunt Reactor for Four(4) 400kV line bays (based on EMTP study); — Three 400kV transformer bays for three sets of 400/230/33kV, 400/520MVA, three phase auto transformers; space shall be kept for future extension of four (4) 400kV overhead line bays." **Bidder's Query:** Based on the referred clauses of Volume 2 & 3, EMTP study is required and to be conducted by contractor and the reactor size is indicative and to be decided based on	No EMTP study is required.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		the study. However as per Price Schedule reactor size is fixed and the EMTP study is not indicated. We understand that EMTP study is not in the scope of contractor and the size mentioned in price schedule is fixed. Please confirm that our understanding is correct.		
18.	Volume 1 Section 3: Evaluation and Qualification Criteria 2.4.1- Contracts of Similar Size and Nature	**Clause Description:** Participation as a Contractor/JV Partner in at least three contracts that have been successfully completed within the last 10 (ten) years, and those are similar to the proposed contract, where the total cumulative value of these contracts must be at least: USD 75,000,000 (Seventy Five million USD) among those one (01) contract value must be at least USD 45,000,000 (Forty Five million USD) The similarity of the Bidder's participation shall be based on the physical size, nature of works, complexity, methods, technology or other characteristics as described in Section 6 (Employer's Requirements) The scope of each contract must include design, supply, installation,testing & commissioning of new construction or extension/ renovation of existing 380/X kV or higher rated voltage AIS substations with a minimum of three (03) bays including one (1) power transformer of 380/X kV or above. **Bidder's Query:** We understand that combination of Transmission line and Sub-station (similar to present bid scope)* experience will be consider to meet the technical qualification requirement.	Your understanding is correct. The scope of each contract must include design, supply, installation,testing & commissioning of new construction or extension/ renovation of existing 380/X kV or higher rated voltage AIS substations with a **minimum of three (03) bays** including one (1) power transformer of 380/X kV or above.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		* similar to present bid scope:- we understand that a bidder having experience of a project having USD 45,000,000 in which scope consist of construction of 400 KV/ 200 KV /132 KV transmission line along with one New 400 KV sub-staion will be consider to meet the technical requirment "which states that one (01) contract value must be at least USD 45,000,000 (Forty Five million USD)."		
19.		**Clause Description:** SCC10.2 Clause GCC 10.2 shall be replaced by the following: The Employer shall give administrative support to accord all rights of access for substation/ transmission line thereto on or before the date(s) specified in that appendix at the cost of the Contractor. Such cost is deemed to be included in the contract price. The Contractor shall be responsible for acquiring and providing legal and physical possession of the substation/transmission line sites and access thereto, and for acquiring possession of and access to all other areas reasonably required for the proper execution of the contract, as specified in the appendix (scope of works and supply by the employer) to the contract agreement. **Bidder's Query:** We suggest the Employer to be responsible for acquiring and providing legal and physical possession	The Employer shall give administrative support only to accord all rights of access for substation/ transmission line thereto and will not take responsibility for acquiring and providing legal and physical possession of the sites and access thereto. **Therefore, you are advised to follow the bid document.**	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		of the substation/transmission line sites and access thereto, please accept the advice. If not accept the advice mentioned above, as per experience, if the substaiton site acquisition charged by Employer, and the line site be acquired by Contractor? Pls clarify.		
20.		**Clause Description:** SCC10.3 Clause GCC 10.3 shall be replaced by the following: The Employer shall give administrative support to accord permits, approvals and/or licenses from local, state or national government authorities or public service undertakings in the country where the Site is located. The Contractor shall acquire and pay for all permits, approvals and/or licenses from local, state or national government authorities or public service undertakings in the country where the site is located which (a) such authorities or undertakings require to obtain in the Employer's name, (b) are necessary for execution of the contract, including those required for the performance by both the Contractor and the Employer of their respective obligations under the contract, and (c) are specified in the appendix (scope of works and supply by the employer) to the contract agreement. The cost of acquiring such permits, approvals and/or licenses are deemed to be included in the contract price. Subject to Sub-Clause 10.7, any additional field data and drawing required for permits, approvals, and/or licenses from all local, state, or national government authorities, or public service undertakings, which are	The employer shall give only administrative support to the Contractor in acquiring and paying for all permits, approvals and/or licenses as stated in SCC Clause 10.3. The cost of acquiring such permits, approvals and/or licenses are deemed to be included in the contract price. The costs for all the permits, approvals and or licenses necessary for the contract are not available and so can not be provided by the Employer. So, you may consult with Contractors of similar type works to get the information and cost reference.	*N*

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		not required to be supplied by the Employer in the Appendix (Scope of Works and Supply by the Employer), shall be provided by the Contractor." **Bidder's Query:** We suggest the Employer to undertake all the acquisiont of pemits, approvals and or licenses deemed for the contract. If not accept the advice mentioned above, kinly provide information and cost reference for all the permits, approvals and or licences neccessary for the contract.		
21.	Volume 1 Section 3: Evaluation and Qualificatio n Criteria, Clause 1.3.1 Quantifiabl e Deviations and Omissions	**Clause Description:** Time to complete the plant and services from the effective date specified in Article 3 of the Contract Agreement for determining the time for completion of pre-commissioning activities is: 720 Days. No credit will be given for earlier completion. **Bidder's Query:** All of the qualified Transformer manufacturers needs atleast 30 months lead time of transformer manufacturing after engineering approval. Considering the same and further requirement of Transportation, Erection, Testing and Commissioning, it will not be feasible to complete the project in specified time line. We request to revise the project completion period to 36 months instead of 24 months.	It shall be as per bidding documents.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
22.	Volume 1 Section:3 Evaluation and Qualification Criteria/2.6 Subcontractors Section 6 : Employer's Requirements / Type Test of Conductor (For Transmission Line Part)	**Clause Description:** Section 3 : 2.6 Subcontractors/Conductor (ACSR Finch) Type test report for the offered type Conductor. Section 6 : Type Test Reports from Independent internationally reputed testing laboratory/manufacture's own laboratory for Conductor of all offered types (similar or higher size). **Bidder's Query:** As Per Section:3 Evaluation and Qualification Criteria Conductor (ACSR Finch) it is mentioned that Type test report for the offered type Conductor is required. However, in Section 6 : Employer's Requirements it is mentioned that Type Test Reports from Independent internationally reputed testing laboratory/manufacture's own laboratory for Conductor of all offered types (similar or higher size) is acceptable. Please confirm the requirement.	Type Test Reports from Independent internationally reputed testing laboratory/manufacturer's own laboratory for Conductors of all offered types is acceptable.	N

Volume 02 of 03 of the bidding documents (Substation Part)

S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
23.		**Bidder's Query:** In the bidding documents, 400kV, 230kV and 132kV lines connected to the substation are all "π" lines, which involve Bashkhali Station, Matarbari Station, Anwara station and Cox 'bazar station. Whether the line protection of the above stations should be replaced? If not, please specify the specific protection equipment relocation plan.	The contractor is responsible for ensuring that all and/or and any item(s) of work required for the safe, efficient and satisfactory completion and functioning of the works, are included in the Bid Price whether they be described in the specification or not. if necessary, remote end relays shall be also included in the scope of supply with necessary communication	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
			equipment. Bidders are requested to visit sites for existing substation's Data.	
24.		**Bidder's Query:** Kindly provide the distance from Pekua substation to the substations showed in PEKUA 400/230kV OVERALL SLD and PEKUA 132kV OVERALL SLD.	Bidders are requested to visit sites for existing substation's Data.	N
25.		**Bidder's Query:** The information received (drawings, text description of bidding documents, quantity order) is contradictory, please specify the number, floors and area of the buildings in the station.	Please refer to Addendum 1	Y
26.		**Bidder's Query:** The control building is described as a two-story building in the bidding document, but the attached drawing is only a one-story building, please specify which shall prevail.	Please refer to Addendum 1 Control room building shall be three storeyed building. Corresponding drawings are attached.	Y
27.		**Bidder's Query:** There are only guard house, sentry port,car port and pump house in the project list, but there is no information about the main control building and power distribution room. Please make it clear.	Please refer to Addendum 1	Y
28.		**Bidder's Query:** There are two 11kV lines in the substation site provided by the owner. There is no relevant work content for handling them in the bidding documents. It is necessary to clarify with the owner whether the transformation of the line is included in the scope of work of this project.		

