

POWER GRID COMPANY OF BANGLADESH LIMITED

Construction of 400kV and 230kV River Crossing Transmission Lines for Power Evacuation of Rooppur Nuclear Power Plant on Jamuna and Padma River

**Design, Supply, Installation, Testing & Commissioning of 400kV and 230kV River Crossing Transmission Lines on Turnkey Basis
(Lot-1&2) (Contract No. PGCB/400KV&230kV/RCTL/Lot-1/2)
Invitation for Bids No.: 27.21.0000.101.07.316.22.435 dated January 23, 2022**

CLARIFICATION NO.1

Pre-bid meeting was held on February 14, 2022 as per clause 7.4 of Instruction to Bidders of Volume 1 of 3 of the Bidding document. Some queries were received from the prospective Bidders regarding the Bidding Documents prior the Pre-bid meeting as well as some of the bidders have submitted queries after pre-bid meeting. Clarifications on the above queries are given below, which will form part of the bidding documents.

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
Volume 01 of 03		
01	<u>Volume 1 of 3</u> <u>Section 3 : Evaluation and Qualification Criteria</u> <u>Clause No. 2.4.3 :Specific Experience in Key Activities(Lot-1 and Lot-2)</u> <u>Clause Description:</u> (i)River Crossing Foundation: Completion of at least two foundations with steel tube pile constructed over water in the river/sea bed having minimum pile length of 50 meter and minimum diameter of 1.5 meter. (must meet requirement for the bidders having the experience of transmission lines only as mentioned in 2.4.2) and/or (ii) River Crossing Transmission Line: Completion of one contract (any nature) as contractor which includes erection and stringing of at least 5km 220kV or higher voltage transmission line including river crossing towers with span at least 700 meter in the last 10(ten) years prior to the Bid submission deadline. (must meet requirement for the bidders having the experience of river or sea structure/bridge construction over water in the river/sea bed only as mentioned in 2.4.2) If the bidder does not comply with the above requirement this may be complied by subcontractor/Joint Venture partner. In such case, evidence of the agreement between Bidder and Subcontractor/JV partner shall be submitted in the bid and it also need to be confirmed by the bidder that the	If bidder does not comply with River Crossing Foundation/River Crossing Transmission Line, this may be complied by subcontractor/Joint Venture Partner.



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	same subcontractor/JV partner will perform the work during Contract execution. and/or If any bidder complies with the requirement of river or sea structure/ bridge construction having at least two foundations with steel tube pile constructed over water in the river/sea bed having minimum pile length of 50 meter and minimum diameter of 1.5 meter but does not have the experience of transmission line construction they may make joint venture/consortium with the bidder having the experience of transmission line construction. Alternatively, if any bidder complies with the requirement of transmission line construction but does not have the experience of at least two foundations with steel tube pile constructed over water in the river/sea bed having minimum pile length of 50 meter and minimum diameter of 1.5 meter, they may make joint venture / consortium with the bidder having the experience of at least two foundations with steel tube pile constructed over water in the river/sea bed having minimum pile length of 50 meter and minimum diameter of 1.5 meter. Evidences/certificates/supporting documents for above criteria shall be submitted in the bid. Evidence as mentioned above shall be given on the user's letterhead, indicating address, telephone and fax numbers of the user. <u>Question of the Bidder:</u> From the first para of this clause it is our understanding that if bidder does not comply with River Crossing Foundation/River Crossing Transmission Line, this may be complied by subcontractor/Joint Venture Partner. But from the second para of this clause we have a confused that if bidder does not comply with River Crossing Foundation/River Crossing Transmission Line, this may be complied by Joint Venture Consortium. Please confirm our understanding which one will be correct.	
02	<u>Volume 1 of 3, Section 8: Special Conditions of Contract</u> Sub Clause 8, Time for completion shall be 720 days from the Effective Date. The subject work has considerable Design phase, River studies, Equipment Mobilisation with limited no of supplier globally, Equipment Assembly and can be worked in the non monsoon period considering River flows/ flooding conditions. The project of similar nature executed in Bangladesh or globally has completion period of 40-48 months. Please allow minimum time period of 40 months to complete the project, as the present timeline is not feasible.	Your request cannot be accepted. Please follow the bidding documents.

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03	<u>Volume 1 of 3, ITB Clause 22: Deadline for Submission of Bids</u> The present due date is not sufficient to carry out geotechnical studies, design development and others. Please allow minimum extension of 30 days from present Deadline for submission of comprehensive bid.	The bid submission deadline has been extended and all the bidders have been notified.
04	<u>Volume 1 of 3, Appendix 2 - Price Adjustment</u> Steel Tube, Plates and Steel Casing Please allow price adjustment on Steel Tube, Plate and Steel Casing as applicable on Tower Steel considering the commodity volatility and major sourcing material under this project.	Please follow the Addendum-1.
05	<u>Volume 1 of 3, Appendix 1 - Terms and Procedures of Payment</u> Schedule No 1, 2, 3 and 4: 10% of contract value is paid as advance payment. Under this project there is considerable initial cost towards procurement of raw material, fabrication facility, design studies, equipment mobilisation cost, logistic and others. The said advance is not sufficient to cover all the expenses and will have considerable negative cash flow in the project. Kindly allow 20% of contract value as advance payment considering the specialised project requirement.	Please follow the Addendum-1.
06	<u>Volume 1 of 3, Appendix 1 - Terms and Procedures of Payment</u> Schedule No. 1 - 15% of the supply payment is being paid on taking over certificate and further 5% is payable on Operational Acceptance. With these Terms of payment of 20% being paid on contract completion will have significant negative cash flow in the project and will effect the performance of project. Please allow release of at least 90% of total supply upon delivery of material for timely completion of project.	Please follow the Addendum-1.
07	<u>Volume 1 of 3, Section 6: Employer Requirements, Clause 5</u> "Sub Clause 5.3 - Port Facilities and Transport to Site- All approvals and consents etc necessary for movement of construction equipment from the port to the site." The equipment required under this project are heavy duty with 2-3 supplier globally and has limited availability. We request you to give	Please follow the bidding documents.

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	special approvals under Ministry to exempt clearance at port with prior information to Ministry through PGCB to avoid idling of these equipment for clearances considering the importance of project.	
08	<u>Volume 1 of 3, Section 7, Foundation Clause 7.1.4.6.½</u> As per the condition all River Bed location has to be design using Steel Tube pile. Please clarify whether the location in river bed having low water level can be executed using cast in situ pile fully meeting the Morphology study and ship impact or any other design requirement.	Please follow bidding documents.
09	<u>Volume 1 of 3, Section 8: Special Conditions of Contract</u> Sub Clause 10, under Employer's Responsibility. Please allow provision that The Employer shall allocate dedicated area at the shore for making Fabrication Yard to carry out the work during the execution period considering the requirement and limited private land at shore. PGCB can facilitate through ministry considering the importance of the project and Time of completion.	Please follow bidding documents.
10	<u>Volume 1 of 3, Section 8: Special Conditions of Contract</u> Clause 27, Defect Liability - The Defect Liability Period shall be 12 months from the date of Operational Acceptance of facilities for all equipment/materials. Please allow applicability of defect liability period from the date of completion of facilities, in case of delay in charging of line or charging of line.	Please follow the bidding documents.
11	<u>Volume 1 of 3, Section 2 BDS, ITB 2.1</u> It is mentioned here that Bangladesh Investment Development Fund (BIDF) of Government of Bangladesh and Power Grid Company of Bangladesh will allocate necessary funds towards the cost of the proposed works. We have the following clarification in this regards a. Whether the funds for the same has already been approved or the same shall be approved after receipt of the bidder's proposal. Please clarify your position in this regards.	There is no name of Bangladesh Investment Development Fund (BIDF) as source of funds in the bid document. The source of fund will be ensured before the issuance of Notification of Award (NoA).

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12	<u>Volume 1 of 3, Section 7 GCC, 6 Fraud and Corruption</u> Here the Complete Clause Refers to ADB Fraud and Corruption Policy and refers to punishment for ADB Funded Contracts/Future Tenders which is not applicable here. Hence, it is must that the same is completely replaced with new clause as per GOB Procurement Guidelines. Pls Clarify the same.	Please follow Addendum-1.
13	<u>Volume 1 of 3, Section 7 GCC, 9.6 Contractor's responsibility</u> In this clause it is Stated that "The Contractor shall permit ADB to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by ADB, if so required by ADB" We understand that ADB Does not have any linkage to this project and hence the above clause must be amended accordingly. Pls clarify your position in this regards.	Please follow Addendum-1.
14	<u>Volume 1 of 3, Section 8 SCC, 10.2 (Employer's Responsibilities)</u> The Employer shall give administrative support to accord all rights of access for transmission line thereto on or before the date(s) specified in that appendix at the cost of the Contractor. The Contractor shall be responsible for acquiring and providing legal and physical possession of the 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, including all requisite rights of way as specified in the appendix (scope of works and supply by the employer) to the contract agreement. All Such cost is deemed to be included in the contract price We have the following Clarification in this regards a. The above clause categorically puts complete onus of acquiring/managing ROW and access to site to the Contractors Scope which shall be a huge issue during execution. As you are very much aware that for constructing this project Huge Land Area is required for Setting up the necessary Fabrication Yards, Equipment Storage and Steel Pile Storage Area on both side of the river banks. It is requested that PGCB must discuss with the relevant authorities and get the subject required land for the contractors project facility set up free of cost or if any compensation is to be	Please follow bidding documents.

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	paid, it shall be made directly by PGCB. Please clarify your position in this regards.	
15	<u>Volume 1 of 3, Section 9 Contract Forms, Appendix-1 Terms of Payment</u> In the Payment Terms the following has been Specified Price Schedule No-1 & 2: Supplies from abroad or from Within Bangladesh 10% Advance 70% Running Payment 15% on Taking Over 5% on Operational Acceptance For Price Schedule No-3 : Design & Engineering Services 10% Advance 90% Upon Acceptance of the Design by project Manager For Price Schedule No-4 : Installation and Other Service 10% Advance 80% Upon Acceptance of the Design by project Manager 5% on Taking Over 5% on Operational Acceptance It is to mention that the project of this nature which is highly capital intensive and sheer size the 10% Advance Payment is not at all sufficient for initial mobilization and the same must be increased. In order to bring down the project cost it is important that the initial mobilization is reasonably covered by the advance payment. Hence we hereby request to have the payment terms as under Price Schedule No-1 & 2: Supplies from abroad or from Within Bangladesh 20% Advance 70% Running Payment 5% on Taking Over 5% on Operational Acceptance For Price Schedule No-3 : Design & Engineering Services 20% Advance 80% Upon Acceptance of the Design by project Manager For Price Schedule No-4 : Installation and Other Service 20% Advance	Please follow Addendum-1.

