Reply to Queries of VOITH on Bid Document for RMU of Umiam Umtru Stage-III Project

Sl. No.	VOITH's Queries	MePGCL's Replies
Commercial Queries		
1	Kindly reduce the Bid Security amount to INR 1.0 crores. For govt. utility tenders, the bid security amount is usually below 1% of the expected/tentative CV. Current Bid Security Value is more than 3% of the expected/tentative CV.	As the bid document.
2	We understand that the audited balance sheet of the Bidder shall be considered as an adequate evidence towards fulfilment of this condition for calculating the Average Annual Turnover. Please confirm. This is also accepted by other Central Utilities like NHPC, CVPPL and State Utilities like SJVNL, KSEB etc.	As the bid document.
3	We understand that working capital of the Bidder and Banker's certificate interalia, shall also be considered towards fulfillment of this condition. Kindly confirm. This is also accepted by other Central Utilities like NHPC, CVPPL and State Utilities like SJVNL, KSEB etc.	As the bid document.
4	Kindly accept the mode of payment through irrevocable Letter of Credit for the equipment supplied from Abroad.	The bid document is final and no modification will be entertained.
5	Kindly accept release of this payment against submission of Bank Guarantee.	The bid document is final and no modification will be entertained.
6	Kindly elaborate the charges expected to be levied by the Bank.	Cannot be elaborated at this stage. However, whatever charges the Bank levy as per norms, those will be paid by the Contractor.
7	Kindly modify the clause as under:"The Defects Liability Period in respect of the Facilities (or, where **use** or Operational Acceptance of any part of the Facilities occurs, of such part) shall commence upon **the date of use of the Facilities** or upon the date of Operational Acceptance, **whichever occurs earlier** and expire twelve (12) months thereafter."	The bid document is final and no modification will be entertained.
8	Installation All Risk/Erection All Risk Policy shall be effective until the taking over of the Facilities by the Employer. This is as per IRDA regulations hence kindly accept.	The bid document is final and no modification will be entertained.
9	Kindly limit either the number of occurrences or the overall limit of this Insurance. No insurance company shall provide a cover with unlimited liability. This is as per IRDA regulations hence kindly provide clear clarification in this regard.	The bid document is final and no modification will be entertained.
10	Being an International Competitive Bid, it is requested to incorporate the standard pre-qualification condition to qualify on the basis of technical and/or financial credentials of the Parent company if the Bidder (subsidiary company) does not qualify on its own credentials. In this regard, reference is drawn to the standard clause incorporated by all Central and State	The bid document is final and no modification will be entertained.

	Utility customers. Extract of the clause from NHPC Tender is enclosed for your easy reference. Kindly accept	
11	We understand for projects which are under implementations stage with substantial completion (More than 80%) of project are qualifying under specific experience and we can submit our internal progress documents/declaration for proof of substantial completion.	The bid document is final and no modification will be entertained.
12	In order to arrange all the quotation from our vendors, and complete the E&M Bid, We requires atleast 8-10 weeks. Therefore you are requested to provide extension in Bid-Submission date (atleast 10 weeks) from the date of receipt of Pre-Bid replies.	Last date for submission of bids already extended. Further extension may not be possible.
13	We understand from clause 1.2.2 and S1 Functional Guaranteed Parameters of Tender that the Minimum acceptable efficiency requirement of functional guaranteed is turbine - 92%, Generator - 97% & Turbine-98%. For purpose of bid evaluation, base value criteria for efficiency loading will be a minimum acceptable requirement. Loading on efficiency is provided only up to 3 cr for a 1% increase from the acceptable requirement in efficiencies. The bidder who offered efficiency more than the minimum requirement (Turbine-93%, Generator-98%, and Transformer - 99%) will not have any advantage.Please confirm.	Yes.
14	We understand that this aggregate liability of LD of 10%of the total contract price is applicable to the performance shortfall mentioned in clause 4.1 to 4.3. Please confirm.	Yes.
Technical Queries		
Turbine:		
1	Please furnish existing Assembly and components drawings of embedded parts including spiral casing and stay ring.	As per bid document, the bidder shall collect data during their site visit.
2	Please furnish existing assembly / part drawings of following: **Power house** **Turbine,** **Main inlet valve** **Pressure release valve and its mounting arrangement.**	As per bid document, the bidder shall collect data during their site visit.
3	Please furnish the existing schematic drawings for water and oil supply for turbine guide bearing.	As per bid document, the bidder shall collect data during their site visit.
4	The cavitation guarantee shall be in accordance with IEC Publication 60609-1 for an 8000 hour period of operation within the warranty period, but for not more than 2 years after commissioning of the turbine. As per this clause, we understand that it is a revolving guarantee. We propose to limit the number of repair to two. Kindly accept our proposal and amend the clause / provide confirmation accordingly.	The bid document is final and no modification will be entertained.
5	We propose to carry out field efficiency test by Index method in accordance with IEC 62006. Kindly review and accept the proposal.	The bid document is final and no modification will be entertained.

