



PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION

ENERGY & POWER DEPARTMENT GOVERNMENT OF KHYBER PAKHTUNKHWA PAKISTAN

DETAIL DESIGN AND CONSTRUCTION OF MUJAHIDIN HYDROPOWER
PROJECT (6.95 MW) WITH TRANSMISSION LINES
AT BARANDOO RIVER, DISTRICT TORGHAR



TECHNICAL BID EVALUATION REPORT

MAY 2025



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**DETAIL DESIGN AND CONSTRUCTION OF MUJAHIDIN HYDROPOWER PROJECT
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AT BARANDOO RIVER, DISTRICT TORGHAR, KHYBER PAKHTUNKHWA

1. INTRODUCTION

1.1. General

The Energy and Power Department, Government of Khyber Pakhtunkhwa (GoKP), approved the PC-I for implementation of 6.95 MW Mujahidin Hydropower Project (MHPP) on Brandoo River, District Torgarh. The Financial Plan and Mode of financing as proposed consists of 100% through Hydel Development Fund (HDF), and reflected in provincial ADP each year.

The Project is sponsored by GoKP and to be executed by PEDO, through EPC/Turnkey Mode, using PEC Standard Bidding Documents. The PEDO, accordingly hired the services of Management Consultants (MC) to furnish the Tender Level Designs, Drawings and Specifications, also the preparation of Bidding Documents (BD) on the basis of Single Stage, Two Envelope Bidding Procedure; in line with PEC Standard Document. The key information of the Project and basic data sheet is attached at **Appendix-1**.

The Invitation of Bids was advertised in leading English Newspapers, Daily Times, Peshawar dated August 17, 2024 and Urdu Newspaper Roznama Ausaf, Islamabad dated August 17, 2024 & Roznama Express, Peshawar dated August 16, 2024, also placed on Web Sites of PEDO and KPPRA of KP.

All the clarifications as referred by Bidders were responded in writing and a Pre-Bid meeting was also held on September 19, 2024 in the Committee Room of PEDO. Five (5) Potential Bidders, out of Eleven (11) firms, who purchased the Bidding Documents (BD), attended the Pre-Bid meeting. The Minutes of this meeting were issued, including Addendum No. 1 for some of the Provisions of the Bidding Document (BD), vide PD office letter No. 1566-71/PEDO/Brandoo HPP dated Nov 12, 2024. The said letter and its attachment was circulated to all Bidders, who purchased the BD as well as all other relevant ends. The copy of the Addendum No.1 is attached at Annexure-B of Appendix-6.

2. SUBMISSION OF BIDS

The closing date for submission of Bids was fixed originally as October 18, 2024, however, upon the repeated requests by the Potential Bidders, the date was extended to November 1, 2024, November 28, 2024 and finally December 12, 2024 through corrigendum No. 1, 2 & 3 respectively. and the Addendum for the purpose were issued accordingly. as available in PD Office. The copies of the Advertisements and Corrigenda are attached at Annexure-A of Appendix-6. Consequently, the Bid was finally received and opened on December 12, 2024 at

1400 hours. On the scheduled date and time, the Procurement Committee observed that only a Single Bid was submitted to the PD office and no other Bidders submitted the Bid. The Representative of the Bidder M/s GRC-SMS (JV) who submitted the Bid was also present at the Bid opening place (office of PD-MHPP). The committee unanimously proposed one hour extension of time in the deadline for submission of Bids and discussed the proposal with the Representative of the Single Bidder who agreed one hour extension in the interest of healthy competition, so that other Bidders, if trapped in Traffic or such problems, may reach and submit their Bids. However, no other bidder submitted their bids till the extended time of 1500 hours of the Dec 12, 2024.

Bid Opening

The only Bid submitted by M/s GRC-SMS (JV) was opened in public at 1500 hours by the Procurement Committee, in the presence of the Representative of M/s GRC-SMS (JV). The Procurement Committee constituted by Chief Executive Officer of the PEDO has been notified vide No. 793-99/PEDO/Brandoo HPP dated Aug 23, 2023 and consists of the following composition:

- | | | |
|----|---|------------|
| 1. | Project Director / Mujahidin HPP, PEDO | (Chairman) |
| 2. | Representative from (Procurement & Contracts), PEDO | (Member) |
| 3. | Representative from Development Directorate, PEDO | (Member) |
| 4. | Representative from Finance Directorate, PEDO | (Member) |
| 5. | Team Leader/Project Manager MC Mujahidin HPP | (Member) |
| 6. | The Procurement Expert, MC Mujahidin HPP (optional) | (Member) |

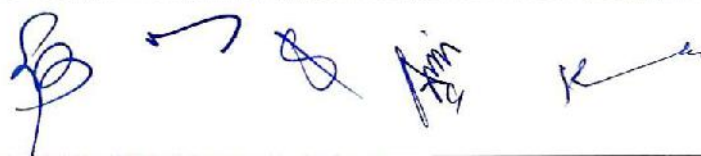
Receiving of both the Envelopes/Packets of Technical Bid and Price Bid were confirmed. The sealing of Price Bid Envelope was observed by all Committee members, accordingly signed by the Committee and handed over to the Project Director, who placed it for safe custody at the CEO PEDO office.

The Record of Bid Opening was prepared, signed and conveyed to relevant ends. The said "Record" is attached at **Appendix-2**.

3. BID EVALUATION

The preliminary Bid Evaluation of Technical Proposal was made by the Management Consultants (MC) comprising the following Senior Members:

- | | | |
|----|--------------------------|-----------------------------------|
| 1. | Mr.Khan Muhammad | Project Manager / Team Leader |
| 2. | Mr. Liaqat Ali | Contract /Procurement Expert |
| 3. | Mr. Iftikhar-ud-Din Syed | Expert Electrical Plant/Equipment |
| 4. | Mr. Mohsin Masood | Expert Mechanical Plant/Equipment |



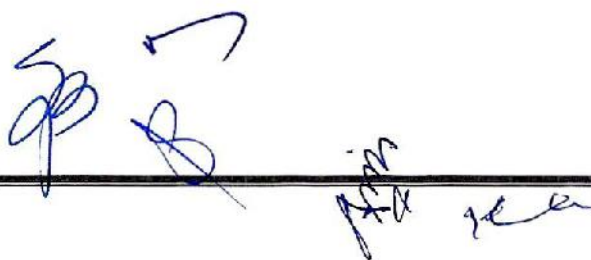
The Technical Evaluation for various aspects was discussed with Project Director as well as the Procurement Committee and certain clarifications were considered essential to be sought from the Bidder; M/s GRC-SMS (JV). The wording of said clarifications were finalized unanimously during a meeting of Procurement Committee on January 27, 2025 and the same were issued to the Authorized Representative of the Bidder with a request for response up to February 06, 2025 or earlier vide letter No. MHPP/3.1/001 dated Jan 28, 2025. The Bidder responded these Post Bid Clarification No.1, vide their letter No.GRC/O/ISB/25/005, dated: Feb 06, 2025.

Due to certain issues, yet to be resolved by the Bidder, further Clarifications (Post Bid Clarifications No.2 and No.3) were also sought vide PM (MC) letter No.MHPP/3.1/002, dated: Feb 21, 2025, and No. MHPP/3.1/003, dated: Mar 06, 2025. The Bidder responded these Clarifications vide their letter No.GRC/O/ISB/25/008, dated: February 27, 2025 and letter No.GRC/O/ISB/25/009, dated: March 07, 2025 respectively.

In view of these Clarifications, a draft of Technical Bid Evaluation Report (T-BER) was prepared and it was submitted to PD Office by the Consultants. The PD office expressed some concerns in view of Addendum No.1 and the matter was placed before the Procurement Committee (PC) of MHPP, for deliberation in this regard. A meeting of PC was accordingly held on March 24, 2025 and after detailed discussions, the deliberation of Addendum No.1 regarding **E&M Equipment from European Origin** was made as recorded in the Minutes of Meeting of the PC, issued by PD office vide letter No 2020-27/PEDO/Barandoo HPP, dated: March 25, 2025 (Attached as Annexure-C of Appendix-6) wherein it was agreed that the Addendum No.1 regarding the requirement of E& M equipment at Serial No. 26 is only applicable to the Electrical Equipment of paragraph 2 of clause 1.2.4.2 of the Volume-II to the BDs.

In view of the decisions of the PC as recorded in the Minutes of Meeting, further Clarification No.3 (Post Bid Clarification No. 4) was again sought from the Bidder vide MC letter No.MHPP/3.1/004, dated: March 29, 2025. The response of the Bidder was received vide their letter No GRC/O/ISB/25/035, dated: April 09, 2025.

All these clarifications as requested and response of the Bidder as submitted vide their letters as referred above were recorded in an Annotated Form and have been attached as **Appendix-6** of this report. The detailed response, references and further documents, as submitted by the Bidder have also been made a part of Bid Evaluation report as an additional volume labelled as "Clarifications and Response of the Bidder"



4. PRELIMINARY EXAMINATION AND DETERMINATION OF RESPONSIVENESS OF BIDS

The Clause IB-24 of the Bidding Document, Volume-I clearly specifies the elements of Preliminary Examination and Determination of Responsiveness of the Bids. In line with the specified criteria, the preliminary examination and determination of the Technical Bid of the only Bidder M/s GRC-SMS (JV) was made which has been attached at **Appendix-3A**.

Elements of the item 3 of **Appendix-3A**, are essential to be fulfilled by the Bidder vide clause IB-24, otherwise Bid will not be considered. All the elements of Item 3 have been substantially fulfilled by the Bidder. However, the Bid Security is yet to be confirmed upon opening of Financial Bid. As the BDS Clause IB 15.2 allows the undertaking by the Bidders for Bid Security, which the Bidder has provided, therefore the Bid has been considered for further evaluation, subject to confirmation of the Bid Security in line with IB 15, BDS-15.1 and BDS 15.2, upon opening of the Financial Bid.

LIST OF BIDDERS, WHO SUBMITTED THE BIDS

The names of the bidders and their Nationality are shown as:

S. No.	Name of Bidder	Nationality
1.	GRC-SMS (JV)	Pakistan (both partners of the Joint Venture)

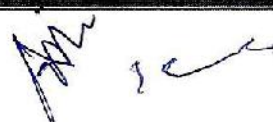
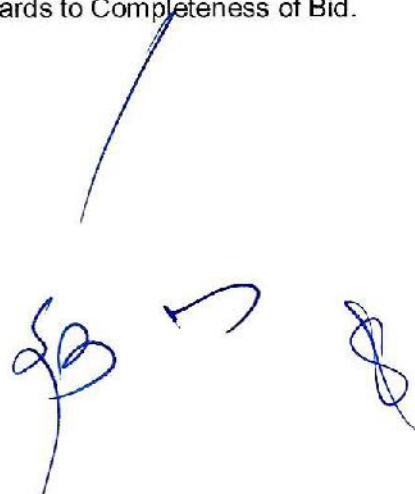
Only Single Bid was submitted.

5. CONFORMITY TO THE BIDDING DOCUMENTS / COMPLETENESS OF BIDS

5.1. Conformity to Bid Documents/Completeness of Bid

The Bid offered by the Bidder has been examined in line with provisions of the Bidding Documents for conformity and completeness of Bids, in terms of commercial and technical requirements. The response of the Bidder against the basic Commercial and Technical Requirements have been Evaluated and detailed vide **Appendix-3B**.

The **Appendix-3B**, as attached in the report is self-explanatory and refers that Bidder has submitted almost all the complete information. The Bid substantially conforms to the Bid Documents with regards to Completeness of Bid.



6. EVALUATION OF ELIGIBILITY AND QUALIFICATION OF THE BIDDERS

The Bidding Document requires to evaluate the Eligibility and Qualification of the Bidders in line with Eligibility and Qualification Criteria as well as other provisions of the Instructions to Bidders (IB). Accordingly, the eligibility, nationality, financial capabilities, general and specific/relevant experience, technical capabilities of personnel, equipment and sub-contractors/manufacturers have been evaluated in line with Provisions of the Instructions to Bidders (IB) and criteria at Appendix-1 of the Bid Data Sheet (BDS).

- The details of the Evaluation of Eligibility and Qualification of the Bidders have been furnished in the **Appendix-4** as attached to this report.
- The evaluation of Financial Capabilities have been made in **Appendix-4/1** as attached.
- The Evaluation of proposed Sub-Contractors/Manufacturers have been made in **Appendix-4/2**, as attached.

6.1. Evaluation of Eligibility & Nationality

The Bidding Document, Clause IB-2 & IB-13 requires a valid License of the PEC of Category "Ca-No Limit" for local Bidder/Pakistani Contractor. Any Pakistani Firm/Entity providing the Engineering Services is legally required the relevant PEC License under the PEC By-Laws. Similarly, Registration of the Bidder with FBR and KPRA vide Clause BDS-IB 2.1(a) (ii) and Nationality is required in line with Appendix-A of the Instruction to Bidders (IB).

The References of Bidding Document, Criteria/Employer's Requirements (ER), Compliance Status of the Bidder and References of the submitted Bid, have been described in **Appendix-4** of this report in detail.

Bidder as GRC-SMS (JV) is eligible to the Bid. Bidder has proposed a Consulting Firm (Paradigm Engineering Consultants), as sub-contractor for Civil Work Designs, as allowed in the criteria. However, PEC License of the Consulting Firm (Paradigm Engineering Consultants) is a legal requirement under the PEC By-Laws. As a result of several Clarifications, the said PEC License has been agreed by the Bidder to provide prior to award of Contract, if Bidder is successful. Further details are available in the **Appendix-6** of this report.

In view of the Criteria/ER and References of the Bidder; **the Bidder qualifies for Eligibility and Nationality** as described in **Appendix-4**. The PEC License of the proposed Sub-Contractor/Paradigm Engineering Consultants was still awaited. Therefore, the Eligibility of proposed Consultant was discussed in the Meeting of Procurement Committee (PC) dated March 24, 2025, **where it was agreed that the requirement shall be treated as a condition for the award of the Contract**. Minutes of Meeting vide Letter No. 2020-27/PEDO/Barandoo HPP, dated: March 25, 2025 are attached hereto as Annexure-C of Appendix-6.

6.2. Evaluation of Financial Situation

The Evaluation of Financial Situation including Financial Capabilities and Average Annual Construction Turnover, as required Qualification Criteria vide Appendix-1 of BDS Clause IB 26.2(C) (ii), have been evaluated in the **Appendix-4** of this report, whereas its back-up calculations are available in **Appendix-4/1**. In view of the Criteria/ER and References of the Bidder; **the Bidder qualifies for the criteria of the Financial Situation** as required in the Bidding Document.

6.3. Evaluation of Experience

Evaluation of General construction experience, Specific Construction and Contract Management experience, Specific experience in key activities of Civil Works, Electro-Mechanical (E&M) Works and HSS, Design experience of Civil Works, Design & Manufacturing Experience and Transmission Lines experience has been required in the criteria vide Appendix-1 of BDS, Clause IB 26.2(C)(ii).

The Bidder has proposed the Design experience of Civil work through an Engineering Consulting Firm, M/s Paradigm, proposed as Specialist Sub-Contractor as allowed in the Bidding Document.

Similarly, Bidder has proposed specified Sub-Contractors/Manufacturers for Turbines, Generators, Governors, Mechanical Works and HSS, Control & Monitoring system, Protection system, Excitation system, main Inlet Butterfly Valves and EOT Crane.

The Bidder, GRC-SMS (JV) has been evaluated against all such Experience Requirements for Qualification as described in the Criteria. The References of BD, Criteria/ER, Compliance Status of the Bidder-JV and References of the Bidder in Compliance to the ER, have been described in detail in the **Appendix-4** of this report.

6.4. Experience of Civil Work Design

Bidder has proposed a Consulting Firm (Paradigm Engineering Consultants), as sub-contractor to establish the experience of Civil Work Designs, as allowed in the criteria. The proposed Sub-Contractor/Consulting Firm has been evaluated in line with criteria at Appendix-1 to the BDS, at Serial No. 2.2(b). **The Bidder qualifies for the experience of Civil Work Designs** through proposed Sub-Contractor/Consulting Firm.

6.5. Evaluation of Proposed Specialized Sub-Contractors/Manufacturers

All the specialized Sub-Contractor/Manufacturers, as proposed to establish the Design & Manufacturing Experience by the Bidder, have also been evaluated in line with Criteria of the relevant component, included in Appendix-1 of BDS, vide Clause IB-26.2 (C) (ii). The detailed Evaluation of the proposed Sub-Contractors/Manufacturers have been furnished in the **Appendix-4/2** of this report.

6.6. Design & Manufacturing Experience

The **Appendix-4/2** reflects that Bidder has mainly proposed the Chinese Specialized Sub-Contractors/Manufacturers to establish the Design and Manufacturing Experience as required in the Criteria at Appendix-1 to the BDS, at Serial No. 2.2(b). Based on the Authorization, Reference Projects, End User Certificates and data/details of proposed Chinese Specialized Sub-Contractors, **the Bidder fulfils broadly the Design and Manufacturing experience of the major components** i.e., Turbines, Shafts, Bearings, Governors, Generators and auxiliary equipment, Protection and C&I system etc.

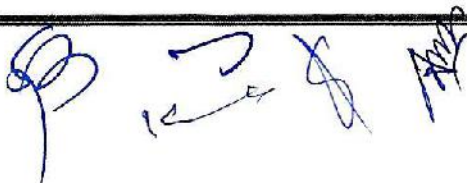
Addendum No.1 to the Bidding Document required that ***"E&M Equipment shall be of European Origin and European Standards, Manufactured in Europe or otherwise, meeting the Employer's Requirement."*** The said Addendum was discussed in the Procurement Committee (PC) Meeting dated Mar 24, 2025. After detail discussion, it was agreed by the PC that the origin requirement of Addendum No. 1 is only applicable to the Electrical Equipment as mentioned in the paragraph (2) of the clause 1.2.4.2 of the Employer' Requirement (Volume-II) of the bidding documents. It was further agreed that the bidder shall provide the manufacturer authorization and technical details of the electrical equipment, as specified in the aforementioned clause for evaluation purposes.

In compliance of the decision of the PC, Further Clarification No.3 (Post Bid Clarification No. 4) was sought from the Bidder vide letter No. MHPP/3.1/004, dated: March 29, 2025. Evaluation of this Clarification as detailed in **Appendix-6**, reflects that Bidder has not clearly responded regarding the Manufacturer's Authorization in writing, Reference projects, and User Certificates of ABB for Electrical Protective Systems and Siemens for SCADA System. These documents are required in the Criteria at Appendix-1 to the BDS.

Apparently it looks that the Bidder has not proposed the ABB and Siemens as their Sub-Contractor for these Equipments therefore, Bidder may design, procure and execute these works through HN UNIS of China; already proposed as Sub-Contractor/Manufacturer for said items. Consequently, the Manufacturing experience of the ABB and Siemens may not be claimed by the Bidder.

Due to this situation following options are required to be considered by the Procurement Committee.

1. **Option A:** The Bidder may prefer to declare ABB and Siemens as their Sub-Contractor and provide the required Manufacturer's Authorization, Reference projects, and User Certificates as per Employer's Requirement for Electrical Equipments vide Appendix-1 to the BDS, at Serial No. 2.2(b).
2. **Option B:** As the manufacturing experience of major E&M Plant and Equipments through Chinese Sub-Contractors/Manufacturers fulfils the criteria, therefore Employer may also



consider, if deemed appropriate, the Design & Manufacturing Experience of HN UNIS of China for these works.

The Probable issues in case of Option B:

1. The Warranty Certificate/Functional Guarantees vide PCC Clause 1.1.40 (for a period of 10 years) are issued by the Manufacturers on behalf of the Contractor who further submit this certificate to the Employer. When there is no European Manufacturer as Sub-Contractor, who will issue this Warranty Certificate against the Electrical Equipments of European Origin?
2. The probable issues in Detailed Designs of the Systems due to mixed Equipment against clause 1.2.4.2 (para 2) by the Chinese along with consistent operation of the system.

6.6.1 Joint Meeting of the Employer and Management Consultants

A joint meeting of the Employer and Management Consultants was held on April 17, 2025 to review, deliberate, and finalize the issues discussed in para 6.6 above in line with the Employer's Requirements.

It was discussed in the meeting that Addendum No.1 as clarified on March 24, 2025 only relates to the Electrical Equipments vide clause 1.2.4.2 of the BD, to be supplied from European Origin Manufacturers. It was further discussed that the European Manufacturers are not essentially required as Sub-Contractor under the said clause.

In response to the issue of Warranty Certificate, MC's Electrical Expert apprised that the Warranty Certificate for equipment are provided by equipment manufacturers. The statement was endorsed by both the Project Authority and the Project Manager/Team Leader of the MC.

Following detailed discussions, it was unanimously agreed that Bidder's proposal to arrange the supply of said Equipment from specified Manufacturers (ABB & Siemens) through Chinese Sub-Contractor (HN UNIS) may be accepted.