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	f. 70% Upon Acceptance of the Design by project Manager g. 5% on Taking Over h. 5% on Operational Acceptance Submitted for your kind consideration and acceptance please. Please Clarify.	
16	<u>Volume 1 of 3, Section 9 Contract Forms, Appendix-2 Price Adjustment</u> In the subject appendix the Price Variation has been made applicable for Regular Transmission Line materials e.g Steel Tower, ACCC conductor, Earthwire/OPGW. However seeing the very nature of the project the above items don't contribute more than 3-5% of the project value as the current project is primarily Civil Construction Project involving Steel Tube Piles. Since Steel Tube Piles & Permanent Steel Casing are the major cost contributor and major supply item it shall be judicious if the Price Variation is allowed on Steel Tube Pile & Permanent Steel Casing also. Since Steel Tube Piles & Permanent Casing are steel plate items and hence a Suitable PV Formula can also be proposed for the same. Where 20-30% can be the constant & 70-80% is subject to variation in indexes. The Steel Indexes can be proposed by the bidders as per their country of origin/globally acceptable index. Due to Volatility in the metal market, it is very-very difficult to mitigate the risk associated with steel cost increase hence it shall be better if the PV is made applicable to the above referred items. It shall in turn also help in bringing down the overall cost of the project. Please clarify your position in this regards.	Please follow Addendum-1.
17	<u>Volume 1 of 3, Section 9 Contract Forms, Appendix-4 Time Schedule</u> In this particular Appendix, the Completion time Schedule is, mentioned as 720 Days from Contract Effective Date i.e Contract Signing Date. We have the following clarification in this regards a. As you are very much aware the complexity and challenges involved in such projects is huge and with the available example of 7 Nos of Mid River Foundation in Padma River (Still Under Execution for almost 4 Years) it is clear that the given timelines are almost impractical and project shall demand at least 42-48 Months in all practical sense. Hence Given 24 Months time lines are not at all workable and the same must be revised to 42-48 Months. Please clarify your position in this regards.	Your request cannot be accepted. Please follow the bidding documents.




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	b. In case the above timelines are not amended to the above referred request, the bidders shall not have any other option but to quote considering all the risk associated with delayed completion of the project which in turn shall increase the cost of the project to the significant extent. Please clarify your position in this regard.	
18	<u>Volume 1 of 3, Section 8: Special Conditions of Contract</u> Sub Clause 8, Time for completion shall be 720 days from the Effective Date. The subject work has considerable Design phase, River studies, Equipment Mobilisation with limited no of supplier globally, Equipment Assembly and can be worked in the non monsoon period considering River flows/ flooding conditions. The project of similar nature executed in Bangladesh or globally has completion period of 40-48 months. Please allow minimum time period of 40 months to complete the project, as the present timeline is not feasible.	Your request cannot be accepted. Please follow the bidding documents.
19	<u>Volume 1 of 3, ITB Clause 22: Deadline for Submission of Bids</u> Please allow time extension by 10-12 weeks as the present submission time is not sufficient to carry out geotechnical studies, design development and others to submit comprehensive proposal.	The bid submission deadline has been extended and all the bidders have been notified.
20	<u>Volume 1 of 3</u> <u>Appendix 2 - Price Adjustment - Steel Tube, Plates and Steel Casing</u> Presently Price adjustment is applicable on Tower Material and conductor, we request you to extend it for other supply material such as Steel Tube, Steel Plate, Steel Casing, Reinforcement Steel and others.	Please follow Addendum-1.
21	<u>Volume 1 of 3, Force Majeure - GCC Clause 37.1 (f)</u> "Please allow following additional provision under subject clauses which is beyond the reasonable control of the Employer of Contractor. - any shortage of labour due to entry of foreign national for project requirement - any limitation to entry of off shore supply material "	Your request cannot be accepted. Please follow the bidding documents.
22	<u>Volume 1 of 3, ITB Clause 13.1 and 13.2</u> "ITB 13.1 - Alternative bids are not permitted. ITB 13.2 -Alternatives to the time schedule are not permitted." Please allow provision of Alternative bids under this bid proposal."	Your request cannot be accepted. Please follow the bidding documents.




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23	<u>Volume 1 of 3</u> <u>Section 6, Employers Requirement, Joint Venture Agreement Clause 10</u> "The Partner in Charge shall invoice for the Joint Venture's scope of supplies and services to PGCB and receive payments directly "Please allow invoicing and payment for respective parties for their scope of work under JVC route.	Your request cannot be accepted. Please follow the bidding documents.
24	<u>Volume 1 of 3</u> <u>Section 1, Instruction to Bidders, 21. Bid Security 21.3 (Lot-1 and Lot-2)</u> <u>Clause Description:</u> The bid security shall be a demand guarantee in following form: (a) an unconditional bank guarantee; from a reputable source from an eligible source country as specified in the BDS. The bid security shall be submitted either using the Bid Security Form included in Section 4 (Bidding Forms). The form must include the complete name of the Bidder. The bid security shall be valid for twenty eight days (28) beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 20.2. <u>Question of the Bidder:</u> Please clarify that whether it is acceptable to the employer if the bid security is issued separately in the name of each partner of the JV for their individual portion, while jointly will meet the employer's requirement.	Separation of Bid Security is not acceptable. Please follow the bid documents in this regard.
25	<u>Volume-1 of 3, Clause No. 14 of GCC (Section-7) & SCC (Section 8)</u> Taxes & Duties As per Clause No. 14 of GCC (Section-7) & SCC (Section 8) of Volume-1 of bidding document, we understand followings. Taxes on Plants & Materials from Outside Bangladesh (For Lot-1, Schedule No.-1A (i), 1A (ii) and For Lot-2, Schedule No. 1B) We understand that the Income Tax TDS will be paid by the employer directly to the respective authority from his own fund and it will not be deducted from contractor's invoice/payment. Taxes on Design Services Schedule 3A (i & ii) for Lot-1 & 3B for Lot-2,	Please follow the bid documents.




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	Installation & Other Services (Schedule-4A (i), 4A (ii) for Lot-1 & Schedule-4B for Lot-2) for Transaction between contractor and employer As per Clause No. 14.2.a, SCC, Section-8, Volume-1, we request you to confirm the following understandings: Contract Price for Installation & Other Local Services shall be exclusive of applicable VAT. Kindly confirm. If any VAT is applicable, the employer shall bear and deposit the same to the govt. exchequer on behalf of contractor. Kindly confirm. Advance Income Tax TDS will not be paid by employer directly from his own fund and it will be deducted from contractor's price. Kindly confirm. Contractor are responsible for payment of AIT in Price Schedule No. 2 (Lot-1 & Lot-2) and Employer will deduct AIT from each payment amount. However, if local company is supplying towers under International Tender and getting payment in USD, this is deemed to be an export. Therefore, the EPC contractor who supply Materials and Equipments from within the employer's country are also not liable to pay TDS. It means that AIT in the Price Schedule No. 2 will not be deducted by the employer in case of USD contract between contractor and local manufacturer. Is our understanding correct?	
26	<u>Volume 1, Section 8 – SCC Clause 14.2(a) & (d)</u> In this particular clause it is mentioned that "If any VAT is applicable for any or all of the items under this contract, the Employer shall bear and deposit the same to the govt. exchequer as per prevailing law of the Employer's Country". We have the following clarification in this regards:- As per our understanding, the bidders have to quote their prices of the whole contract exclusive of any VAT.	The bidder shall quote bid prices of all items of the price schedules under this contract exclusive of VAT. As per SCC 14.1, The Contractor shall be entirely responsible for payment of all taxes or VAT, stamp duties, license fees and other such levies imposed inside the Employer's country, for purchasing any goods or services by them

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	Please, Clarify. Kindly Confirm that PGCB shall reimburse all the VAT cost to the contractor as applicable which shall arise in connection with this contract execution.	from any supplier(s), which may be required in the course of supply of all items and services mentioned in the contract. This means if any goods or services is required to be purchased by the Contractor inside the Employer's country for the execution of Contract, the Contractor shall be entirely responsible for payment of all taxes or VAT, stamp duties, license fees and other such levies imposed inside the Employer's country
27	<u>Volume 1 of 3</u> <u>Section 9 – Contract Forms; Clause Appendix 2 – Price Adjustment</u> In the Price Adjustment Formula, it is defined that Material and Labor Indices applicable to the appropriate industry in the country of origin. However, in case there are no such indices in the country, then bidder shall be free to propose internationally acceptable material and labour indices e.g. LME etc. Please confirm if the understanding is correct. Construction Material of Pile foundation - Steel Tube, Plates, Steel Casing This project has major contribution of Steel Tube Piles and related accessories like plates, Anchor etc in construction of Steel Tube Pile foundation in overall cost of project. Recently the prices for steel materials and Steel plates have increased exponentially almost to the tune of 25% in past two month. In current market the Steel Prices are at its peak and may increase or decrease in future. Price Variation is not available for those material and we therefore request you to issue amendment to include this item in Price variation. We request you to allow us to quote variable for price for Steel tube Pile Foundation material. Look forward to receive your reply.	Please follow Addendum-1.
28	<u>Bid Documents/ Drawings</u> We request you to kindly provide us the remaining documents such as soft copy of price schedule (excel file) / Environment Management Plan (EMP),	Soft copies of the prices schedules have been provided to all the bidders who have purchased the bid documents. If requires, the bidders are requested to




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	Effective Date As per Clause No. 3.1, Section 9, Volume 1 of 3 of the bid documents, it is mentioned that, "The Effective Date is the Contract Signing Date". Kindly request you to please amend the above clause as stated below:- The Effective Date upon which the period until the Time for Completion of the Facilities shall be counted from is the date when all of the following conditions have been fulfilled: This Contract of Agreement has been duly executed for and on behalf of the Employer and the Contractor. The Contractor has submitted to the Employer the performance security and the advance payment guarantee. The Employer has paid the Contractor the advance payment. Each party shall use its best efforts to fulfil the above conditions for which it is responsible as soon as practicable.	Your request cannot be accepted. Please follow the bid documents.
31	<u>Volume 1 of 3, Employer's responsibilities, GCC & SCC (ROW)</u> As per Clause 10.2, Employer's responsibilities, GCC & SCC, Volume 1 of 3, The Employer shall be responsible for acquiring and providing legal and physical possession of the Site and access thereto, and for providing possession of and access to all other areas reasonably required for the proper execution of the Contract, including all requisite rights of way, as specified in the Appendix (Scope of Works and Supply by the Employer) to the Contract Agreement. The Employer shall give full possession of and accord all rights of access thereto on or before the date(s) specified in that Appendix. We understand that it is the Employer's responsibility for acquiring and providing legal and physical possession of the Site and access thereto. Please Confirm. Since the Employer shall give full possession of and accord all rights of access, Contractor shall not be responsible for any Right of Way for foundation nor for stringing corridor. Please Confirm.	Your understanding is not correct. Please follow the bid documents.



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	What is the current status of Right of Way? Kindly arrange to provide.	Bidders are requested to visit the site to assess the Right of Way
32	<u>Volume 1 of 3, Section 8 Special Conditions of Contract</u> <u>8. Time for Commencement and Completion 8.1 (Lot1 and Lot2)</u> <u>Clause Description:</u> The Contractor shall commence work on the Facilities within 30 (thirty) days from the effective date for determining time for completion as specified in the contract agreement. <u>Bidder's Question:</u> For better arrangement of the construction, please kindly clarify the schedule date for Commencement and Completion.	The Contractor shall commence work on the Facilities within 30 (thirty) days from the effective date and the time for completion of the whole of the facilities shall be 720 (Seven hundred twenty) days from the effective date separately for each lot.
33	<u>Volume 1 of 3, Section 8 Special Conditions of Contract</u> <u>10 Employer's Responsibilities 10.2 (Lot1 and Lot2)</u> Clause Description: The Employer shall give administrative support to accord all rights of access for transmission line thereto on or before the date(s) specified in that appendix at the cost of the Contractor. The Contractor shall be responsible for acquiring and providing legal and physical possession of the 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, including all requisite rights of way as specified in the appendix (scope of works and supply by the employer) to the contract agreement. All Such cost is deemed to be included in the contract price Bidder's Question: As per the Subclause 10.2 SCC. the work of acquiring and providing legal and physical possession of the transmission line sites and access thereto is borne	Your suggestion cannot be accepted. Please follow the bidding documents.