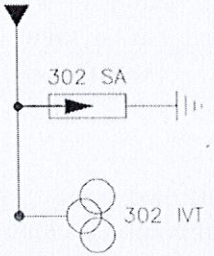
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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
29.		**Bidder's Query:** The information received (drawings, text description of bidding documents, quantity order) is contradictory, please specify the number, floors and area of the buildings in the station.	Please refer to clarification no.1 and Addendum. 1.	Y
30.		**Bidder's Query:** The control building is described as a two-story building in the bidding document, but the attached drawing is only a one-story building, please specify which shall prevail.	Please refer to clarification no.1 and Addendum. 1.	Y
31.		**Bidder's Query:** There are only guard house, sentry port,car port and pump house in the project list, but there is no information about the main control building and power distribution room. Please make it clear.	Please refer to clarification no.1 and Addendum. 1.	Y
32.	SS Part Related Drawings	**Bidder's Query:** In the single line driagram provided by the owner, some 400kV circuit breakers have PIR requirements, but the PIR value and input time are not mentioned in the technical parameter table. Please provide the exact resistance value and input time as well as the number of circuit breakers that need to be configured with PIR.	Please refer to Addendum 1	Y
33.	SS Part Related Drawings	**Bidder's Query:** In the single line driagram provided by the owner, some 400kV circuit breakers have CSD requirements, but it is not mentioned in the text of the bidding document and the technical parameter table. Please confirm whether CSD is configured. If it is required, please provide relevant requirement documents and the number of circuit breakers that need to be configured with CSD.	Please refer to Addendum 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
34.	SS Part Related Drawings	**Bidder's Query:** The transformation ratio of the 230/132kV transformer is 230/132/33kV in the single line driagram provided by the owner and 230/132kV in the BOQ. Please confirm.	Transformer Ratio shall be 230/132/33KV.	N
35.	SS Part Related Drawings	**Bidder's Query:** In the single line driagram provided by the owner, there is a current transformer on the 33kV side of the 33/0.4kV auxiliary transformer, but there is no current transformer in the BOQ. Please confirm.	Please refer to Addendum 1	Y
36.	SS Part Related Drawings	**Bidder's Query:** The electrical layout diagram provided by the owner shows that the 400kV side of the 400/230/33kV transformer has circuit breakers, disconnectors, current transformers and lightning arresters, but the single line driagram does not have them. Please confirm.	All the equipment nos. shall be as per price schedule & schedule A scope of work	Y
37.	SS Part Related Drawings	**Bidder's Query:** Will the long-term 400kV, 230kV, 132kV busbar frame and outgoing line frame be built at the same time in this phase? Please confirm.	It shall be as per bidding documents.	N
38.		**Bidder's Query:** The main wiring part of the drawing attached to the bidding document, what equipment is connected to the 33kV side of the main transformer, specifically see the following figure:	It shall be as per bidding documents.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		33KV INCOMER FROM TERTIARY OF 400/230/33kV TRANSFORMER BAY 2  Should a switch be configured on the 33kV side of the main transformer? If there is no switch, please specify how to configure the main transformer protection.		
39.	Price Schedule_ SS_PEKUA	**Bidder's Query:** The bidding documents require each voltage level to be configured with 2 sets of batteries, as shown in the following figure:	It shall be as per bidding documents.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		a) for 400kV System i) _110V Battery Banks, 350Ah — set — 2 ii) _Charger 120A — set — 2 iii) _110V DC Distribution panel, MCC type — lot — 1 c) for 230kV System i) _110V Battery Banks, 300Ah — set — 2 ii) _Charger 100A — set — 2 iii) _110V DC Distribution panel, MCC type — lot — 1 iv) _Inverter for SAS — set — 2 b) for 132kV System i) _110V Battery Banks, 300Ah — set — 2 ii) _Charger 100A — set — 2 iii) _110V DC Distribution panel, MCC type — lot — 1 Please clarify whether the whole station only uses 2 sets of high-capacity batteries (1000Ah) to reduce the number of battery configurations.		
40.	Volume 2 of 3 SS/ Section 14	**Clause Description:** The Manufacturer of Telecommunication system – Fibre optic multiplexer equipment for communication and protection shall be: ABB (Switzerland), GE (UK/India), ZTE/HUAWEI (China) **Bidder's Query:** Whitch one should be chosed in Pekua substation?	It shall be as per bidding documents.	N
41.	Volume 2 of 3 SS/ Section 14Volume 2 of 3 SS/ Section 17	**Clause Description:** 1) 14.8.2 The total battery capacity shall be able to supply the total load (comprising the delivered load together with 25% spare for future use) for at least 5 hours in the event of failure of the a.c. mains supply.2) 14.8.4.5 The battery capacities shall be 200 ampere hours at the 10 hour rate.3) 17.4.2 The total battery capacity shall be able to supply the total load (comprising the delivered load together with 20% spare for future use) for at least 10 hours in the event of failure of the a.c. mains supply.4) 17.4.4 The battery capacities shall be 250 ampere hours at the 5 hour rate. (as well as	It shall be as per bidding documents.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		that in Price Schedule_ SS_PEKUA)5) Appendix A14 Capacity is 150AH @ 5 Hr (for 48V DC). **Bidder's Query:** 150Ah/200Ah/250Ah battery can not supply the load for 5 hours in the event of failure. Kindly clarify the capacity of the battery and the time the battery supply the load.		
42.	Volume 2 of 3 SS/ Section 14	**Clause Description:** 1) 14.8.1 The charger shall be of either the Thyristor-controlled type or of the SMPS type. 2) Appendix A14.2, Rectifier type is thyristor controlled. **Bidder's Query:** Kindly clarify whether the SMPS type is available.	Battery chargers shall be thyristor controlled.	N
43.	SS Part Related Drawings Price Schedule_ SS_PEKUA	**Clause Description:** 1) PEKUA 400/230kV OVERALL SLD, the line trap is installed on phase B of the 400kV line. 2) Price Schedule, 8 sets of line trap is list for the 4 lines. **Bidder's Query:** Kindly clarify whether the coupling mode is phase-phase or phase-ground. If phase-ground is required, the quantity of the line trap should be 4 sets. please confirm it.	Please refer to Addendum 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
44.	Volume 2 of 3 SS/ Section 18	**Clause Description:** List of Bid Drawings, 48V DC distribution scheme", "Communication network design", "Fibre Optic Multiplexer equipment" **Bidder's Query:** Kindly provide these drawings.	Please refer to Addendum 1	Y
45.	Volume 2 of 3 SS	**Clause Description:** 11.3.6 Water Supply **Bidder's Query:** Kindly ask what is the water source in the station area. If groundwater is used as the water source, is it possible for the groundwater to be polluted by seawater? In addition, what is the depth of the well.	Groundwater is used as the water source. The depth of the well will be finalized during the execution stage.	N
46.	Volume 2 of 3 SS	**Clause Description:** 11.3.3 Drainage If a town's water supply is unreliable, the roof rain water shall be collected in an underground tank of standard Employer's design **Bidder's Query:** Kindly ask if the underground water tank have to be set up, and what is its role?	If a town's water supply is not available, groundwater is needed to be used. Water needs to be treated for drinking purposes through installing a water treatment plant. Line item about the water treatment plant is attached in the price schedule. Please see Addendum-1	N
47.	Volume 2 of 3 SS	**Clause Description:** 11.3.3 DrainageOutside the boundary wall the Bidder shall be responsible for drainage up to 20 metres from the wall and will at some sites need to construct outlets with suitable erosion protection down to paddy level. **Bidder's Query:**	Outside the boundary wall the Bidder shall be responsible for drainage up to 20 meters from the wall and will at some sites need to construct outlets with suitable erosion protection within the property line of the substation area. Beyond the property line of the substation area, additional land acquisition is not required.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		Whether drainage up to 20 metres from the wall will beyond boundary line for land acquisition, how to deal with this part?		
48.	Volume 2 of 3 SS Volume 3 of 3 SS	**Clause Description:** APPENDIX A5 //A5-1//6 PROTECTION RELAYS & ASSOCIOTED EQUIPMENT Techncial Data Sheet -Part 10 Protection **Bidder's Query:** We found that the technical data sheets description items in the appendix 5-1 Protection relays & associated equipment (in volume 2 of 3 SS) are some different with the technical schedules to be filled in the volume 3 of 3 SS, Part 10 protection. Please clarify if it enough for the bidders to submit the schedules of part 10 protection in the volume 3 of 3 SS?	Please refer to Addendum 1	Y
49.	Volume 2 of 2 SS	**Bidder's Query:** Wave trap specification is missing, please clarify.	Please refer to Addendum 1	Y
50.	Volume-2 (SS Part)/Section-11/11.1.1 Scope of work	**Clause Description:** Site preparation including site slope protection, cutting or filling up to the level specified in 10A.1.4 and levelling as well as compaction **Bidder's Query:**	Please see Addendum-1 (price schedule item and related drawing provided)	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		Please mention the type of slope protection (e.g. CC Block/Turfing). Also, there is no line item for slope protection. Please add a line item for slope protection in the price schedule.		
51.	Price Schedule_Package 1 SS Part/Schedule B4.1/1K-Civil Works, Building and Foundation/ 1K.1/(a)	**Clause Description:** Complete land development with carried earth. **Bidder's Query:** The unit of this line item is in lot. Please change the line item from lot to actual quantity.	Please refer to Addendum No. 1	Y
52.	Price Schedule_Package 1 SS Part/Schedule B4.1/1K-Civil Works, Building and Foundation/ 1K.1/ b) /i)-viii)	**Clause Description:** Outdoor Gantry and Equipment foundation for 400kV, 132kV, 245kV, 33kV switchyard; Transformer foundation including oilpit & carrage way; Blast wall **Bidder's Query:** Please change the unit type from 'lot' to 'nos' and mention the quantity as per the number of items required.	Please refer to Addendum No. 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
53.	SS part-related drawings/ bid Drawing (PGCB/ADB/PL/32)/ Property Line Demarkation	**Clause Description:** There is a property line demarcation drawing with structural details. **Bidder's Query:** There is no line item of property line demarcation in the price schedule. Please add a line item of property line demarcation if required for this project.	~~Please refer to Addendum No. 1~~ Property line demarcation will not be used in this project.	~~Y~~
54.	SS part related drawings/ bid Drawing (PGCB/ADB/AB/39)/ Ansar Barrack	**Clause Description:** There is a plan of Ansar Barrack with architectural details. Also a 'box plan' is shown in the general layout. **Bidder's Query:** There is no line item about Ansar barrack in the price schedule. Please add a line item for Ansar Barrack if it is in the bidder's scope.	Please refer to Addendum No. 1	Y
55.	SS part related drawings/ General layout	**Clause Description:** There is a blank box shown beside the 230kV switchyard. **Bidder's Query:** Is the box shown for 230kV SPR? Please confirm if there is any requirement of 230kV SPR and add a line item for the same.	230KV panel shall be in the Main control building	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
56.	Volume-2_SS Part/ Section 11.1.1/ Page-11/4	**Clause Description:** (v) Road including access road with a culvert or sufficient drainage pipes and roadways within sites, surfacing the entire area within site boundary and surface water drainage. **Bidder's Query:** Please specify whether to use culvert or drainage pipes adding a line item about it in the price schedule if required for this project.	Provision of sufficient drainage system is required to road at entrance using drainage pipe. Costs are deemed to be included within the quoted price of the bidder.	N
57.	Volume-2_SS Part/ Section 11.3.1/ Architectural and Structural Requirements of Buildings/ Page-11/10	**Clause Description:** Architectural plan, all elevations, and 3D view of buildings shall be agreed before other detail plans are prepared. **Bidder's Query:** Please describe the properties of the 3D view (e.g number of building sides/corners) and for which building 3D view is required	3D view should be ensured on all sides/angles of the building. For all types of building 3D view is required.	N
58.	Volume-2_SS Part/ Section 11.3.1/ Architectural and Structural Requirements of Buildings/ Page-11/10	**Clause Description:** Any established method (time history analysis etc.) for the dynamic analysis and design (for machine loading) might be adopted to ensure the durability of the structure (foundation, frame, and slab). An equivalent static method can only be used to support/verify the dynamic analysis. **Bidder's Query:** Bidder understands that dynamic analysis is only required when linear static analysis fails to satisfy	Dynamic analysis needs to be done for both seismic and machine loading. It has to be used in both serviceability and strength criteria. Any established method with proper code reference can be used for dynamic analysis and design.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		building serviceability. If serviceability criteria can be satisfied by linear static analysis, there's no need to conduct dynamic analysis. Please clarify our understanding. Also, please clarify if other dynamic analysis methods (e.g., pushover analysis, response spectrum analysis) can be applicable instead of time history analysis where necessary.		
59.	Single Line Diagram: PEKUA 33kV Overall SLD and Price Schedule	**Clause Description:** Regarding 33kV CT **Bidder's Query:** As per Single Line Diagram & our understanding there should be 6 nos CT for 33kV Auxiliary Transformer Bay. However, there is no Line item for 33kV CT in the price schedule. Please clarify our understanding and provide the revised price schedule accordingly if required.	Please refer to Addendum No. 1	Y
60.	Section 14 Page No 14/3 (on the page) and 378/476 (on the PDF file) of Volume 2 (SS Part)_PTSI REP_P1	**Clause Description:** The Scope of work is to connect the Substation Automation System to the existing communication system to be installed under this contract for securing the transport of voice, data and protection signals, complete system for new substations and extension and integration into the existing system for existing substations. The scope of work is to connect REMOTE END substations, too, All necessary equipment, material and services shall bne included in the contract price. **Bidder's Query:** Please provide following details 1. Name of Remote End Stations getting connected to	For information please see the bid drawing. Bidders are requested to visit sites for existing substation's Data.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		400KV PEKUA Substation. 2. Make of Existing Fiber Optic Terminal Equipment at each of the Remote end Substations. 3. Whether sufficient space is available in existing Fiber Optic Terminal Equipmen at each of the Remote End Substations for necessary addition of modules for 400KV PEKUA connection for specific applications		
61.	Section 14 Page No 14/4 (on the page) and 379/476	**Clause Description:** 14.1 Summary of Standards The Equipment shall comply with the latest ITU-T recommendations for the Plesiochronuous, Synchronous hierarchies & multiprotocol label switching transport profile. The equipment shall be KEMA type tested **Bidder's Query:** As per our understanding KEMA type test certificate is sufficient for submission during Bid Stage. No Need to submit Detailed Type Test report at the Bidding stage. Please confirm our understanding is correct.	The equipment shall be KEMA type tested. Detailed Type Test reports can be submitted at the execution stage.	N
62.	Section 14 Page No 14/4 (on the page) and 379/476	**Clause Description:** 14.1.1 PDH Interfaces The PDH interfaces shall confirm to the following recommendations: **Bidder's Query:** PGCB is not having any applications for requirement of PDH interfaces. Please confirm specific PDH interfaces required in Telecom Equipment.	Please refer to Addendum No. 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
63.	Section 14 Page No 14/8 (on the page) and 383/476	**Clause Description:** Any equipment in the network shall be manageable from a control center and there shall be means to supervise external/existing equipment as well. **Bidder's Query:** Please confirm existing NMS at Control Center.	Bidders are requested to visit sites for existing substation's Data.	N
64.	Section 14 Page No 14/8 (on the page) and 383/476	**Clause Description:** As a minimum modules for the following user signals shall be available as plug-in units for the digital multiplexer: • Analogue subscriber interface: subscriber and exchange side • G.703, 64kbit/s data Interface • X.24/V. 11 (RS-422), Nx 64kbit/s data interface • V.24/V.28 (RS-232), data interface • RS 232/485/422 dat interface • Alarm collection interface • Teleprotection command interface • Binary signal (status and control) interface • 2Mbit/s electrical interface for unframed signals acc. to ITU-T G.703 and framed signals acc. to G.703 and Additionally, the equipment shall provide the following aggregate interfaces: • STM-4 (622 Mbit/s) optical 1+1 interface for medium and long distances, with automatic laser shut down. • STM-1 (155 Mbit/s) / STM-4 (622 Mbit/s) optical add-drop interface for medium and long distances, with automatic laser shut down • 2 Mbit/s electrical interface / • 2 Mbit/s HDSL interface **Bidder's Query:** We understand PGCB is accepting Hybrid Equipment	Please refer to Addendum No. 1	Y