The block contains several handwritten signatures and initials in blue ink. On the left, there is a large, stylized signature that appears to be 'Sp'. To its right is a small checkmark. Further right is a signature that looks like 'B'. Below these, towards the bottom right, is another signature that appears to be 'Amir' and a small mark that looks like '12'.

7. DETAILED EVALUATION OF THE TECHNICAL BIDS

The detailed Evaluation of the Technical Bid of the only Bidder GRC-SMS (JV) as well as the proposed specialized Sub-Contractors/Manufacturers, has been made in view of Employer's Requirements and other provisions of the Bidding Document. The detailed Evaluation for Civil Works, Mechanical Plant & Equipment and Electrical Plant & Equipment Works including Transmission Lines have been made separately as referred in **Appendix-5** of this report.

During Evaluation some Clarifications were necessary to proceed further as agreed by the Procurement Committee (PC). The detailed Evaluation of the Technical Bid including all references has been attached as **Appendix-5**. The Details of the Clarifications and Response by the Bidder, time to time, are also attached at **Appendix-6** of this report.

7.1. Detailed Evaluation of the Bid for Civil Works

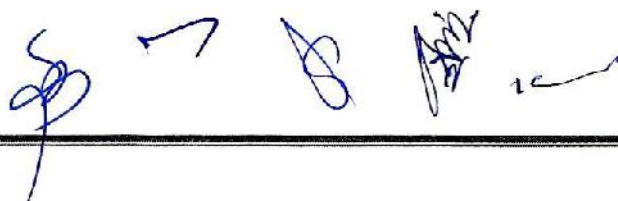
Detailed Evaluation for the Civil Work was made in view of the Employer's Requirements (ER) as specified in the BD. The proposed Schedules (A to I) and the all the relevant Bid Forms (Form B6, B7, B8 (a&b), B12 and B13) as submitted by the Bidder, have been Evaluated in line with Bidding Document Volume-I. Similarly, the Evaluation of Employer's Requirement for Civil Works, included in the Bidding Documents Volume-II have also been Evaluated in line with Criteria specified in the Instruction to Bidder's Clause IB 26.2 (c) (i) and BDS clause IB 26.2 (c) (ii).

The Detailed Evaluation of Civil Works is available in **Appendix-5/1** of this report which is self-explanatory and includes relevant references of the Bidding Document/Employer's Requirement as well as the references of Bid Submitted by the Bidder. The other details have also been furnished in this **Appendix-5/1** along with item by item remarks/conclusions.

The Details of the Clarifications and Response by the Bidder, time to time, are attached at **Appendix-6** of this report.

The Bid Level designs were submitted partially by the Bidder. In addition the Bidder also submitted the relevant pages of Employer's Requirements which include the design criteria, standards and specifications for Civil Works. The Bidder also stamped and initialled all these pages of the Bidding document, which contained the signatures of Employer and Management Consultants too.

The Bidder was required to clarify its intention to submit these pages and it was added that, If the Bidder own the tender level designs, drawings & specifications as contained in the submitted pages in the Bid and confirm it as Bidder's bid level designs and drawings; the Bidder shall confirm in writing taking all responsibility of errors/discrepancies or missing items, if any.?



Consequently, the Bidder was required to confirm that no claim shall be moved on account of any errors, discrepancies and change in dimensions in the tender level designs and drawings, if encountered during the EPC detailed design stage.

Further clarifications were sought from the Bidder and lastly Bidder was asked that *"The Bidder has agreed the responsibility of Tender Level Design/Drawings. However, the Bidder is required to confirm not to move any claim for errors, discrepancies and change in dimensions, if encountered during EPC detailed design stage"*. The Bidder has responded finally that *"We Undertake/Confirm"*. Consequently, if considered appropriate, the Employer may require this undertaking on stamp paper prior to award of Contract.

In view of details recorded in the **Appendix 5/1** and keeping in view the **Appendix-6**, the Bidder is **responsive to the Employer's Requirement for Civil Works**.

7.2. Detailed Evaluation for Mechanical Works and Plants including Spare Parts

Detailed Evaluation for the Mechanical Works and Plants including Spare Parts was made in view of the Employer's Requirements (ER) as specified in the BD. This Evaluation for Mechanical Works and Plants including Spare Parts, have been made in line with Criteria specified in the Instruction to Bidder's Clause IB 26.2 (c) (i) and BDS clause IB 26.2 (c) (ii) along with Employer's Requirement in the Bidding Document Vol-II.

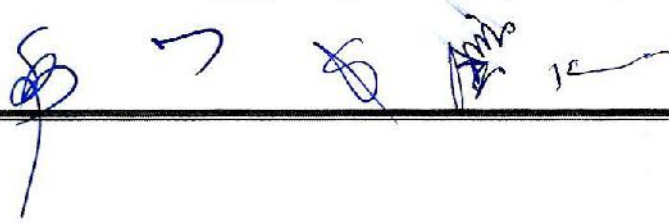
The Detailed Evaluation of Mechanical Works and Plants including Spare Parts is available in **Appendix-5/2** of this report which is self-explanatory and includes relevant references of the Bidding Document/Employer's Requirement as well as the references of Bid Submitted by the Bidder. The other details have also been furnished in this **Appendix-5/2** along with item by item remarks/Conclusions.

The Details of the Clarifications and Response by the Bidder, time to time, are attached at **Appendix-6** of this report.

In view of offered Mechanical Plant and Equipment by the Bidder through proposed Chinese Manufacturers/Sub-Contractors and Evaluated vide **Appendix-5/2** and **Appendix-6**, the Bidder is **Substantially Responsive** to the Employer's Requirement.

7.3. Detailed Evaluation for Electrical Works and Plants including Spare Parts

Detailed Evaluation for the Electrical Works and Plants including Spare Parts was made in view of the Employer's Requirements (ER) as specified in the BD. The Evaluation of Employer's Requirement for Electrical Works and Plants including Spare Parts, included in the Bidding Documents Volume-II have been Evaluated in line with Criteria specified in the Instruction to Bidder's Clause IB 26.2 (c) (i) and BDS clause IB 26.2 (c) (ii) along with Employer's Requirement in the Bidding Document Vol-II.



The Detailed Evaluation of Electrical Works and Plants including Spare Parts is available in **Appendix-5/3** of this report which is self-explanatory and includes relevant references of the Bidding Document/Employer's Requirement as well as the references of Bid Submitted by the Bidder. The other details have also been furnished in this **Appendix-5/3** along with item by item remarks.

7.3.1 Efficiency of Generating Unit

The efficiency of the offered Generating Units is 96% as compared to $\geq 97\%$ as specified in the Employer's Requirement. The Bidder was asked to confirm the Efficiency $\geq 97\%$ as required in the Employer's Requirement through clarifications. The Bidder responded that "We confirm the Efficiency $\geq 97\%$ as required in the Employer's Requirement." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) attached as Appendix-6.

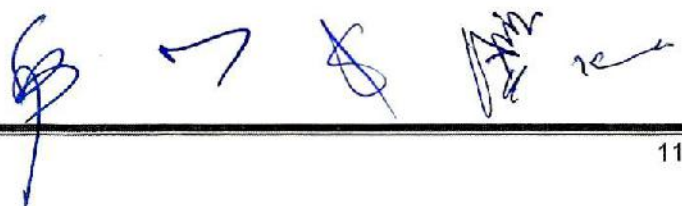
Bidder was again required to further clarify that: "The offered Efficiency is 96%, therefore if Bidder finally proved Eligible, Qualified and its Technical Bid also proved Substantially Responsive to the Employer's Requirements, a penalty for loss of each 0.1 % loss of Efficiency as proved at COD, will be negotiated prior to the Award and shall be made part of the Contract." The Bidder responded that "We agree and **shall follow the tender documents and contract provisions.**" (Ref. Bidder Letter No. GRC/O/ISB/25/008 dated: Feb 27, 2025) attached as **Appendix-6**.

Bidder was again required to further clarify that: "Bidder's agreement to the proposal of Employer vide Further Clarifications (1) necessitate to negotiate the proposed penalty, prior to Award of the Contract, so that it could be made part of Contract. Please confirm it." The Bidder responded that "We agree and **shall follow the tender documents and contract provisions.**" (Ref. Bidder Letter No. GRC/O/ISB/25/009 dated: Mar 07, 2025) attached as **Appendix-6**.

The matter was finally placed to the Procurement Committee (PC) on March 24, 2025, wherein it was agreed to obtain a formal undertaking from the Bidder through Clarifications ensuring that, *"the generator efficiency shall comply to the Employer's Requirements i.e., $\geq 97\%$ and in case the bidder is unable to achieve the required efficiency, penalty@ USD 10,000/- against each 0.1% decrease shall be applicable."*

The Bidder responded this Post Bid Clarification No.4 vide letter No GRC/O/ISB/25/035, dated: April 09, 2025, wherein Bidder has submitted the requisite undertaking in writing on a stamp paper as Annex-1 to their letter as mentioned.

In view of offered major Electrical Plant and Equipment by the Bidder through proposed Chinese Manufacturers/Sub-Contractors and Evaluated vide **Appendix-5/3** and **Appendix-6**, the Bidder is **Substantially Responsive** to the Employer's Requirement.



7.3.2 The Employer's Requirement vide Addendum No.1, in line with clause 1.2.4.2 (Paragraph 2) Volume-II of the Bidding Document (BD)

The Addendum No.1 was discussed in the Procurement Committee during its Meeting on March 24, 2025 (Annexure-C of Appendix-6) and it was agreed that, *"the origin requirement is only applicable to the Electrical Equipment as mentioned in the paragraph (2) of the clause 1.2.4.2 of the Employer's Requirement Volume-II of the Bidding Document."*

Consequently, Employer's Requirement vide clause 1.2.4.2 (paragraph 2) Volume-II of the Bidding Document (BD) necessitates that all the Electrical Equipment for Protective Relays, SCADA System, Plant Control System and Communication System shall belong from European Origin. Against this requirement, the Bidder has submitted a huge Volume of Catalogues of ABB and Siemens which contains several options.

The Expert Electrical has commented that *"Response received indicate that required equipment will be supplied from European Manufacturers, compatible with NTDC/PESCO as per Employer's Requirements."* He has further commented that *"The offered protection Relays and SCADA full-fill the Employers Requirements."*

However, Bidder has offered a mixed solution as recorded in the Post Bid Clarification No.4 vide letter No GRC/O/ISB/25/035, dated: April 09, 2025, reproduced as:

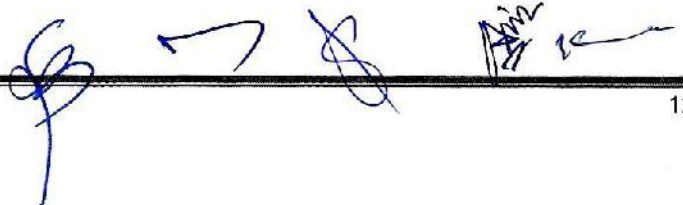
- i. *All Protective Relays shall be from ABB. Relays catalogue is enclosed as ANNEX-2. Panel manufacturing shall be from HN UNIS.*
- ii. *SCADA system operator and engineering station shall be equipped with SCADA Software of Siemens. Catalogue of same is enclosed. Only programming shall be done in China. Similarly, the Control and communication panels shall have PLC controllers, touch screen, communication modules from Siemens. Catalogue of these major items are enclosed as ANNEX-3. All major components of SCADA & Communication System are from European manufacturers, except that Panel assembly is done by HN UNIS.*

The response of the Bidder recorded at point (i) and (ii), as highlighted above, was placed before the Procurement Committee (PC) for final decision in its meeting held on May 08, 2025 as recorded below at 7.3.2.2.

The Details of the Clarifications and Response by the Bidder, time to time, are attached at **Appendix-6** of this report.

7.3.2.1 Joint Meeting of the Employer and Management Consultants

A joint meeting of the Employer and Management Consultants was held on April 17, 2025 to review, deliberate, and finalize the issues discussed in para 7.3.2 above in line with the Employer's Requirements.



It was pointed out in the meeting, that Bidder has offered mainly the European Equipment whereas, some of the Chinese Equipment and Programming from HN UINS of China has been proposed, as explained in para 7.3.2 (i) & (ii). The concerns described under para 6.6 were also discussed.

The Management Consultant's Electrical Expert stated that it is the bidder's responsibility to ensure the compatibility of the equipment. He further advised that equipment of European origin, utilizing European software and assembled by the Chinese Subcontractor in conjunction with their panel assembly, would be functionally suitable and consistent with practices adopted in other similar projects.

The Project Authority clarified that any errors and/or discrepancies arising in the Bidder's or EPC Contractor's scope of work, while executing services under the Engineering, Procurement, and Construction (EPC) Contract, is solely attributable to the Bidder/EPC Contractor.

It was unanimously agreed by all participants that any associated risks or issues arising from the Bidder's failure to fulfill or comply with the Employer's Requirements during the execution stage shall be solely attributed to the Bidder/Contractor.

Based on the Bidder's clarification, the proposed equipment of European origin to be supplied, programmed, and installed by the Bidder's nominated Chinese Subcontractor is substantially in compliance with the Employer's Requirements.

7.3.2.2 Meeting of the Procurement Committee

The meeting of the Procurement Committee (PC) dated May 08, 2025 (Attached as Annexure-D of Appendix-6) was held at the Project office of 6.95 MW Mujahidin Hydropower Project (MHPP) to review the Final Draft of the Technical Bid Evaluation Report (T-BER), submitted by the Management Consultants (MC) on May 5, 2025.

After detail discussion and deliberation, the Procurement Committee unanimously reaffirmed the following:

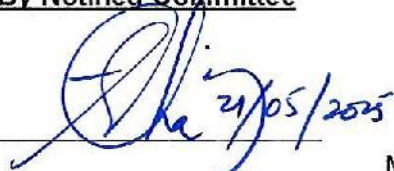
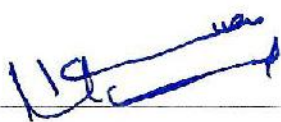
- i. That the requirement for the PEC License shall be considered a condition precedent to the award of the Contract.
- ii. The recommendations based on statement of Electrical expert of MC that *"equipment of European origin, utilizing European software and assembled by the Chinese Subcontractor in conjunction with their panel assembly, would be functionally suitable and consistent with practices adopted in other similar projects,"* were discussed in view of Para 6.6 and 7.3.2. The committee endorsed that Bidder may arrange the supply of said Electrical Equipments from specified Manufacturers (ABB & Siemens) through proposed Chinese Sub-Contractor (HN UNIS).

- iii. The committee endorsed the statement of Electrical Expert of the MC that "generally the Warranty Certificate for equipment are provided by the equipment manufacturers." Hence the Warranty Certificate to be provided by Bidder accordingly.

8. CONCLUSIONS AND RECOMMENDATIONS

1. Bidder have fulfilled the Eligibility Criteria and the Eligibility of Plant and Services etc. (Country or Origin), in line with decisions of the Procurement Committee date Mar 24, 2025 (subject to submission of PEC license prior to Award of Contract).
2. Bidder have fulfilled the Qualification Criteria in terms of Specific Experience in key activities like; Design experience of Civil Works and Design & Manufacturing Experience as claimed through proposed Sub-Contractors/Manufacturers.
3. In view of the details given in **Appendix-5** of this report, the Technical Bid is Substantially Responsive to the Bidding Document. The Procurement Committee has discussed deliberated and unanimously recommends the following for Approval of the PEDO Executive Committee (EC)/ Competent Authority:
 - i. The Technical Bid Evaluation Report (T-BER)
 - ii. Thereafter, opening of the Financial Bid

Recommended By Notified Committee

Chairman Project Director / Mujahidin HPP, PEDO	 21/05/2025	Member Representative of (P & C), PEDO	 21.05.2025
Member Representative of Development Directorate, PEDO		Member Representative of Finance Directorate, PEDO	 21/05/2025
Member Team Leader/Project Manager MC Mujahidin HPP		Optional Member Contract Specialist, MC Mujahidin HPP	

APPENDICES

APPENDIX

1

BASIC DATA SHEET OF PROJECT

Mujahidin HPP at Barandoo River, District Torghar, Khyber Pakhtunkhwa, Pakistan, (173km from Peshawar and 230km from Islamabad)		
1	Hydrology	
	Catchment Area at Dam site	1400 km ²
2	Weir/Dam (Overflow spillway)	Concrete Gravity
	Design Flood	500 years frequency
	Design Flood discharge	2878 m ³ /s
3	Gated Undersluices	No. of undersluices (03)
	Discharge Capacity at MFL (539.20 m)	830.29 m ³ /sec
	Type of Gate control	Radial gate
4	Intake	
	Design discharge for Power	17.80 m ³ /s
	No. of Intake openings	2
5	Cut and cover Conduit	Length 404 m
6	Headrace Tunnel	Modified Horseshoe shape, RCC concrete lined
	Length	1200 m
7	Surge Tank	Restricted orifice type cylindrical
	Height / Diameter of surge tank	26.20 m / 7.40 m
8	Steel lined Pressure Tunnel & Steel Penstock	
	Length / Diameter of Pressure tunnel	18 m / 2.75 m
	Length / Diameter of Steel penstock	40 m / 2.40 m
9	Power House	Open Surface (on Left of Barandoo River)
	Average Rated net head	46.00 m
	Turbine type and Nos.	Two (2), Horizontal Axis Francis
	Turbine efficiency (weighted Average)	92.80%
	Generator efficiency	≥97%
	Net Plant Capacity	6.95 MW
10	Transmission Lines	Isolated Grid System
	11 kV Transmission Line	43 km
	400 V Transmission Line	60 km

APPENDIX

2

RECORD OF BID OPENING



PEDO
Pakhtunkhwa Energy Development Organization
Government of Khyber Pakhtunkhwa



Bid Opening

Attendance Sheet of the Bidders for
"EPC Contract for Construction of 6.95 MW Mujahidin Hydropower Project at
Barandoo River, District Torghar, KP"

Date: December 12, 2024
Time: 11:30 HRS
15:00 HRS

Sr. No.	Name of the Bidder/IV	Name of Authorized Representative	Designation	Email	Contact No.	Signature
1	GRC-SMS JV	Muhammad Shoaib Alahi	Authorized Representative	mshoaibikhi@gphco.co.uk	03017900079	[Signature]
2						
3						
4						
5						
6						



PEDO
Pakhtunkhwa Energy Development Organization
Government of Khyber Pakhtunkhwa



Bid Opening

Attendance Sheet of the Procurement Committee for
"EPC Contract for Construction of 6.95 MW Mujahidin Hydropower Project at
Barandoo River, District Torghar, KP"

Date: December 12, 2024
Time: 11:30 HRS
03:00 PM

Sr. No.	Name	Designation	Department	Email	Contact No.	Signature
01	Riz Ahmed Jan	CEO/CB (Proc) PEDO	Proc			[Signature] 12/12/24
02	Byrr Haidullah Shah	CEOs	Development (PEM)	shah.haidullah189@gmail.com	0345-985400	[Signature] 12/12/24
03	Sunahar Kumar	PD MHP	MHP-PEDO	pd-barandoo@pdp.pk	0331-9361976	[Signature]
04	Ihsan Ullah	AD Finance	PEDO	ihsan5678@gmail.com	0305-9807701	[Signature] 12/12/24
05	Khan Muhammad	P M/T L MHP	Management Contract	Khan Muhammad 0646@gmail.com	0301-8300082	[Signature] 12-12-2024
06	Lingat Ali	Contract Specialist M.C	Consultants	LingatAli86@gmail.com	0333-4239741	[Signature]



PEDO
Pakhtunkhwa Energy Development Organization
Government of Khyber Pakhtunkhwa



Bid Opening

"EPC Contract for Construction of 6.95 MW Mujahidin Hydropower Project at Barandoo River, District Torghar, KP"

Date: December 12, 2024

Time: 11:30 HRS 15:00 HRS

The following representatives of the bidders attended the public opening of bids and a copy of the attendance sheet is attached as an annexure of this record.

Sr. No.	Name of the Bidder/JV	Name of Authorized Representative	Designation	Email	Contact No.
1.	GRC-SMS JV	M. Shoaib Shahi	Authorized Rep	mshoaibshahi@jahoo.co.uk	0301-7900079

Minutes transpiring during the opening of bids.

The Bid Opening Committee and the respective representative of the bidders examined the sealing and marking of each price Bid envelopes. It was noted that there were no serious defects in respect to the sealing and marking of the envelopes. Also sealed Price Bid envelopes were signed by the Bid Opening Committee.

Reading and signing of documents ended at 16:00 hours.