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	by the contractor, which will become the disadvantage during the construction stage, hence, we sincerely suggest this work will be borne by the employer.	
34	<u>Volume 1 of 3, Section 8 Special Conditions of Contract</u> <u>10 Employer's Responsibilities 10.3 (Lot1 and Lot2)</u> <u>Clause Description:</u> The Employer shall give administrative support for 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 and/or licenses from local, state or national government authorities or undertakings in the country where the site is located which (a) such authorities or undertakings require to be obtained 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 work 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. <u>Bidder's Question:</u> As per the SCC, the work of acquiring and pay for all permits, approvals and/or licenses from local, state or national government authorities or public service undertakings is borne by the contractor, which will become a disadvantage during the construction, hence, we sincerely suggest this work will be borne by the employer.	Your suggestion cannot be accepted. Please follow the bidding documents.
35	<u>Volume 1 of 3, Section 8 Special Conditions of Contract</u> <u>14 Taxes and Duties 14.1 (Lot1 and Lot2)</u> <u>Clause Description:</u> While making payment to the Contractor or instructing the respective bank to effect the payment to the Contractor, the Employer is entitled to deduct advance income tax (AIT) at source at applicable rate(s), which is required as per law of the Employer's country. In the event of withholding of AIT, the same shall be withheld and deposited to the govt. exchequer in the credit of Contractor by the Employer as per prevailing law of the Employer's country	The percentage of AIT shall be as per the prevailing law and rule of Bangladesh. Bidders' are requested to collect the information from the National Board of Revenues (NBR), Bangladesh.




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	and evidence thereof shall be furnished to the Contractor. The Contractor shall be entirely responsible for payment of all taxes including sales tax or VAT, stamp duties, licence fees and other such levies imposed inside the Employer's country, for purchasing any goods or services by them from any supplier(s), which may be required in the course of supply of all items and services mentioned in this contract. <u>Bidder's Question:</u> How many percentage of AIT at source shall be included in the quoted price?	
36	<u>Volume 1 of 3, Section 8 Special Conditions of Contract</u> <u>14 Taxes and Duties 14.2 (Lot1 and Lot2)</u> <u>Clause Description:</u> a. Notwithstanding GCC Sub-Clauses 14.1 above or wherever, any material import from abroad under price schedule No.1 shall be considered as the direct import of the Employer and the Employer shall bear and promptly pay all relevant customs and import duties as well as other local taxes, e.g., a value added tax (VAT), advance income tax (AIT) and other charges, which imposed by the law of the country, that are to be incorporated into the facilities. The Bidder shall quote bid-prices of all items of the price schedules under this contract exclusive of VAT. The items under price schedule No.1 shall be quoted exclusive of customs duties, VAT, AIT and other relevant duties and taxes. If any VAT is applicable for any or all of the items under this contract, the Employer shall bear and deposit the same to the govt. exchequer as per prevailing law of the Employer's Country. The Contractor shall be entirely responsible for payment of all taxes including sales tax or VAT, stamp duties, licence fees and other such levies imposed outside the Employer's country. Bidder's Question: "The Bidder shall quote bid prices of all items of the price schedules under this contract exclusive of VAT". However, as per the 14.1 of SCC, "The Contractor	The bidder shall quote bid prices of all items of the price schedules under this contract exclusive of VAT.

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	shall be entirely responsible for payment of all taxes or VAT, stamp duties, license fees and other such levies imposed inside the Employer's country, for purchasing any goods or services by them from any supplier(s), which may be required in the course of supply of all items and services mentioned in the contract." Please kindly clarify, especially for the schedule No 2&3, does the VAT shall be included in the quoted price or borne by the employer?	As per SCC 14.1, The Contractor shall be entirely responsible for payment of all taxes or VAT, stamp duties, license fees and other such levies imposed inside the Employer's country, for purchasing any goods or services by them from any supplier(s), which may be required in the course of supply of all items and services mentioned in the contract. This means if any goods or services is required to be purchased by the Contractor inside the Employer's country for the execution of Contract, the Contractor shall be entirely responsible for payment of all taxes or VAT, stamp duties, license fees and other such levies imposed inside the Employer's country
37	<u>Volume – 1, Appendix 2 - Price Adjustment.</u> As the commodity prices are highly volatile in the recent times, We request you to provide Price Adjustment for Supply of Steel Tube Material and Permanent Steel Casing Material for Tower Foundation.	Please follow the Addendum-1.
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38	<u>Vol 2 of 3 - Scope of Works, Sub Clause 1.2.6,</u> Foundation Items Payment of these items identified in the price schedule shall be made on completion of respective foundation in all respects. Please confirm that considering the work under this project, the payment shall be released on driving each steel tube pile and pile cap and platform based on monthly measurement.	Please follow the bidding document.
39	<u>Volume 2 of 3, Section 7, Foundation Clause 7.1.4.6.1</u> Consideration for design on river bed, there is mandatory requirement of diameter, thickness and length of the line. Please allow bidder to use innovative design on steel tube pile and not restrict with the design requirement.	Please follow the bidding document.
40	<u>Volume 2 of 3, Morphology Study Report Recommendation</u> IWM Report station general scour consideration has to be same of middle	

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
	location in river bed and near to bank. Whereas all the bridge design acknowledge the fact that deeper channel towards bank and less scour at the middle of river. Please allow general scour depth as per location as being done for local scour as per best practices.	Please follow the bidding document.
41	<u>Volume 2 of 3, Section 7, Foundation Clause 7.1.4.6.1</u> As per given morphology report three type of Scour is given, the local scour depth is calculated based on various methodology, Please allow scour calculation using IRC formula.	IRC formula already mentioned in the morphological study report. Bidders should follow the procedure described in morphological study for computation of local scour.
42	<u>Volume 2 of 3, Section 6</u> Please confirm that BIWTA is concerned authority to provide "Actual Ship impact load for the particular location and any other additional data/force (not available in the study report) which are necessary for river crossing foundation design and construction".	BIWTA may be considered as the concerned authority from whom necessary data for computation of ship impact load can be collected. But the Bidders will be responsible for collection of all necessary data.
43	<u>Volume 2 of 3, Section 6, Clause 6.8</u> Survey Profile - Morphological Study of the River - Morphological study of the Padma and Jamuna river has been conducted by an independent consultant. Please clarify whether the bidder is allowed to perform Morphological Study from independent accredited consultant again along with PGCB and follow for design development based on revised Morphological study.	No, Bidders will not be allowed to perform separate Morphological study.
44	<u>Volume 2 of 3, Appendix 7.A9, Clause 4.8</u> Ship Impact (Conceptual Design): As per general practice in Marine structure in the mid river, in order to avoid the direct impact of the ship on the structures as considered on the design, there is concept of using Fender Pile and it can significantly economise the project cost and meeting the requirement. Please allow such design conditions and amend.	Please follow the bidding document.

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
45	<u>Volume 2 of 3</u> In Practice steel Tube piles are tested through Dynamic load test. Pls confirm if the same can be considered here for steel pile testing. Pls Clarify.	Testing methods of steel tube piles shall be finalized in execution stage.
46	<u>Volume 2 of 3, Section 5 Access, 5.2 Access to Site, Notice of Entry</u> We have received 3, Tentative Line route Coordinates along with the Bid document clearly giving the Line Route with Google Earth Coordinate. Since River crossing Sections are not subject to any major change hence, we understand that PGCB May have taken the route Corridor clearance from BIWTA for Mid River Tower Locations. Please Clarify if the same has been obtained or it shall be obtained by Contractor During Execution.	PGCB has already obtained a no objection letter from BIWTA for the river crossing portions. However, The necessary permission/ clearance are in the responsibility of the Contractor as per the bidding document. The Employer may assist the Contractor in getting such required permissions and permits.
47	<u>Volume 2 of 3, Section 6 Survey profile etc</u> <u>6.8 Morphological Study of the River</u> Morphological study of the Padma and Jamuna river has been conducted by an independent consultant. The final report of the study is provided in the bidding document as Annex 6-7. Bidders shall follow the study report. However, Based on contractor's foundation design "Local Scour" shall be re-calculated following all the methods provided in the morphological study report. Total scour shall be the determined from general & constriction scour (from morphological study) and local scour (contractor's calculation). Actual Ship impact load for the particular location and any other additional data/force (not available in the study report) which are necessary for river crossing foundation design and construction, shall be collected by the bidders with their own cost We have the following clarifications a. The Contractor shall need to calculate the local scour for individual tower location during execution stage. However, which methodology shall be used for Local Scour Calculation has not been clarified. As a normal practice PGCB uses IRC standard. We understand that the same shall be used in this case also. Please clarify your position in this regard. b. We suggest that Foundation on the River Bank must be allowed to be	a. In the morphological study, maximum value of all the mentioned methods has been considered as "local scour". Bidders should follow the procedure described in morphological study. b. Please follow the bidding document. c. Please follow the bidding document.

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
	designed without Ship Impact. Pls clarify your position in this regard. c. While going through the morphological study report it is found that in the annexure detailing the Ship Impact Load and Input Data Required to calculate Velocity attack & Wave Attack, Various methods are discussed to handle Ship Impact Load. However, there is no mention of Fenders which is extensively used for absorbing the kinetic energy of the ship impact and reduce load on the main structure. It is hereby requested that the bidders must be allowed to design their foundation considering the use of fenders to absorb the major ship impact energy as it shall help in giving optimal solution to PGCB. Kindly confirm your position in this regard.	
48	<u>Volume 2 of 3, Appendix 7.A9</u> In our opinion ship impact should be defined in technical specification such as type of vessel, draft and permissible weight and not left to the bidder. For optimized and levelised design for all bidders, this being government project PGCB can collect the data from Government of Bangladesh nominated entity for these standards. Please clarify and make the consideration part of technical specification.	Please follow the bidding document.
49	<u>Volume 2 of 3</u> <u>Section-7 Foundation, Clause 7.1.4.5, Rigid Frame Foundation</u> Please refer Clause 7.1.4.5, Rigid Frame Foundation, Section-7 Foundation, Volume 2 of 3 of the bid documents, where it is mentioned as "Rigid framed foundation, which is adopted at high water level area, shall be consisted of rigid frame and pile." Since River Bed Foundation are subject to HFL and naturally in High Water Level Area hence as per above clause Rigid Frame Foundation shall be applicable for the foundations on River Bed. Please confirm if our understanding is correct.	No, your understanding is not correct. Volume 2/3, Section-7, Clause 7.1.4.6 shall be followed for river crossing foundation.
50	<u>Volume 2 of 3, Section-7 Foundation, Clause 7.1.4.6.1 (b)</u> Please refer Clause 7.1.4.6.1 (b) Considerations for design on river bed,	

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
	Section-7 Foundation Volume 2 of 3 of the bid documents, where as per the clause "All river crossing foundations shall be supported by driven steel tube piles having minimum 2000mm diameter & minimum 80meter length for 400kV and minimum 1500mm diameter & minimum 70meter length for 230kV transmission line. Such steel tube piles shall be of high tensile grade having minimum 50mm thickness. No of pile in each pile cap, actual diameter & length of individual pile etc. shall be finalized during the detail design at execution stage". Please confirm, in case while driving the pile if refusal strata is achieved, whether pile length can be reduced below minimum length as specified above as applicable for 230 & 400 kV Lines.	The length of driven steel piles CAN NOT BE REDUCED below minimum length. The pile driving technology is to be determined in the execution process based on geotechnical investigations. If a refusal strata is achieved, bidder shall investigate and find suitable design/location/ technology for pile driving. No extra cost will be provided by employer in any case.
51	<u>Volume 2 of 3, Section-7, Appendix-7.A9</u> Please refer Clause 2.4, Sand of Appendix-7.A9, Section-7, Volume 2 of 3 of the bid documents, where the clause states that:- "The sand that fills the piles shall be assumed to have a submerged unit weight of 9 kN/m³, based on experience from the Padma Multipurpose Bridge." Whether the bidder need to consider the same or not as the document has been referred to as for conceptual purpose. If so the material grades to be used in the design and Construction must be categorically covered under the technical Specification or through additional appendix to make it clear to the bidders/Contractor. Please Clarify.	Please follow the bidding document.
52	<u>Volume 2 of 3, Annex 8.13(5) : 400kV Double Circuit Towers, Page 8-48</u> Please refer Annex 8.13(5) : 400kV Double Circuit Towers, Page 8-48, Volume 2 of 3 of the bid documents, where in the given Annex of the specification, Foundation Reactions are available for '4DR' tower with maximum extension only. Kindly request you to furnish Foundation Reactions for 4DR+24m and 4DR+36.6m extensions.	Foundation Reaction for '4DR' tower with maximum extension is required to be used for design of foundation all '4DR' tower extensions.



Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
53	<u>Volume 2 of 3, Section-7: Foundation, Clause 7.1.4.6.3</u> As per Volume 2 of 3, Section-7: Foundation, Clause 7.1.4.6.3, Considerations for design on river bank, in Clause (c) & (d) it is mentioned that:- “c) Pile supported foundation shall be designed considering approved foundation reaction and foundation strength factor of corresponding tower, water current on structures below HFL, ship impact and other necessary loads in association with relative codes and standards. Ship impact should be calculated as per Bangladesh/International code and practices Maximum deflection of pile and pile cap should be within allowable limit”. “d) All piles of a leg shall be connected by a RCC pile cap. Top of pile cap shall be 450mm below existing ground level. Top of chimney shall generally be minimum 450mm higher than Highest Flood Level (HFL), but maximum height of the chimney shall be limited to 6450mm from ground level. These reinforced concrete chimneys shall be designed to withstand the maximum resultant horizontal residual shear (from tower reaction) and other required external lateral forces. Whole foundation shall be capable to withstand ship impact. For structural design of chimney, no allowance shall be made of the nominal strength of concrete in tension and the stub shall not be considered as providing any part of the tensile area of reinforcing steelwork”. We have the following clarification in this regard :- Since the towers on the River Bank are to be located outside the River Bed and there is no ship movement on the Bank of the River. Hence the ship impact should not be applicable to Foundation Design of Tower Foundation of the River Bank. Please Clarify.	Please follow the bidding document.
54	<u>Volume 2 of 3, Section-7 Foundations, Appendix-7.A9, Clause 4.6.2</u> As per Clause 4.6.2, Appendix-7.A9, Section-7 Foundations, Volume 2 of 3 of the bid documents.	Please follow the bidding document.

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
	Please confirm, if 'LUSAS dynamic analysis' would be in the 'time domain' or in the 'frequency domain'.	
55	<u>Volume 2 of 3, Section-7 Foundations, Appendix-7.A9, Clause 4.6.2 for 'LUSAS program'</u> As per Clause 4.6.2 for 'LUSAS program', Appendix-7.A9, Section-7 Foundations, Volume 2 of 3 of the bid documents. In 'LUSAS', 3-phase soil behavior is difficult to model, therefore, kindly request you to please provide any alternative.	Please follow the bidding document.
56	<u>Volume 2 of 3</u> It is presumed that the 'Ship Impact Force' on the river foundations will act against the sacrificial concrete fins provided at top of concrete platform level irrespective of the water level in the river. 'Ship Impact Force' acting directly against the isolated steel piles below the bottom of the concrete platform level will not be considered in design, for water level flowing below the HFL (say at the LWL). Please confirm whether our understating is correct.	Please follow the bidding document.
57	<u>Volume 2 of 3, Section-7: Foundations, Appendix-7.A9, Clause 4.6 Seismic</u> As per Clause 4.6 Seismic, Appendix-7.A9, Section-7 Foundations, Volume 2 of 3 of the bid documents. As per the tender report seismic analysis has to be done for two levels of earthquake; 'Operational' and 'Contingency levels', for both scoured and non-scoured conditions. Also, a performance criterion for operational level earthquake is fully functional. From the Morphological study report the maximum scour level is (-)80.84 mPWD. For this scour level the structure may be critical during Operational Level Earthquake.	Please follow the bidding document.




Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
	Kindly request you to please review and confirm, if serviceability requirements are to be checked for OLE. From the tender report for the seismic analysis 'LUSAS' and 'SHAKE' software are mentioned. Please confirm whether Staad. Pro can be used as a replacement.	
58	Volume 2 of 3 Please provide the following ship / vessel parameters for analysis of Ship Impact Force on river foundations for 'Jamuna' & 'Padma' rivers. DWT (dead weight tonnage) of ship (ii) Self-weight (unladen weight) of the ship (iii) Length of the ship (iv) Width / breadth of the ship (v) Total depth / height of the ship (vi) Height/depth of the ship below water level for loaded (laden) condition (vii) Velocity of the ship	Please follow the bidding document.
59	Volume 2 of 3, Section-7: Foundations, Appendix-7.A9, Clause 4.8.2 As per Clause 4.8.2, Appendix-7.A9, Section-7: Foundations, Volume 2 of 3 of the bid documents, it is assumed that for design of river foundations, the ship impact force will act on the foundation system along the centre line of the foundation system only. Therefore, no eccentric ship impact force shall be considered on the foundation system in the design. Please confirm.	Please follow the bidding document.
60	Volume 2 of 3 'Steel Tubular Piles' for river foundations will be provided with anticorrosive paint on the outer surfaces, which will have guaranteed corrosion protection life for 5 years. Subsequently anticorrosive paint will be periodically applied on the pile surfaces by PGCB to prevent corrosion for rest of the design life of the structure. It is presumed that this consideration for corrosion prevention is acceptable.	No, it is not acceptable. Design & construction of steel tube piles should ensure its strength throughout the design life.

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)								
61	<u>Volume 2 of 3, Section-7: Foundations, Appendix 7.A1</u> Please refer Appendix 7.A1, Section-7: Foundations, Volume 2 of 3 of the bid documents. <table border="1"> <tr> <th rowspan="2">Soil Category</th><th colspan="2">Allowable Foundation Type</th></tr> <tr> <th>For river bed locations</th><th>For river bank locations*</th></tr> <tr> <td>Any</td><td>Driven steel tube pile</td><td>Driven steel tube pile/ Cast in situ Pile (with permanent casing/liner)</td></tr> </table> Kindly request you to please confirm, whether MS liner plate in the concrete piles of the river bank foundations shall be provided up to the scour level of the river or for the entire length of the pile up to the founding level.	Soil Category	Allowable Foundation Type		For river bed locations	For river bank locations*	Any	Driven steel tube pile	Driven steel tube pile/ Cast in situ Pile (with permanent casing/liner)	Please follow the bidding document.
Soil Category	Allowable Foundation Type									
	For river bed locations	For river bank locations*								
Any	Driven steel tube pile	Driven steel tube pile/ Cast in situ Pile (with permanent casing/liner)								
62	<u>Volume 2 of 3</u> Please provide the Soil Investigation Report of all the river as well as riverbank foundation locations.	Soil Investigation is the responsibility of the bidders.								
63	<u>Volume 2 of 3</u> Please indicate the present (existing) river bed level at all the river foundation locations for 'Jamuna' & 'Padma' river.	Please follow the bidding document.								
64	<u>Volume 2 of 3</u> Please indicate the present (existing) bank levels at all the riverbank locations for 'Jamuna' & 'Padma' river.	Please follow the bidding document.								
65	<u>Volume 2 of 3</u> Soil Investigation is an integral part of the contract and PGCB has not provided any soil test report as generally provided by agencies for such critical projects. We understand that bidders have to do soil test during execution. Please confirm.	1. Confirmed. Soil Investigation is the responsibility of the bidders 2. If any situation is determined to be unforeseen, this will be taken care off as per the relevant clauses of the bidding document.								

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
	We further understand that since it is not possible to do soil test at all locations during tender stage and if an abnormal or different report (like clay encountered after 70 m like in case of Padma Bridge project) than PGCB will issue variance order as this is an unforeseen situation as per GCC clause. Please confirm our understanding is correct.	
66	<u>Volume-2 of 3, Chapter 9, Type test of Insulator String</u> As per Clause No. 9.6.2 (ii), Volume-2 of the bid documents, "If the type tests for insulator sets are not available as offered combination of insulator & fitting manufacturer (except low duty sets) with proposed design, the tests shall be performed in laboratories mentioned in Clause 9.6.2 (i) during execution stage in presence of Employer's Engineers. Cost of such test and witness shall deem to be included in the Contract Price". From the above clause we understand that, if the bidder fails to submit type tests of offered insulator string sets (except low duty sets), then the bidder needs to conduct fresh type tests on all the insulator string sets (except low duty sets) such as 'suspension sets, jumper suspension sets and tension string sets',. Kindly clarify & confirm.	If the type tests for insulator sets are not available as offered combination of insulator and fittings manufacturer (except low duty sets) with proposed design, the tests shall be performed in laboratories mentioned in clause 9.6.2 (i) during execution stage in presence of employer's engineers. Costs of such test and witness shall deem to be included in the contract price.
67	<u>Volume-2 of 3, Chapter 9, Type test of Insulator Units:</u> i) The type test requirement for Insulator Unit are given in the Table 9-1 and also in Clause No. 9.6.2 (i), Chapter 9, Volume-2. Please confirm whether type test reports shall include all items mentioned in Table 9-1 or only include lists in 9.6.2	i. All test mentioned in table 9-1 and in the list 9.6.2 (i) shall be performed as type test requirement. It may be mentioned here that type test report of insulator units are required to be submitted with the technical bid proposal as per clause no. 9.6.2 (i), volume 2 of the bid document. ii. Your understanding is not correct. Performing type test during execution is allowed for insulator sets only.