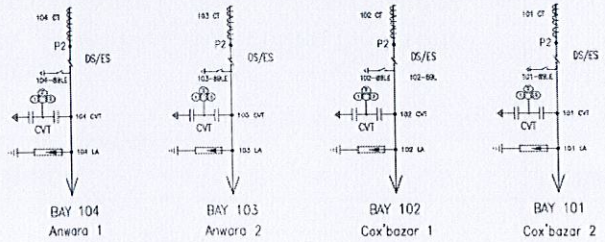
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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		SDH + MPLS-TP hence no separate PDH interfaces are required. Please confirm our understanding is correct.		
65.	Section 14 Page No 14/13 (on the page) and 388/476	**Clause Description:** the following SDH interfaces shall be avaibale : STM 1/4 for 132KV & lower voltage level STM-4/16 for 230KV voltage level STM-16 for 400KV voltage level The number of optical port shall be as per field requirement. **Bidder's Query:** We request you to check as PGCB have accepting Hybrid Equipment SHD + MPLS-TP. For SDH STM-4 and for MPLS-TP 1G with upgradable possiblity in future to 10G by only chaging SFP and suitable software without changing the hardware. Please confirm our understanding is correct.	Please refer to Addendum No. 1	Y
66.	Section 14 Page No 14/13 (on the page) and 388/476	**Clause Description:** 14.5.2.HDSL Interface **Bidder's Query:** PGCB does not have Copper Cable for Transport and using only Fiber Optic Cable for transport Please check and confirm whether HDSL Inteface required. This is also globally obsolete Technology now hence not available OEM.	Please refer to Addendum No. 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
67.	Section 14 Page No 14/14 (on the page) and 389/476	**Clause Description:** 14.6.2 Analogue Subscriber Interface 14.6.3 Exchange Interface 14.6.4 Party Line Telephone System (Engineering Order Wire) 14.6.5 V.24 N-28 RS232 Interface 14.6..7 V.35 Interface 14.6.8 V.36 / RS 485 Interface 14.6.9 64kBit/s Co-direction Interface **Bidder's Query:** 1. Analog PABX is mostly Obsolete now by majority Suppliers. PGCB is also upgrading existing PABX infrastructure from Analog PABX to IP-PABG hence please confirm whether any Analog Interfaces are required. 2. PGCB have upgraded Data Transfer to NLDC and BNLDC using IEC 60870-5-104 hence no V.24 Data interace required. Please confirm	Please refer to Addendum No. 1	Y
68.	Section 14 Page No 14/19 (on the page) and 389/476	**Clause Description:** 14.6.12 Teleprotection Interface All inputs and outputs shall be isolated and with EMC immunity for harsh environment. Security, dependability and transmission speed shall be selectable and programmable. It shall be able to drop and insert commands, transfer commands as a transit station, it shall be possible to have AND- and OR-connections between commands. The interface shall support T-nodes The teleprotection interface shall provide an integrated non-volatile event-recorder which shall be synchronisable either internally or by GPS or a command counter which counts trip commands.	Please refer to Addendum No. 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		Bidder's Query: Please confirm our understanding is offered Distance Protection coupler must support distance protection in 2 direction , it means 2 commands in one direction and another 2 commands in second direction. Bidder can offer standalone protection coupler to meet additional direction separately to meet this requirement. Please confirm our undestanding is correct.		
69.	Section 14 Page No 14/19 (on the page) and 389/476	**Clause Description:** 14.6.13 Optical Interfae Relay Interface **Bidder's Query:** We understand PGCB is using Direct Fiber for Relay to Rely connection for Line Differential Protection. Please confirm if this interface is required and please confirm hitless redundancy is required for Line Differential Protection?	Differential relay to relay to connection type shall be dependent on the remote side existing relay. Bidders are again requested to visit the sites including existing PGCB's Madungahat 400kV substation (Remote site of Pekua).	N
70.	SS Drawings PEKUA 132kV OVERALL SLD	**Clause Description:**  **Bidder's Query:** As per SLD, 132kV Lines are designated as Anwara1, Anwara2, Cox'bazar1 & Cox'bazar2. We understand the same should be Matabari1, Matabari2, Chakaria1 & Chakaria2. Please confirm.	Please refer to Addendum 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
71.	Volume 2 (SS Part) PGCB/ADB/LAY_all	**Clause Description:** SS Part Related Drawings **Bidder's Query:** Request you to please check and confirm the 20 mtr distance required between Property line to Boundary Line.	It shall be as per bidding documents.	N
72.	Volume 2 (SS Part) PGCB/ADB/LAY_all	**Clause Description:** SS Part Related Drawings **Bidder's Query:** We presume that, Gantry Towers, Beams, Rigid/Flexible Main Bus works to be considered only for present scope of works. However, only space provisions to be considered for future scope of works. Please confirm.	Confirmed .	N
73.	Volume 2 (SS Part) PGCB/ADB/LAY_all	**Clause Description:** SS Part Related Drawings **Bidder's Query:** Please provide the location of 2 nos of 500kVA Aux. Transformers to be placed.	The layout drawing is for bid purpose only. Detailed layout is the responsibility of the contractor at the execution stage.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
74.	Volume 2 (SS Part) PGCB/ADB/LAY_all	**Clause Description:** SS Part Related Drawings **Bidder's Query:** Ansar Barrack building has not been mentioned in the price schedule. Hence we understand it should not be considered. Kindly confirm.	Please refer to Addendum 1	Y
75.	General	**Clause Description:** Remote End CRP-NLDC Augmentation **Bidder's Query:** Please note that we are not considering any remote-end NLDC augmentation/modification scope in present scope for complete substation package. Please confirm.	Confirmed.	N
76.	General	**Clause Description:** Remote End Communication-NLDC Augmentation **Bidder's Query:** Please note that we are not considering any communication panel/integration for NLDC in present scope for complete substation package. Please confirm.	NLDC integration of the substation is under the project scope of work	N
77.	General	**Clause Description:** Remote End CRP Panel **Bidder's Query:** Please note that we are not considering any protection and control relay panels for remote end line bays connected to our present scope bays. Please confirm.	It shall be as per bidding documents.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
78.	General	**Clause Description:** HFL **Bidder's Query:** We request you to provide the HFL for Switchyard	It is the bidders responsibility to collect HFL data from Bangladesh Water Development Board.	N
79.	General	**Clause Description:** Slope Protection **Bidder's Query:** During Site visit, it was observed that the existing land is required to filled at least 7 to 8 meters. We request you to provide the type of slope protection to be adopted.	Please see Addendum-1	Y
80.	Volume 2 (SS Part) Cl 11.3.26	**Clause Description:** Concrete **Bidder's Query:** Grade of reinforcement steel shall be Fe500. Please confirm.	Mentioned reinforcement grade (Fe 415) is minimum grade.	N
81.	Volume 2 (SS Part) Cl 11.3.26	**Clause Description:** Concrete **Bidder's Query:** Grade of structural concrete shall be M20 or M30. Please confirm	The concrete grade mentioned (20N/mm2) is the minimum grade.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
82.	Volume 2 (SS Part) Cl 11.3.2& Cl 11.3.21	**Clause Description:** Foundations **Bidder's Query:** Minimum thickness of footing shall be 300 mm. Please confirm.	Confirmed.	N
83.	Volume 2 (SS Part)	**Clause Description:** Crack width **Bidder's Query:** Limiting crack width shall be 0.2 mm for underground structures. Please Confirm.	Limiting crack width shall be 0.2 mm for underground structures. Please Confirm.	N
84.	Volume 2 (SS Part) Appendix 12	**Clause Description:** Wind Load **Bidder's Query:** qref & Wind pressure shall be as per Appendix 12. Please Confirm.	Confirmed.	N
85.	Volume 2 (SS Part) Appendix 12	**Clause Description:** Seismic coefficient **Bidder's Query:** Seismic coefficient shall be 0.1g as per Appendix 12. Please confirm	Confirmed.	N
86.	Volume 2 (SS Part) Cl 11.3.8	**Clause Description:** Building Floors **Bidder's Query:** Minimum thickness of suspended floor slabs shall be 150 mm. Please confirm.	Minimum thickness of suspended floor slabs shall be as per contract and standard design requirement.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
87.	Volume 2 (SS Part) Cl 12.4	**Clause Description:** Materials **Bidder's Query:** Structural steel shall have minimum characteristic strength as 250N/mm2. Please confirm	Characteristic strength of structural steel shall be as per Design.	N
88.	Volume 2 (SS Part) Cl 12.6	**Clause Description:** Protective Treatment **Bidder's Query:** Galvanising shall be as 610 gm/Sqm. Please confirm	Galvanizing shall be as per Code.	N
89.	Volume 2 (SS Part) Cl 11.3.2 [e]	**Clause Description:** Foundations, Site Investigtion **Bidder's Query:** Please specify the minimum diameter of pile	Minimum diameter of pile for support of any structure shall be as per BNBC.	N
90.	Volume 2 (SS Part) Cl 12.3.2	**Clause Description:** Assumed Loading combinations **Bidder's Query:** SCF & wind/seismic shall not be considered simultaneously.	Please follow the load combination of the contract.	N
91.	Volume 2 (SS Part) Section 14 Page No 14/3 (on the page) and 378/476 (on	**Clause Description:** The Scope of work is to connect the Substation Automation System to the existing communication system to be installed under this contract for securing the transport of voice, data and protection signals, complete system for new substations and extension and integration into the existing system for existing	For information please see the bid drawing. Bidders are requested to visit sites for existing substation's Data.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
	the PDF file) of Volume 2 (SS Part)_PTSI REP_P1	substations. The scope of work is to connect REMOTE END substations, too, All necessary equipment, material and services shall be included in the contract price. **Bidder's Query:** Please provide the following details : 1. Name of Remote End Stations getting connected to 400KV PEKUA Substation. 2. Make of Existing Fiber Optic Terminal Equipment at each of the Remote end Substations. 3. Whether sufficient space is available in existing Fiber Optic Terminal Equipment at each of the Remote End Substations for necessary addition of modules for 400KV PEKUA connection for specific applications.		
92.	Volume 2 (SS Part) Section 3 Evaluation and Qualificatio n Criteria on Page No. 62/321 Clause No. 11 Communica tion Equipment (Fiber Optic Multiplexer & PLC)	**Clause Description:** Existing Fiber Optic Multiplexers used in PGCB,s grid network are ABB(Hitachi) make FOX515/615, Huawei Make OSN1800V and Areva make MSE5001 type. The Proposed Fiber Optic Multiplexer shall have to be integrated with existing telecommunication Network Management System and compatible with existing equipment. **Bidder's Query:** Please provide make and model no of existing Network Management System. Please confirm whether PGCB is using existing Network Management System for monitoring and control of speech, data transfer and line distance and line differential protection coupler from existing Network Management System.	Bidders are requested to visit sites for existing substation's Data.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
93.	Volume 2 (SS Part) Section 14 Page No 14/4 (on the page) and 379/476	**Clause Description:** 14.1 Summary of Standards The Equipment shall comply with the latest ITU-T recommendations for the Plesiochronuous, Synchronous hierarchies & multiprotocol label switching transport profile. The equipment shall be KEMA type tested **Bidder's Query:** Please confirm KEMA type test certificate is sufficient for submission during Bid Stage. Detailed Type Test report can be submitted at the execution stage. Please clarify.	"The equipment shall be KEMA type tested. Detailed Type Test reports can be submitted at the execution stage. "	N
94.	Volume 2 (SS Part) Section 14 Page No 14/4 (on the page) and 379/476	**Clause Description:** 14.1.1 PDH Interfaces The PDH interfaces shall confirm to the following recommendations: **Bidder's Query:** PGCB is not having any applications for requirement of PDH interfaces. Please confirm specific PDH interfaces required in Telecom Equipment.	Please refer to Addendum 1	Y
95.	Volume 2 (SS Part) Section 14 Page No 14/8 (on the page) and 383/476	**Clause Description:** Any equipment in the network shall be manageable from a control center and there shall be means to supervise external/existing equipment as well **Bidder's Query:** Please confirm existing NMS at Control Center.	Bidders are requested to visit sites for existing substation's Data.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
96.	Volume 2 (SS Part) Section 14 Page No 14/8 (on the page) and 383/476	**Clause Description:** As a minimum modules for the following user signals shall be available as plug-in units for the digital multiplexer: • Analogue subscriber interface: subscriber and exchange side • G.703, 64kbit/s data Interface • X.24/V. 11 (RS-422), Nx 64kbit/s data interface • V.24/V.28 (RS-232), data interface • RS 232/485/422 dat interface • Alarm collection interface • Teleprotection command interface • Binary signal (status and control) interface • 2Mbit/s electrical interface for unframed signals acc. to ITU-T G.703 and framed signals acc. to G.703 and Additionally, the equipment shall provide the following aggregate interfaces: • STM-4 (622 Mbit/s) optical 1+1 interface for medium and long distances, with automatic laser shut down. • STM-1 (155 Mbit/s) / STM-4 (622 Mbit/s) optical add-drop interface for medium and long distances, with automatic laser shut down • 2 Mbit/s electrical interface / • 2 Mbit/s HDSL interface **Bidder's Query:** We understand PGCB is accepting Hybrid Equipment SDH + MPLS-TP hence no separate PDH interfaces are required. Please confirm our understanding is correct. ?	Please refer to Addendum 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
97.	Volume 2 (SS Part) Section 14 Page No 14/13 (on the page) and 388/476	**Clause Description:** the following SDH interfaces shall be available : STM 1/4 for 132KV & lower voltage level STM-4/16 for 230KV voltage level STM-16 for 400KV voltage level The number of optical port shall be as per field requirement. **Bidder's Query:** We request you to check as PGCB have accepting Hybrid Equipment SHD + MPLS-TP. For SDH STM-4 and for MPLS-TP 1G with upgradable possibility in future to 10G by only changing SFP and suitable software without changing the hardware. Please confirm our understanding is correct.	Please refer to Addendum 1	Y
98.	Volume 2 (SS Part) Section 14 Page No 14/13 (on the page) and 388/476	**Clause Description:** 14.5.2.HDSL Interface **Bidder's Query:** PGCB does not have Copper Cable for Transport and using only Fiber Optic Cable for transport Please check and confirm whether HDSL Inteface required. This is also globally obsolete Technology now hence not available OEM.	Please refer to Addendum 1	Y
99.	Volume 2 (SS Part) Section 14 Page No 14/14 (on the page) and 389/476	**Clause Description:** 14.6.2 Analogue Subscriber Interface 14.6.3 Exchange Interface 14.6.4 Party Line Telephone System (Engineering Order Wire) 14.6.5 V.24 N-28 RS232 Interface 14.6..7 V.35 Interface 14.6.8 V.36 / RS 485 Interface 14.6.9 64kBit/s Co-direction Interface	Please refer to Addendum 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		Bidder's Query: 1. Analog PABX is mostly Obsolete now by majority Suppliers. PGCB is also upgrading existing PABX infrastructure from Analog PABX to IP-PABG hence please confirm whether any Analog Interfaces are required. 2. PGCB have upgraded Data Transfer to NLDC and BNLDC using IEC 60870-5-104 hence no V.24 Data interface required. Please confirm		
100.	Volume 2 (SS Part) Section 14 Page No 14/19 (on the page) and 389/476	**Clause Description:** 14.6.12 Teleprotection Interface All inputs and outputs shall be isolated and with EMC immunity for harsh environment. Security, dependability and transmission speed shall be selectable and programmable. It shall be able to drop and insert commands, transfer commands as a transit station, it shall be possible to have AND- and OR-connections between commands. The interface shall support T-nodes The teleprotection interface shall provide an integrated non-volatile event-recorder which shall be synchronisable either internally or by GPS or a command counter which counts trip commands. **Bidder's Query:** Please confirm our understanding is offered Distance Protection coupler must support distance protection in 2 direction, it means 2 commands in one direction and another 2 commands in second direction. Bidder can offer standalone protection coupler to meet additional direction separately to meet this requirement. Please confirm our understanding is correct.	Please refer to Addendum 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
101.	Volume 2 (SS Part) Section 14 Page No 14/19 (on the page) and 389/476	**Clause Description:** 14.6.13 Optical Interfae Relay Interface **Bidder's Query:** We understand PGCB is using Direct Fiber for Relay to Rely connection for Line Differential Protection. Please confirm if this interface is required and please confirm hitless redundancy is required for Line Differential Protection?	Your understanding is correct.	N
102.	2_Volume 2(SS Part)_PTSI REP_P1	**Clause Description:** 4.2.1 IEC Standards 4.2.2 British Standards 4.2.3 BS European Standards **Bidder's Query:** According to our company regulations, we will apply the standards of IEC(International Electrotechnical Commission), KS(Korean Standard) and ISO (International Organization for Standardization). Please confirm.	It shall be as per bidding document.	N
103.	2_Volume 2(SS Part)_PTSI REP_P1	**Clause Description:** 4.3 POWER TRANSFORMERS Failure of one fan shall not reduce the continuous maximum rating of the transformer. **Bidder's Query:** To be provided two(2) standby fans per total fans. Please confirm.	It shall be as per bidding document.	N