	Also, request MePGCL to provide drawings / details of measurement ports in draft tube and spiral casing and also confirm that all measuring ports are in working condition. We propose to carry out field efficiency testing by bidder expert team (VOITH) itself instead of independent third party, which will help us to schedule the same properly. Kindly review and accept the proposal.	As per bid document, the bidder shall collect data during their site visit.
6	Please furnish required mandatory spares and special tools list. Also, please provide us details / list of available special tools for turbine and MIV handling.	As per bid document.
7	Request you to furnish the existing Erection Bay Drawing / foundation load drawings of existing powerhouse.	As per bid document, the bidder shall collect data during their site visit.
8	Please furnish the loading and evaluation criteria for providing maximum output of Turbine matching existing structure.	As per bid document, the bidder shall collect data during their site visit.
9	Please furnish the water quality / chemical and petrographic analysis report for our reference/analysis.	As per bid document, the bidder shall collect data during their site visit.
10	We understand that 93% turbine efficiency at rated point is the minimum requirement to qualify the bid. Please confirm. Please also specify that whether there will be any advantage to bidder by offering higher efficiency in bid evaluation or not.	As per bid document.
11	As per CEA guideline/ requirement, model test is required for plant capacity of more than 100 MW. Considering the project schedule and turbine scope, we propose to accept a transposed / CFD analysis report instead of model test requirement inline to CEA guide line and also proven method. Kindly review and confirm.	The bid document is final and no modification will be entertained.
12	In order to perform the hydraulic application/ engineering and transient analysis, kindly furnish the following details: 1. Existing turbine detail and component drawing like spiral case, runner, draft tube etc.. 2. PRV purpose, existing PRV drawing, PRV discharge liner drawing. 3. Inlet diameter of PRV/ details of connection b/w spiral and PRV 4. Discharge characteristics of PRV (Stroke vs Q) 5. Operating time of power unit (Opening/ closing law of PRV, Guide vanes) 6. Maximum discharge limit of existing PRV 7. Pressure rise limit for the existing water conductor system 8. Speed rise limit 9. Water conductor details from intake to tailrace and drawing. 10. Head losses details thru water conductor system 11. Existing power unit inertia/ GD2 12. Transient analysis report of the existing power unit 13. Commissioning/ load rejection test report/ protocol	As per bid document, the bidder shall collect data during their site visit.

13	Please furnish the store area details and distance of store from powerhouse where all dismantled equipment's to be stored.	As per bid document, the bidder shall collect data during their site visit.
MAIN INLET VALVE & PENSTOCK PROTECTION VALVE:		
1	Request to provide the nominal diameter, design pressure, design discharge, existing penstock inlet diameter, spiral inlet diameter and connection details (outer diameter, bolt circle diameter and size of bolt), detailed drawings of the existing main inlet spherical valves i.e. layout of spherical valve assembly, upstream connection pipe, downstream connection pipe, power house cross section.	As per bid document, the bidder shall collect data during their site visit.
2	The existing spherical valves open and close with double acting servomotor, but we would like to propose single acting oil operated servomotor for opening and closing weight for closing of the valve as it is a failsafe device to ensure normal as well as emergency closing of the MIV. In place of separate HPU, we can propose common HPU for turbine and MIV if complete HPU is required to be replaced.	The bid document is final and no modification will be entertained.
3	Bypass valve size shall be decided based on the design parameters of main inlet valve and same shall be offered as per Voith standard.	The bid document is final and no modification will be entertained.
4	Request to provide the nominal diameter, design pressure, design discharge, detailed drawings of the existing pressure relief valves. (layout drawings of valve assembly, interface detail of connection pipes)	As per bid document, the bidder shall collect data during their site visit.
5	Request to provide the nominal diameter, design pressure, design discharge, detailed drawings of the existing penstock butterfly valves i.e. layout of penstock butterfly valve assembly, upstream connection pipe, downstream connection pipe, valve house cross section, air valves.	As per bid document, the bidder shall collect data during their site visit.
GENERATOR:		
1	Please provide the GD2 (ton-m2) of existing generator.	As per bid document, the bidder shall collect data during their site visit.
2	Please provide the present transportation limit.	The bidder shall assess such informations before sending the consignments.
3	Please share the Generator components testing requirement in details.	As per bid document, the bidder shall collect data during their site visit.
4	The guaranteed parameters shall be as per IEC standards and industry practice. Please confirm.	The bid document is final and no modification will be entertained.
5	Please specify the loading and evaluation criteria for Generators.	
6	**Please provide the following details of existing equipment's:** '- Generator Cross-section and layout drawing - Barrel Foundation and cutout drawing - Sole - Plate assembly drawing - Foundation Loading Drawing - Stator Terminal Layout Drawings	As per bid document, the bidder shall collect data during their site visit.