[Signature]
Procurement & Contract, Section,
PEDO

[Signature]
Development Section,
PEDO

[Signature]
Project Director, MHP
PEDO

[Signature]
Team Leader/ Project Manager,
MC, Mujahidin HPP

[Signature]
Contract Specialist,
MC, Mujahidin HPP

[Signature]
Finance Section,
PEDO



PEDO
Pakhtunkhwa Energy Development Organization
Government of Khyber Pakhtunkhwa



Record of Bid Opening

EPC Contract for Construction of 6.95 MW Mujahidin Hydropower Project at
Barandoo River, District Torghar, KP"

Date: December 12, 2024

Time: 11:30 HRS 15:00 HRS

Sr. No.	Name of the Bidder/JV	Bid Security/ Undertaking	Technical Bid & No of Copies	Price Bid	Authority Letter	Signed Letter of Technical Bid	Signature of Authorized Representative of Bidder	Remarks
1.	GRC-SMS JV	Yes	1+4	Yes	Yes	Yes	<i>[Signature]</i>	In favour of healthy competition, Bid opening Committee decided to extend the time for tendering 5:30 for one hour. 14/5 GRC endorsed this proposal through Authorized Representative.

[Signature]
Procurement & Contract, Section,
PEDO

[Signature]
Development Section,
PEDO

[Signature]
Project Director, MHP
PEDO

[Signature]
Team Leader/ Project Manager,
MC, Mujahidin HPP

[Signature]
Contract Specialist,
MC, Mujahidin HPP

[Signature]
Finance Section,
PEDO

	6.95 MW Mujahidin Hydropower Project at Barando River, District Torghar (MHPP)	
GRC-SMS JV		

LETTER OF TECHNICAL BID

Bid Reference.: No 17036B-01

To:

Project Director,

6.95 MW Mujahidin Hydropower Project,
1st Floor, NESPAK House, 24/B-2, Phase V, Hayatabad
Peshawar, Khyber Pakhtunkhwa, Pakistan
Tel: +92-91-3072076, 9217295;
Email: pd.barandoo@pedo.pk, safdar.pedo@gmail.com

Gentlemen,

1. Having examined the Bidding Documents including Instructions to Bidders, Conditions of Contract, Specifications, Drawings, Schedules to Bid, Schedule of Prices, and Addenda Nos. 2 for the execution of the above-named Works, we, the undersigned, being a company doing business under the name of and address M/S GHULAM RASOOL AND COMPANY PVT LTD (GRC) & SULTAN MEHMOOD & SONS (SMS) Joint Venture, having Address Office #01, Basement floor, SM Plaza, Jutial, Gilgit Pakistan and being duly incorporated under the laws of Islamic Republic of Pakistan hereby offer to execute and complete such Works and remedy any defects therein in conformity with the said documents including Addenda thereto.
2. We understand that all the Schedules attached hereto form part of this Bid.
3. As security for due performance of the undertakings and obligations of this Bid, we submit herewith a Bid Security in the amount of 2% of the financial bid drawn in the favour of or made payable to the Employer, Project Director, 6.95 MW Mujahidin Hydropower Project on Barandoo River, District Torghar and valid for a period 28 days beyond the period of validity of Bid.
4. We undertake, if our Bid is accepted, to commence the Works and to deliver and complete the whole of the Works comprised in the Contract within the time(s) stated in Preamble to the Conditions of Contract.
5. We agree to abide by its Bid for the period of 180 days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
6. Unless and until a formal Agreement is prepared and executed, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
7. We undertake, if our Bid is accepted to execute the Performance Security referred to in Clause 10 of Conditions of Contract for the due performance of the Contract.

GRC - SMS JV Office

Office#01, Basement floor, SM PLAZA, Jutial, Gilgit.

Mobile: +923017900079, +92 323 9914810

Email: mshoaibilahi@yahoo.co.uk, babarmahmoodv8@gmail.com



	6.95 MW Mujahidin Hydropower Project at Barando River, District Torghar (MHPP)	
GRC-SMS JV		

8. We do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other person or persons making a Bid for the Works.
9. We do hereby declare that our firm, including any subcontractors or suppliers for any part of the Contract, have nationalities from eligible countries [Pakistan, China].
10. We, including any subcontractors or suppliers for any part of the Contract, do not have any conflict of interest.
11. We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process.
12. We confirm, if our Bid is accepted, that all partners of the joint venture shall be liable jointly and severally for the execution of the Contract and the composition or the constitution of the joint venture shall not be altered without the prior consent of the Employer. (Please delete in case of Bid from a single firm).

Dated this: 11th day of December 2024

Signature Muhammad Shoaib Ilahi in the capacity of Authorized Representative duly authorized to sign the Bid for and on behalf of M/S GHULAM RASOOL AND COMPANY PVT LTD & SULTAN MEHMOOD & SONS (SMS) JOINT VENTURE

Name of Bidder: GRC-SMS JV

(Seal of Bidder)

Bidder's Address: Office# 01, Basement floor, SM Plaza, Jutial, Gilgit

Witness:

Signature:

Name: Badar Muneer

Address: 77 GRC ARCADE, AVENUE-1, SECTOR H, BAHRIA ENCLAVE, ISLAMABAD

Occupation: Senior Engineer

GRC-SMS JV Office
Office#01, Basement floor, SM PLAZA, Jutial, Gilgit.
Mobile: +923017900079, +92 323 9914810
Email: mshoaibilahi@yahoo.co.uk, babarmahmoodv8@gmail.com

APPENDIX

3A

**PRELIMINARY EXAMINATION AND
DETERMINATION OF RESPONSIVENESS OF
BIDS**

6.95 MW MUJAHIDIN HYDROPOWER PROJECT AT BARANDOO RIVER, DISTRICT TORGHAR, KP

Preliminary Examination & Determination of Responsiveness of Bids (IB-24)

Item	Description	Reference BD	Name of Bidder & Compliance Status		Remarks/Conclusions	
			GRC-SMS JV			
1	The Project Manager/ Engineer will examine the Bids to determine whether;	IB - 24.1 (a)	-	-		
	The Bid is complete and does not deviate from the scope,	IB - 24.1 (a) (i)	Y		Substantially Complete and does not deviate from the scope	
	Any computational errors have been made	IB - 24.1 (a) (ii)	NA		Relates to Price Bid , yet to be opened	
	Required sureties have been furnished	IB - 24.1 (a) (iii)	Y*		Value of Bid Security and its validity yet to be confirmed after opening of Price Bid	
	The documents have been properly signed	IB - 24.1 (a) (iv)	Y		Undertaking vide BDS - Clause IB 15.2 has been Submitted	
	The Bid is valid till required period	IB - 24.1 (a) (v)	Y		180 Days confirmed in Letter of Technical Bid	
	The Bid prices are firm during currency of contract if it is a fixed price bid	IB - 24.1 (a) (vi)	NA		Relates to Price Bid , yet to be opened	
	Completion period offered is within specified limits	IB - 24.1 (a) (vii)	Y			
	The Bidder/Manufacturer is eligible to Bid and possess the requisite experience	IB - 24.1 (a) (viii)	Y	Bidder as GRC-SMS (JV) is eligible to the Bid. However, Eligibility of proposed Sub-Contractor/Consulting Firm (Paradigm Engineering Consultants), is subject to submission of PEC License as agreed by the Bidder before award of Contract.		
				E&M Equipment required from European Origin vide Addendum No.1, has been clarified by the Procurement Committee (PC) vide MOM, No.2020-27/PEDO/Brandoo HPP dated March 25, 2025, that it is limited to Electrical Equipments (Protective relays, SCADA system, Plant Control & Communication System).		

SP 17 \$ *[Signature]*

Item	Description	Reference BD	Name of Bidder & Compliance Status		Remarks/Conclusions
			GRC-SMS JV		
2	The Bid does not deviate from basic technical requirements	IB - 24.1 (a) (ix)	Y		The Bidder has submitted the Requisite Undertaking as explained in Appendix-6
	The Bids are generally in order.	IB - 24.1 (a) (x)	Y		
	A bid is likely not to be considered, if;	IB - 24.1 (b)	-		-
	It is unsigned,	IB - 24.1 (b) (i)	Y		The commercial and legal documents, also the Letter of Technical Bid have been Signed
	Its validity is less than specified,	IB - 24.1 (b) (ii)	Y		180 Days confirmed in Letter of Technical Bid
	It is submitted for incomplete scope of work,	IB - 24.1 (b) (iii)	Y*		
	It indicates completion period later than specified,	IB - 24.1 (b) (iv)	Y		
	It indicates that Works and materials to be supplied do not meet eligibility requirements,	IB - 24.1 (b) (v)	Y		Offered Major E&M Plant and Equipment relates to China whereas, Electrical Equipment (Protective relays, SCADA system, Plant Control & Communication System) almost relates to European Origin.
	It indicates that Bid prices do not include the amount of income tax	IB - 24.1 (b) (vi)	NA		Relates to Price Bid , yet to be opened
	Alteration in Form of Bid as per IB.17.3.	IB - 24.1 (b) (vii)	Y		
3	A bid will not be considered, if;	IB - 24.1 (c)	-		-
	It is not accompanied with bid security,	IB - 24.1 (c) (i)	Y*		Yet to be confirmed Undertaking vide BDS - Clause IB 15.2 has been Submitted
	It is submitted by a Bidder who has participated in more than one Bid,	IB - 24.1 (c) (ii)	Y		Only single Bid Submitted

SP ✓ \$ Price

Item	Description	Reference BD	Name of Bidder & Compliance Status		Remarks/Conclusions
			GRC-SMS JV		
	It is received after the deadline for submission of Bids,	IB - 24.1 (c) (iii)	Y		
	It is submitted through fax, telex, telegram or email,	IB - 24.1 (c) (iv)	Y		A soft copy in PDF form was required by Employer to be uploaded on PEDO Site.
	It indicates that prices quoted are not firm during currency of the contract whereas the Bidders are required to quote fixed price(s),	IB - 24.1 (c) (v)	NA		Relates to Price Bid , yet to be opened
	The Bidder refuses to accept arithmetic correction,	IB - 24.1 (c) (vi)	NA		Relates to Price Bid , yet to be opened
	It is materially and substantially different from the Conditions/ Specifications of the Bidding Documents.	IB - 24.1 (c) (vii)	Y		The Bid is not materially and substantially different from the Conditions/ Specifications of the Bidding Documents.

Y = Yes

Y* = Conditionally Yes

N = No

P = Partially Fulfills the Requirement N* = Conditionally No

NI = No Information Indicated

FC= Further Clarification Required

NA = Not Applicable

[Handwritten signatures and initials]

APPENDIX

3B

**EXAMINATION OF COMPLETENESS OF BID
DOCUMENTS**

(Commercial and Technical Requirements)

6.95 MW MUJAHIDIN HYDROPOWER PROJECT AT BARANDOO RIVER, DISTRICT TORGHAR, KP

EXAMINATION OF COMPLETENESS OF BID DOCUMENTS

(Commercial and Technical Requirements)

Item	Description	Reference BD	Name of Bidder's	Bidder's Reference	Remarks/Conclusion
			GRC-SMS JV		
1	Bid Documents				
	One (1) original and four (4) copies	BDS - IB 17.4	Y	Submitted Bid	Verified by Bid opening Committee.
	Letter of Technical Bid with Schedules	IB - 5.1 (2)	Y	Technical Proposal Volume 1 of 4 - ANNEX-A	Witnessed by Bid opening Committee.
	Bid Security	BDS - IB 15	Y*	Technical Proposal Volume 1 of 4 - ANNEX-B	Yet to be confirmed after opening of the Price Bid.
	Alternative Bid	BDS - IB 41	NA	-	-

Amir *Sp* *→* *\$* *re*

Item	Description	Reference BD	Name of Bidder's		Bidder's Reference	Remarks/Conclusion
			GRC-SMS JV			
	Written Authorization to the Signatory of the Bidder	IB-17.5	Y		Technical Proposal Volume 1 of 4 - ANNEX-D, Form B1	1. Power of Attorney by Chief Executive of GRC (Lead Partner- JV) directly to Mr. Muhammad Shoaib Ilahi as Authorized Representative and signing authority of the Bidding documents and related matters of the project before and after tendering. 2. Power of Attorney by Managing Director of M/s SMS (JV Partner) authorized Mr. Babar Mahmood as signing authority of the Bidding document and related matters of the project before and after tendering. Mr. Babar Mahmood through a power of Attorney further authorized Mr. Muhammad Shoaib Ilahi as signing authority of the Bidding document and related matters of the project before and after tendering.
	Document Establishing the Eligibility of Bidder	BDS - IB 2 & IB 13 Local Bidders Valid Licensed by PEC Category "CA-No Limit"	Y		Technical Proposal Volume 1 of 4 - ANNEX-D, Form B1 GRC - License No: 26, Category: CA Validity: 30 June, 2025 SMS - License No:311, Category: CA Validity: 30 June, 2025	GRC- Ghulam Rasool and Company (Private) Limited is incorporated with SECP since 1984. (Copy of Certificate of Incorporation by SECP is attached.) SMS- Sultan Mahmood and Sons is a registered firm with the Registrar of Firms for Northern Area Gilgit since 2006. (Copy of Registrar of Firms - Gilgit is attached.) The Eligibility of Sub Contractors/Manufacturers is detailed separately Vide Appendix-4/2

Item	Description	Reference BD	Name of Bidder's	Bidder's Reference	Remarks/Conclusion
			GRC-SMS JV		
		BDS - IB 2.1 (a) (ii) Registration with FBR and KPRA	Y	Technical Proposal Volume 1 of 4 - ANNEX-D, Form B1 (FBR) GRC-Reg.No: 0684014 Registered: Yes w.e.f AUG-05 SMS-Reg.No: 8825388 Registered: Yes w.e.f SEP-21 Technical Proposal Volume 1 of 4 - ANNEX-D, Form B1 (KAPRA) GRC - Registered: KNTN k0684014-7 SMS - Registered: KNTN K1768827-2	GRC- Ghulam Rasool and Company (Private) Limited is incorporated with SECP since 1984. (Copy of Certificate of Incorporation by SECP is attached.) SMS- Sultan Mahmood and Sons is a registered firm with the Registrar of Firms for Northern Area Gilgit since 2006. (Copy of Registrar of Firms - Gilgit is attached.)
		IB - Appendix-A Nationality	Y (Pakistan)	Technical Proposal Volume 1 of 4 - ANNEX-D and E, Form B1 and B2	

Item	Description	Reference BD	Name of Bidder's		Bidder's Reference	Remarks/Conclusion
			GRC-SMS JV			
	Document Establishing the Eligibility of Plant and Services etc.(Country or Origin)	IB-14	Y*		Technical Bid	Furnished in Evaluation of Proposed Manufacturer/Sub Contractors in a separate sheet. Offered Major E&M Plant and Equipments relates to China whereas, Electrical Equipment (Protective relays, SCADA system, Plant Control & Communication System) is offered from European Origin.
2	Technical Proposal in accordance with IB - 5					
	(1) Bid Schedule	IB - 5.1				
	Specific Works data	Schedule A	Y		Technical Proposal Volume 3 of 4 - ANNEX-AA	The Bidder has provided the specific work data, which has been evaluated separately as Evaluation of Civil, Mechanical and Electrical Plant/Works along with Transmission Lines.
	Proposed Organization for the Project	Schedule B	Y		Technical Proposal Volume 4 of 4 - ANNEX-AB	The basic information has been submitted
	Method of Performing Works	Schedule C	Y		Technical Proposal Volume 4 of 4 - ANNEX-AC	The Bidder has broadly described the sequence and methods of works, list of major constructional equipment and plants, mobilization to site and description of its construction camps and other facilities. The bidder has indicated the electrical power, water supply, pumps and drainage system at site and in the tunnel. The bidder has broadly outlined the method for construction of the major components of all the works and plants, in general.
	Proposed Programme of Works	Schedule D	Y		Technical Proposal Volume 4 of 4 - ANNEX-AD	The bare minimum formality has been fulfilled.

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Item	Description	Reference BD	Name of Bidder's		Bidder's Reference	Remarks/Conclusion
			GRC-SMS JV			
	Work to be Performed by Subcontractors	Schedule E	Y		Technical Proposal Volume 4 of 4 - ANNEX-AE	A Consulting Firm (M/s Paradigm Engineering Consultants) has been proposed for Design of Civil Works. Whereas Several Manufacturers for Design and Manufacturing of E&M Plant and Equipment have been proposed. The Evaluation of the Sub-Contractors/Manufacturers have been furnished in Appendix-4/2 of this report. This Schedule has been declared as "Not Applicable" in the BD and the bidder has submitted this Schedule as it is.
	Deviations from Technical & Contractual Provisions	Schedule F	NA		Technical Proposal Volume 4 of 4 - ANNEX-AF/ANNEX-AG	The Bidder has fulfilled the requirement along with relevant details through Clarifications.
	Specific Operation/Plant and Equipment Details	Schedule G	Y		Technical Proposal Volume 4 of 4 - ANNEX-AH	The JV Agreement has been provided, following the PEC Format including relevant Schedules on the Notarized Stamp Papers. The JV agreement has been signed and sealed by all the JV partners, in line with terms, conditions and clauses of the Specimen as given in the BD, Vol-I, Schedule-H.
	Specimen JV Agreement	Schedule H	Y		Technical Proposal Volume 4 of 4 - ANNEX-AI	The Bidder has fulfilled the requirement and has also submitted the relevant details
	Past Performance and Present Commitments	Schedule I	Y		Technical Proposal Volume 4 of 4 - ANNEX-AJ	
	(2) Bid Forms/Evidence of Bidder's Capability	Appendix-B to IB				
	Bidder's Information Sheet	Form B-1	Y		Technical Proposal Volume 1 of 4 - ANNEX-D	The Bidder has submitted the relevant details
	JV Information Sheet	Form B-2	Y		Technical Proposal Volume 1 of 4 - ANNEX-E	The Bidder has submitted the relevant details
	Financial Situation	Form B-3	Y		Technical Proposal Volume 1 of 4 - ANNEX-F	The Bidder has submitted the relevant details

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Item	Description	Reference BD	Name of Bidder's		Bidder's Reference	Remarks/Conclusion
			GRC-SMS JV			
	Average Annual Turnover	Form B-4	Y		Technical Proposal Volume 1 of 4 - ANNEX-G	The Bidder has submitted the relevant details
	General Construction Experience (Contractor)	Form B-5(a)	Y		Technical Proposal Volume 1 of 4 - ANNEX-H	The Bidder has submitted the relevant details
	Specific Experience (Bidder and Manufacturers)	Form B-5(b)	Y		Technical Proposal Volume 1 of 4 - ANNEX-I	The Bidder has submitted the relevant details along with proposed Sub-Contractors/Manufacturers
	Specific Experience of the Designer	Form B-5(c)	Y		Technical Proposal Volume 1 of 4 - ANNEX-J	The Bidder has submitted the relevant details along with proposed Sub-Contractors/Manufacturers
	Manufacturing Facility Information	Form B-6	Y		Technical Proposal Volume 2 of 4 - ANNEX-K	The Bidder has submitted the relevant details along with proposed Sub-Contractors/Manufacturers
	Quality Control Facilities	Form B-7	Y		Technical Proposal Volume 3 of 4 - ANNEX-L	The Bidder has submitted the relevant Certificates along with proposed Sub-Contractors/Manufacturers
	Personnel	Form B-8(a)	Y		Technical Proposal Volume 3 of 4 - ANNEX-M	The Bidder has submitted the relevant details.
	Resume of Proposed Personnel	Form B-8(b)	Y		Technical Proposal Volume 3 of 4 - ANNEX-N	The Bidder has submitted the relevant details.
	List of Similar Works Done	Form B-9	Y		Technical Proposal Volume 3 of 4 - ANNEX-O	The Bidder has submitted the relevant details.
	Projects Contractual Commitments	Form B-10	Y		Technical Proposal Volume 3 of 4 - ANNEX-P	The Bidder has submitted the relevant details.
	Financial Resources	Form B-11(a)	Y		Technical Proposal Volume 3 of 4 - ANNEX-Q	The Bidder has submitted the relevant details.
	Bank Certificate (Project Specific Line of Credit)	Form B-11(b)	Y		Technical Proposal Volume 3 of 4 - ANNEX-R	The Bidder has submitted the relevant details.