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<table>
<tr><th>S.N.</th><th>Volume/ Section</th><th>Reference and Queries of Prospective Bidders</th><th>Reply(Power Grid)</th><th>Addendum(Y/N)</th></tr>
<tr><td>104.</td><td>2_Volume 2(SS Part)_PTSI REP_P1</td><td>Clause Description:
4.3 POWER TRANSFORMERS
The capacities of each cooling stage as per voltage level are defined as follows:

<table><tr><td></td><td></td><td>ONAN</td><td>ONAF</td></tr><tr><td>400/230/33kV</td><td>HV, LV</td><td>390 MVA</td><td>520 MVA</td></tr><tr><td></td><td>TV</td><td>130 MVA</td><td>180 MVA</td></tr><tr><td>230/132/33kV</td><td>HV, LV</td><td>225 MVA</td><td>300 MVA</td></tr><tr><td></td><td>TV</td><td>75 MVA</td><td>100 MVA</td></tr></table>
Bidder's Query:
ONAN rating of 400kV transformer is different with SLD. To be applied as per SLD as 400/520MVA (ONAN/ONAF). Please confirm.</td><td>400/230/33KV auto transformer shall be 400/520 MVA</td><td>N</td></tr>
<tr><td>105.</td><td>2_Volume 2(SS Part)_PTSI REP_P1</td><td>Clause Description:
4.3.2 Continuous Maximum Rating
To allow for high atmospheric temperatures, the allowable temperature rises shall be reduced in accordance with IEC 60076-2.

Bidder's Query:
Temperature rise limit will be applied such below because max ambient temperature is 45 °C and yearly average ambient temperature is 25 °C. Please confirm.
55/60/73K (top-oil/average winding/hot-spot winding)</td><td>Please refer to revised Schedule E in Addendum-1.</td><td>Y</td></tr>
<tr><td>106.</td><td>2_Volume 2(SS Part)_PTSI REP_P1</td><td>Clause Description:
4.3.8 Noise
The acceptance level of the transformers shall be as stated in the Schedule of Requirements.

Bidder's Query:
We could not find the acceptance noise level of the Transformer. We will use our design value.Please confirm.</td><td>Please refer to revised Schedule E in Addendum-1.</td><td>Y</td></tr>
</table>

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<table>
<tr><th>S.N.</th><th>Volume/ Section</th><th>Reference and Queries of Prospective Bidders</th><th>Reply(Power Grid)</th><th>Addendum(Y/N)</th></tr>
<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>107.</td><td>2_Volume 2(SS Part)_PTSI REP_P1</td><td>Clause Description:
4.5.1 Transformer Tanks
The construction shall employ weldable structural steel of an approved grade to BS 7613 and BS EN 10029.

Bidder's Query:
According to our company regulations, we will apply the KS standard.
KS steel plate(POSCO/Korea) will be applied instead of ASTM, JIS or EN steel plate. Please refer below comparison table.Please confirm.
<table><tr><th rowspan="2">Type</th><th rowspan="2">Standard</th><th rowspan="2">Grade</th><th colspan="3">Mechanical Characteristic</th><th colspan="6">Chemical Composition(% Max)</th><th rowspan="2">Note</th></tr><tr><th>Tensile Strength [Mpa]</th><th>Yield Point [Mpa]</th><th>Elongation [%]</th><th>C</th><th>Si</th><th>Mn</th><th>P</th><th>S</th><th>Cu</th></tr><tr><td rowspan="4">Carbon Steel</td><td>KS D 3503</td><td>SS275</td><td>410-550</td><td>275</td><td>min 18</td><td>0.25</td><td>0.45</td><td>1.4</td><td>0.05</td><td>0.05</td><td>-</td><td>below 16t</td></tr><tr><td>ASTM</td><td>A-36</td><td>400-550</td><td>250</td><td>min 23(2")</td><td>0.25</td><td>0.4</td><td>-</td><td>0.04</td><td>0.05</td><td>0.2</td><td>below 20t</td></tr><tr><td>EN 10025-2</td><td>S275JR</td><td>410-560</td><td>275</td><td>min 23</td><td>0.24</td><td>-</td><td>1.6</td><td>0.04</td><td>0.04</td><td>0.6</td><td>below 16t</td></tr><tr><td>JIS G 3101</td><td>SS400</td><td>400-510</td><td>245</td><td>min 17</td><td>-</td><td>-</td><td>-</td><td>0.05</td><td>0.05</td><td>-</td><td>below 16t</td></tr></table></td><td>It shall be as per bidding document.</td><td>N</td></tr>
<tr><td>108.</td><td>2_Volume 2(SS Part)_PTSI REP_P1</td><td>Clause Description:
4.6.5 Oil Pipes and Flanges
Dimensions of steel pipes shall be in accordance with BS 3600 and the drilling of all pipe flanges shall comply with BS 4504.

Bidder's Query:</td><td>It shall be as per bidding document.</td><td>N</td></tr>
</table>