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)																																																																								
	Table 9-1: Test Requirements <table border="1"> <thead> <tr> <th>Test</th><th>Insulator Units Cap & Pin (Type B)</th><th>Insulator Sets</th></tr> </thead> <tbody> <tr><td>Type Tests:</td><td></td><td></td></tr> <tr><td>Verification of dimensions</td><td>X</td><td>-</td></tr> <tr><td>Dry lightning impulse withstand voltage</td><td>X</td><td>X</td></tr> <tr><td>Wet power frequency withstand voltage</td><td>X</td><td>X</td></tr> <tr><td>Thermal mechanical performance</td><td>X</td><td>-</td></tr> <tr><td>Mechanical or EMF load</td><td>X</td><td>-</td></tr> <tr><td>Power arc</td><td>X</td><td>X</td></tr> <tr><td>Impulse voltage puncture</td><td>X</td><td>-</td></tr> <tr><td>Sample Tests:</td><td></td><td></td></tr> <tr><td>Verification of dimensions</td><td>X</td><td>-</td></tr> <tr><td>Verification of locking system and displacement</td><td>X</td><td>-</td></tr> <tr><td>Temperature cycle test</td><td>X</td><td>-</td></tr> <tr><td>Mechanical or EMF load</td><td>X</td><td>-</td></tr> <tr><td>Porosity</td><td>X</td><td>-</td></tr> <tr><td>Galvanizing</td><td>X</td><td>-</td></tr> <tr><td>RIV</td><td>X</td><td>-</td></tr> <tr><td>Impulse Voltage puncture</td><td>X</td><td>-</td></tr> <tr><td>Zinc sleeve test</td><td>X</td><td>-</td></tr> <tr><td>Head design test</td><td>X</td><td>-</td></tr> <tr><td>Routine Tests:</td><td></td><td></td></tr> <tr><td>Visual inspection</td><td>X</td><td>-</td></tr> <tr><td>Mechanical</td><td>X</td><td>-</td></tr> <tr><td>Electrical</td><td>X</td><td>-</td></tr> </tbody> </table> 9.6.2 Type Tests (i) Insulator Units Type test reports issued from independent reputed testing laboratory as listed below, outside the Manufacturer's country for insulator units which shall include the following tests performed on all the offered types of insulators as per IEC except power arc test which shall conform to test procedures outlined in this Clause: • Verification of dimensions • Dry lightning impulse voltage withstand test; • Wet power frequency voltage withstand test; • Electro-mechanical failing load test; • Thermal mechanical performance test; • Radio Interference Voltage (RIV) • Impulse voltage puncture test • Power arc test • Zinc Sleeve Test • Residual Strength Test A list of independent reputed testing laboratories acceptable to the Employer is mentioned below: - KEMA Laboratories in the Netherlands - Powertech High Power Laboratories in Canada - Kinectrics, Canada - IREQ Montreal in Canada - CESI in Italy - Vattenfall in Sweden - Veiki VNL in Hungary ii. As per Clause No. 9.6.2, Chapter-9, Volume-2 of the bid documents, we understand that in case bidder fails to submit type test reports of the offered insulator unit along with the bid, then is it possible to perform type tests of insulator unit during execution stage like insulator sets? Please clarify & confirm.	Test	Insulator Units Cap & Pin (Type B)	Insulator Sets	Type Tests:			Verification of dimensions	X	-	Dry lightning impulse withstand voltage	X	X	Wet power frequency withstand voltage	X	X	Thermal mechanical performance	X	-	Mechanical or EMF load	X	-	Power arc	X	X	Impulse voltage puncture	X	-	Sample Tests:			Verification of dimensions	X	-	Verification of locking system and displacement	X	-	Temperature cycle test	X	-	Mechanical or EMF load	X	-	Porosity	X	-	Galvanizing	X	-	RIV	X	-	Impulse Voltage puncture	X	-	Zinc sleeve test	X	-	Head design test	X	-	Routine Tests:			Visual inspection	X	-	Mechanical	X	-	Electrical	X	-	
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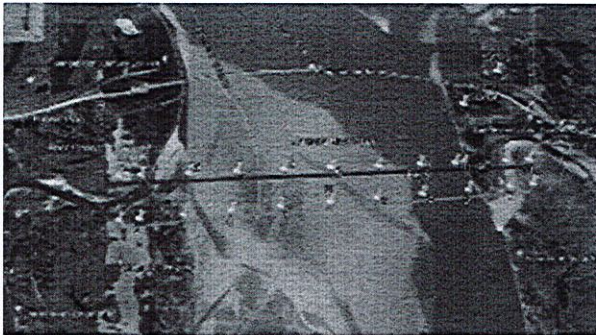
Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
68	Transaction for Goods & Services Procured Locally For transaction between Bidder / main Contractor and its local Subcontractor/ Service Provider (for Goods and Services procured locally by Bidder for Price Schedule -2, 3, & 4 of respective Lot), please clarify & confirm followings: We understand that VAT for the transaction between main Contractor & its Sub-contractor for back-to-back Subcontract work will also be exempt or reimbursed by PGCB. Please Confirm.	Your understanding is not correct. Please follow the bidding document.
69	<u>Volume-2, Clause 5.6, Damage</u> During our site visit, we understand that Location T-1 & T-2 of Lot-1 is in the Sirajganj Economic Zone area. We request you to inform us whether the necessary approval/permission from BEZA is obtained. However, if written permission for access/approach road to these locations, ROW and location permissions are not obtained then any delay in obtaining such permission during execution will not impact the bidders schedule completion time and will be considered during time extension and additional claim if any. Please confirm our understanding is correct as such permissions will delay the route approval and profile approval as well.	Your understanding is not correct. Please follow the bidding document. Here it is to be mentioned that, consent has been taken from BEZA.
70	<u>Clause no. 7.4.3, 7.5.5 (e), 7.6.3 of Volume 2 of 3: Reinforcement Steel</u> Please, refer the clause no. 7.4.3, 7.5.5 (e), 7.6.3 of Volume 2 of 3 (Technical Specification). From above clauses, we could not define / understand the exact requirements of Epoxy Coated Reinforcement bars. We understand that Epoxy Coated Reinforcement Steel Bars not required in this Project. Please, Confirm. If Epoxy Coated Steel Bars required, then kindly arrange to provide the detail specifications of Epoxy coating to be followed with clearly mentioning the types of coating materials / methodology / Dry Film Thickness / standards.....etc. to enable us to assess the exact tender requirements.	Use of epoxy coated steel bars shall be finalized in execution stage. Corresponding specifications of bidding document shall be followed.

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
71	<u>Volume 2 of 3</u> <u>Appendix 7. A9 - 4 Loads 4.6 Seismic 4.6.2 (Lot1 and Lot2)</u> Clause Description: The five time history acceleration traces are applied via linear time history analyses in LUSAS to determine the response of the foundations. The ground motions are applied as the following two combinations in two separate directions: 100% transverse time history motion + 30% longitudinal time history motion; 30% transverse time history motion + 100% longitudinal time history motion Bidder's Question: Please clarify that the traditional seismic design method for piled structure is accepted for this project or not. In the traditional seismic pile design approach, the inertial load from the pile cap or superstructure can be obtained from specified response spectrum (from local building codes or international codes). The load is then incorporated into a structural FEM model. The soil and pile interaction is modelled by adopting a traditional py curves (API p-y curves). This method is widely accepted in the international geotechnical industry and has been recommended in many seismic design codes including PIANC Seismic Design Guideline for Port Structures and ASCE 6114 Seismic Design of Piers and Wharfs.	Please follow the bidding document.
72	<u>Volume 2 of 3, Appendix 7. A9 4 Loads 4.8 Ship Impact</u> 4.8.1. General & 4.8.2. Background to Equivalent Static Force Method <u>Bidder's Question:</u> Could you please provide the basic information of the vessels to be considered in the shop impact analysis? We can see only the tonnage of the vessel in the bidding document.	Please follow the bidding document.
73	<u>Vol 2 of 3 / Page 6-24, Clause no. 6.8</u> Kindly confirm that the Ship Impact load to be considered for river bank towers.	

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
	As per our understanding foundation for towers placed at river bed (mid stream) needs to be designed considering ship impact loading but for foundation of towers placed at river bank do not require ship impact to be considered in design of Pile foundation. We request you to kindly clarify. Also please provide any reference from where we shall consider this loading for ship impact which is to be considered in foundation design.	Please follow the bidding document.
74	<u>Vol 2 of 3 / Page 6-24, Clause "6.8 Morphological Study of Rivers"</u> 'It is mentioned that "Ship impact load provided in the morphological study is for guideline purpose. Actual Ship impact load for the particular location and any other additional data/force (not available in the study report) which are necessary for river crossing foundation design and construction, shall be collected by the bidders with their own cost." But in tender stage, we are unable to get such information from any authority. We request PGCB to collect and provide the necessary information from competent authority as this will significantly have the impact on design of steel tube pile foundation.	Please follow the bidding document.
75	<u>Vol 2 of 3 / Page 8-48, Annex 8.13(5): 400kV Double Circuit towers</u> Please furnish the foundation reactions for 4DR+24m extrn. In the specification the foundation reactions are available for 4DR with max. extrn. For complete Tower and Test Tower. Please elaborate the difference between complete tower and test tower with extension details.	Foundation Reaction for '4DR' tower with maximum extension [DRG. No. TC 910/DES-1, Sheet No. 112A of 123] is required to be used for design of foundation all '4DR' tower extensions. Bidders are requested to ignore test tower reactions.
76	<u>Vol 2 of 3 / Page 7-5, 7-6, '7.1.4.6.1 (e) & 7.1.4.6.3 (c)</u> In general and as per codal standards, the permissible lateral deflection to be checked for serviceability (working loads like tower reactions and water thrust without over load factor). And for ultimate load (tower reactions and water thrust with overload factor) including ship impact and seismicity load, no deflection criteria specified in Codal standard. From the above, we are designing the foundation with lateral deflection for	Please follow the bidding document.

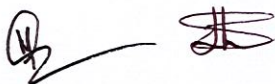
Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
	working loads only and this deflection is limited based on structural stability. Kindly confirm. Whether any specific deflection criteria/requirement/value is to be considered for foundation designs. Please provide.	
77	<u>Vol 2 of 3 / Page 7-6, '7.1.4.6.3 (d)</u> States that the tops of the chimneys shall be minimum 450mm higher than Highest Flood Level (HFL). We understand this requirement to apply only to the land-based towers because if applied to the river-based platforms, these would become submerged in a flood. As the river-based platforms will presumably need to accommodate maintenance personnel, storage facilities and cabins – and also because the chimneys and tower legs are not to be designed to withstand vessel impact – we assume that the equivalent requirement is that the tops of the river-based platforms be 450mm higher than Highest Flood Level (HFL). Please confirm.	Please follow the bidding document.
78	<u>Vol 2 of 3 / Page 7-5, 7-6, '7.1.4.6.1 (i) & 7.1.4.6.3 (f)</u> It is mentioned, "Based on necessary required tests, precautionary measures of steel tube piles shall be taken to ensure its structural integrity throughout its design life period". But in specification the design life period is not mentioned. We understand design life period of the transmission line Towers & its foundation is for 100 years for Jamuna and Padma river crossings. Please confirm the same. If design life period is not 100years, please specify the required design life period.	Design life of foundation should not be less than the design life of tower structure.
79	<u>IWM Morphology Report, Cl. 8.2 Recommendations, p.q.8-3 Total Scour</u> The IWM Morphology Report states in its Recommendations section that "As Ganges or Jamuna River are so dynamic in nature, the thalweg of the rivers may shift from one bank to another. So, every tower/ pier should be designed considering the maximum scour."	Please follow the bidding document.