Item	Description	Reference BD	Name of Bidder's		Bidder's Reference	Remarks/Conclusion
			GRC-SMS JV			
	Health, Safety & Emergency Plan	Form B-12	Y		Technical Proposal Volume 3 of 4 - ANNEX-S	The Bidder has submitted the relevant details.
	Training & Employment Plan	Form B-13	Y		Technical Proposal Volume 3 of 4 - ANNEX-T	The Bidder has submitted the relevant details.
	Litigation or Arbitration History	Form B-14	Y		Technical Proposal/Volume 3 of 4 - ANNEX-U	The Bidder has submitted the relevant details.
	Domestic Goods (Value added in Pakistan)	Appendix-C to IB	NA		Technical Proposal Volume 3 of 4 - ANNEX-V	Not Applicable
3	Any other document required in the BD					

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Item	Description	Reference BD	Name of Bidder's		Bidder's Reference	Remarks/Conclusion
			GRC-SMS JV			
	Specifications - Special and Technical Provisions Bid Level Designs, Drawings and Specifications	IB - 5.1 (2) (i) Schedule A to Letter of Technical Bid IB - 5.1 (9) & (10) IB 26.2 (c) (i) BD Vol-II, Section 1.3.1.3 Section 1.3.2 section 1.3.2.1	Y		E&M Technical Proposal Volume 3 of 4 - ANNEX-AA (Schedule A to Bid Specific Works Data)	The Bidder has submitted the Requisite Undertaking as explained in Appendix-6 .
					Civil Technical Proposal Volume 1 of 4 - ANNEX-J	
					Civil and E&M Technical Proposal Volume 4 of 4 - ANNEX-AL	
	Training Programme	Appendix-B to IB Form B-13	Y		Technical Proposal Volume 3 of 4 - ANNEX-T	Outline Training Plan has been furnished but final plan to be provided after award of the Project.

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Item	Description	Reference BD	Name of Bidder's		Bidder's Reference	Remarks/Conclusion
			GRC-SMS JV			
	Outline test and Commissioning Plan on Completion	ER- Volume II Clause 1.1 unnumbered Para(5) (ii) Clause 2.2.6 Clause 2.2.12.15 (1) Clause 2.2.15.1	Y		Technical Proposal/Volume 4 of 4 - ANNEX-AL	Bidder has copied the relevant part of Tender Documents issued by Employer and stamped the same. Specific test and commissioning plan to be ensured during detailed design.
4	Propriety of Signature and Completeness					
	4.1 Bid Form (Technical Proposal) Schedules, properly signed or not signed	IB - 9.1 (b) & (c)	Y		Technical Proposal Volume 1, 2, 3 & 4	Original letter of Technical Bid, Undertaking for Bid Security and other Legal documents have been signed in original by the Authorized Person. Most of the other documents have been stamped apparently having initials of the Authorized Person.
5	Completeness of Bids					

Y = Yes (Meets the Requirement)

Y* = Conditionally Yes

N = Not Fulfills the Requirement

P = Partially Fulfills the Requirement

NI = No Information Indicated

FC= Further Clarification Required

NA = Not Applicable

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APPENDIX

4

**EVALUATION OF BIDDER'S ELIGIBILITY AND
QUALIFICATION**

6.95 MW MUJAHIDIN HYDROPOWER PROJECT AT BARANDOO RIVER, DISTRICT TORGHAR, KP
EVALUATION OF BIDDER'S ELIGIBILITY AND QUALIFICATION

Item	Description	Reference BD	Criteria / ER	Name of Bidder's (Only One Bidder Submitted the Bid)	Compliance Status	Bidder's Reference	Remarks/Conclusion
				GRC-SMS-JV			
	General						
	Eligibility and Nationality	BDS - IB 2 & IB 13	Valid Licensed by PEC Category "CA-No Limit"	GRC-SMS-JV	Y*	Technical Proposal Volume 1 of 4 - ANNEX-D, Form B1 GRC - License No: 26, Category: CA Validity: 30 June, 2025 SMS - License No: 311, Category: CA Validity: 30 June, 2025	Eligibility and Nationality of Sub-Contractors/Manufacturers have been described. Bidder as GRC-SMS (JV) is eligible to the Bid. However, Bidder has proposed a Consulting Firm (Paradigm Engineering Consultants), as sub-contractor for Civil Work Designs, allowed in the criteria. Under the PEC By-Laws the Engineering Consultants can legally provide the Engineering services only when they have relevant PEC License. Subject to Submission of PEC License of the proposed Sub- Contractor/Consultant (Paradigm Engineering Consultants) prior to award of the Contract, as agreed by the Bidder.
		BDS - IB 2.1 (a) (ii)	Registration with FBR and KPRA	GRC-SMS-JV	Y	Technical Proposal Volume 1 of 4 - ANNEX-D, Form B1 (FBR) GRC - Reg. No: 0684014 Registered: Yes w.e.f AUG-05 SMS - Reg. No: 8825388 Registered: Yes w.e.f SEP-21	
						Technical Proposal Volume 1 of 4 - ANNEX-D, Form B1 (KAPRA) GRC - Registered: KNTN K0684014-7 SMS - Registered: KNTN K1768827-2	
		IB - Appendix-A	Nationality	GRC-SMS-JV	Y (Pakistan)	Technical Proposal Volume 1 of 4 - ANNEX-D and E, Form B1 and B2	

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Item	Description	Reference BD	Criteria / ER	Name of Bidder's (Only One Bidder Submitted the Bid)		Compliance Status	Bidder's Reference	Remarks/Conclusion
				GRC-SMS-JV				
	Document Establishing the Eligibility of Plant and Services etc. (Country or Origin)	IB-14 Addendum No.1 to the BD	European Origin			Y	Technical Bid	Furnished in Evaluation of Proposed Manufacturer/Sub Contractors. Offered Major E&M Plant and Equipment relates to China whereas, Electrical Equipment (Protective relays, SCADA system, Plant Control & Communication System) relates to European Origin.
1	Financial Situation	BDS IB 26.2 (c) (ii) Appendix-1						
1.1	Financial Capabilities (i) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, Project Specific lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as PKR One (01) billion for the subject contract net of the Bidder's other commitments.	BDS IB 26.2 (c) (ii) Appendix-1	Form B-10 & B-11 (a) & (b) Lead Partner 40 %, [Forty percent] of the requirement	GRC (JV-Lead Partner) Pak Rs 12.169 Billion	Y	Y	Technical Proposal Volume 1 of 4 ANNEX-F	Backup sheet attached at Appendix-4/1
1.2	Average Annual Construction Turnover Minimum average annual construction turnover of PKR Five (05) billion, calculated as total certified payments received for contracts in progress and/or completed within the last Five (05) years, divided by Five (05).	BDS IB 26.2 (c) (ii) Appendix-1	JV 100 % of the requirement	GRC-SMS-JV Pak Rs 14.603 Billion	Y	Y	Technical Proposal Volume 1 of 4 ANNEX-F	Backup sheet attached at Appendix-4/1
			Form B-3, B-4 Lead Partner 40 %, [Forty percent] of the requirement.	GRC (JV-Lead Partner) Pak Rs 9.381 Billion	Y	Y	Technical Proposal Volume 1 of 4 ANNEX-G	Backup sheet attached at Appendix-4/1
			Each JV Partner Must meet 25 %, [Twenty Five percent] of the requirement. The requirement is not applicable for Designer partner of the JV.	SMS (JV Partner) Pak Rs 4.638 Billion	Y	Y	Technical Proposal Volume 1 of 4 ANNEX-G	Backup sheet attached at Appendix-4/1
2	Experience	BDSIB 26.2 (c) (ii) Appendix-1						

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Item	Description	Reference BD	Criteria / ER	Name of Bidder's (Only One Bidder Submitted the Bid)		Compliance Status	Bidder's Reference	Remarks/Conclusion
				GRC-SMS-JV				
2.1	General Construction Experience Lead Contractor, JV member, subcontractor, or management contractor for at least: (i) the last ten (10) years starting January 1, 2014.	BDS IB 26.2 (c) (ii) Appendix-1	Form B-5 (b) & (c), (JV-Lead Partner) Must Meet	GRC (JV-Lead Partner)		Y	Technical Proposal Volume 1 of 4 ANNEX-H	Supporting documents have been attached in Form 5-(a)
	(ii) The last five (05) years starting January 1, 2019.	BDS IB 26.2 (c) (ii) Appendix-1	Form B-5 (b) & (c), JV-Partner Must Meet	SMS (JV Partner)		Y	Technical Proposal Volume 1 of 4 ANNEX-H	Supporting documents have been attached in Form 5-(a)
2.2 (a)	Specific Construction & Contract Management Experience (i) At least Two (02) Hydropower (04 MW each or higher) EPC contracts of minimum value of US \$ ten (10) million each, OR (ii) At least One Hydropower (08 MW or higher) EPC contract of minimum value of US \$ twenty (20) million.	BDS IB 26.2 (c) (ii) Appendix-1	Form B-5 (b) & (c), All JV Combined	GRC-SMS (JV)		Y	Technical Proposal Volume 1 of 4 ANNEX-I (Form 5(b))	Supporting documents have been attached in Form 5-(b) <i>7.25</i> Reference Project: Daral Khwar HPP 36.6MW Status: JV- Partner Amount: US \$ 24.97 Million <i>100% Paid?</i>
2.2 (b)	Specific Experience in Key Activities	BDS IB 26.2 (c) (ii) Appendix-1	Form B-5 (b) & (c), B-6, B-7 & B-9					
	Civil Works (i) Open Excavation 12,000 m3 in a month (ii) Concrete work 3,000 m3 in a month. (iii) Shaft/Tunnel Excavation 1,500 m3 in a month.	BDSIB 26.2 (c) (ii) Appendix-1	Form B-5 (b) & (c) & B-9All JV Combined	GRC-SMS (JV)		Y	Technical ProposalVolume 1 of 4ANNEX-I,ANNEX-J&Technical ProposalVolume 3 of 4 ANNEX-O	Reference Project: Design, Procurement and construction of 84 MW Gorkin-Matiltan HPP Open Excavation for July 2017: 53, 843 cum /month concrete work: 3,951 cum/month Tunnel Excavation: 2,200 cum/average month
	(i) Electro-Mechanical Works & HSS Bidder should have experience in the field of fabrication & installation of Penstocks, Slide/Radial Gates, Trash Rack, Turbines, Governors, Generators and allied systems including Testing & Commissioning.	BDS IB 26.2 (c) (ii) Appendix-1	Form B-5 (b) & (c) & B-9 All JV Combined: The requirement can be met through specialized sub-contractor	GRC-SMS (JV)		Y	Technical Proposal Volume 1 of 4 ANNEX-I,ANNEX-J & Technical Proposal Volume 3 of 4 ANNEX-O	Details attached in Annex-I (Form-5(b) & Annex-O (Form-9)). Meets the Criteria through Sub-Contractors from China,

Item	Description	Reference BD	Criteria / ER	Name of Bidder's (Only One Bidder Submitted the Bid)		Compliance Status	Bidder's Reference	Remarks/Conclusion
				GRC-SMS-JV				
	<u>(i) Design Experience of Civil Works</u> The Bidder should have designed and supervised the major civil works of one (01) Hydropower Project of 8 MW or higher OR Two (02) hydropower projects of 4 MW or higher, having Francis Turbines and associated E&M Equipment, which are performing satisfactorily for at least the last five (5) years.	BDS IB 26.2 (c) (ii) Appendix-1	Form B-5 (b) & (c), B-6, B-7 & B-9 All JV Combined: The requirement can be met through specialized sub-contractor	GRC-SMS (JV)		Y*	Technical Proposal Volume 1 of 4 ANNEX-I,ANNEX-J & Technical Proposal Volume 3 of 4 ANNEX-O	Details attached in Annex-J (Form-5(c) & Annex-O (Form-9) Meets the Criteria through Consulting Firm as Sub-Contractor. (Paradigm Engineering Consultant). *Subject to valid PEC license of the Consultants/Sub-contractor, before award of Contract.
	<u>Design & Manufacturing Experience</u> (i) The bidder must have Design & Manufacturing experience of the major components i.e., Turbines, Shafts, Bearings, Governors, Generators and auxiliary equipment, Protection and C&I system etc. and supplied to at least one (01) Hydropower Project of 8 MW or higher OR Two (02) hydropower projects of 4 MW or higher, which are performing satisfactorily for at least the last five (5) years. (ii) The Manufacturer should submit the authenticated End User Certificate confirming that the Plant and Equipment supplied by the Manufacturer is satisfactorily in operation.	BDS IB 26.2 (c) (ii) Appendix-1	Form B-5 (b) & (c), B-6, B-7 & B-9 All JV Combined: The requirement can be met through specialized sub-contractor	GRC-SMS (JV)		Y*	Technical Proposal Volume 1 of 4 ANNEX-I,ANNEX-J & Technical Proposal Volume 3 of 4 ANNEX-O	Details attached in Annex-I (Form-5(b) & Annex-O (Form-9). Meets the Criteria through Sub-Contractor. Meets the Criteria through Chinese Sub-Contractors/Manufacturers. Offered Major E&M Plant and Equipments relates to China whereas, Electrical Equipment (Protective relays, SCADA system, Plant Control & Communication System) relates to European Origin.
	<u>(i) Transmission lines:</u> The Bidder has designed, supervised and executed Transmission lines of at least ten (10) KM with voltage range of 11 KV or above.	BDS/IB 26.2 (c) (ii) Appendix-1	Form B-5 (b) & (c), B-6, B-7 & B-9 All JV Combined: The requirement can be met through specialized sub-contractor	GRC-SMS (JV)		Y	Technical Proposal\Volume 1 of 4ANNEX-I,ANNEX-J&Technical Proposal\Volume 3 of 4 ANNEX-O	Reference Project: Plant Design, Procurement and construction of 10.2 MW Jabori Hydropower Project (JHPP) , Transmission Line: 132 kV -About 20 km (from Jabori to Batal Grid Station) Reference Project: Design, Procurement and construction of 11.8 MW Karora Hydropower Project Transmission Line: 220 kV -About 10.59 km (Approx.)
	Technical Capabilities							
	Personnel	Form B-8 (a), Form B-8 (b)	List of Personnel and Qualification/ Experience Criteria Resume of Proposed Personnel	GRC-SMS (JV)		Y	Technical Proposal Volume 3 of 4 ANNEX-M, ANNEX-N	The personnel listed in Form-8(a) and Resumes of the personnel in Form-8(b) are attached.
	Equipment	Schedule -G to Bid	Form - G1, Annex-1 to G1 (A) Annex-1 to G1 (B)	GRC-SMS (JV)		Y	Technical Proposal Volume 4 of 4 ANNEX-AH	

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Item	Description	Reference BD	Criteria / ER	Name of Bidder's (Only One Bidder Submitted the Bid)	Compliance Status	Bidder's Reference	Remarks/Conclusion
				GRC-SMS-JV			
	Subcontractors / Manufacturers	IB-13.3 & BDS - IB 13.6 Schedule -E to Bid	Form B-5 (b) & (c), B-6, B-7 & B-9	GRC-SMS (JV)	Y*		See Sheet for Evaluation of manufacturer/sub-contractors attached as Appendix-4/2
	FINDINGS						

Y = Yes (Meets the Requirement) Y* = Conditionally Yes N = Not Fulfils the Requirement P = Partially Fulfils the Requirement

NI = No Information Indicated FC= Further Clarification Required NA = Not Applicable

APPENDIX

4/1

EVALUATION OF BIDDER QUALIFICATION
FINANCIAL SITUATION

6.95 MW Mujahidin Hydropower Project at Barandoo River, District Torghar, KP
Evaluation of Bidder Qualification
Financial Situation

Applicant Ref.	Applicant Name	Name of Bidder's	Net Worth (NW) (Rs. 1 Billion)							Pass/Fail
		GRC-SMS JV	Specified Currency	2019	2020	2021	2022	2023	Avg NW PKR RS.	
1	GRC-SMS JV	GRC	PKR RS.	10,711,239,575.0	11,068,500,192.0	11,187,746,666.0	13,319,018,092.0	14,560,298,561.0	12,169,360,617.20	pass
		SMS	PKR RS.	1,274,900,207.0	1,613,447,830.0	2,925,131,852.0	3,529,517,959.0	2,826,299,177.0	2,433,859,405.00	pass

Ref.	Applicant Name	Name of Bidder's	Average Annual Construction Turn Over (RS 5 Billion)								Audit Sheet Attached	Pass/Fail
		GRC-SMS JV	Specified Currency	2019	2020	2021	2022	2023	AATO in PKR.	AATO In US\$/Equivalent		
1	GRC-SMS JV	GRC	PKR RS.	5,519,752,000	6,173,218,383	6,891,263,348	15,359,800,379.0	12,961,079,421.0	9,381,022,728.40	46,860,061	Yes	Pass
		SMS	PKR RS.	3,017,563,957	3,812,541,276	4,820,354,825	5,398,169,791.0	6,142,516,250.0	4,638,229,219.80	23,895,934	Yes	Pass
		Total JV								70,755,995		

APPENDIX

4/2

**EVALUATION OF MANUFACTURERS/ SUB
CONTRACTORS**

6.95 MW MUJAHIDIN HYDROPOWER PROJECT AT BARANDOO RIVER, DISTRICT TORGHAR, KP

Evaluation of Manufacturer/ Sub Contractors

Sr. No	Items/Tasks	Reference BD	Proposed Manufacturers/ Sub Contractors	Bidders Reference	Nationality/ Origin of E&M Equipment	Legal Status	Sub- Contractor/ Manufacturer's Authorization	Reference Projects	Status As	Completion Certificate	User Certificate	Remarks
2.2(b)	Civil Work Designs	BDS IB 26.2 (c) (ii) Appendix-1	Paradigm Engineering Consultants.	Technical Proposal Volume 1 of 4 ANNEX-J, Volume 4 of 4 ANNEX-AE,	Pakistan 161-C Faisal Town Lahore	Y*	Y	1. Gulpur Hydropower Project (102 MW) 2. Julius Nyerere Hydropower Project (2,115MW)	Sub- Contractor	Y (Gulpur Hydropower Project (102 MW)	Y (Gulpur Hydropower Project (102 MW)	PEC License under the PEC By-Laws, is in Process. *Subject to Submission of PEC License as agreed by the Bidder prior to award of the Contract.
Items of E&M Plant & Equipment proposed by Chinese Sub-Contractors/Manufacturers												
2.2(b)	Turbine	BDS IB 26.2 (c) (ii) Appendix-1	Hunan Vanguard Group Co., Ltd.	Technical Proposal Volume 1 of 4 ANNEX-I	China	Limited Liability Company (Exclusively State owned) Established 2003	Y	1. Son Tay HPP at Son Tay District, Huang Ngai Province, Vietnam. Capacity: (2x9 MW)	Sub- Contractor	Y	Y	
2.2(b)	Generator	BDS IB 26.2 (c) (ii) Appendix-1	Hunan Vanguard Group Co., Ltd.	Technical Proposal Volume 1 of 4 ANNEX-I	China	Limited Liability Company (Exclusively State owned) Established 2003	Y	1. Son Tay HPP at Son Tay District, Huang Ngai Province, Viet Nam. Capacity: (2x9 MW)	Sub- Contractor	Y	Y	
2.2(b)	Governor	BDS IB 26.2 (c) (ii) Appendix-1	WUHAN YIXIN	Technical Proposal Volume 2 of 4 ANNEX-K	China	Limited Company Established 2013	Y	1. 2 x 44 MW excitation system project of Dakrong3 Hydropower Station 2. 2 x 45MW excitation system project of Nam Khoa3 Hydropower Station	Sub- Contractor	Y	Y	
			WUHAN SANLIAN	Technical Proposal Volume 2 of 4 ANNEX-K	China	Limited Liability Company Established 2002	Y	1. Engineering, Manufacturer, services for turbine Governor system Installed in Liujiaxia HPP (2x255 + 2x265 +1 x 320)MW	Sub- Contractor	Y	Y	
			Other Reputed Make									

Sr. No	Items/Tasks	Reference BD	Proposed Manufacturers/ Sub Contractors	Bidders Reference	Nationality/ Origin of E&M Equipment	Legal Status	Sub- Contractor/ Manufacturer's Authorization	Reference Projects	Status As	Completion Certificate	User Certificate	Remarks
2.2(b)	Mechanical works and HSS	BDS IB 26.2 (c) (ii) Appendix-1	Hunan Dame Hydraulic and Mechanical Co.Ltd	Technical Proposal Volume 3 of 4 ANNEX-K	China	Limited Company Established 2004	Y	1. Design, Manufacturer, supply installation, testing and commissioning of Hydro-mechanical Equipment for Jinzhou Dam Project at Ningxiang.	Sub-Contractor	Y	Y	
	Control, Monitoring & Protection System	BDS/IB 26.2 (c) (ii) Appendix-1	1. HN UNIS (Panels Shall be from China). 2. Schneider electric, or Siemens 3. Schneider electric, Siemens or ABB..	Technical Proposal Volume 2 of 4 ANNEX-K	1. China (Not belong to European Origin) 2. Europe 3. Europe	1. Limited Company 2. NI 3. NI	1. Y 2. NI 3. NI	1. Microcomputer Integrated Automation system of Nam Bum 2 power station (28 MW) in Vietnam. 2. Microcomputer Integrated Automation system of PATAAN 2 power station in Vietnam (20 MW). 3. Microcomputer Integrated Automation system of SongLuo 8A power station in Vietnam(27 MW)	Sub-Contractor	1. Y 2. NI 3. NI	1. Y 2. NI 3. NI	The Bidder proposed the Chinese Subcontractor for the E&M Works including the Control, Monitoring & Protection System. As clarified by the Bidder during the Clarifications, the Equipment required under Clause 1.2.4.2 shall be provided from the European Manufacturer and be assembled and installed by the proposed Chinese Subcontractor. The Chinese Subcontractor fulfills the criteria of the Employer's Requirements of IB Clause 14.
2.2(b)	Excitation System	BDS IB 26.2 (c) (ii) Appendix-1	Wuhan Lushui Automatic Control Technology Co., Ltd.	Technical Proposal Volume 2 of 4 ANNEX-K	China	Company Limited More than 44 years	Y	1. Project of AGUS VI Hydropower Station (2X25MW + 3x50MW) 2. 2x37.5MW hydro-generator unit of Vietnam DA M'BRI Hydropower Station	Sub-Contractor	Y	Y	
			WUHAN YIXIN									Already Evaluated above
				Other Reputed Make								
2.2(b)	Main Inlet Butterfly Valve		Wuhan Valve and Water Treatment Co., Ltd.	Technical Proposal Volume 2 of 4 ANNEX-K	China	*Limited Company. Since 40 years	Y	1. Supply, erection, commissioning services contract of hydraulic valves for Damengtong	Sub-Contractor	Y	Y	