	- Power House Layout drawing (to understand the crane elevation and service bay details) - Existing Power Unit Layout drawing. **Other drawings:** '- Stator Assembly Drawing - Rotor Assembly Drawing - Upper Bearing Assembly Drawing - Lower Bearing Assembly Drawing - Existing Generator Data Sheet	
BALANCE OF PLANT - ELECTRICAL (BOPE):		
1	Please furnish the Single Line Diagram for the complete Electrical system.	As per bid document, the bidder shall collect data during their site visit.
2	We understand that existing Switchyard structures can be used for mounting the new equipment supplied under this tender. Please confirm.	As per bid document.
3	Please furnish the distance for all the referred areas for estimation of BOQ of Illumination system. Also we understand that, we need to consider only Lighting fixtures and associated fittings to install on the existing Lighting poles. Please confirm.	As per bid document, the bidder shall collect data during their site visit.
4	Please furnish the details of any replacement of equipment's is envisaged as part of the Overhauling works of LTAC panels. Defective items list if any shall be shared for estimation of BOQ.	As per bid document, the bidder shall collect data during their site visit.
5	We understand that only cables needs to be replaced. However the existing cable tray supports are only to be used for laying new cables. Please confirm.	Cables along with cable trays shall be replaced.
6	Please furnish the connection details between control panels at Switchyard control room to Main control room. Please also furnish the approximate route length / distance from Power house to Switchyard fence.	As per bid document, the bidder shall collect data during their site visit.
7	We understand that the following packages are not in the scope of this tender if applicable. 1. Busduct, 2. LAVT Panels, 3. Cable trays, 4. Earthing System 5. DG Set, 6. Lighting panels, 7. PLCC / OLTE system	As per bid document.

BALANCE OF PLANT - MECHANICAL (BOPM):		
1	Please furnish existing schematic diagram, document and piping layout drawing of cooling water system, LP & HP compressed air system, OPU Turbine & OPU MIV and drainage & dewatering system for our review and better scope understanding.	As per bid document, the bidder shall collect data during their site visit.
2	Please furnish accumulator details and operating pressure range of existing OPU. Also, kindly provide existing filter details in OPU. Separate OPU considered for Turbine and MIV as per TS scope. We propose Gear pump & Field piping shall be Carbon Steel for the system. Please accept. **Since, complete servomotors are replacement as per Technical Specifications, so we proposed and recomment to go for High pressure system (80-120bar). Complete new HPU shall be provided with sump tank and accumulators. please accept this proposal.**	As per bid document, the bidder shall collect data during their site visit.
3	Kindly furnish existing HP & LP compressor details (capacity, pressure, motor kW etc.). As per Tender Specifications scope overhauling of air receiver is considered and no separate instruments / valves etc. is considered in scope. Kindly confirm. Compressor shall be reciprocating type and piping shall be CS galvanized. **We proposed and recommend to go for hydraulic barking instead of pneumatic type. Same shall be provided from OPU. please accept this proposal.**	As per bid document, the bidder shall collect data during their site visit.
4	In main scope three (3) sets is mentioned. We understand in existing we have common cooling water scheme for both units. Total 3 pumps (1 working for each unit & common stand by) is there. As per scope we have considered 3 nos. horizontal centrifugal pumps, duplex filter, piping & valves for replacement. Water piping shall be CS ERW as per IS: 1239/3589. Kindly confirm for instrumentation scope. For additional source penstock tapping arrangement kindly confirm if spare flange connection available on valve upstream side of penstock.	As per bid document.
5	Kindly provide detailed water quality report for filter selection. Also kindly confirm single or separate course and fine filter is required.	As per bid document, the bidder shall collect data during their site visit.
6	Kindly provide existing drainage/dewatering/flood pump details.	As per bid document, the bidder shall collect data during their site visit.
7	We understand that complete EOT crane shall be new supply and only gantry civil scope (bridge frame structure) and rails overhauling is required. Please confirm.	As per bid document.
8	Revised capacity wrt requirement shall be checked in detail engineering however we also understand there shall not be any constraint in civil for crane load.	Design/ specifications shall be in the scope of the bidders.
9	Kindly provide existing GA drawing / details of gantry hoist.	As per bid document, the bidder shall collect data during their site visit.