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)																																		
	However, the designs of major crossings of large braided rivers in Bangladesh typically consider general scour profiles that have deeper channels near the banks with a less general scour in the middle of the river. For example, the Jamuna Multipurpose Bridge and the Padma Multipurpose Bridge general scour profiles both have mid-river bed levels that are 12m higher in elevation than those near the banks. Based on the above experience of similar projects in Jamuna and Padma rivers, We understand bidder can adopt the different general scour depths at mid-stream & near river bank (inside river) towers. Hope our understanding is correct.																																			
80	<u>IWM Morphology Report</u> <u>7. Ship Impact Load, Input data required to calculate Velocity Attack and Wave Attack</u> Table 7.1 Ship Impact Load <table><tr><th>River</th><th>Equivalent Average Impact Load, F (MN)</th><th>Dead Weight Tonnage, (DWT)</th><th>Impact Speed, v (m/s)</th><th>Vessel Size Group</th><th>Remarks</th></tr><tr><td rowspan="2">Jamuna River</td><td>108.59</td><td>75000</td><td>3.25</td><td>Aframax (Min)</td><td rowspan="2">DWT as per UNCTAD (2000) standard Vessel Size considering international importance as well as standard</td></tr><tr><td>134.46</td><td>115000</td><td>3.25</td><td>Aframax (Max)</td></tr><tr><td>Padma River</td><td>126.11</td><td>60000</td><td>4.22</td><td>Handy and Handymax</td><td></td></tr><tr><td>Jamuna River</td><td>21.72</td><td>3000</td><td>3.25</td><td>Large Rhine vessels</td><td>DWT as per BIWTA and PIANC Guideline considering Bangladeshi route and vessel as well as international importance</td></tr><tr><td>Padma River</td><td>19.94</td><td>1500</td><td>4.22</td><td>Rhein-Meuse Canal standard vessel (R.H.K.)</td><td></td></tr></table> The ship impact load report elaborately given by BIWTA(Bangladesh Inland Water Transport Authority) and International Water Authority. For Jamuna river, the ship impact load is 134.46MN as per UNCTAD are several-fold greater than the equivalent loads adopted in another river crossing procured by PGCB on the Padma River, where vessel traffic in fact	River	Equivalent Average Impact Load, F (MN)	Dead Weight Tonnage, (DWT)	Impact Speed, v (m/s)	Vessel Size Group	Remarks	Jamuna River	108.59	75000	3.25	Aframax (Min)	DWT as per UNCTAD (2000) standard Vessel Size considering international importance as well as standard	134.46	115000	3.25	Aframax (Max)	Padma River	126.11	60000	4.22	Handy and Handymax		Jamuna River	21.72	3000	3.25	Large Rhine vessels	DWT as per BIWTA and PIANC Guideline considering Bangladeshi route and vessel as well as international importance	Padma River	19.94	1500	4.22	Rhein-Meuse Canal standard vessel (R.H.K.)		Please follow the bidding document.
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Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
	presents the possibility of larger magnitude impacts than at the Jamuna crossing. The vessel DWT of up to 115,000 DWT which suggests a massive ocean-going vessel which could not navigate the Jamuna and is not appropriate. The Padma Crossing (as seen in Volume 2 of 3_400kV&230kV RC TL, Appendix 7.A9, section 4.8.2) considered only 4000 DWT. We understand that Jamuna Bridge was designed for an equivalent static impact load of 5000kN which represents a vessel significantly less than 4000 DWT. For Jamuna river crossing foundations, the ship impact load is 21.72MN (3000DWT) and for Padma River crossing foundations, the ship impact load is 19.94MN (1500DWT) as per BIWTA. We understand that, it is appropriate to consider ship impact load based on BIWTA and PIANC Guideline for design of pile foundation in Jamuna and Padma river. Please confirm.	
81	<u>IWM Morphology Report</u> <u>Cl. 7. Ship Impact Load, Input data required to calculate Velocity attack and Wave attack,p.q.7-1, Cl. 3.2.1 Hydrological Data,p.q.3-1</u> The given Ship Impact load based on the vessel movement in the main stream of the river. PGCB is specifies that ship impact to be taken on river bank location as well. 	Please follow the bidding document.

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)																														
	<u>Reference 02: Inland Waterways Ports, Waterways and Inland Navigation, Lectures Notes, 2012.</u> For classification of ships and waterways a world-wide classification is developed by PIANC (Permanent International Association of Navigation Congresses). Table Several ship types <table><tr><th>Class</th><th>Ship type</th><th>Tonnage (t)</th><th>Length (m)</th><th>Beam (m)</th></tr><tr><td>I</td><td>Pinckie Barge</td><td>200 - 400</td><td>38.50</td><td>5.05</td></tr><tr><td>II</td><td>Common Barge</td><td>400 - 650</td><td>50</td><td>6.60</td></tr><tr><td>III</td><td>Intermediate-Line Canal standard vessel (R.B.K.)</td><td>650 - 1000</td><td>67</td><td>8.20</td></tr><tr><td>IV</td><td>Rhine-Rhone-Canal standard vessel (R.B.K.)</td><td>1000 - 1500</td><td>80</td><td>9.50</td></tr><tr><td>Va</td><td>Large Rhine vessels</td><td>1500 - 3000</td><td>95</td><td>11.00</td></tr></table> In jamuna river for 400kV Rooppur – Dhaka TL & 230kV Rooppur-Dhamrai TL, Main stream of river is in between loc. T-3 & T-9. And there is a small tributary in between loc. T-2 and T-3 for 400kV Line & for 230kV Line at Loc. T-10 and T-11. We understood that, ship/vessel movement and hydrological data in the tributary channel are relatively less. So river bank towers are not exposed to scour/limited scour. Foundation design for River Bank(Outside river bed) towers for Loc. T-1, T-2, T-10 and T-11 with the below parameters 1. We can adopt the maximum of 15m scour from bed level 2. As per given data, Dead weight of 1000MT for ship impact load is adopted 3. Seismic condition for foundation Hope our understanding is correct and confirm. Any variation with reference to our above proposal, kindly furnish respective details.	Class	Ship type	Tonnage (t)	Length (m)	Beam (m)	I	Pinckie Barge	200 - 400	38.50	5.05	II	Common Barge	400 - 650	50	6.60	III	Intermediate-Line Canal standard vessel (R.B.K.)	650 - 1000	67	8.20	IV	Rhine-Rhone-Canal standard vessel (R.B.K.)	1000 - 1500	80	9.50	Va	Large Rhine vessels	1500 - 3000	95	11.00	
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82	<u>IWM Morphology Report</u> <u>Cl. 7. Ship Impact Load, Input data required to calculate Velocity attack and Wave attack,p.g.7-1, Cl. 3.2.1 Hydrological Data,p.g.3-1</u> The given Ship Impact load based on the vessel movement in the main stream of the river. PGCB is specifies that ship impact to be taken on river bank location as well. In Padma river for 400kV Rooppur – Gopalganj TL, loc. T-4 is on bank of	Please follow the bidding document.																														

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
	river. For this location T-4 on river bank tower is exposed to scour/limited scour. Foundation design for River Bank(Outside river bed) tower with the below parameters 1. We can adopt the maximum of 15m scour from bed level 2. As per given data, Dead weight of 1000MT for ship impact load is adopted 3. Seismic condition for foundation Hope our understanding is correct and confirm. Any variation with reference to our above proposal, kindly furnish respective details.	
83	<u>IWM Morphology Study Final Report - February 2021, Appendix A</u> It has been noted that the magnitude of local scour to be adopted must be taken as the maximum value derived for the design structural arrangement using the six methods in the IWM Morphology Report Appendix A. It is also noted that 6.95m constriction scour, derived from the IWM model simulation, is adopted. The resulting total scour is, in our opinion, excessive when compared to the total scours adopted for existing similar structures in similar large rivers in Bangladesh where flume studies have been employed to derive more realistic and actual magnitude total scours. We therefore recommend that after the Tender Award, flume studies are arranged in order to derive more realistic scour magnitudes to adopt in the final design. Please confirm that this is an acceptable approach.	Please follow the bidding document.
84	<u>Site Conditions, Clause No. (Lot-1 and Lot-2)</u> During the construction, is it possible for the contractor's equipment and vehicles will be exempted from tolls pass The Bangabondhu Bridge and Lalon Shah Bridge? Please kindly clarify.	Your request cannot be accepted. Please follow the bidding documents.
85	<u>Site Conditions (Lot-1 and Lot-2)</u> Is it allowed that the Contractor may take the existing asphalt road between transmission line towers and N405 roundabout at east bank side of Jamuna River as the construction access road? Please kindly clarify.	Access roads/routes shall be identified by the Contractor themselves as and where necessary, and shall be constructed by them at their own expense and necessary compensations for damages thereof shall also be paid by the Contractor. The Employer's representative may assist the Contractor in his



Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
		negotiations with the landowners about such compensation etc. Please follow Section-5: Access, Volume-2 of 3 of the bidding document.
86	<u>Site Conditions (Lot-1 and Lot-2)</u> Is it allowed that the contractor may take the road of Sirajganj Power Station as the construction access road on the west bank of Jamuna River? Please kindly clarify.	Access roads/routes shall be identified by the Contractor themselves as and where necessary, and shall be constructed by them at their own expense and necessary compensations for damages thereof shall also be paid by the Contractor. The Employer's representative may assist the Contractor in his negotiations with the landowners about such compensation etc. Please follow Section-5: Access, Volume-2 of 3 of the bidding document.
87	<u>Site Conditions (Lot-1 and Lot-2)</u> For the convenience of the construction arrangement, We sincerely suggest acquisition of land for the temporary access road and base camp shall be obtained by the employer. Please kindly clarify.	Your request cannot be accepted. Please follow the bidding documents.
88	<u>Site Conditions (Lot-1 and Lot-2)</u> For the convenience of the construction, is it possible for the contractor utilizing the land filled by sand outside of Sirajganj Power Station for temporary workshop, batching plant, basecamp, etc.? Please kindly clarify.	Access roads/routes shall be identified by the Contractor themselves as and where necessary, and shall be constructed by them at their own expense and necessary compensations for damages thereof shall also be paid by the Contractor. The Employer's representative may assist the Contractor in his negotiations with the landowners about such compensation etc. Please follow Section-5: Access, Volume-2 of 3 of the bidding document.
89	<u>Site Conditions (Lot-1 and Lot-2)</u> The major materials shall be transported by waterway, is it allowed to use the jetty of Rooppur Nuclear Power Plant for material loading and unloading? Please kindly clarify. Site Conditions (Lot-1 and Lot-2) For the convenience of the construction, is it allowed that the Contractor excavate or dredge the sand from Jamuna River and Padma River for filling access road, construction platform, basecamp, etc.?	The Contractor shall make all necessary arrangements for the general route for access to each or any position with the occupiers agreed by the Employer. Please follow Section-5: Access, Volume-2 of 3 of the bidding document.