Sr. No	Items/Tasks	Reference BD	Proposed Manufacturers/ Sub Contractors	Bidders Reference	Nationality/ Origin of E&M Equipment	Legal Status	Sub-Contractor/ Manufacturer's Authorization	Reference Projects	Status As	Completion Certificate	User Certificate	Remarks
								Hydro Power Station. (50 MW) 2. Supply, erection, commissioning services contract of 2 sets of DN1750-3.0 Mpa Hydraulic Valves and accessories for Xinjiang Muzhati Cascade III Hydro power Station				

Y = Yes (Meets the Requirement) Y* = Conditionally Yes N = Not Fulfils the Requirement P = Partially Fulfils the Requirement

NI = No Information Indicated FC= Further Clarification Required NA = Not Applicable

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APPENDIX

5

DETAILED EVALUATION OF TECHNICAL REQUIREMENTS

APPENDIX

5/1

EVALUATION OF TECHNICAL REQUIREMENTS FOR CIVIL WORKS

6.95 MW MUJAHIDIN HYDROPOWER PROJECT AT BARANDOO RIVER, DISTRICT TORGHAR, KP

Evaluation of Technical Requirement for Civil Works

Item	Section	Employer's Requirement	Name of Bidder's	Bidder's Reference	Remarks/Conclusions
			GRC-SMS JV		
1	Schedules				
	Vol-I, Schedule A	Specific Works data	Y	Technical Proposal Volume 3 of 4 - ANNEX-AA	Offered Major E&M Plant and Equipment relates to China whereas, Electrical Equipment (Protective relays, SCADA system, Plant Control & Communication System) to be offered from European Origin. The Bidder has provided the main plant make, capacity and suitability for the works of the project to assess the technical conformance of the proposed process and means available with the contractor to do it.
	Vol-I, Schedule B	Proposed Organization for the Project	Y	Technical Proposal Volume 4 of 4 - ANNEX-AB	The Bidder has provided the Organization Chart indicating the key personnel for Head office as well as Site office corresponding to Employer's Requirement. The Schedule B provided by the Bidder indicates the relevant key professionals for Head office and the Site office too. The organogram for Head office and Site office also been provided.
	Vol-I, Schedule C	Method of Performing Works	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	The Method of performing works by the Bidder is of broader description. The Bidder shall confirm now that Work specific "Method Statements", shall be submitted during execution stage in view of provision of the contract. The Bidder responded that "We agree and will submit the Specific Method Statement during execution stage in view of provision of the contract." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix -6.
	Vol-I, Schedule D	Proposed Programme of Works	Y	Technical Proposal Volume 4 of 4 - ANNEX-AD	The program was required to be furnished using Primavera-P6, with fully resource loaded activities. The bidder has not indicated the key tasks of manufacturing/ procurement of E&M Plant and Equipment, factory acceptance tests, shipment/transportation, delivery to site and its Installation and Erection. The Bidder shall re-submit the Proposed program of Works accordingly. The Bidder responded that "Revised Work Program attached as ANNEX-3 along with Equipment and Manpower Deployment." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
	Vol-I, Schedule E	Work to be Performed by Subcontractors	Y*	Technical Proposal Volume 4 of 4 - ANNEX-AE	A Consulting Firm (M/s Paradigm Engineering Consultants) has been proposed for Design of Civil Works. Whereas Several Manufacturers for Design and Manufacturing of E&M Plant and Equipment have been proposed. The Evaluation of the Sub-Contractors/Manufacturers and have been furnished in Appendix-4/2 of this report. Offered Major E&M Plant and Equipment relates to China whereas, Electrical Equipment (Protective relays, SCADA system, Plant Control & Communication System) to be offered from European Origin.
	Vol-I, Schedule F	Deviations from Technical & Contractual Provisions	NA	Technical Proposal Volume 4 of 4 - ANNEX-AF/ANNEX-AG	This Schedule has been declared as "Not Applicable" in the BD and the bidder has submitted this Schedule as it is.

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Item	Section	Employer's Requirement	Name of Bidder's	Bidder's Reference	Remarks/Conclusions
			GRC-SMS JV		
			Compliance status		
	Vol-I, Schedule G	Specific Operation/Plant and Equipment Details Form G-1 Annex-1 (A) Form G-1 Annex-1 (B)	Y Y	Technical Proposal Volume 4 of 4 - ANNEX-AH	Form G-1 Annex-1 (A) The Bidder has submitted a comprehensive list of key equipment proposed to be mobilized for the execution of the project. This submission demonstrates that the Bidder possesses the necessary machinery and tools required to meet the project's requirements. However the Bidder has proposed different model numbers for some of the equipment to achieve the progress as he considers appropriate. Form G-1 Annex-1 (B) The tools were required for erection and testing of various stages and components of the E&M Plant and Equipment, similarly some tools were required for specific functions. Rather naming the tools for all such purposes, the Bidder has proposed a methodology and relevant details. The matter has been resolved through Clarifications and the details are available in Appendix-6 .
	Vol-I, Schedule H	Specimen JV Agreement	Y	Technical Proposal Volume 4 of 4 - ANNEX-AI	The JV Agreement has been provided, following the PEC Format including relevant Schedules on the Notarized Stamp Papers. The JV agreement has been signed and sealed by all the JV partners, in line with terms, conditions and clauses of the Specimen as given in the BD, Vol-I, Schedule-H.
	Vol-I, Schedule I	Past Performance and Present Commitments	Y	Technical Proposal Volume 4 of 4 - ANNEX-AJ	Bidder has submitted sufficient detail of Past Performance and Present Commitments along with supporting documents and other relevant references
2	Forms				
	Vol-I, Form B-6	Manufacturing Facility Information	Y	Technical Proposal Volume 2 of 4 - ANNEX-K	The Bidder has submitted the Information regarding manufacturing facilities of the Chinese Sub-Contractors. The Information consists of description of facility, its location, address and annual manufacturing capacity of major equipment, relevant to Employer's Requirement. Information of the European Manufacturers regarding Protective relays, SCADA system, Plant Control & Communication System has been provided. Refer to Appendices: 4 & 4/2 of this report.
	Vol-I, Form B-7	Quality Control Facilities	Y	Technical Proposal Volume 3 of 4 - ANNEX-L	The Information regarding Quality Control facilities has been furnished. The Information consists of adequate details of the quality control testing and research facilities along with the manufacturing license and copies of the licenses have been attached. Quality management system certificate, ISO certification for occupational Health and Safety management and Environmental Management Systems for Electro Mechanical and Civil Construction have been attached.
	Vol-I, Form B-8(a)	Personnel	Y	Technical Proposal Volume 3 of 4 - ANNEX-M	The list of personnel as required vide Form B-8(a) of the Employer's Requirement (ER) has been provided with names, qualifications and details of their experiences on the prescribed format.
	Vol-I, Form B-8(b)	Resume of Proposed Personnel	Y	Technical Proposal Volume 3 of 4 - ANNEX-N	The CV's have been signed by the relevant personnel and contains the necessary information. Based on the contents of the CV's the proposed personnel broadly fulfill the ER. However the information regarding the positions of Works Manager (Mechanical) and Works Manager (Electrical) as required vide table B-1 of schedule B to Bid is missing. The Bidder responded "The CV's of Works Manager (Mechanical) and Works Manager (Electrical) attached as ANNEX-5" (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .

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Item	Section	Employer's Requirement	Name of Bidder's	Bidder's Reference	Remarks/Conclusions
			GRC-SMS JV		
			Compliance status		
	Vol-I, Form B-12	Health, Safety & Emergency Plan	Y	Technical Proposal Volume 3 of 4 - ANNEX-S	The Bidder has outlined the Health, Safety as well as Environmental management plans including guiding principles, management organization. The assurance of the plans and the goals of management along with its strategy has been furnished. The Bidder has also outlined the measures for preventing fires and explosions, floods and rains and reporting the accidents etc.
	Vol-I, Form B-13, Vol-II, Section 1.1.5.2	Training & Employment Plan	Y	Technical Proposal Volume 3 of 4 - ANNEX-T	The Bidder has outlined a two (2) week training program vide Form B-13 included in Annex-T. This plan contains brief of the training Module of major components of the E&M plants and equipments. The Bidder responded "Training & Employment Plan will be as per the Employer's Requirement (ER) vide clause 1.1.5.2 Vol-II of the BD and attached as ANNEX-6." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
3	Vol-II, Section 1.3.1.2	Technical Documents			
	Vol-II, Section 1.3.1.2 (a)	Hydraulic Design and Head loss Calculations	Y	Technical Proposal Volume 1 of 4 - ANNEX-J	Estimated floods with different return periods at the project sites were misleading. Bidder agreed that some discrepancies were observed in the Table 2.5 listing Flood Values and Associated Return Periods. The Corrected Flood Values and Associated Return Period from various approaches has been attached at Table 2.5 of the response vide Bidder's Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025. (Attached as Appendix-6)
	Vol-II, Section 1.3.1.2 (b)	Power & Energy Studies	Y	Technical Proposal Volume 1 of 4 - ANNEX-J	Preliminary studies for Power & Energy and relevant calculations have been furnished.
	Vol-II, Section 1.3.1.2 (c)	Basic/Tender Design Report covering basic design of Civil Works and E&M Plant.	Y	Technical Proposal Volume 4 of 4 - ANNEX-AL	Copy of the Employer's Tender Designs for Civil Works and E&M Plant/Works have been attached.
	Vol-II, Section 1.3.1.2 (d)	Tender Drawings for Civil and E&M works	Y	Technical Proposal Volume 4 of 4 - ANNEX-AL	Copy of the Employer's Tender Drawings for Civil Works and E&M Plant/Works have been attached.
	Vol-II, Section 1.3.1.2 (e)	Specifications	Y	Technical Proposal Volume 4 of 4 - ANNEX-AL	Copy of the Employer's Specifications for Civil Works and E&M Plant/Works have been attached.
					The Bid Level designs have partially been submitted by the Bidder. In addition the Bidder has submitted the relevant pages of Employer's Requirements which include the design criteria, standards and specifications for Civil Works.
					The Bidder has stamped and initialed all the pages submitted of the Bidding document, which contain the signatures of Employer and Management Consultants also.
					The Bidder shall clarify its intention to submit these pages?
					If the Bidder own the tender level designs, drawings & specifications as contained in the submitted pages and confirm it as his own bid level designs and drawings, the Bidder shall confirm in writing taking all responsibilities of errors/discrepancies or missing items, if any.
					The Contractor is also required to confirm that no claim shall be moved on account of any errors, discrepancies and change in dimensions in the tender level designs, if encountered during the EPC detailed design stage.
4	Vol-II, Section 1.3.1.3	Bid Level Design (Civil Works)	Y	Technical Proposal Volume 1 of 4 - ANNEX-J	Further clarifications were sought from the Bidder and as a result of series of clarifications the Bidder has neither submitted its own Bid Level Designs to take its responsibility, nor agreed to take the responsibility of the opted Tender Level Designs of the Employer on account of any errors, discrepancies and change in dimensions in the tender level designs, if encountered during the EPC detailed design stage. Consequently, the Contractor has confirmed that "no claim shall be moved on account of any errors, discrepancies and change in dimensions in the tender level drawings, if encountered during the EPC detailed design stage." (Details attached in Appendix-6.)

Item	Section	Employer's Requirement	Name of Bidder's	Bidder's Reference	Remarks/Conclusions
			GRC-SMS JV		
			Compliance status		
5	Vol-II, Section 1.3.1.3 (b)	Design Criteria	Y	Technical Proposal Volume 1 of 4 - ANNEX-J	Design Criteria has been furnished in detail
6	Vol-II, Section 1.3.1.3 (c)	Head Loss Calculations	Y	Technical Proposal Volume 1 of 4 - ANNEX-J	Head loss calculations have been provided in the Design Criteria Report (Annex-J).
7	Vol-II, Section 1.3.1.3 (d)	Power and Energy Calculations	Y	Technical Proposal Volume 1 of 4 - ANNEX-J	Power and Energy calculations have been provided in the Design Criteria Report (Annex-J).
8	Vol-II, Section 1.3.1.3 (e)	Construction Work Schedule	Y	Technical Proposal Volume 4 of 4 - ANNEX-AD	The program was required to be furnished using Primavera-P6, with fully resource loaded activities.
					The bidder has not indicated the key tasks of manufacturing/ procurement of E&M Plant and Equipment, factory acceptance tests, shipment/transportation, delivery to site and its Installation and Erection. The Bidder shall re-submit the Proposed program of Works accordingly
					The Bidder responded that "Revised Work Program attached as ANNEX-3 along with Equipment and Manpower Deployment." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
					The Bid Level Drawings have partially been submitted, in terms of some figures, sketches and tables to elaborate the preliminary details.
					In addition bidder has attached 52 drawings for Civil Works as included in the Bidding document which reflect the tender level design dimensions, profiles and cross sections including other details of various components of the works.
					The Bidder has stamped and initialed all the pages submitted of the Bidding document, which contain the signatures of Employer and Management Consultants also.
					The Bidder shall clarify its intention to submit these Drawings?
9	Vol-II, Section 1.3.2	Bid Drawings Civil Works	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	If the Bidder own the tender level drawings as contained in the submitted pages and confirm it as his own bid level drawings, the Bidder shall confirm in writing taking all responsibilities of errors/discrepancies or missing items, if any.
					The Contractor is also required to confirm that no claim shall be moved on account of any errors, discrepancies and change in dimensions in the tender level drawings, if encountered during the EPC detailed design stage.
					Further clarifications were sought from the Bidder and as a result of series of clarifications the Bidder has neither submitted its own Bid Level Drawings to take its responsibility, nor agreed to take the responsibility of the opted Tender Level Drawings of the Employer on account of any errors, discrepancies and change in dimensions in the tender level drawings, if encountered during the EPC detailed design stage.
					Consequently, the Contractor has confirmed that "no claim shall be moved on account of any errors, discrepancies and change in dimensions in the tender level drawings, if encountered during the EPC detailed design stage." Details attached in Appendix-6.)
10	Vol-II, Section 1.3.2 (a)	General Location Plan	Y	Technical Proposal Volume 1 of 4 - ANNEX-J	

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Item	Section	Employer's Requirement	Name of Bidder's	Bidder's Reference	Remarks/Conclusions
			GRC-SMS JV		
			Compliance status		
11	Vol-II, Section 1.3.2.1	Bid Drawings for Electrical and Mechanical Equipment's	Y	Technical Proposal Volume 3 of 4 - ANNEX-AA	Manufacturers of major Plant and Equipments have offered Preliminary Bid level drawings and Designs like Turbines, Governors, Generators, EOT Crane etc..
12	Vol-II, Section 2.2.1,2.2.12	Codes and Standards	Y	Technical Proposal Volume 1 of 4 - ANNEX-J	Design Criteria Report
13	Vol-II, Section 2.7	Quality Assurance and Quality Control	Y	Technical Proposal Volume 3 of 4 - ANNEX-L	Form B-7 (Quality Control Facilities)
14	Vol-II, Section 2.10	Utilities			
15	Vol-II, Section 2.10.1	Water Supply System	Y		
16	Vol-II, Section 2.10.2	Water Distribution System	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	Described in Annex-AC
17	Vol-II, Section 2.10.3	Sewerage System	Y		
18	Vol-II, Section 2.11	Environmental Protection & Miscellaneous	Y	Technical Proposal Volume 3 of 4 - ANNEX-S	Also ANNEX-AC
19	Vol-II, Section 2.9	Employers Field Facilities	Y	Technical Proposal Volume 3 of 4 - ANNEX-S	The Bidder has committed in Annex-AC - Clause 8.10
20	Vol-II, Section 1.2.2.1 (1)	Temporary Diversion Arrangements	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	The Bidder has committed in Annex-AC - Clause 8.3.1.3
21	Vol-II, Section 1.2.2.1 (2)	Provision of Field Camps and Offices and Operating Facilities	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	The Bidder has committed in Annex-AC - Clause 8.10.1.7 and has also indicated a Camp layout plan to be constructed and maintained by contractor.
22	Vol-II, Section 1.2.2.3	Dam and Diversion Works	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	The Bidder has committed in Annex-AC - Clause 8.2 and its sub-clauses to construct the Dam and related works also Spillway of 500 years return period for a flood of 2878 m³/sec.
23	Vol-II, Section 1.2.2.4	Intake	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	The Bidder has committed in Annex-AC - Clause 8.2 and associated sub-clauses
24	Vol-II, Section 1.2.2.5	Connecting Cut and Cover Conduit	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	The Bidder has committed in Annex-AC - Clause 2, Scope of Works which contains all the major structures of the Civil Works including Connecting conduit.
25	Vol-II, Section 1.2.2.6	Headrace Tunnel	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	The Bidder has committed in Annex-AC - Clause 8.4 and associated sub-clauses
26	Vol-II, Section 1.2.2.7	Surge Shaft/ Tank	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	The Bidder has committed in Annex-AC - Clause 8.5

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Item	Section	Employer's Requirement	Name of Bidder's	Bidder's Reference	Remarks/Conclusions
			GRC-SMS JV		
27	Vol-II, Section 1.2.2.8	Steel Lined Pressure Tunnel	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	The Bidder has committed reinforced concrete lined Headrace Tunnel along with all other works. (Scope of Work), however bidder is silent on limited part of steel lined Pressure Tunnel. The same shall be confirmed now including all associated works. The Bidder has responded "We have attached Bid Drawings as our Basic Bid Design and will construct steel Lined Pressure Tunnel as per specifications and Employer's requirements. However this will be reanalyzed during Detailed Design." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6.
28	Vol-II, Section 1.2.2.9	Steel Penstock	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	The Bidder has committed in Annex-AC - Clause 8.6
29	Vol-II, Section 1.2.2.10	Power House	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	The Bidder has committed in Annex-AC - Clause 8.7 and associated sub-clauses
30	Vol-II, Section 1.2.2.11	Flood Protection wall	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	The Bidder has committed in Annex-AC - Clause 8.8 and associated sub-clauses
31	Vol-II, Section 1.2.2.12	Barando River Bridge	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	Bidder has committed vide Clause 8.9 of Annex-AC, to construct Access road and Bridge to Weir, Surge Shaft, Powerhouse and Colony Area.
					The Bidder shall confirm that the bridge on Barandoo River will be constructed in line with Employer's Requirement vide clause No. 1.2.2.12.
					The Bidder has responded " We confirm that the bridge on Barandoo River will be constructed in line with Employer's Requirement vide clause No. 1.2.2.12. However this will be reanalyzed during Detailed Design." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
32	Vol-II, Section 1.2.2.16	Hydraulic Steel Works	Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	Annex-AC: Scope of works, (b) Mechanical Equipment

Y = Yes (Meets the Requirement)

Y* = Conditionally Yes

N = Not Fulfills the Requirement

P = Partially Fulfills the Requirement

NI = No Information Indicated

FC= Further Clarification Required

NA = Not Applicable

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APPENDIX

5/2

**EVALUATION OF TECHNICAL REQUIREMENTS
FOR MECHANICAL WORKS AND PLANT
INCLUDING SPARE PARTS**

6.95 MW MUJAHIDIN HYDROPOWER PROJECT AT BARANDOO RIVER, DISTRICT TORGHAR, KP

Evaluation of Technical Requirement for Mechanical Works and Plant including Spare parts