10	We understand that pump motor set & Centrifugal Fans, 24000 cmH mentioned under existing components are same. As per TS scope only overhauling of mentioned components are required.	As per bid document.
11	We understand that complete new CO2 fire protection system to be provided as per scope. Cylinder bank for initial & extended discharge shall be common for both units. Please confirm.	As per bid document.
12	We understand complete new HPU to be provided for penstock valve.	As per bid document.
13	As complete servomotor for Turbine, MIV to be replaced so we recommended to go for high pressure system as this shall be cost optimized solution compared to existing low pressure system.	As per bid document.
AUTOMATION:		
1	Single controller (per unit) system for control and digital governor system shall be provided for control and supervision of all units. Please accept the same	Design/ specifications shall be in the scope of the bidders.
2	Please note dedicated hardwired control shall be provided at local location for control of the PPV valves. If any SCADA interface with plant is foreseen here please provide us the distance of PPV valve house from Power house control room. Also clarify if any interface cable/any OFC cable is available or provided by customer for such interface with power house control room. Please clarify complete scope of interface requirement and its associated cables, accessories.	As per bid document, the bidder shall collect data during their site visit.
3	Please clarify the complete scope of instruments required for water level measurement at different locations. Also clarify the type and quantity of such instruments required and also about the communication link available to communicate the data/ signals to control room.	As per bid document.
4	Please clarify the complete scope and type of instruments foreseen for discharge measurement at tail race (if applicable). Also available link to communicate these signals to control room.	As per bid document.
5	Please note for power house important parameter recording separate archiving workstation shall be provided and also in case of any SCADA failure each unit can be operated from its own touch screen/ MMI in front of each panel. Since this is the advanced design and technology there are no requirement of additional switches in our system. Please accept the same.	The bid document is final and no modification will be entertained.
ADDITIONAL QUERIES:		
Volume I of II:		
1	As O&M services is not part of scope of this tender and therefore the requested costs in the table provided in clause is cannot provided. Further, overhauling requirement of power plant is totally depended on the O&M procedures to be followed by customers.	*Will be intimated in due course of time.*

2	Please provide the provisions cost details of facilities provided by MePGCL: 1. Construction power (3 Phase) : rate / unit 2. Accommodation (near to power house area) : 4 to 5 houses and its charges 3. Store location (km) from power house (Secured available covered area and available open area) – lease charges (if any)	Please refer Appendix 6, Vol-I of the bid document.
3	Please provide the provisions cost details of facilities provided by MePGCL: 1. Construction power (3 Phase) : rate / unit 2. Accommodation (near to power house area) : 4 to 5 houses and its charges 3. Store location (km) from power house (Secured available covered area and available open area) – lease charges (if any)	This query is same as Sl.No.2 above.
Volume II of II:		
1	Unit # 1 valve house is not approachable from access road. Customer requested to provide the arrangement.	The bidder shall plan to make necessary arrangements for carrying out the installation works smoothly, considering the site conditions.
2	No crane or chain pulley facility available with in existing valve house. also installation of crane also not feasible due to limitation of height. Please provide the clarity on modification of civil in the valve house.	
3	Please provide the distance from penstock valve house to power house.	As per bid document, the bidder shall collect data during their site visit.
4	During visit drawings are not available for penstock butterfly valve including layout and accessories. Please arrange to provide the same for getting the size & pressure rating, type of seals required, distance between upstream & down stream flanges as well as servomotor mounting and other details.	
5	As per information received from site that there is common Oil Pressure unit for both PPVs. As PPV is the safety device, we propose to have individual Oil pressure unit for PPVs. Please accept.	The bidder should keep provision for different components of the Project as per the bid document and best standard practices and submit the same to the Employer for examination.
6	Drain valves (upstream of MIV, MIV body, Spiral drain, drain valve near penstock) are need to keep existing one or needs replacement. Please confirm	As per the bid document.
7	Please inform if any Civil modifications is foreseen for Valve house. if there is any modification then we propose to have EOT crane for PPV handling and maintenance.	Wherever some civil works are required for completion of E & M works, provision for the same should be kept in the bid.
8	We understand that the Station power supply systems are required to be replaced/modified in powerhouse only. Pls confirm.	As per the bid document.
9	Based on pre-bid meeting we understand that, we have to replace the existing equipment with similar type of equipment & specifications. However, please provide the specifications for the system which are going to be modernized.	No, your perception is incorrect. Replacement is to be done with newly designed equipment with upgraded capacity and latest technology, as mentioned in the bid document.
10	Please provide the type of sealing arrangement required for MIV	All newly designed equipments shall be of latest technology as per the bid document.