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		According to our company regulations, we will apply the KS standard.Please confirm.		
109.	2_Volume 2(SS Part)_PTSI REP_P1	**Clause Description:** 4.7 VOLTAGE CONTROL Tap winding and On Load Tap Changer shall be installed at High Voltage side to regulate the Low Voltage side within required system voltage maintaining range, which is +/- 10%. **Bidder's Query:** Tap rnage is different with SLD. To be applied as per SLD as +/-10x1.25%(=+/-12.5%). Please confirm.	Please refer to Addendum no. 1.	Y
110.	2_Volume 2(SS Part)_PTSI REP_P1	**Clause Description:** 4.9.6 Mounting of Bushings A flexible pull-through lead suitably sweated to the end of the winding copper shall be provided for the bushing **Bidder's Query:** The lead will be provided to be connection to the bottom of bushing for over 1600A. Please confirm.	It shall be finalized and approved through detailed engineering during Contract execution.	N
111.	2_Volume 2(SS Part)_PTSI REP_P1	**Clause Description:** 4.9.7 Bushing Current Transformer (BCT) BCT shall be mounted at HV, LV, TV and Neutral Bushing, and installed numbers and particulars are stated in the Schedule A volume 3 of 3 (Schedule of Requirements). **Bidder's Query:** There is no details. To be applied as per similar of	It shall be finalized and approved through detailed engineering during Contract execution.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		previous experience. Please provide detail specifications.		
112.	2_Volume 2(SS Part)_PTSI REP_P1	**Clause Description:** 4.11 TEMPERATURE AND ALARM DEVICES The transformers shall be provided with approved devices of Kilhstrom or equivalent for indicating the top oil temperature and hottest spot winding temperatures. **Bidder's Query:** Please provide us the approved devices of Kilhstrom. If no, we will apply our standard.	It shall be as per requirement of the bidding document.	N
113.	2_Volume 2(SS Part)_PTSI REP_P1)	**Clause Description:** 15.10.21 Outdoor Bushing Assemblies with Porcelain Insulators 15.10.24 Gas and Oil - Actuated Relays **Bidder's Query:** The accessories are not tested separately during the transformer factory test. Instead of factory test, the test report will be submitted by its maker. The functional tests will be done at factory.Please confirm	Your understanding is correct.	N
114.		**Bidder's Query:** According to the single line diagram and electrical general layout, the future outgoing line cannot exit the substation, please comfirm.	Please refer to the revised layout drawing in Addendum-1.	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
115.		**Bidder's Query:** According to the bidding document,the Final Ground/formation Level (FGL) of the site will be 500mm above the crown of the nearest public road or 500mm above the Highest Flood Level (HFL) whichever is greater; And we got the Recorded Highest WL is 7.47 mMSL, please confirm if we design as per this HFL 7.47m or please provide your information for HFL.	Land filling depth will be finalized during the execution stage based on nearest public road or highest flood level data. It is the bidders responsibility to collect HFL data from Bangladesh Water Development Board. Please see Addendum-1.	N
116.		**Bidder's Query:** In addition to the anti-corrosion measures specified in the bidding documents, are there any other anti-corrosion measures, such as improving the strength of concrete?	It shall be as per bidding document.	N
117.		**Clause Description:** 4.7.2 **Bidder's Query:** Article 4.7.2 of the technical specification requires "Then tap changer shall be placed in primary winding side of the Power transformer in order to regulate the secondary winding side operating voltage", requiring CFVV not to allow VFVV, However, It's should be VFVV according to the IEC this requirement , please specify the voltage regulation method and position? Since the requirements in the TDS are blank, we suggest that the employer provide detailed TDS requirements in order to evaluate the bid fairly.	Type of Voltage regulation is C.F.V.V. Please refer to Addendum No.1.	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		Only designs which have been type tested in accordance with these standards will be accepted. Tap changers in auto-transformers shall be located at auto point between the HV and LV windings. Then tap changer shall be placed in primary winding side of the Power transformer in order to regulate the secondary winding side operating voltage. It shall operate in Constant Flux & Variable Voltage (C.F.V.V.) mode. The Variable Flux & Variable Voltage (V.F.V.V.) design for OLTC is generally not acceptable.		
118.	General	**Clause Description:** General **Bidder's Query:** We understand that fire protection and detection system for Shunt reactors is not required. Please confirm.	400kV line Shunt reactor requirement has been removed from scope. Please refer to Addendum No.1	Y
119.	General	We understand that any type of fire protection system for any residential, Office, Staff Quarter, Labor Hut, Ansar Barrack etc is not required. Please confirm.	Please follow the bidding document.	N
120.	VOLUME 2A OF 3 (SUBSTATION PART) SECTION 11 / Clause No11.17	**Clause Description:** General **Bidder's Query:** We understand that Fire extinguisher quantity shall be w.r.t Table-1 provided under clause No 11.7.2. Please confirm	Confirmed.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
121.	VOLUME 2A OF 3 (SUBSTATION PART) SECTION 4 / Clause No 4.17.2	**Clause Description:** The pressurizing air vessel is to be designed for a minimum spraying time of 5/20 minutes and is to be fully equipped with all necessary fittings and connecting pipes, pressure controllers, low water level alarm, reducing valves and all other equipment essential for trouble-free operation. **Bidder's Query:** As per referred Clause, The pressurizing air vessel is to be designed for a minimum spraying time of 20 minutes. However, please note that, Pressurizing Vessel shall be provided to minimize the no. of Start- Stop of Jockey Pumps. The size of Pressurizing vessel shall be decided to meet water demand due to Minor leakage through various Flanges, Joints etc. in Fire Pipe Network & the same shall not be decided based on Spraying Time. If we consider Fire Water Storage Tank for 1 hr. operation of HVWS System for Transformer as per NFPA, then Further storage of 20 min. spraying time for pressurizing Vessel is not required at all. Also note the 20min Spraying time Storage will be huge Size, over design & unnecessary add to the cost of Project. Hence, we request you to check & revise this clause.	Fire Water Storage Tank for 1 hr. operation of HVWS System shall be considered.	N
122.	General	**Bidder's Query:** We understand that, Hydrant system is not envisaged for this bid, as the same is neither mentioned in TS nor in price schedule. Please confirm	For transformers, please refer to clause 4.17.2 in Section 4 of the bidding document. For rest, please refer to the bidding document.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
123.	General	**Bidder's Query:** We understand that, conventional type Fire Detection & Alarm System shall be considered. Please confirm.		
124.	General	**Bidder's Query:** We will consider Above ground Fire Water Tank is acceptable to maintain Flooded (Positive) Suction of Fire Water Pumps. Please confirm	It shall be finalized through detailed engineering during Contract execution.	N
125.	General	**Bidder's Query:** Cooling capacity of 2TR AC unit shall not be less 22000BTU/hr. and shall have energy efficiency rating of 3 star, However, with revised BEE star rating & current availability of models from all supplier, 2TR AC unit is available with 21000BTU with 4star rating only.	It shall be as per requirement of the bidding document.	N
126.	Volume 2(SS Part) Section 4: Power Transformer / 4.7.1 General	**Clause Description:** Number and range of taps shall be as called for in the Schedule A of Requirements. **Bidder's Query:** The number and range of tap changers data is missing in Schedule A of Volume 3(SS Part). Request you to please check and Provide.	Please refer to Addendum No.1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
127.	Volume 2(SS Part) Section 4: Power Transformer / 4.9.7 Bushing Current Transformer (BCT)	**Clause Description:** BCT shall be mounted at HV, LV, TV and Neutral Bushing, and installed numbers and particulars are stated in the Schedule A volume 3 of 3 (Schedule of Requirements). **Bidder's Query:** The number of BCT data is missing in Schedule A of Volume 3(SS Part). Request you to please check and Provide.	Please refer to Addendum No.1	Y
128.	Volume 2(SS Part) Section 4: Power Transformer / 4.5.4 Joints and Gaskets	**Clause Description :** Oil resisting synthetic rubber gaskets are not permissible except where the synthetic rubber is used as a bonding medium for cork, or similar material, or where metal inserts are provided to limit compression. **Bidder's Query:** Synthetic materials is being used for most gaskets while few of our suppliers mainly uses Nitrile rubber; Acrylate; Fluorosilicone rubber; and Hydrogenated nitrile rubber as gasket material. But the Technical specification mentioned the synthetic rubber gaskets are not permissible. We request you to confirm the materials can be used for Gasket.	It shall be as per the requirement of the bidding document.	N
129.	Volume 2(SS Part) Section 16 : Works and Equipment for Shunt	**Bidder's Query:** Please Provide the shunt reactor neutral point voltage.	400kV line Shunt reactor requirement has been removed from scope. Please refer to Addendum No.1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
	Reactor installation			
130.	Volume 2(SS Part) General	**Bidder's Query:** The existing PLC equipment (ABB Switzerland) installed at Bashkhali and Matarbari for 400KV Bashkhali-Martarbari D/C line. Please confirm the MODEL (eg.ETL-XXX) and the Quantity of installed PLC equipment	Bidders are requested to visit the site for detailed information.	N
131.	Volume 2(SS Part)Genera l	**Bidder's Query:** LILO of 400KV Bashkhali-Martarbari D/C line at 400/230/132KV Pekua substation, there will be TWO line sections (Bashkhali-Pekua and Pekua-Matarbari) Please confirm the line length of both sections after LILO.	Please refer to the transmission line part of the bidding document.	N

Volume 02 of 03 of the bidding documents (Transmission Line Part)

S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
132.		**Clause Description:** 6.3.1.2 Employer requires that a detailed Geotechnical investigation be carried out at various tower locations to provide the designer with sufficiently accurate information, both general and specific, about the substrata profile and relevant soil and rock parameters at site on the basis of which the foundation of transmission line towers can be classified and designed rationally. **Bidder's Query:**	For all tower locations, at least one number of boreholes is required for subsoil investigation.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		does it require all tower positions to be drilled.		
133.		**6.8 Morphological Study of Rivers-Not Applicable.** Morphological study should be conducted for the rivers which are crossed by transmission line or the rivers that run parallel/close to transmission line. The study shall be carried out by a specialist firm/person appointed by the Contractor in consultation with the Employer's Engineer. Duely sealed and signed study report shall be submitted by the Contractor for Employer's review and approval. The study report shall include the following: a. Geological information of the study area including geomorphology, geological structure. b. Observations and data regarding historical channel and bank line movement for the river/ change of course of river; c. Prediction about possible future development of the river. d. Design discharge, maximum velocity, scour depths, silt factor, etc., and history of flood details for mid-stream and river bank locations. include the study of cross river river morphology? This study should be carried out by a professional company/personnel designated by the owner.	Clause no. 6.8 is applicable. Please follow the addendum1.	Y
134.	Volume 2 of 3 TL	**Clause Description:** 11.1.5 and Annex 11-4(1) **Bidder's Query:** This section mentions that the Contractor shall submit warranty certificate for ACCC conductor and other related content of the ACCC conductor, but the transmission line does not use ACCC conductor. It is necessary to clarify with the owner whether to cancel the submission of relevant documents of ACCC conductor.	ACCC Conductor will not be used in this project. Please follow the addendum1.	N
135.	Volume 2 of 3 TL	**Clause Description:** Annex 8-2、Annex 8-3、Annex 8-4 (1) **Bidder's Query:** This section states that 230kV double-circuit towers will not be used, and double-circuit terminal towers are	Anowara-Cox's Bazar 230kV double circuit transmission line will be constructed under another project.Two 2DT6 terminal type tower will be constructed under that project.in that case only auxiliary cross arm of 2DT6 type tower may be	N