Item	Section	Employer's Requirement		Name of Bidder's GRC-SMS JV	Bidder's Reference	Remarks/Conclusions
		MECHANICAL EQUIPMENT	Requirement	Compliance Status		
1	BD Volume II (ER)2.2.2	Turbines				
		Bid Level Design and Drawings		Y	Technical Proposal Volume 3 of 4 - ANNEX-AA	Preliminary Bid level designs and drawings have been provided for major Plant and Equipment like Turbines, Generators, Governors, Valves, Bridge Crane, etc. by the proposed Chinese Manufacturers/Sub Contractors. The Model Numbers, Technical description and installation sequence outlines have also been described.
		No. of Turbines	2	Y		
		Type	Horizontal Shaft Francis	Y HLY255-WJ-110	Technical Proposal Volume 3 of 4 - ANNEX-AA	The Turbine Model Code "HLY255-WJ-110" required deliberation of Alphabets and Numbers. The Bidder/Manufacturer shall also confirm the metallurgy and other specifications of the Turbines to be in line with Employer's requirements. The Bidder responded that "We confirm offered turbine is Horizontal Francis. Model No. Is HLY255-WJ and 110 is runner diameter in centimeters." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
	2.2.2.3	Runner Diameter	1236 mm	Y (1100 mm)	Technical Proposal Volume 3 of 4 - ANNEX-AA	The Bidder shall confirm that the proposed smaller runner dia. of 1100mm with the same RPM (500) will ensure the required generation capacity as per Employer's Requirement. The bidder responded "We confirm selected diameter can ensure required generation capacity as per Employer's Requirement." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 . Bidder was again required to further clarify that: "The Bidder shall ensure the generated capacity and the "Diameter of Runner" is to be agreed during the detailed EPC design." The Bidder responded that "We shall provide calculations during detail design to justify selected runner diameter can ensure required generation capacity as per Employer's Requirement." (Ref. Bidder Letter No. GRC/O/ISB/25/008 dated: Feb 27, 2025) Attached as Appendix-6 .
		Head loss (from intake to MIV)	2.54 m	Y (2.768 m)	Technical Proposal Volume 1 of 4 - ANNEX-J	The Exact value to be rechecked at detail design stage
		Turbine Rated Net Head	46 m	Y (46 m)	Technical Proposal Volume 3 of 4 - ANNEX-AA	
		Rated Discharge	2 x 8.9 = 17.8 m³/s	Y (17.8 m³/s)		
	2.2.2.3	Weighted Average Turbine Efficiency	≥ 92.8%	Y (92.5% to 93.25%)	Technical Proposal Volume 3 of 4 - ANNEX-AA	The Bidder shall confirm that the proposed Turbine Model shall ensure the Weighted Average Turbine Efficiency in line with Employer's Requirement. The bidder responded that "We confirm that the proposed Turbine Model shall ensure the Weighted

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Item	Section	Employer's Requirement		Name of Bidder's GRC-SMS JV	Bidder's Reference	Remarks/Conclusions
		MECHANICAL EQUIPMENT	Requirement			
				Compliance Status		Average Turbine Efficiency in line with Employer's Requirement " (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
	2.2.2.3	Rated Power	2 x 3.7 MW	Y (3.814 MW)	Technical Proposal Volume 3 of 4 - ANNEX-AA	
2		Runner				
	2.2.4.1	Material: Martensitic Stainless Steel grade	CA6NM to ASTM A743M	Y		The Bidder shall confirm that the material of the Runner fulfils the Specifications/Employer's Requirement and relevant Standards. The Bidder shall also confirm that other elements of the clause 2.2.4.1 of the Employer's Requirement shall be ensured during detailed designs. The bidder responded that "We confirm that the material of the Runner fulfils the Specifications/Employer's Requirement and relevant Standards. We also confirm that other elements of the clause 2.2.4.1 of the Employer's Requirement shall be ensured during detailed designs." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
3	2.2.4.4	Turbine Shaft		Y		The Bidder shall confirm that the material of the Turbine Shaft fulfils the Specifications/Employer's Requirement and relevant Standards. The Bidder shall also confirm that other elements of the clause 2.2.4.4 of the Employer's Requirement shall be ensured during detailed designs. The bidder responded that "We confirm that the material of the Turbine Shaft fulfils the Specifications/Employer's Requirement and relevant Standards. We also confirm that other elements of the clause 2.2.4.4 of the Employer's Requirement shall be ensured during detailed designs." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
						The Bidder shall confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the BD, also in the Price Schedule-5, will be in line with ER and relevant standards of the Bidding Document (BD).
	2.2.4.21	Turbine Spare Parts		Y		The bidder responded that "We confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the Bidding Document, also in the Price Schedule-5, will be in line with Employer's Requirement and relevant standards of the Bidding Document." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
4	2.2.7	Digital Governor		Y (YWT-1800 Type)	Technical Proposal Volume 3 of 4 - ANNEX-AA	Model Description Y - High oil pressure governor the operating oil pressure is 16Mpa W- Electronic regulator is the PLC T - Speed/frequency/power regulator 1800 -Operating power is 1800KgM or 18000NM

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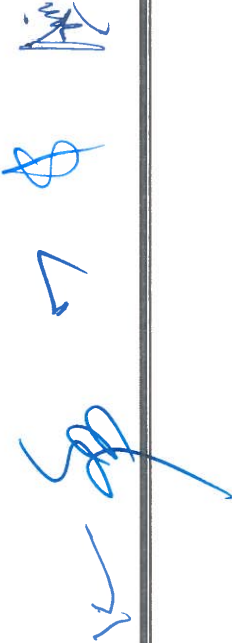
Item	Section	Employer's Requirement		Name of Bidder's	Bidder's Reference	Remarks/Conclusions
		MECHANICAL EQUIPMENT	Requirement	Compliance Status		
	2.2.7.2	Functional Requirements:		Y		The Bidder shall confirm that the Functional Requirements of the proposed Governor and its associated parameters will meet the Employer's Requirement. The bidder responded that "We confirm that the Functional Requirements of the proposed Governor and its associated parameters will meet the Employer's Requirement." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
	2.2.7.5	Governor Spare Parts		Y		The Bidder shall confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the BD, also in the Price Schedule-5, will be in line with ER and relevant standards of the Bidding Document (BD). The bidder responded that "We confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the Bidding Document, also in the Price Schedule-5, will be in line with Employer's Requirement and relevant standards of the Bidding Document." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
5		Main Inlet Valves				
		No. of Valves	Two (2)	Y Two (2)		Specified in the ER and Price Bid Schedule No.1.
	2.2.8	Type of Valves	Butterfly type	Y (Butterfly Valve Model: KD742X-10C DN1500)	Technical Proposal Volume 3 of 4 - ANNEX-AA	The Model Code "KD742X-10C DN1500" required deliberation regarding the Alphabets and Numbers. The Bidder/Manufacturer shall also confirm the metallurgy and other specifications of the Main Inlet Valve to be in line with Employer's requirements. The Bidder responded that "There is typing error. Mode no. of offered valve is KD741X-10C DN1500 means. KD741X means hydraulic operated butterfly valve with NBR rubber sealing arrangement, 10C means design pressure of 10kg, diameter of DN1500. We confirm that the metallurgy and other specifications of the Main Inlet Valve to be in line with Employer's Requirements." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
		Diameter of the valve	1.22m	Y (1.5m)	Technical Proposal Volume 3 of 4 - ANNEX-AA	Bidder is responsible to justify during detail design stage
		Design Head	75mWC	Y (100m Static Head)	Technical Proposal Volume 3 of 4 - ANNEX-AA	Bidder is responsible to justify during detail design stage
	2.2.8.4	Inlet Valve Spare Parts		Y		The Bidder shall confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the BD, also in the Price Schedule-5, will be in line with ER and relevant standards of the Bidding Document (BD). The bidder responded that "We confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the Bidding Document, also in the Price Schedule-5, will be in line with Employer's Requirement and relevant standards of the Bidding Document." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .

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Item	Section	Employer's Requirement		Name of Bidder's GRC-SMS JV	Bidder's Reference	Remarks/Conclusions
6	2.2.9	MECHANICAL EQUIPMENT	Requirement	Compliance Status		
		Powerhouse Crane				
		Lifting Capacity of the Main Hoist	35 ton		Y	Technical Proposal Volume 3 of 4 - ANNEX-AA
		Lifting Capacity of the Auxiliary Hoist	5 ton	Y	Technical Proposal Volume 3 of 4 - ANNEX-AA	
7	2.2.10	Main Lifting Equipment				
		No. JIB Cranes	2	Y		The Bidder shall provide the relevant Specifications of the JIB Crane in line with Employer's Requirement. The bidder responded that "We confirm JIB Crane will be in line with Employer's Requirement and the relevant specifications will be provided during the detailed design "(Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
		Lifting Capacity of each JIB crane	5 Ton	Y		The Bidder shall confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the BD, also in the Price Schedule-5, will be in line with ER and relevant standards of the Bidding Document (BD).
8	2.2.11	Crane Spare Parts		Y		The bidder responded that "We confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the Bidding Document, also in the Price Schedule-5, will be in line with Employer's Requirement and relevant standards of the Bidding Document." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
						The Bidder shall confirm that the Designs, Technical Specifications and other relevant features of the Mechanical Auxiliaries shall be in line with Employer's Requirement and relevant standard of the Bidding Document.
9	2.2.12	Mechanical Auxiliaries		Y	Technical Proposal Volume 4 of 4 - ANNEX-AC	The Bidder shall also confirm that all other equipment/tools required under clause 2.2.12 shall be supplied in line with Employer's Requirement.
						The bidder responded that "We confirm that the Designs, Technical Specifications and other relevant features of the Mechanical Auxiliaries shall be in line with Employer's Requirement and relevant standard of the Bidding Document. We also confirm that all other equipment/tools required under clause 2.2.12 shall be supplied in line with Employer's Requirement. " (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
						The Bidder shall confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the BD, also in the Price Schedule-5, will be in line with ER and relevant standards of the Bidding Document (BD).
	2.2.12.14	Mechanical Auxiliaries Spare Parts		Y		The bidder responded that "We confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the Bidding Document, also in the Price Schedule-5, will be in line with Employer's Requirement and relevant standards of the Bidding Document. " (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .

Y = Yes (Meets the Requirement) Y* = Conditionally Yes N = Not Fulfills the Requirement P = Partially Fulfills the Requirement

NI = No Information Indicated FC= Further Clarification Required NA = Not Applicable



APPENDIX

5/3

**EVALUATION OF TECHNICAL REQUIREMENTS
FOR ELECTRICAL WORKS AND PLANT
INCLUDING SPARE PARTS**

6.95 MW MUJAHIDIN HYDROPOWER PROJECT AT BARANDOO RIVER, DISTRICT TORGHAR, KP
Evaluation of Technical Requirement for Electrical Works and Plant including Spare parts

Item	Section	Employer's Requirement		Name of Bidder's GRC-SMS JV	Bidder's Reference	Remarks/Conclusions
		Electrical Equipment	Requirement			
1	BD Volume II (ER) 1.2.4					
	1.2.4.6	Generators, 11 KV	Two (2) synchronous generators, 3.5 MW each, Horizontal shaft	Y Two (2) Model No: SFW3552-10/2150	Technical proposal VOLUME 3 of 4- ANNEX-AA & VOLUME 4 of 4- ANNEX-AC Page 42/78	The Generator Model "SFW3552-10/2150" requires deliberation regarding the Alphabets and Numbers. The Bidder responded that "SFW3552-10/2150 means generator design output is 3552kW, 10 poles and stator frame size is 2150mm. We confirm Generator output of 3500kW we can achieve at rated head and flow and rated power factor." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
2	Vol-II, 1.3.1.3 & 1.3.2.1 also Vol-I, IB 26.2 (c) (i)	Bid Level Design and Drawings		Y	Technical Proposal Volume 3 of 4 - ANNEX-AA	Preliminary Bid level designs and drawings have been provided for major Plant and Equipment like Turbines, Generators, Governors, Valves, Bridge Crane, and SCADA System etc. by the proposed Manufacturers/Sub Contractors. The Model Numbers, Technical description and installation sequence outlines have also been described.
3		Main Characteristics of Generators				
		Capacity of each Generator Unit	3.5 MW (Net)	Y 3.552 MW	Technical Proposal Volume 3 of 4 - ANNEX-AA	
		Rated speed each Generator Unit	500 RPM Or as proposed by vendor	Y 500 rpm	Technical Proposal VOLUME 4 of 4- ANNEX-AC Page 42/78	
	1.2.4.6 (2)	Efficiency of generators	≥ 97 %	Y	Technical Proposal VOLUME 1 of 4- ANNEX-J Page 28 of 52	The Bidder should confirm the Efficiency ≥ 97% as required in the Employer's Requirement. The Bidder responded that "We confirm the Efficiency ≥97% as required in the Employer's Requirement." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 . Bidder was again required to further clarify that: "The offered Efficiency is 96%, therefore if Bidder finally proved Eligible, Qualified and its Technical Bid also proved Substantially Responsive to the Employer's Requirements, a penalty for loss of each 0.1 % loss of Efficiency as proved at COD, will be negotiated prior to the Award and shall be made part of the Contract." The Bidder responded that "We agree and shall follow the tender documents and contract provisions." (Ref. Bidder Letter No. GRC/O/ISB/25/008 dated: Feb 27, 2025) Attached as Appendix-6 . Bidder was again required to further clarify that: "Bidder's agreement to the proposal of Employer vide Further Clarifications (1) necessitate to negotiate the proposed penalty, prior to Award of the Contract, so that it could be made part of Contract. Please confirm it." The Bidder responded that "We agree and shall follow the tender documents and contract provisions." (Ref. Bidder Letter No. GRC/O/ISB/25/009 dated: Mar 07, 2025) Attached as Appendix-6 . Finally the Bidder has submitted the required Undertaking vide Post Bid Clarification No.4. Details are attached in Appendix-6 .

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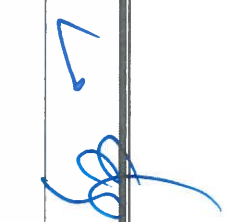
Item	Section	Employer's Requirement		Name of Bidder's GRC-SMS JV	Bidder's Reference	Remarks/Conclusions
		Electrical Equipment	Requirement			
4	BD Volume II (ER) 1.2.4					
	2.2.2.3	Installed capacity at generator terminals	7.104 MW	Y 2 x 3.552 (7.104 MW)	Technical Proposal Volume 3 of 4 - ANNEX-AA	
	1.2.4.6 (2)	Rated power factor	0.85	Y (0.85)	Technical Proposal VOLUME 4 of 4- ANNEX-AB Page 42 78	
		Rated frequency	50 HZ	Y (50 HZ)	Technical Proposal VOLUME 4 of 4- ANNEX-AC Page 42 78	
		Rated voltage	11 kV	Y* (11 kV)	Technical Proposal VOLUME 4 of 4- ANNEX-AC Page 42 78	
		Rated range of voltage regulation	± 5 %	Y		The Bidder/Manufacturer shall confirm the Rated range of voltage regulation as required in the Employer's Requirement. The Bidder responded that "We confirm the Rated range of voltage regulation as required in the Employer's Requirement" (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
		Range of frequency variation	± 6 %	Y		The Bidder/Manufacturer shall confirm the Range of frequency variation as required in the Employer's Requirement. The Bidder responded that "We confirm that the Range of frequency variation as required in the Employer's Requirement." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
		Insulation class Rotor and Stator	F/B	Y (F Class)	Technical Proposal VOLUME 4 of 4- ANNEX-AC Page 42 78	The Bidder/Manufacturer shall confirm that both the stator and rotor windings shall be insulated with class F material and the operating temperature rise shall be limited to Class B.
		Stator winding connection*				The Bidder responded that "We confirm that both the stator and rotor windings shall be insulated with Class material and the operating temperature rise shall be limited to Class B" (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
		Generator Internal Firefighting system	FM 200 fire extinguishing system.	Y		The Bidder/Manufacturer shall confirm the Generator Internal Firefighting system as required in the Employer's Requirement. The Bidder responded that "We confirm the Generator Internal Fire Fighting system as required in the Employer's Requirement." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
5	1.2.4.17	Excitation System				
	1.2.4.17	With ample excitation for the generator	Operating at its maximum capability at rated frequency, rated power factor and at 105% rated voltage	Y WLT6200	Technical proposal VOLUME 3 of 4- ANNEX-AA	The Bidder/Manufacturer shall confirm that the proposed Model "WLT6200" is in line with Employer's Requirement. The Bidder responded that "We confirm that the proposed Model "WLT6200" is in line with Employer's Requirement." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .

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Item	Section	Employer's Requirement		Name of Bidder's		Bidder's Reference	Remarks/Conclusions
				GRC-SMS JV	Compliance Status		
	BD Volume II (ER) 1.2.4	Electrical Equipment	Requirement				
6	1.2.4.17-- 2xvii	Power supply for the regulator and control modules.	Must be Redundant	Y			The Bidder shall confirm that the specified Employer's Requirement will be ensured during Detailed Design.
	1.2.4.17--4	Redundancy at full load operation	100%				The Bidder responded that "We confirm that the specified Employer's Requirement will be ensured during Detailed Design." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
	1.2.4.17--5	Automatic Voltage Regulator (AVR)		Y (WLT6200)	Technical proposal VOLUME 3 of 4- ANNEX-AA		The AVR Model "WL T6200" requires deliberation and explanation regarding the Numbers and Alphabets. The Bidder responded that "W= Microprocessor based L = Excitation T = Regulation 6 = Sixth Generation 2 = Dual AVR " (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
7	1.2.4.19	Generator Circuit Breaker 02 No 11 KV, 630 A					
	1.2.4.19--2	Rated dielectric strength	95 Kv	Y VTK-12(G) China	Technical proposal VOLUME 3 of 4- ANNEX-AA		The Rated dielectric strength of 95 KV shall be confirmed by the Bidder/Manufacturer, shall be compliant with NTDC Specifications.
		NTDC Specs	P-44	Y			The Bidder responded that "Offered Generator Circuit breakers will be of either Shandong Taikai. Shandong Taikai has supplied GCB panels for 84MW Gorkin Matiltan HPP also. We confirm Generator Circuit Breakers and its associated parameters will be in compliance with IEC 62271-100." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
8	1.2.4.20	Circuit Breakers	13 No 11 KV, 630 A	Y KYN28A-12 (China)	Technical proposal VOLUME 3 of 4- ANNEX-AA		Subject to Clarification from the bidder for specifications including NTDC.
	1.2.4.20--2	11 Kv Busbar	1200 A				Circuit Breakers and its associated parameters shall be confirmed by Bidder/Manufacturer, in compliance with NTDC Specifications.
		Rated dielectric strength	95 Kv	Y			The Bidder responded that "Offered Circuit breakers will be of either Schneider Electric or Shandong Taikai. Shandong Taikai has supplied 11kV MV Switchgear panels, 0.4kV LV Switchgear panels and respective Circuit Breakers for 84MW Gorkin Matiltan HPP also.
		Rate of rise of recovery voltage,	3.5 kV/µs				We confirm Circuit Breakers and its associated parameters will be in compliance with IEC 62271-100. " (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
		NTDC Specs	P-44				
9	1.2.4.22	DC and UPS System					
	1.2.4.22--1	DC Batteries, and UPS, 220 V, 400 Ah Capacity, Two sets battery chargers,		Y	Technical Proposal VOLUME 4 of 4- ANNEX-AC Page 7/78		Bidder shall confirm the scope of work and specification of DC and UPS System and its associated parameters is in line with Employer's Requirement.