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
Volume 03 of 03		
90	<u>Volume 3 of 3, Price Schedule</u> Volume 3 of 3, Schedule 1A, under Tower Foundation Material the quantity mentioned under Steel Tube is excess compared to the requirement under Schedule 4 in all the Lines. Please amend the quantity of two items as per Schedule 4.	The quantity of steel tube material provided in Volume 3 of 3, Schedule 1A is the maximum estimated quantity. Actual quantity of steel tube material/Permanent Steel Casing Material shall depend on the choice of steel tube or cast in-situ pile for river bank locations as per the design during Contract execution. Payment shall be made as per the actual execution quantity.
91	<u>Volume 3 of 3, Price Schedule</u> <u>1A(i)(item no. 1.3) and Schedule No. 4A(i) (item No. 2.1 and 2.2) - For Lot 1</u> We understand that steel tube piles to be used for river bed foundations and Steel permanent casing will be used for river bank foundation. We would like to highlight that, in Schedule 4A(i)- Item No. 2.1, the Quantity is mentioned as "7" nos. while corresponding Steel Tube for this foundation are mentioned as "11" nos. in Schedule 1A(i) (item 1.3.1). We request you to maintain quantity as 7 Nos in Schedule 1A(i) in line with foundation quantity mentioned in the Schedule 4A(i).	The quantity of steel tube material provided in Volume 3 of 3, Schedule 1A(i) is the maximum estimated quantity. Actual quantity of steel tube material/Permanent Steel Casing Material shall depend on the choice of steel tube or cast in-situ pile for river bank locations as per the design during Contract execution. Payment shall be made as per the actual execution quantity.
92	<u>Volume 3 of 3, Price Schedule</u> <u>Price Schedule 1A(ii) (item no. 1.3) and Schedule No. 4A(ii) (item No. 2.1 and 2.2) - For Lot 1</u> We understand that steel tube piles to be used for river bed foundations and Steel permanent casing will be used for river bank foundation. We would like to highlight that, in Schedule 4A(ii)- Item No. 2.1, the Quantity is mentioned as "2" nos. while corresponding Steel Tube for this foundation are mentioned as "4" nos. in Schedule 1 (item 1.3.1). We request you to maintain quantity as 2 Nos in Schedule 1A(ii) in line with foundation quantity mentioned in the Schedule 4A(ii).	The quantity of steel tube material provided in Volume 3 of 3, Price Schedule 1A(ii)/2A(ii) is the maximum estimated quantity. Actual quantity of steel tube material/Permanent Steel Casing Material shall depend on choice of steel tube or cast in-situ pile for river bank locations as per the design during Contract execution. Payment shall be made as per the actual execution quantity.
93	<u>Volume 3 of 3, Price Schedule</u> <u>Price Schedule 1B (item no. 1.3) and Schedule No. 4B (item No. 2.1 and 2.2) - For Lot 2</u> We understand that steel tube piles to be used for river bed foundations and	The quantity of steel tube material provided in Volume 3 of 3, Price Schedule 1B/2B is the maximum estimated quantity. Actual quantity of steel tube material/Permanent Steel Casing Material shall depend on choice of

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
	Steel permanent casing will be used for river bank foundation. We would like to highlight that, in Schedule 4B- Item No. 2.1, the Quantity is mentioned as "7" nos. while corresponding Steel Tube for this foundation are mentioned as "11" nos. in Schedule B (item 1.3.1). We understand that the Quantity of Item 1.3.1 of Schedule 1 should be "7" Nos. please confirm our understanding is correct.	steel tube or cast in-situ pile for river bank locations as per the design during Contract execution. Payment shall be made as per the actual execution quantity.
94	<u>Volume 3 of 3, Price Schedule, Price Schedule 4A (ii)</u> Here Check Survey has been asked for 6 Kms while the route length of the releval scope is only 2 Kms. Pls Clarify.	Please follow Addendum-1.
95	<u>Volume 3 of 3, Price Schedule, Price Schedule 4A (i) (ii) & 4B item no 4.1</u> Here the Individual pile test has been asked for where Steel Tube Material cost has also been mentioned to be included in the schedule line items. It is to submit that since Steel tube Pile supply is the line item in the Schedule No-1, the Steel tube for pile test should also be covered under price schedule-1 as it shall help in reducing the cost of the project. Please clarify your position in this regard.	Please follow the bidding document.
96	<u>Volume 3 of 3, Soft Copy of the Price Schedule</u> It is requested to kindly provide the soft copy of the price schedule for ease of working for the bidders.	Soft copies of the prices schedules have been provided to all the bidders who have purchased the bid documents. If requires, the bidders are requested to collect these from the Contract Department.
97	<u>Price Schedule No. 1A(i), 1A(ii), 2A(i), 2A(ii) for Lot-1 and Price Schedule No. 1B for Lot-2, Volume 3 of 3, Sl.no.1.3</u> As per the given Price Schedule, following quantity given as below. From the above, we have the following understandings:- i. Option-1: All 11 locations shall be with steel tube piles ii. Option-2: 7 locations shall be with steel tube piles and 4 locations	The payment will be made as per the actual quantity during the Contract execution.