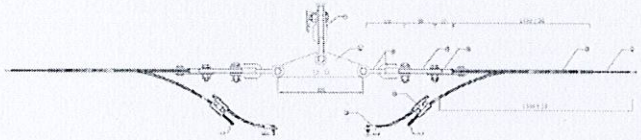
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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		not included in the material list. In fact, two double-circuit terminal towers 2DT6 should be used for LILO, which needs to be clarified with the owner.	required for LILO line.Hence in Bill of Quantity (BoQ) there is a item for auxiliary cross arm of 2DT6.	
136.	Volume 2 of 3 TL	**Clause Description:** 22. Technical Specifications of Bypass Equipment **Bidder's Query:** Please clarify who will provide the bypass equipments	400kV Bypass equipment will be supplied under this project.For 230kV and 132kV lines existing bypass equipment from PGB PLC store will be used.Please follow the bid documents properly.	N
137.	Volume 2 of 3 TL	**Clause Description:** 22.14 Spare Parts 22.14.1 Mandatory Spares The following mandatory spares shall be supplied along with the ERS beyond the minimum required to restore any one of the six failure scenarios specified in this bidding document: **Bidder's Query:** The list of mandatory spare parts required here is not in BOQ, please confirm whether the bidder needs to provide it?	The bidder needs to provide it. Please follow the Addendum1.	Y
138.	Volume 2 of 3 TL	**Clause Description:** 14.2.5 Optical Joint Boxes 14.2.5.5. The door of the box shall be fitted with captive hinges and shall be fastened shut by screw fixings. A hasp shall be provided on the door capable of taking a 10mm padlock. **Query:**	Please follow the bid documents.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		Is the metal closure type with screw fixing fastening but without captive hinges or door capable accepted?		
139.	Volume 2 of 3 TL	**Clause Description:** 14.2.5 Optical Joint Boxes14.2.5.7. The top and bottom of the joint box shall be vented, and the vents provided with vermin shields. **Bidder's Query:** Is the metal closure enclosure type with IP66 protection without vented or vermin shields accepted?	Please follow the bid documents.	N
140.	Volume 2 of 3 TL	**Clause Description:** 14.2.5 Optical Joint Boxes 14.2.5.6. The bottom of the box shall be fitted with two gland plates, each gland plate shall have two entry points. The gland plates shall be interchangeable, one style shall be used for fibre optic earthwire, the other for underground fibre optic cable. The joint boxes shall be supplied complete with all fittings to secure and seal the cable in the gland plates or blank the unused spigots. Cable cleats to secure the fibre optic OPGW or underground cable shall be fitted inside the box. The cleats shall not have a detrimental effect on the performance of the optical fibres when tightened to the recommended torque. **Bidder's Query:** Are tower anchoring accessories for suspension and tension clamp included in the suspension and tension clamp set?	Please follow the bid documents.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
141.	Volume 2 of 3 TL	**Clause Description:** 14.2.4 OPGW Fittings **Bidder's Query:** In the suspension set, all fittings for cable storage and guide to the joint box are required in it. But usually joint box works with double tension clamp. Does it mean the suspension set is the type of double tension clamp as shown below? 	Joint boxes will be installed at tension towers only. So this arrangement is not needed. Please follow the bid documents.	N

Volume 03 of 03 of the bidding documents (Substation Part)

S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
142.	Volume 3 of 3 SS	**Clause Description:** Schedule A Introduction & Preamble to the Price & Technical Schedules **Bidder's Query:** Schedule A is missing, please clarify	It shall be as per bidding document.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
143.	Volume 3 of 3 SS	**Clause Description:** SCHEDULE C TIMES FOR DELIVERY AND COMPLETION Guaranteed Arrival of first shipment: 20 month **Bidder's Query:** The first shipment arrived in the 20th month too late, please clarify that this requirement is not mandatory	Earlier date of arrival of first shipment is also acceptable based on approval of Programme/L2 schedule/delivery schedule during Contract execution.	N
144.	VOLUME 3A (SS Part) Schedule E: Technical Particulars and Guarantees PART 2 – TRANSFORMERS 4.2.4 Transformers 2.1 400/230/33 kV, 400/520MVA, 3-PHASE POWER TRANSFORMER: 2.2 400/230/3	**Clause Description:** Regarding Power Transformer **Bidder's Query:** We do not find the parameters of the power transformers, such as impedance voltage, voltage ratio, vector group, winding insulation voltage, temperature rise value, sound pressure value, cooling method and so on. Furthermore what is losses value requirement? Would you please provide the losses value limit or losses capitalized value?	400/230/33KV auto transformer shall be 400/520 MVA .	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
	3 kV, 390/520MVA, 3-PHASE POWER TRANSFORMER:			
145.	VOLUME 3A (SS Part) Schedule E: Technical Particulars and Guarantees PART 11 – SHUNT REACTOR	**Clause Description:** Regarding Shunt Reactor **Bidder's Query:** We do not find the parameters of the shunt reactor, such as winding insulation voltage, temperature rise value, sound pressure value and so on. Furthermore what is losses value requirement? Would you please provide the losses value limit or losses capitalized value?	400kV shunt reactor is not included in the scope of work. Please refer to Addendum No. 1.	Y
146.	VOLUME 3A (SS Part)	**Clause Description:** Regarding SLD and Layout Drawing **Bidder's Query:** We did not find any SLD and Layout Drawing. Requesting you to provide the SLD drawing and layout drawing.	It shall be as per bidding documents.	N
147.	Volume 3 (SS & TL Part)	**Clause Description:** Regarding GTP **Bidder's Query:** In all the GTP, the employer requirement parameters are	**For TL Part:** It shall be as per bidding documents. **For SS Part:** Please refer to Addendum No. 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		not given. Please provide the necessary employer's requirement parameters.		
148.	Volume 3A (SS Part) & Price Schedule	**Clause Description:**Regarding Power Transformer Rating **Bidder's Query:** In the GTP, the Power Transformer rating is mentioned as "400/230/33 kV, 390/520MVA, 3-PHASE POWER TRANSFORMER". But in Price schedule it is mentioned as "230/132/33 kV, 225/300MVA (ONAN/ONAF), three phase Power Transformer". Please clarify.	Auto transformer rating 400/230/33KV, 400/520MVA & auto transformer 230/132/33KV , 225/300MVA both are in the scope of supply.	N
149.	Volume 3A (SS Part), Schedule A & Price Schedule	**Clause Description:** Regarding AIS Equipment Rating **Bidder's Query:** In Volume 03A, Schedule A, Requirements - The rating of AIS Equipments does not match with Price Schedule. Please clarify.	Please refer to Addendum No. 1	Y
150.	Volume 1, Volume 3 (SS Part) Item 1A1/Schedule-A/Volume 3 (SS Part) Item no	**Clause Description:** Rating of 400kV gang operating Circuit Breaker **Bidder's Query:** As per Volume 3, rating of Gang operating Circuit Breaker is 5000A. However as per Price Schedule, same is indicated as 4000A. Please clarify.	Please refer to Addendum 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
	1A.1/Schedule 1D and 2D/Section -4/Volume 1			
151.	Volume 1, Volume 3 (SS Part) Item 1A2/Schedule-A/Volume 3 (SS Part) Item no 1A.2/Schedule 1D and 2D/Section -4/Volume 1	**Clause Description:** Rating of 400kV single pole operating Circuit Breaker **Bidder's Query:** As per Volume 3, rating of single pole operating Circuit Breaker is 5000A. However as per Price Schedule, same is indicated as 4000A. Please clarify.	Please refer to Addendum 1	Y
152.	Volume 1, Volume 3 (SS Part) Item 1A3 & 1A4/Schedule-	**Clause Description:** Rating of 400kV Disconnectors **Bidder's Query:** As per Volume 3, rating of Disconnectors is 5000A. However as per Price Schedule, same is indicated as 4000A. Please clarify.	Please refer to Addendum 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
	A/Volume 3 (SS Part) Item no 1A.3 & 1A.4/Schedule 1D and 2D/Section -4/Volume 1			
153.	Volume 1, Volume 3 (SS Part) Item 1A9/Schedule-A/Volume 3 (SS Part) Item no 1A.9/Schedule 1D and 2D/Section -4/Volume 1	**Clause Description:** Rating of 400kV Wave Trap **Bidder's Query:** As per Volume 3, rating of Wave Trap is 5000A. However as per Price Schedule, same is indicated as 4000A. Please clarify.	Please refer to Addendum 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
154.	Volume 1, Volume 3 (SS Part) Item 1B3/Schedule-A/Volume 3 (SS Part) Item no 1B.3/Schedule 1D and 2D/Section-4/Volume 1	**Clause Description:** Rating of 230kV gang operating Circuit Breaker (for Bus Coupler) **Bidder's Query:** As per Volume 3, rating of Gang operating Circuit Breaker (for Bus Coupler) is 4000A. However as per Price Schedule, same is indicated as 2000A. Please clarify.	Please refer to Addendum 1	Y
155.	Volume 1, Volume 3 (SS Part) Item 2A3/Schedule-A/Volume 3 (SS Part) Item no 2A.3/Schedule 1D and 2D/Section	**Clause Description:** Rating of 400kV Disconnector (for Shunt Reactor) **Bidder's Query:** As per Volume 3, rating of Disconnector (for Shunt Reactor) is 800A. However as per Price Schedule, same is indicated as 2000A. Please clarify.	Please refer to Addendum 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