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Item	Section	Employer's Requirement		Name of Bidder's	Bidder's Reference	Remarks/Conclusions
	BD Volume II (ER) 1.2.4	Electrical Equipment	Requirement	Compliance Status		The Bidder responded that "We confirm the scope of work and specification of DC and UPS System and its associated parameters will be in line with Employer's requirements." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
		DC Batteries, and UPS, 48 V, 150 Ah Capacity, Two sets battery chargers				
		Batteries as per NTDC spec P-132,				
		Chargers as per NTDC Spec P-133				
	1.2.4.22--3	Spare Parts		Y		The Bidder shall confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the BD, also in the Price Schedule-5, will be in line with ER and relevant standards of the Bidding Document (BD). The Bidder responded that "We confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the Bidding Document, also in the Price Schedule-5, will be in line with Employer's Requirement and relevant standards of the Bidding Document." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
		Station Transformer as per BS 171 and IEC 60076	01 No 200 KVA 400/230 V,			The Bidder shall confirm the Make, Model Nos. and Specifications of each category of the Auxiliary Transformers to be supplied in compliance with NTDC/PESCO Specifications. The Bidder responded that "We confirm the Make, Model Nos. and Specifications of each category of the Auxiliary Transformers to be supplied will be in compliance with NTDC/PESCO Specifications." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
		Transformer 50 KVA for Weir as per BS 171 and IEC 60076	01 No 400/230 V			
		Colony Transformers, 200 KVA, as per BS 171 and IEC 60076	03 No 200 KVA,	Y		
10	1.2.4.22--4	Distribution Transformers villages as per BS 171 and IEC 60076	30 NO 100 KVA, 25 No 50 KVA, 25 No 25 KVA,			The Bidder has provided some details for protection relays but do not indicate the required Compatibility with NTDC/PESCO Protection Relays System as per Employers Requirements. Bidder shall also ensure its confirmatory to the Employer's Requirement. The Bidder responded that "We confirm and ensure protection relays system will confirm to the Employer's Requirement. HN UNIS relays has been used for 84MW Gorkin Matiltan hydro project, and many other projects in Pakistan." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 . Bidder was again required to further clarify that: "Protective Relays shall of European origin as per the Employer's Requirement." The Bidder responded that "We agree with the requirement of Employer." (Ref. Bidder Letter No. GRC/O/ISB/25/008 dated: Feb 27, 2025) Attached as Appendix-6 . Bidder was again required to further clarify that: "The Bidder shall also provide the details of proposed E&M Equipment from the specified origin in the BD/Addendum No.1, in view of IB 14, for evaluation and record."
		Electrical Protective Systems (Protective Relays)		Y*		Technical Proposal Volume 3 of 4 - ANNEX-AA & Volume 4 of 4 - ANNEX-AC
		Generator Protective Relays (as applicable)				
		Generator Differential Protection (87G)				
	1.2.4.23	Under voltage (27)				
		Negative Phase Sequence (46) (Phase Unbalance)				
		Generator Reverse Power Protection (32)				

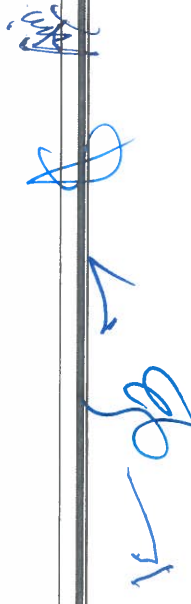
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Item	Section	Employer's Requirement		Bidder's Reference	Remarks/Conclusions	
					Name of Bidder's	
	BD Volume II (ER) 1.2.4	Electrical Equipment	Requirement	Compliance Status		
	1.2.4.23--2v	Voltage Restrained Over Current Protection (51V)			The Bidder responded that "We agree and list of E&M Equipment Manufacturer is attached as Annex- 2, as per the 1.2.4.2 Volume-II of bidding documents." (Ref. Bidder Letter No. GRC/O/ISB/25/009 dated: Mar 07, 2025) Attached as Appendix-6 .	
	1.2.4.23--2vi	Loss Of Field Excitation Protection (40)				
	1.2.4.23--2vii	Over /Speed (electrical) Protection (12G)				
	1.2.4.23--2viii	95 % Stator Earth Fault Protection (64 G)				
	1.2.4.23--2ix	100 % Stator Earth Fault Protection (64.1 G)				
	1.2.4.23--2x	Rotor Earths Fault Protection (64R)				
	1.2.4.23--2xi	Over Voltage Protection (59)				
	1.2.4.23--2xii	Fuse failure Protection (97) on PTS				
	1.2.4.23--2xiii	Synchronizing Check Relay (25)				
	1.2.4.23 (3)	Protective Relays System for Auxiliary supply system				
	1.2.4.23--3a	Station Service Transformer Protection relays. 50 Instantaneous overcurrent protection 51N Earth-fault protection at 0.4 kV level				
	1.2.4.23--3b	Diesel Generating Units, Protection relays. 50 Instantaneous overcurrent protection 51 Time-delayed overcurrent protections 51.1 Overload protection 51N Earth-fault protection at 0.4 kV level				
	1.2.4.23--3c	11 kV Overhead Lines Protection relays. 50 Instantaneous overcurrent protection 51L Time-delayed				





Item	Section	Employer's Requirement		Name of Bidder's GRC-SMS JV	Bidder's Reference	Remarks/Conclusions
	BD Volume II (ER) 1.2.4	Electrical Equipment	Requirement	Compliance Status		
		overcurrent protection 67N Directional earth-fault protection				
	1.2.4.23 (4)	Protection Devices				
	1.2.4.23—4a		European Origin Countries/Addendum No. 1			
	1.2.4.23—4b		Compatible with NTDC/PESCO system, As per NTDC Specs.			
11	1.2.4.24	SCADA System (Supervisory Control & Data Acquisition System)		Y*		Contractor has provided general type of Catalogue for SCADA system. However, Bidder shall confirm the specific details of SCADA, in confirmatory to the Employer's Requirement. The Bidder responded that "We confirm and ensure SCADA system will confirm to the Employer's Requirement. HN UNIS SCADA has been used for 84MW Gorkin Matiltan hydro project, and many other projects in Pakistan." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 . Bidder was again required to further clarify that: "SCADA system shall be of European origin as per the Employer's Requirement." The Bidder responded that "We agree with the requirement of Employer." (Ref. Bidder Letter No. GRC/O/ISB/25/008 dated: Feb 27, 2025) Attached as Appendix-6 . Bidder was again required to further clarify that: "The Bidder shall also provide the details of proposed E&M Equipment from the specified origin in the BD/Addendum No.1, in view of IB 14, for evaluation and record." The Bidder responded that "We agree and list of E&M Equipment Manufacturer is attached as Annex- 2, as per the 1.2.4.2 Volume-II of bidding documents." (Ref. Bidder Letter No. GRC/O/ISB/25/009 dated: Mar 07, 2025) Attached as Appendix-6 . In response to the Post Bid Clarifications No.4, as suggested by the Procurement Committee, the Bidder finally replied that "SCADA system operator and engineering station shall be equipped with SCADA Software of Siemens. Catalog of same is enclosed. Only programming shall be done in China. Similarly, the Control and communication panels shall have PLC controllers, touch screen, communication modules from Siemens. Catalog of these major items are enclosed as ANNEX-3. All major components of SCADA & Communication System are from European manufacturers, except that Panel assembly is done by HN UNIS." The Expert Electrical has commented that "Response received indicate that required equipment will be supplied from European Manufacturers. SCADA offered, fulfil the Employers Requirements."
	1.2.4.24 (1)	Scope of Work	European Origin Countries/Addendum No. 1	Technical Proposal Volume 3 of 4 - ANNEX-AA & Volume 4 of 4 - ANNEX-AC		
	1.2.24 (2)	Central Control Room Equipment				
	1.2.4.24-2i	Two operator stations with three monitors and alarm printers,				
	1.2.4.24-2iii	One engineering station with two monitors and laser color printer				
	1.2.4.24-2iv	Two redundant main servers				
	1.2.4.24-2vi	GPS master clock system,				
	1.2.4.24-2vii	Redundant fiber optic main bus system and process bus.				



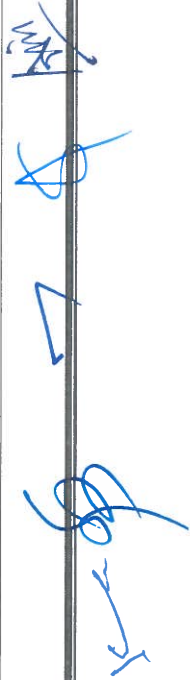
Item	Section	Employer's Requirement		Bidder's Reference	Remarks/Conclusions
	BD Volume II (ER) 1.2.4	Electrical Equipment	Requirement	Compliance Status	
	1.2.4.24-3	Capacity.	with I/O,s approximately 650 No		
	1.2.4.24-5	Control Levels	The Control Room Door shall be Steel and completely Sound Proof.		
	1.2.4.24-6	Scada Spare Parts			
12	1.2.4.25	Communication and Security System		Y	The Bidder shall confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the BD, also in the Price Schedule-5, will be in line with ER and relevant standards of the Bidding Document (BD). The Bidder responded that "We confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the Bidding Document, also in the Price Schedule-5, will be in line with Employer's Requirement and relevant standards of the Bidding Document." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
	1.2.4.25 (1)	Telephone System			The Bidder has just mentioned a Communication & Security System in the Scope of Work. The Bidder shall confirm the exact scope of Work, Specifications and relevant details of the Communication and Security System in line with Employer's Requirement. The Bidder responded that "We confirm the scope of Work, Specifications and relevant details of the Communication and Security System will be in line with Employer's Requirement and relevant documents are submitted however, more detailed documents will be submitted after the award of the Contract." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
	1.2.4.25-1a	Public Branch Exchange in the Power Plant			
	1.2.4.25-1a (i)	One PABX, including software for 06 trunk lines and 30 subscriber lines,			
	1.2.4.25-1a (ii)	cubicle mounted main distribution frame (MDF)	One (1)		
	1.2.4.25-1a (v)	Trunk Lines from PTCL Satellite System	Two (2)		
	1.2.4.25-1a (vi)	Operator's unit with display	One (1)		
	1.2.4.25-1a (vii)	Standard type telephone sets	30		
	1.2.4.25-1a (viii)	Desktops telefax sets including a handset	Two		
	1.2.4.25-1b	Public Exchange at the Colony			
	1.2.4.25-1b (i)	One PABX, including software with 30 subscriber lines,			

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Item	Section	Employer's Requirement		Name of Bidder's		Bidder's Reference	Remarks/Conclusions
				GRC-SMS JV			
	BD Volume II (ER) 1.2.4	Electrical Equipment	Requirement	Compliance Status			
	1.2.4.25-1b (iii)	Underground cable	10 pair				
	1.2.4.25-1b (iv)	Operator's unit with display	One (1)				
	1.2.4.25-1b (iv)	Standard type telephone sets	40				
	1.2.4.25-1c	Internet Services and Networking					
		Power plant and Colony with a broadband service Wi-Fi system. Complete networking. The networking in Plant shall be capable of at least 30 computer stations. The internet facility in the colony shall be for all houses and facilities					
	1.2.4.25 (2)	Fire Alarm System for Power Plant					
		Fire Alarm System shall be provided for all rooms in Power Plant including Smoke, Heat Detectors, and Fire Alarm Panel installed in Control Room as per NFPA 72					
	1.2.4.25 (3)	Closed Circuit Television (CCTV) System					
		CCTV system, main personnel and vehicle entrances, the generator and turbine floors, Switchgear room and the Intake/Dam Site, positioned at strategic locations, mounted on buildings or using masts as required,					
	1.2.4.25 (4)	Access Control System Including Scanners and Biometric Entry System					

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Item	Section	Employer's Requirement		Name of Bidder's	Bidder's Reference	Remarks/Conclusions
				GRC-SMS JV		
	BD Volume II (ER) 1.2.4	Electrical Equipment	Requirement	Compliance Status		
		Access Control System Including Scanners and Biometric Entry System, Scanners and metal detectors will be installed for security scanning. Fingerprint multi-biometric identification access				
	1.2.4.25 (5)	Spare Parts, Tools, Accessories, Maintenance Equipment and Consumables				The Bidder shall confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the BD, also in the Price Schedule-5, will be in line with ER and relevant standards of the Bidding Document (BD). The Bidder responded that "We confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the Bidding Document, also in the Price Schedule-5, will be in line with Employer's Requirement and relevant standards of the Bidding Document." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .
	1.2.4.25-5 (i)	Circuit boards/electronic modules.	1 (One Set)			
	1.2.4.25-5 (ii)	Interface cables.	2 (two sets)			
	1.2.4.25-5 (iii)	each type of fuse and light bulbs.	5 (five sets)			
	1.2.4.25-5 (iv)	test rigs, extender cards, and test cables.	1 (One Set)			
	1.2.4.25-5 (v)	complete set of any special test tools.	1 (One Set)			
13	1.2.4.31 to 1.2.4.34	Transmission Lines and Interconnection		Y		
	1.2.4.31 to 1.2.4.33	Transmission Line, 11 KV,	Double Circuit, 42 Km, 3-phase, with DOG conductor from Mujahidin HPP to Dam Site, Colony, according to WAPDA/NTDC Specs P-50.		Technical Proposal VOLUME 4 of 4- ANNEX-AC Page 7 78	The Bidder responded that "We confirm that Transmission Lines will be constructed, in line with Employer's Requirement, in accordance with NTDC/PESCO Specifications." (Ref. Bidder Letter No. GRC/O/ISB/25/005 dated: Feb 06, 2025) Attached as Appendix-6 .



Item	Section	Employer's Requirement		Name of Bidder's	Bidder's Reference	Remarks/Conclusions
				GRC-SMS JV		
	BD Volume II (ER) 1.2.4	Electrical Equipment	Requirement	Compliance Status		
		Transmission Line, 400/230 V	60 Km, Villages, 400/230 Volt , Aluminum WASP Conductor selected as per NTDC Spec P-63			

Y = Yes (Meets the Requirement) Y* = Conditionally Yes N = Not Fulfils the Requirement P = Partially Fulfils the Requirement

NI = No Information Indicated FC= Further Clarification Required NA = Not Applicable



APPENDIX

6

CORRESPONDENCE WITH THE BIDDER AND CLARIFICATIONS BY BIDDERS



MUJAHIDIN HYDROPOWER CONSULTANTS- (MHC)

Project Office: House No. 437, Yousafzai Street, Afzalabad, Old Bara Road, University Town, Peshawar
Phone: 92-91-5706397 Email: mujahidinhpp@gmail.com

Ref No: RY/HPP/3.1/001

Date: 28/1/25

To,

Engr. Muhammad Shoaib Ilahi,
Authorized Representative of the GRC-SMS (JV),
Office # 01, Basement Floor,
SM Plaza, Jutial, Gilgit.
Contact: 0301-7900079.

Project: Construction of 6.95 MW Mujahidin HPP at Barandoo River, District Torghar, Khyber Pakhtunkhwa (ADP No. 357 (170368)).

Subject: Evaluation of Technical Bid.

Ref: Instructions to Bidders Clause 26.2 (c) ii & 23.1

The received bid was opened on December 12, 2024 in Project Director office in the presence of Procurement Committee members including Chief Engineer Procurement PEDO, Project Director Mujahidin HPP, Deputy Project Director Mujahidin HPP, Contract Specialist MC& Project Manager Mujahidin HPP.

Management Consultants, Contract & Management experts, examined the four volumes of bidding documents for technical qualification of bidders. The evaluation was shared with Project Authority twice and the present document has been shaped finally.

There are certain areas where some clarification from Contractor is needed to reach a clear picture for evaluation.

In pursuance to I.B clause 23.1, the Bidder is requested for clarifications of certain elements of the submitted Bid, as tabulated and attached. The same may be responded up to Feb 06, 2025 or earlier so that evaluation of Technical Bid could be concluded for further process.

With best regards,

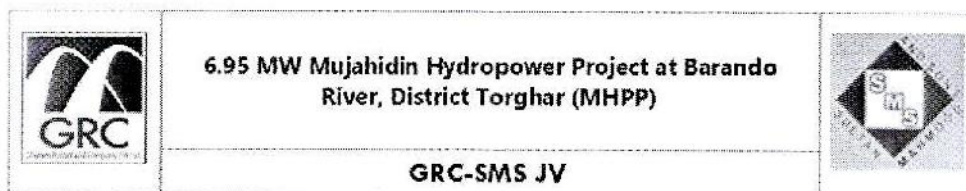

Project Manager
Mujahidin HPP

Copy forwarded for information to:

- ✓ 1. The Project Director Mujahidin HPP, PEDO, Peshawar.
2. The Regional Head, (North) ACE.
3. Office Copy.

JOINT VENTURE OF:





Date: Febraury 06, 2025
Reference: GRC/O/ISB/25/005

Project Manager,
6.95 MW Mujahidin Hydropower Project,
House No.437 Yousafzai Street, Afzalabad,
Old Bara Road, University Town, Peshawar
Khyber Pakhtunkhwa, Pakistan
Email. mujahidinhpp@gmail.com

**SUBJECT: 6.95 MW Mujahidin Hydropower Project at Barando River, District
Torgar (MHPP)**

**POST BID CLARIFICATION NO. 1
EVALUATION OF TECHNICAL BID**

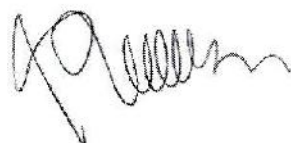
Dear sir,

We are grateful to you for evaluation of our Bid and referring to your Letter No. MHPP/3.1/001 dated January 28, 2025, We hereby submit our response to Clarifications of our Technical Bid for your kind information and review.

Thanking you and assuring you of our best services,

Sincerely,

For and on behalf of GRC-SMS JV



Engr. Muhammad Shoaib Ilahi
Authorized Representative

Cc: 1. The Project Director Mujahidin HPP, PEDO, Peshawar
2. Office Copy

GRC – SMS JV Office
Office/01, Basement floor, SM PLAZA, Jutial, Gilgit.
Mobile: +923017900079, +92 323 9914810
Email: mshoaibilahi@yahoo.co.uk, babarmahmoodva@gmail.com



MUJAHIDIN HYDROPOWER CONSULTANTS - (MHC)

Project Office: House No. 437, Yousafzai Street, Afzalabad, Old Bara Road, University Town, Peshawar
Phone: 92-91-5700397 Email: mujahidinhpp@gmail.com

Ref No PMHPP/3.1/002

Date: 21/02/2025

To,

Engr. Muhammad Shoaib Ilahi,
Authorized Representative of the GRC-SMS (JV),
Office # 01, Basement Floor,
SM Plaza, Jutial, Gilgit.
Contact: 0301-7900079.

Project: Construction of 6.95 MW Mujahidin Hydropower Project at Barandoo River,
District Torghar, Khyber Pakhtunkhwa (ADP No. 357 (170368)).

Subject: Further Clarifications regarding Technical Bid

References: 1. Your letter No. GRC/0/ISB/25/005 dated February 06, 2025
2. Our letter No. MHPP/3.1/001 dated January 28, 2025

This is with reference to the Clarifications received vide Ref. 1 in response to our letter at Ref. 2. The response submitted under Ref. 1 was examined and it is found that some points needs to be further clarified in light of the Employer's Requirements & Technical Specifications (Volume II of the Bidding Documents), which are attached as Annex-I.

It is requested to provide further clarifications in accordance to IB-23 (Clarification of Bids) of the Bidding Documents by **February 28, 2025**.

Regards,

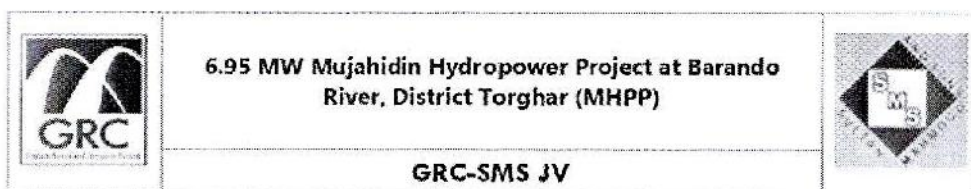
for 
Team Leader/Project Manager,
Mujahidin HPP

Copy forwarded for information to:

1. The Project Director Mujahidin HPP, PEDO, Peshawar.
2. The Regional Head, (North) ACE.
3. Project Coordinator MHPP
3. Office Copy.

JOINT VENTURE OF:





Date: Febraury 27, 2025
Reference: GRC/O/ISB/25/008

Team Leader/Project Manager,
6.95 MW Mujahidin Hydropower Project,
House No.437 Yousafzai Street, Afzalabad,
Old Bara Road, University Town, Peshawar
Khyber Pakhtunkhwa, Pakistan
Email: mujahidinhpp@gmail.com

**SUBJECT: Construction of 6.95 MW Mujahidin Hydropower Project at Barando River,
District Torghar (MHPP), Khyber Pakhtunkhwa (ADP No.357(170368))**

POST BID CLARIFICATION NO. 2

FURTHER CLARIFICATIONS REGARDING TECHNICAL BID

Dear sir,

We are grateful to you for evaluation of our Bid and referring to your Letter No. MHPP/3.1/002 dated Febraury 21, 2025, We hereby submit our response to Clarifications of our Technical Bid for your kind information and review.

Thanking you and assuring you of our best services,

Sincerely,

For and on behalf of GRC-SMS JV



Engr. Muhammad Shoaib Ilahi
Authorized Representative

Cc: 1. The Project Director Mujahidin HPP, PEDO, Peshawar
2. Office Copy

GRC - SMS JV Office
Office/01, Basement floor, SM PLAZA, Jural, Gilgit.
Mobile: +923017900079, +92 323 9914810
Email: mshoaibilahi@yahoo.co.uk, babarmahmoadv8@gmail.com



MUJAHIDIN HYDROPOWER CONSULTANTS - (MHC)

Project Office: House No. 137, Yousafzai Street, Alzahad, Old Bara Road, University Town, Peshawar
Phone: 92-91-5700397 Email: mujahidinhpp@gmail.com

Ref No: MHPP/3.1/003

Date: March 06-2025

To,

Engr. Muhammad Shoaib Ilaqi,
Authorized Representative of the GRC-SMS (JV),
Office # 01, Basement Floor,
SM Plaza, Jutial, Gilgit,
Contact: 0301-7900079.

Project: Construction of 6.95 MW Mujahidin Hydropower Project at Barandoo River,
District Torgar, Khyber Pakhtunkhwa (ADP No. 357 (170368)).