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)												
	with cast-in-situ with permanent steel casing/steel tube piles. In case of Option-1, item no. 1.3.2 which has 4 number of permanent steel casing material may not be required. In case of Option-2, item no. 1.3.1 which has Steel tube Material may not be required for 11 numbers, which is sufficient with 7 numbers only. We understand, there shall be reduction in the quantity based on the actual requirement at 4 locations in river bank. Please confirm.													
98	<u>Volume-3, Lot-1, Price Schedule No. 4A(i), (Page No. Schedule 4A(i)-1), Item No. 2.1.1, 2.2.1 & 2.2.2</u> Please refer item no. 2.1.1, 2.2.1 & 2.2.2 given in Price Schedule No.4A(i) as :- <table><tr><td>2.1.1.</td><td>Pile Foundation for 4DR</td><td>per tower</td><td>7</td></tr><tr><td>2.2.1</td><td>Pile Foundation for 4DR</td><td>per tower</td><td>2</td></tr><tr><td>2.2.2</td><td>Pile Foundation for 4DAX</td><td>per tower</td><td>2</td></tr></table> Since the steel tube pile foundation involves complex activity and are costly, We request you to amend the price schedule as follows to break down the activity	2.1.1.	Pile Foundation for 4DR	per tower	7	2.2.1	Pile Foundation for 4DR	per tower	2	2.2.2	Pile Foundation for 4DAX	per tower	2	Your request cannot be accepted. Please follow the bid documents.
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	<table><tr><td>2.1.1</td><td>Pile Foundation for 4DR</td><td></td><td></td></tr><tr><td>2.1.1.1</td><td>Completion of Driving of Steel Tube</td><td>per tower</td><td>7</td></tr><tr><td>2.1.1.2</td><td>Completion of Sand/Concrete Filling</td><td>per tower</td><td>7</td></tr><tr><td>2.1.1.3</td><td>Supply & Placement of Reinforcement</td><td>per tower</td><td>7</td></tr><tr><td>2.1.1.4</td><td>Completion of Pile Cap / Platform including Tie Beams</td><td>per tower</td><td>7</td></tr><tr><td>2.2.1</td><td>Pile Foundation for 4DR</td><td></td><td></td></tr><tr><td>2.2.1.1</td><td>Completion of Driving of Steel Tube / Permanent Casing</td><td>per tower</td><td>2</td></tr><tr><td>2.2.1.2</td><td>Completion of Sand/Concrete Filling</td><td>per tower</td><td>2</td></tr><tr><td>2.2.1.3</td><td>Supply & Placement of Reinforcement</td><td>per tower</td><td>2</td></tr><tr><td>2.2.1.4</td><td>Completion of Pile Cap / Platform including Tie Beams</td><td>per tower</td><td>2</td></tr><tr><td>2.2.2</td><td>Pile Foundation for 4DAX</td><td></td><td></td></tr><tr><td>2.2.2.1</td><td>Completion of Driving of Steel Tube / Permanent Casing</td><td>per tower</td><td>2</td></tr><tr><td>2.2.2.2</td><td>Completion of Sand/Concrete Filling</td><td>per tower</td><td>2</td></tr><tr><td>2.2.2.3</td><td>Supply & Placement of Reinforcement</td><td>per tower</td><td>2</td></tr><tr><td>2.2.2.4</td><td>Completion of Pile Cap / Platform including Tie Beams</td><td>per tower</td><td>2</td></tr></table>	2.1.1	Pile Foundation for 4DR			2.1.1.1	Completion of Driving of Steel Tube	per tower	7	2.1.1.2	Completion of Sand/Concrete Filling	per tower	7	2.1.1.3	Supply & Placement of Reinforcement	per tower	7	2.1.1.4	Completion of Pile Cap / Platform including Tie Beams	per tower	7	2.2.1	Pile Foundation for 4DR			2.2.1.1	Completion of Driving of Steel Tube / Permanent Casing	per tower	2	2.2.1.2	Completion of Sand/Concrete Filling	per tower	2	2.2.1.3	Supply & Placement of Reinforcement	per tower	2	2.2.1.4	Completion of Pile Cap / Platform including Tie Beams	per tower	2	2.2.2	Pile Foundation for 4DAX			2.2.2.1	Completion of Driving of Steel Tube / Permanent Casing	per tower	2	2.2.2.2	Completion of Sand/Concrete Filling	per tower	2	2.2.2.3	Supply & Placement of Reinforcement	per tower	2	2.2.2.4	Completion of Pile Cap / Platform including Tie Beams	per tower	2	
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99	<u>Volume-3, Lot-1, Price Schedule No. 4A(ii), (Page No. Schedule 4A(ii)-1), Item No. 2.1.1, 2.1.1 & 2.2.1</u> Please refer item no. 2.1.1, 2.1.2 & 2.2.1 given in Price Schedule No.4A(ii) as :- <table><tr><td>2.1.1</td><td>Pile Foundation for 4DR</td><td>per tower</td><td>2</td></tr><tr><td>2.1.2</td><td>Pile Foundation for 4DAX</td><td>per tower</td><td>1</td></tr><tr><td>2.2.1</td><td>Pile Foundation for 4DAX</td><td>per tower</td><td>1</td></tr></table> Since the steel tube pile foundation involves complex activity and are costly, We request you to amend the price schedule as follows to break down the activity. <table><tr><td>2.1.1</td><td>Pile Foundation for 4DR</td><td></td><td></td></tr><tr><td>2.1.1.1</td><td>Completion of Driving of Steel Tube/ Permanent Casing</td><td>per tower</td><td>2</td></tr><tr><td>2.1.1.1</td><td>Completion of Sand/Concrete Filling</td><td>per tower</td><td>2</td></tr><tr><td>2.1.1.2</td><td>Supply & Placement of Reinforcement</td><td>per tower</td><td>2</td></tr><tr><td>2.1.1.4</td><td>Completion of Pile Cap/ Platform including Tie Beams</td><td>per tower</td><td>2</td></tr><tr><td>2.1.2</td><td>Pile Foundation for 4DAX</td><td></td><td></td></tr><tr><td>2.1.2.1</td><td>Completion of Driving of Steel Tube/ Permanent Casing</td><td>per tower</td><td>1</td></tr><tr><td>2.1.2.2</td><td>Completion of Sand/Concrete Filling</td><td>per tower</td><td>1</td></tr><tr><td>2.1.2.3</td><td>Supply & Placement of Reinforcement</td><td>per tower</td><td>1</td></tr><tr><td>2.1.2.4</td><td>Completion of Pile Cap/ Platform including Tie Beams</td><td>per tower</td><td>1</td></tr></table>	2.1.1	Pile Foundation for 4DR	per tower	2	2.1.2	Pile Foundation for 4DAX	per tower	1	2.2.1	Pile Foundation for 4DAX	per tower	1	2.1.1	Pile Foundation for 4DR			2.1.1.1	Completion of Driving of Steel Tube/ Permanent Casing	per tower	2	2.1.1.1	Completion of Sand/Concrete Filling	per tower	2	2.1.1.2	Supply & Placement of Reinforcement	per tower	2	2.1.1.4	Completion of Pile Cap/ Platform including Tie Beams	per tower	2	2.1.2	Pile Foundation for 4DAX			2.1.2.1	Completion of Driving of Steel Tube/ Permanent Casing	per tower	1	2.1.2.2	Completion of Sand/Concrete Filling	per tower	1	2.1.2.3	Supply & Placement of Reinforcement	per tower	1	2.1.2.4	Completion of Pile Cap/ Platform including Tie Beams	per tower	1	Your request cannot be accepted. Please follow the bid documents.								
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100	<u>Volume-3, Lot-2, Price Schedule No. 4B, (Page No. Schedule 4B-1), Item No. 2.1.1, 2.2.1 & 2.2.2</u> Please refer item no. 2.1.1, 2.2.1 & 2.2.2 given in Price Schedule No.4B as :- <table><tr><td>2.1.1</td><td>Pile Foundation for 2DR</td><td>per tower</td><td>7</td></tr><tr><td>2.2.1</td><td>Pile Foundation for 2DR</td><td>per tower</td><td>2</td></tr><tr><td>2.2.2</td><td>Pile Foundation for 2DAX</td><td>per tower</td><td>2</td></tr></table> Since the steel tube pile foundation involves complex activity and are costly, We request you to amend the price schedule as follows to break down the activity. <table><tr><td>2.1.1.</td><td>Pile Foundation for 2DR</td><td></td><td></td></tr><tr><td>2.1.1.1</td><td>Completion of Driving of Steel Tube</td><td>per tower</td><td>7</td></tr><tr><td>2.1.1.2</td><td>Completion of Sand/Concrete Filling</td><td>per tower</td><td>7</td></tr><tr><td>2.1.1.3</td><td>Supply & Placement of Reinforcement</td><td>per tower</td><td>7</td></tr><tr><td>2.1.1.4</td><td>Completion of Pile Cap / Platform including Tie Beams</td><td>per tower</td><td>7</td></tr><tr><td>2.2.1</td><td>Pile Foundation for 2DR</td><td></td><td></td></tr><tr><td>2.2.1.1</td><td>Completion of Driving of Steel Tube / Permanent Casing</td><td>per tower</td><td>2</td></tr><tr><td>2.2.1.2</td><td>Completion of Sand/Concrete Filling</td><td>per tower</td><td>2</td></tr><tr><td>2.2.1.3</td><td>Supply & Placement of Reinforcement</td><td>per tower</td><td>2</td></tr><tr><td>2.2.1.4</td><td>Completion of Pile Cap / Platform including Tie Beams</td><td>per tower</td><td>2</td></tr><tr><td>2.2.2</td><td>Pile Foundation for 2DAX</td><td></td><td></td></tr><tr><td>2.2.2.1</td><td>Completion of Driving of Steel Tube / Permanent Casing</td><td>per tower</td><td>2</td></tr><tr><td>2.2.2.2</td><td>Completion of Sand/Concrete Filling</td><td>per tower</td><td>2</td></tr><tr><td>2.2.2.3</td><td>Supply & Placement of Reinforcement</td><td>per tower</td><td>2</td></tr><tr><td>2.2.2.4</td><td>Completion of Pile Cap / Platform including Tie Beams</td><td>per tower</td><td>2</td></tr></table>	2.1.1	Pile Foundation for 2DR	per tower	7	2.2.1	Pile Foundation for 2DR	per tower	2	2.2.2	Pile Foundation for 2DAX	per tower	2	2.1.1.	Pile Foundation for 2DR			2.1.1.1	Completion of Driving of Steel Tube	per tower	7	2.1.1.2	Completion of Sand/Concrete Filling	per tower	7	2.1.1.3	Supply & Placement of Reinforcement	per tower	7	2.1.1.4	Completion of Pile Cap / Platform including Tie Beams	per tower	7	2.2.1	Pile Foundation for 2DR			2.2.1.1	Completion of Driving of Steel Tube / Permanent Casing	per tower	2	2.2.1.2	Completion of Sand/Concrete Filling	per tower	2	2.2.1.3	Supply & Placement of Reinforcement	per tower	2	2.2.1.4	Completion of Pile Cap / Platform including Tie Beams	per tower	2	2.2.2	Pile Foundation for 2DAX			2.2.2.1	Completion of Driving of Steel Tube / Permanent Casing	per tower	2	2.2.2.2	Completion of Sand/Concrete Filling	per tower	2	2.2.2.3	Supply & Placement of Reinforcement	per tower	2	2.2.2.4	Completion of Pile Cap / Platform including Tie Beams	per tower	2	Your request cannot be accepted. Please follow the bid documents.
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101	<u>Price Schedule No. 3A (i & ii), (Page No. Schedule 3B-1) for Lot-1 & Price Schedule No. 3B, (Page No. Schedule 3B-1) for Lot-2, Item No. 3.1</u> Please refer item no. 3.1 given in Price Schedule No.3A (i & ii) & 3B as :- <table><tr><td>3.1</td><td>Foundation design for all soil types including additional soil investigation and additional soil resistivity measurement</td><td>Lump sum</td><td>1</td></tr></table> Since scope involves steel tube pile design which are costly, so we request	3.1	Foundation design for all soil types including additional soil investigation and additional soil resistivity measurement	Lump sum	1	Your request cannot be accepted. Please follow the bid documents.																																																																				
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	you to amend the Price Schedule item unit as 'Per Tower' instead of 'Lumpsum' Kiindly amend the Price Schedule item 3.1 as 'Completion of Design of Steel Tube Pile foundation/ Permanent Casing foundation and approval from the Employer' - Per Tower – 11.																																									
102	Volume – 3 <u>Lot-1, Price Schedule No. 4A (i), Item No. 2.1.1 , 2.2.1 & 2.2.2</u> <u>Lot-1, Price Schedule No. 4A (ii), Item No. 2.1.1 , 2.1.2 & 2.2.1</u> Since the steel tube pile foundation involves complex activity and are highly expensive, We request you to amend the price schedule as follows to break down the activity. This will improve the bidder cashflows to execute the project within timelines. <table><tr><td>2.2.1</td><td>Pile Foundation for 4DR</td><td></td><td></td></tr><tr><td>2.2.1.1</td><td>Completion of Driving of Steel Tube / Permanent Casing</td><td>per tower</td><td>2</td></tr><tr><td>2.2.1.2</td><td>Completion of Sand/Concrete Filling</td><td>per tower</td><td>2</td></tr><tr><td>2.2.1.3</td><td>Supply & Placement of Reinforcement</td><td>per tower</td><td>2</td></tr><tr><td>2.2.1.4</td><td>Completion of Pile Cap / Platform including Tie Beams</td><td>per tower</td><td>2</td></tr><tr><td>2.2.2</td><td>Pile Foundation for 4DAX</td><td></td><td></td></tr><tr><td>2.2.2.1</td><td>Completion of Driving of Steel Tube / Permanent Casing</td><td>per tower</td><td>2</td></tr><tr><td>2.2.2.2</td><td>Completion of Sand/Concrete Filling</td><td>per tower</td><td>2</td></tr><tr><td>2.2.2.3</td><td>Supply & Placement of Reinforcement</td><td>per tower</td><td>2</td></tr><tr><td>2.2.2.4</td><td>Completion of Pile Cap / Platform including Tie Beams</td><td>per tower</td><td>2</td></tr></table>	2.2.1	Pile Foundation for 4DR			2.2.1.1	Completion of Driving of Steel Tube / Permanent Casing	per tower	2	2.2.1.2	Completion of Sand/Concrete Filling	per tower	2	2.2.1.3	Supply & Placement of Reinforcement	per tower	2	2.2.1.4	Completion of Pile Cap / Platform including Tie Beams	per tower	2	2.2.2	Pile Foundation for 4DAX			2.2.2.1	Completion of Driving of Steel Tube / Permanent Casing	per tower	2	2.2.2.2	Completion of Sand/Concrete Filling	per tower	2	2.2.2.3	Supply & Placement of Reinforcement	per tower	2	2.2.2.4	Completion of Pile Cap / Platform including Tie Beams	per tower	2	Your request cannot be accepted. Please follow the bid documents.
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103	Volume – 3 <u>Lot-1, Price Schedule No. 4A (i), Item No. 2.2</u> <u>Lot-1, Price Schedule No. 4A (ii), Item No.2.2</u> <u>Lot-2 , Price Schedule No. 4B, Item No. 2.2</u> As per the specification, Item 2.2 is to be designed with Cast In-Situ Concrete Piles for River Bed. Please confirm.	Your understanding is not correct. Please follow the bidding document.																																								
104	Volume 3 of 3 <u>Attachment: Price Schedule-Schedule No. 1A(i), No. 2A(ii), No. 1B, No. 2B, CLAUSE No. 1.3.1&1.3.2 (Lot-1 and Lot-2)</u>	The quantity of steel tube material provided in Volume 3 of 3, Price																																								

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	CLAUDE DESCRIPTION 1.3.1 Steel Tube Material for Tower Foundation 1.3.2 Permanent Steel Casing Material for Tower Foundation COMMENT/QUESTION OF BIDDER According to items 2.1 and 2.2 of Schedule No. 4A(i), there are 7 towers on river bed and 4 towers on river bank for the 400kV transmission line across Jamuna river. Hence, the contractor shall consider the 4 towers on river bank as cast-in-situ pile foundation, thus the item 1.3.1 of Schedule No. 1A(i) and No. 2A(ii), which listed quantity 11 Steel Tube foundation should be corrected and quoted as 7 Nos. The same correction shall be adopted for the Schedule No. 1B and No. 2B.	Schedule 1A/2A/1B/2B is the maximum estimated quantity. Actual quantity of steel tube material/Permanent Steel Casing Material shall depend on choice of steel tube or cast in-situ pile for river bank locations as per the design during Contract execution. Payment shall be made as per the actual execution quantity.
105	Volume 3 of 3 Attachment: Price Schedule-Schedule No. 4A(ii)", CLAUDE No.1.2.2 (Lot-1) CLAUDE DESCRIPTION Soil resistivity tests (one per tower) COMMENT/QUESTION OF BIDDER There are 4 tower for Padma River only, the Soil resistivity tests quantity shall be corrected as 4 unit. Please kindly clarify.	Please follow Addendum-1.
106	Volume 3 of 3 Clause No. Attachment: Price Schedule-Schedule No. 4A(i), No. 4A(ii) & No. 4B" 4.1 (Lot-1 and Lot-2) Clause Description Individual Test Pile (steel tube pile) including necessary soil testing, design, supply, installation, monitoring and testing to prove compliance with theoretical design, payment for successful test only: -including supply of steel tube materials (a) Test pile for Uplift load (b) Test pile for Compression load" COMMENT/QUESTION OF BIDDER Uplift load and Compression load need to be tested on test pile (steel tube pile) : (1) Please kindly clarify whether these two tests shall be carried out on the one pile or two piles respectively;	1) Uplift and compression load tests shall be carried out on two different piles. 2) Additional test piles

Sl. No.	Reference and Queries of Prospective Bidders	Reply(PGCB)
	(2) Please kindly clarify whether these two tests are carried out on working piles or on additional test piles."	
107	Volume 3 of 3 <u>Attachment: Price Schedule-Schedule No. 4A(i), No. 4A(ii) & No. 4B 4.2 (Lot-1 and Lot-2)</u> Clause Description Individual Working Pile (cast in situ pile) test including design, supply, installation and testing to prove compliance with technical specification, payment for successful test only (applicable for all tower types selected by the Employer's Engineer): (a) Compression test (b) Uplift test (c) Pile Integrity test COMMENT/QUESTION OF BIDDER Whether the Uplift test and Compression test(cast in situ pile) are carried out on the one working pile or two working piles respectively? Please kindly clarify.	Uplift and compression load tests shall be carried out on different working piles (cast in situ).
108	Volume 3 of 3 <u>Attachment: Price Schedule-Schedule No. 4A(i), No. 4A(ii) & No. 4B Clause No. 4.3 (Lot-1 and Lot-2)</u> Clause Description Pile Integrity test (PIT) Comment of the bidder: Which method shall be adopted for PIT, low strain method or ultrasonic method? Please kindly clarify.	Detail methodology of PIT shall be finalized during Contract execution stage.

The above mentioned clarification will form part of the Bidding Documents.




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