	-4/Volume 1			
156.	Volume 1 Section 4 Price Schedules Schedule 1D, S.No: 1A.6	**Clause Description:** 420kV Current Transformer **Bidder's Query:** Please provide core wise details to be considered for 420 kV Current Transformer.	Please refer to Addendum 1	Y
157.	Volume 1 Section 4 Price Schedules Schedule 1D, S.No: 1A.7	**Clause Description:** 420kV capacitive voltage transformer **Bidder's Query:** Please provide core wise details to be considered for 420 kV Capacitive Voltage Transformer.	Please refer to Addendum 1	Y
158.	Volume 1 Section 4 Price Schedules Schedule 1D, S.No: 1B.8	**Clause Description:** 245kV Current Transformer for Transformer Bay **Bidder's Query:** Please provide core wise details to be considered for 245 kV Current Transformer to be installed in Transformer Bay.	Please refer to Addendum 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
159.	Volume 1 Section 4 Price Schedules Schedule 1D, S.No: 1B.9	**Clause Description:** 245kV Current Transformer for line bay **Bidder's Query:** Please provide core wise details to be considered for 245 kV Current Transformer to be installed in line bay.	Please refer to Addendum 1	Y
160.	Volume 1 Section 4 Price Schedules Schedule 1D, S.No: 1B.10	**Clause Description:** 245kV Current Transformer bus coupler bay **Bidder's Query:** Please provide core wise details to be considered for 245 kV Current Transformer to be installed in bus coupler bay.	Please refer to Addendum 1	Y
161.	Volume 1 Section 4 Price Schedules Schedule 1D, S.No: 1B.11	**Clause Description:** 245kV capacitive voltage transformer **Bidder's Query:** Please provide core wise details to be considered 245 kV capacitive voltage Transformer.	Please refer to Addendum 1	Y
162.	Volume 1 Section 4 Price Schedules Schedule 1D, S.No: 1C.8	**Clause Description:** 145kV Current Transformer for Transformer Bay **Bidder's Query:** Please provide core wise details to be considered for 145 kV Current Transformer to be installed in Transformer Bay.	Please refer to Addendum 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
163.	Volume 1 Section 4 Price Schedules Schedule 1D, S.No: 1C.9	**Clause Description:** 145kV Current Transformer for line bay **Bidder's Query:** Please provide core wise details to be considered for 245 kV Current Transformer to be installed in line bay	Please refer to Addendum 1	Y
164.	Volume 1 Section 4 Price Schedules Schedule 1D, S.No: 1C.10	**Clause Description:** 145kV Current Transformer bus coupler bay **Bidder's Query:** Please provide core wise details to be considered for 245 kV Current Transformer to be installed in bus coupler bay	Please refer to Addendum 1	Y
165.	Volume 1 Section 4 Price Schedules Schedule 1D, S.No: 1C.11	**Clause Description:** 145kV capacitive voltage transformer **Bidder's Query:** Please provide core wise details to be considered 145 kV capacitive voltage Transformer.	Please refer to Addendum 1	Y
166.	Volume 1 Section 4 Price Schedules Schedule 1D & "Pekua 36kV	**Clause Description:** 33kV Current Transformer **Bidder's Query:** As per "Pekua 36kV Overall SLD", 36 kV Current Transformer is required. However, same is not indicated in price schedule. Please clarify.	Please refer to Addendum 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
	Overall SLD"			
167.	Volume 1	**Clause Description:** 33kV Current Transformer **Bidder's Query:** Please provide core wise details to be considered for 33kV Current Transformer.	Please refer to Addendum 1	Y
168.	Volume 1 Section 4 Price Schedules Schedule 1D, S.No: 1D.3	**Clause Description:** 33kV Inductive Voltage Transformer **Bidder's Query:** Please provide core wise details to be considered for 33kV Inductive Voltage Transformer.	Please refer to Addendum 1	Y
169.	Volume 1 Section 4 Price Schedules Schedule 1D, S.No: 1F	**Clause Description:** Control, Protection, SAS and Metering **Bidder's Query:** CRP panels for Mid breaker bay is missing in price schedule. Request you to kindly check and appropriate add in Price Schedule.	It shall be as per bidding documents.	N
170.	Volume 1 Section 4 Price Schedules Schedule	**Clause Description:** LVAC Distribution **Bidder's Query:**	Please refer to Addendum 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
	1D, S.No: 1J	Please provide LT AC SLD to be considered for this requirement.		
171.	Volume 1 Section 4 Price Schedules Schedule 1D, S.No: 1I	**Clause Description:** Batteries, chargers & DC distribution **Bidder's Query:** Please provide LT DC SLD to be considered for this requirement.	Please refer to Addendum 1	Y
172.	Volume 1 Section 4 Price Schedules Schedule 4D, S.No: 1K.2, a)	**Clause Description:** Three storied Operation Room **Bidder's Query:** Please provide floor wise rooms details to be considered for Main Control Room Building.	Please refer to Addendum 1	Y
173.	Volume 1 Section 4 Price Schedules Schedule 4D, S.No: 1K.2, a)	**Clause Description:** Three storied Operation Room **Bidder's Query:** We presume that, 33kV CRP panels, DFDR panels, Tariff Metering panels, 48V Battery, 48V Chargers, 48V DCDBs & SAS panels are to be placed in Control Building. Please confirm.	48V Battery, 48V Chargers, 48V DCDBs & SAS panels are to be placed in the Control Building.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
174.	Volume 1 Section 4 Price Schedules Schedule 4D, S.No: 1K.2, b)	**Clause Description:** 400kV switchyard panel Room (SPR) **Bidder's Query:** We presume that one no. of SPR to be considered for two nos. of diameters of 400kV Bays (4 nos. of feeders and 2nos. Of Tie bays). Please confirm.	Please refer to Addendum 1	Y
175.	Volume 1 Section 4 Price Schedules Schedule 4D, S.No: 1K.2, b)	**Clause Description:** 400kV switchyard panel Room (SPR) **Bidder's Query:** We presume that, 400kV CRP panels, RTCC panels, 110V Battery, 110V Chargers, 110V DCDBs, CRP panels for 400kV Shunt Reactors are to be placed in 400kV SPR rooms. Please confirm.	confirmed.	N
176.	Volume 1 Section 4 Price Schedules Schedule 4D, S.No: 1K.2, d)	**Clause Description:** 132kV switchyard panel Room (SPR) **Bidder's Query:** We presume that, 132kV CRP panels, 110V Battery, 110V Chargers and 110V DCDBs are to be placed in 132kV SPR rooms. Please confirm.	confirmed.	N
177.	General	**Clause Description:** 230kV switchyard panel Room (SPR) **Bidder's Query:** We understand that SPR for 230kV switchyard is missing in the price schedule. We request you to kindly check the requirement and add in Price Schedule.	It shall be as per bidding documents.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
178.	Volume 1 Item no 1K (a)/Schedule 4D/Section -4/Volume 1	**Clause Description:** Complete Land development with carried earthfilling - Lot 1 **Bidder's Query:** We request you to provide the quantity in cubic meter.	Please refer to Addendum 1	Y
179.	Volume 1 Item no 1K (b) (xii) /Schedule 4D/Section -4/Volume 1	**Clause Description:** Chain Link Fencing - Lot 1 **Bidder's Query:** We request you to provide the quantity in meter.	Please refer to Addendum 1	Y
180.	Volume 1, Volume 3 (SS Part) Schedule-A/Volume 3 (SS Part) Item no 2A/Schedule 1D and 2D/Section -4/Volume 1	**Clause Description:** Works and Equipment for Shunt Reactor Installation Four 400kV three Phase Shunt Reactor ONAN (Size: 20MVAR and associated switchgears including all necessary works and services as specified in Section 16, Volume 2 of 3 of the Bidding Document. **Bidder's Query:** Based on the referred clause of Volume 3, the shunt reactor size is indicative as 20MVAr. However as per Price Schedule reactor size is 25MVAr. Please clarify.	Please refer to Addendum 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
181.	Volume 3 of 3 SS	**Clause Description:** Technical Data sheet for 400kV Shunt Reactor **Bidder's Query:** There are no technical requirements in TDS, Please provide the rated voltage, maximum operating voltage, loss, temperature rise, head and end insulation level and other technical parameters of the Shunt Reactor so that we can design/respond, and also facilitate employers to conduct unified bid evaluation.	400kV line Shunt reactor requirement has been removed from scope. Please refer to Addendum No.1	Y
182.	Volume 3 of 3 SS	**Clause Description:** Technical Data sheet for surge arrestor, CT, VT, Batteries and Chargers etc. **Bidder's Query:** There are no technical requirements in TDS, Please provide your minimum requirements, technical parameters of all equipment.	Please refer to Addendum No.1	Y
183.	VOLUME 3A OF 3 (SUBSTATION PART) 1K_Civil Works, Building and Foundation 1K3	**Clause Description:** -Complete design, supply and construction of fire-fighting system for transformers including water pipe network and reservoir at normal pressure -One (1) lot of complete design, supply and construction of firefighting system for transformers including water pipe network and reservoir at normal pressure. Necessary Sizing calculation shall have to be submitted for approval during execution stage. **Bidder's Query:** We understand that power transformer shall be provided	Your understanding is correct. Also, detailed requirements of the transformer fire fighting system are provided in Section-4 of Volume 2.	N

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
		HVW Spray system with pumping arrangement and necessary pipings. Please confirm.		
184.	Volume 3 of 3, Requirements: Section 1: Line Item: 2A3 and Price Schedule, Line Item: 2A3	**Clause Description:** Regarding Rating of 400kV Disconnector **Bidder's Query:** As per scope of work, The rating of 400kV Disconnector without Earthswitch is 800A. But, In price schedule, rating is 2000A. Please clarify the actual requirement.	Please refer to item 185 of Clarification-1.	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
185.	Volume 3 of 3, Requirements: Section 1: Line Item: 1A1-1A91 and Price Schedule, Line Item: 1A1-A9	**Clause Description:** Regarding 400kV AIS Switchgear Rating **Bidder's Query:** As per scope of work, the equipments rating of 400kV AIS Switchgear is 5000A. However, as per price schedule the rating is 4000A. Please clarify which rating we need to follow.	400KV AIS Switchgear rating shall be 4000A.	N
186.	Volume 3 of 3, Requirements: Section 1: Line Item: 1D3-1D4 and Price Schedule, Line Item: 1D3-1D4	**Clause Description:** Regarding Quantity of 33kV PT and 33kV LA **Bidder's Query:** As per scope of work, 15 nos of 33kV PT and 15 nos of 33kV LA is mentioned. But, in price schedule, both equipments quantity is 6 nos. Please confirm the required quantity of this item and provide the revised price schedule accordingly if required.	Please refer to Addendum No. 1	Y
187.	Volume 3 of 3, Requirements: Section 1: Line Item: 1E3 and	**Clause Description:** Regarding Auxiliary Transformer **Bidder's Query:** As per scope of work and Single Line Diagram, 2 nos 500kVA Zig-Zag transformer, without NGR should be provided. However, In price schedule, Earthing	Please refer to Addendum No. 1	Y

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S.N.	Volume/ Section	Reference and Queries of Prospective Bidders	Reply(Power Grid)	Addendum(Y/N)
	Price Schedule, Line Item: 1E3	Auxiliary Transformer with NGR is mentioned. Kindly let us know the actual specification of Auxilary Transformer and whether NGR is required or not.		
188.	Volume 3 of 3, Requirements: Section 1: Line Item: 1B3 and Price Schedule, Line Item: 1B3	**Clause Description:** Regarding Rating of 245kV SF6 Circuit Breaker **Bidder's Query:** As per scope of work, The rating of 245kV SF6 Circuit Breaker is 4000A. But, In price schedule, the rating is mentioned 2000A. Please clarify the actual rating of 245kV SF6 Circuit Breaker.	Please refer to Addendum No. 1	Y

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