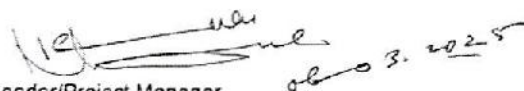
Subject: Further Clarifications no 2. regarding Technical Bid

References: 1. Your letter No. GRC/01/IS/25/008 dated Feb 27, 2025
2. MHPP/3.1/002 dated Feb 21, 2025

This is with reference to the Clarifications received vide Ref. 1 in response to our letter at Ref. 2. The response submitted under Ref. 1 was examined and it is found that some points needs to be further clarified in light of the Employer's Requirements & Technical Specifications (Volume II of the Bidding Documents), which are attached as Annex-I.

It is requested to provide further clarifications in accordance to IB-23 (Clarification of Bids) of the Bidding Documents by closing hours dated March 7 2025 to be taken most urgent.

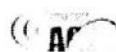
Regards,

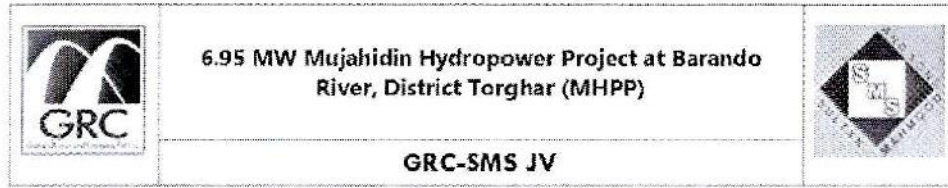

Team Leader/Project Manager,
Mujahidin HPP

Copy forwarded for information to:

1. The Project Director Mujahidin HPP, PEDO, Peshawar.
2. The Regional Head, (North) ACE.
3. Project Coordinator MHPP
3. Office Copy.

JOINT VENTURE OF:





Date: March 07, 2025
Reference: GRC/O/ISB/25/009

Team Leader/Project Manager,
6.95 MW Mujahidin Hydropower Project,
House No.437 Yousafzai Street, Afzalabad,
Old Bara Road, University Town, Peshawar
Khyber Pakhtunkhwa, Pakistan
Email: mujahidinhpp@gmail.com

SUBJECT: Construction of 6.95 MW Mujahidin Hydropower Project at Barando River,
District Torghar (MHPP), Khyber Pakhtunkhwa (ADP No.357(170368)

POST BID CLARIFICATION NO. 3

FURTHER CLARIFICATIONS REGARDING TECHNICAL BID

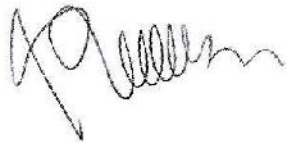
Dear sir,

We are grateful to you for evaluation of our Bid and referring to your Letter No. MHPP/3.1/003 dated March 06, 2025, We hereby submit our response to Clarifications of our Technical Bid for your kind information and review.

Thanking you and assuring you of our best services,

Sincerely,

For and on behalf of GRC-SMS JV



Engr. Muhammad Shoaib Ilahi
Authorized Representative

Cc: 1. The Project Director Mujahidin HPP, PEDO, Peshawar
2. Office Copy



MUJAHIDIN HYDROPOWER CONSULTANTS - (MHC)

Project Office: House No. 437, Yousafzai Street, Afzalabad, Old Bara Road, University Town, Peshawar
Phone: 92-91-5700397 Email: mujahidinm@gmail.com

Ref No MHPP/3.1/004

Date: March 29, 2025

To,

Engr. Muhammad Shoaib Ilahi,
Authorized Representative of the GRC-SMS (JV),
Office # 01, Basement Floor,
SM Plaza, Jutial, Gilgit.
Contact: 0301-7900079.

Project: Construction of 6.95 MW Mujahidin Hydropower Project at Barandoo River,
District Torghar, Khyber Pakhtunkhwa (ADP No. 357 (170368).

Subject: Further Clarifications no.3 regarding Technical Bid

References: 1. Your letter No. GRC/0/ISB/25/009 dated March 07, 2025
2. Our letter No. MHPP/3.1/003 dated March 06, 2025

This is with reference to the Clarifications received vide Ref. 1 in response to our letter at Ref. 2. The response submitted under Ref. 1 was examined and it is found that some points needs to be further clarified in light of the Employer's Requirements & Technical Specifications (Volume II of the Bidding Documents), which are attached as Annex-I.

It is requested to provide further clarifications no.3 in accordance to **IB-23 (Clarification of Bids)** of the Bidding Documents **at your earliest**.

Best Regards,

Team Leader/Project Manager,
Mujahidin HPP

Copy forwarded for information to:

1. The Project Director Mujahidin HPP, PEDO, Peshawar.
2. The Regional Head, (North) ACE.
3. Project Coordinator MHPP
3. Office Copy.

JOINT VENTURE OF:



	6.95 MW Mujahidin Hydropower Project at Barando River, District Torghar (MHPP)	
GRC-SMS JV		

Date: April 09, 2025
Reference: GRC/O/ISB/25/035

Team Leader/Project Manager,
6.95 MW Mujahidin Hydropower Project,
House No.437 Yousafzai Street, Afzalabad,
Old Bara Road, University Town, Peshawar
Khyber Pakhtunkhwa, Pakistan
Email: mujahidinhpp@gmail.com

SUBJECT: Construction of 6.95 MW Mujahidin Hydropower Project at Barando River,
District Torghar (MHPP), Khyber Pakhtunkhwa (ADP No.357/170368)

POST BID CLARIFICATION NO. 4

FURTHER CLARIFICATIONS REGARDING TECHNICAL BID

Dear sir,

We are grateful to you for evaluation of our Bid and referring to your Letter No. MHPP/3.1/004 dated March 29, 2025, We hereby submit our response to Clarifications of our Technical Bid for your kind information and review.

Thanking you and assuring you of our best services,

Sincerely,

For and on behalf of GRC-SMS JV



Engr. Muhammad Shoaib Ilahi
Authorized Representative

Cc: 1. The Project Director Mujahidin HPP, PEDQ, Peshawar
2. Office Copy

GRC - SMS JV Office
Office#01, Basement Floor, SM PLAZA, Jinnah Gilgit.
Mobile: +923017900079,+92 323 9914010
Email: mshoaibilahi@yahoo.co.uk, babarmahmoodv8@gmail.com

1. BIDDER'S ELIGIBILITY AND QUALIFICATIONS

Item	Description	Reference BD	Clarification	Response (GRC-SMS-JV)	Further Clarification (1)	GRC-SMS-JV Response (1)	Further Clarification (2)	GRC-SMS-JV Response (2)	Further Clarification (3)	GRC-SMS-JV Response (3)	Conclusion
2.2(b)	Specific Experience in Key Activities (i) Design Experience of Civil Works	BDS IB 26.2 (c) (ii) Appendix-1		Lead Partner Ghulam Rasool & Company (pvt) Ltd. is an EPC Contractor and has design experience of Hydropower of 300 MW Balakot Hydropower Project 84 MW Gorkin-Matiltan Hydropower Project 36 MW Daral Khwar Hydropower Project 10.2 MW Jabori Hydropower Project 11.8 MW Karora Hydropower Project Lead Partner GRC meet the Design Experience Criteria, however, to expedite the works, we have provided additional Designer for the Mujahidin HPP and the detail of Experience of Paradigm is mentioned below; Paradigm Engineering (Specialized Sub-Contractor), has been providing design services since its establishment in 2012. The company is registered with the Federal Board of Revenue (FBR) and Sales Tax Authorities. Paradigm has successfully provided Design services for various hydropower projects in Pakistan and internationally, many of which are now operational and generating Electricity. Completion Certificates for previously completed projects have already been submitted. Contract agreements for ongoing projects are attached herewith for your reference. Paradigm	The Lead Partner (GRC) under the "License of PEC of Category CA-No Limit" are basically the "Constructors" in line with PEC Bylaws/rules.	We are EPC contractor and disagree with your interpretation about design only to be carried out by consultant firms.	We only agree to the last para of Bidder's Response to the Further Clarifications (1).	We agree with the Employer and PEC License will be provided before the award of Contract.			Employer will ensure that the Bidder submits requisite PEC License Prior to Award of Contract.
			Valid PEC license of the proposed Sub-Specialize Contractor (Paradigm Engineering Consultant) may be provided. The Proposed Sub-Contractor shall also substantiate the design expertise related to design of Hydropower major civil works included in the reference projects naming the components for which the design have been furnished.		Every EPC contractor has its own design house and manage itself or by subcontracting any component to a consultant firm same like Hyundai, Daewoo, D&L, Salini Impregilo etc However, we agree to provide PEC license of Paradigm Engineering, already submitted you the Bank receipt of Pakistan Engineering Council Registration but the License is in process and will be provided before the award of Contract.	Please ensure the valid PEC License of the proposed Consultants for design.	Further, we have attached the Letter from PEC as ANNEX-1 for your kind information.				

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Item	Description	Reference BD	Clarification	Response (GRC-SMS-JV)	Further Clarification (1)	GRC-SMS-JV Response (1)	Further Clarification (2)	GRC-SMS-JV Response (2)	Further Clarification (3)	GRC-SMS-JV Response (3)	Conclusion
				Engineering has provided design services on 2,115 MW Julius Nyerere HPP, 102 MW Gulpur HPP, 6 MW Usheraï Dara HPP, 2.6 MW Machai HPP, and run of canal Hydropower Projects including Khokhra HPP and Burala HPP and also provided Design review services for Jabori Hydropower Project & Karora Hydropower Project. Services provided included • Layout Planning of Hydropower Components • Hydrology, Energy and Power Calculations • Design of Intakes • Design of Forebay and Desander • Design of Spillways for Maximum Design Flood and Earthquake Resistant Design for Maximum Design Earthquake using State of the Art Finite Element Analysis methods and Dynamic Analysis Technique conforming to US Army Corps of Engineering (USACE) and USBR Guidelines and Standards. • Design of Water Channels • Design of Penstock • Design of Powerhouse and Water Conveyance System. While the PEC Certificate was not a stated requirement in the bidding documents, as desired, Paradigm Engineering has applied	Engineering Consultants/Companies/Design Institution; legally authorized for the purpose. All such Entities may be JV Partners or Sub-Contractors for "Design Component" of the EPC Contract, depending upon nature/size of the Project and its degree of complexity. The Proposed Consulting Firm (Paradigm Engineering), in view of additional information provided and the original PEC License, if furnished may be acceptable by the Employer						

Item	Description	Reference BD	Clarification	Response (GRC-SMS-JV)	Further Clarification (1)	GRC-SMS-JV Response (1)	Further Clarification (2)	GRC-SMS-JV Response (2)	Further Clarification (3)	GRC-SMS-JV Response (3)	Conclusion
2.2(b)	Specific Experience in Key Activities Design & Manufacturing Experience	BDS IB 26.2 (c) (ii) Appendix-1	i. End User Certificates of the proposed Sub- Contractor/ Manufacturer: Hunan Vanguard Group Co., Ltd for Turbine and Generator may be provided for the reference projects. ii. Authorization of the proposed Manufacturer/Sub- Contractor: WUHAN SANLIAN for Governors may be provided.	Attached as ANNEX-2	i. End Certificate confirming that after five (5) years of Taking Over, the Plant/Equipment is performing satisfactorily; is the mandatory requirement.	i. End user certificate for the Subcontractor/Manufactur er Hunan Vanguard Group Co. Ltd is attached as ANNEX-1	NILL				Bidder has made the Compliance of Clarification.
			iii. End User Certificate of the proposed Sub- Contractor/ Manufacturer: HN UNIS for Control & Monitoring System, and Protection System may be provided for the reference projects.		ii. End Certificate confirming that after five (5) years of Taking Over, the Plant/Equipment is performing satisfactorily; is the mandatory requirement.	ii. End user certificate for the Subcontractor/Manufactur er WUHAN SANLIAN for Governors is attached as ANNEX-2					

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2. TECHNICAL EVALUATION

CIVIL WORKS

Item	Section	Employer's Requirement	Clarification	Response (GRC-SMS-JV)	Further Clarifications(1)	GRC-SMS-JV Response (1)	Further Clarifications(2)	GRC-SMS-JV Response (2)	Further Clarifications(3)	GRC-SMS-JV Response (3)	Conclusion
1	Vol-I (BD), Schedule C	Method of Performing Works	The Method of performing works by the Bidder as provided in Bidding Document is only for evaluation purpose. The Bidder shall submit the Work specific "Method Statements", during execution stage in view of provision of the contract.	We agree and will submit the Specific Method during execution stage in view of provision of the contract.							Bidder has made the Compliance of Clarification.
2	Vol-I (BD), Schedule D	Proposed Programme of Works	The program was required to be furnished using Primavera-P6, with fully resource loaded activities. The bidder has not indicated the key tasks of manufacturing/ procurement of E&M Plant and Equipment, factory acceptance tests, shipment/transportation, delivery to site and its Installation and Erection. The Bidder shall rectify and re-submit the Proposed program of Works accordingly.	Revised Work Program attached as ANNEX-3 along with Equipment and Manpower Deployment.							Bidder has made the Compliance of Clarification.
3	Vol-I (BD), Schedule G	Specific Operation/Plant and Equipment Details Form G-1 Annex-1 (B)	The tools were required for erection and testing of various stages of the E&M Plant and Equipment as listed (1 to 15) in the Form G-1 Annex-1 (B), similarly some tools were required for specific functions. Rather naming the tools for all such stages, the Bidder has proposed a general methodology and common tools. The Bidder shall segregate and specify stage by stage relevant tools and equipments.	We have provided the list tools & equipment in our Bid for the smooth executions of the Project however the utilization of tools stage by stage are attached as ANNEX-4.							Bidder has made the Compliance of Clarification.
4	Vol-I (BD), Form B-8(b)	Resume of Proposed Personnel	The CV's of Works Manager (Mechanical) and Works Manager (Electrical) as required vide table B-1 of schedule B to Bid is missing. The same shall be provided.	The CV's of Works Manager (Mechanical) and Works Manager (Electrical) attached as ANNEX-5							Bidder has made the Compliance of Clarification.

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Item	Section	Employer's Requirement	Clarification	Response (GRC-SMS-JV)	Further Clarifications(1)	GRC-SMS-JV Response (1)	Further Clarifications(2)	GRC-SMS-JV Response (2)	Further Clarifications(3)	GRC-SMS-JV Response (3)	Conclusion																																							
5	Vol-I (BD), Form B-13 Vol-II (BD), Section 1.1.5.2	Training & Employment Plan	The Employer's Requirement (ER) vide clause 1.1.5.2 Vol-II of the BD requires two (2) months training and the training to be supplemented through classroom trainings by visits to the operational project facilities within Pakistan. This element in the Bid shall be further elaborated in compliance with the Addendum No.1 to the Bid	Training & Employment Plan will be as per the Employer's Requirement (ER) vide clause 1.1.5.2 Vol-II of the BD and attached as ANNEX-6							Bidder has made the Compliance of Clarification.																																							
6	Vol-II (BD), Section 1.3.1.2 (a)	Hydraulic Design and Head loss Calculations	The Estimated floods with different return periods at the project sites given at table 2.5 of Annex-J, Volume 1 of 4, seems irrational, therefore, the flood data at EPC design stage shall be authenticated.	Some discrepancies were observed in the Table 2.5 listing Flood Values and Associated Return Periods. The Corrected Flood Values and Associated Return Period from various approaches are as follows: <table><tr><th rowspan="2">Return Period (yrs.)</th><th colspan="3">Design Flood at Web Site</th></tr><tr><th>Regional River Based Approach</th><th>Including Barandoo river</th><th>Rainfall Runoff Analysis (Recommended)</th></tr><tr><td>2.33</td><td>508</td><td>588</td><td>478</td></tr><tr><td>12</td><td>1021</td><td>1223</td><td>1051</td></tr><tr><td>25</td><td>1313</td><td>1585</td><td>1446</td></tr><tr><td>50</td><td>1530</td><td>1854</td><td>1760</td></tr><tr><td>100</td><td>1745</td><td>2120</td><td>2084</td></tr><tr><td>200</td><td>1990</td><td>2370</td><td>2472</td></tr><tr><td>300</td><td>2239</td><td>2730</td><td>2878</td></tr><tr><td>1000</td><td>2456</td><td>3002</td><td>3219</td></tr></table> Note: These data will undergo further review and refinement during the detailed design phase.	Return Period (yrs.)	Design Flood at Web Site			Regional River Based Approach	Including Barandoo river	Rainfall Runoff Analysis (Recommended)	2.33	508	588	478	12	1021	1223	1051	25	1313	1585	1446	50	1530	1854	1760	100	1745	2120	2084	200	1990	2370	2472	300	2239	2730	2878	1000	2456	3002	3219							Bidder has made the Compliance of Clarification.
Return Period (yrs.)	Design Flood at Web Site																																																	
	Regional River Based Approach	Including Barandoo river	Rainfall Runoff Analysis (Recommended)																																															
2.33	508	588	478																																															
12	1021	1223	1051																																															
25	1313	1585	1446																																															
50	1530	1854	1760																																															
100	1745	2120	2084																																															
200	1990	2370	2472																																															
300	2239	2730	2878																																															
1000	2456	3002	3219																																															
7	Vol-II (BD), Section 1.3.1.3	Bid Level Design (Civil Works)	The Bid Level designs have partially been submitted by the Bidder. In addition the Bidder has submitted the relevant pages of Employer's Requirements which include the design criteria, standards and specifications for Civil Works.	We have attached the Employer's provided drawings, design criteria and specifications to confirm and own Employer's Requirements. We believe that the Employer has spent a lot of time and money to prepare the design and	When a Bidder purchases a Bid Document and submit a Bid in response, the Bidder automatically confirms and own's Employer's Requirement(ER), until Bidder, officially submit the Deviations of some	We agree with your understanding and confirm the same, as per contract provisions.	We understand that Contractor has preferred to opt Tender Level Designs, therefore taking its responsibility, the Contractor shall confirm now that no claim shall be moved on account of any errors, discrepancies and change in	We agree and confirm the same, as per contract provisions.	The Bidder has agreed the responsibility of Tender Level Design/Drawings. However, the Bidder is required to confirm not to move any claim for errors, discrepancies and change in dimensions, if	We undertake/ Confirm.	If considered appropriate, the Employer may require undertaking on stamp paper prior to award of Contract.																																							

Item	Section	Employer's Requirement	Clarification	Response (GRC-SMS-JV)	Further Clarifications(1)	GRC-SMS-JV Response (1)	Further Clarifications(2)	GRC-SMS-JV Response (2)	Further Clarifications(3)	GRC-SMS-JV Response (3)	Conclusion
			The Bidder has stamped and initialed all the pages submitted in the Bidding document, which contain the signatures of Employer and Management Consultants also. The Bidder shall clarify its intention to submit these pages? If the Bidder own the tender level designs, drawings & specifications as contained in the submitted pages and confirm it as his own bid level designs and drawings, the Bidder shall confirm in writing taking all responsibilities of errors, discrepancies and change in dimensions or missing items, if any. The Contractor is also required to confirm that no claim shall be moved on account of any errors, discrepancies and change in dimensions in the tender level designs, if encountered during the EPC detailed design stage.	would not contain major discrepancies. As far as the matter regarding additional cost or claims is concerned we understand it is not the appropriate time for such discussion and may discussed during the contract award stage.	ER's in line with Bidding Document, if allowed. Clause 26.2 (c) (i) of the Instruction to Bidders is a part of Evaluation Criteria. This clause clearly mentions that "Design offered by the Bidder in the Bid (Generally known as Bid Level Designs) will be Evaluated to determine the Responsiveness of the Technical Bid. If the Bidder doesn't offer such Design, the technical Bid can't be Evaluated completely and the Bidder may be considered as "Non-Responsive" for relevant part. It is also a matter of real understanding of the project by the Bidder and to Estimate the value of Works in view of their offered Designs in the Bid and to take its responsibility. As Bidder has not offered such Designs, therefore may submit now to take its responsibility of any errors, discrepancies and change in dimensions in their offered Designs. If contractor prefer to opt Tender Level Designs, the contractor shall take its responsibility as well. Consequently the Contractor is also required to confirm that no claim shall be moved		dimensions in the Tender Designs, if encountered during EPC detailed design stage.		encountered during EPC detailed design stage.		

Item	Section	Employer's Requirement	Clarification	Response (GRC-SMS-JV)	Further Clarifications(1)	GRC-SMS-JV Response (1)	Further Clarifications(2)	GRC-SMS-JV Response (2)	Further Clarifications(3)	GRC-SMS-JV Response (3)	Conclusion
					on account of any errors, discrepancies and change in dimensions in the tender level designs, if encountered during the EPC detailed design stage.						
8	Vol-II (BD), Section 1.3.1.3 (e)	Construction Work Schedule	The program was required to be furnished using Primavera-P6, with fully resource loaded activities. The bidder has not indicated the key tasks of manufacturing/ procurement of E&M Plant and Equipment, factory acceptance tests, shipment/transportation, delivery to site and its Installation and Erection. The Bidder shall rectify and re-submit the Proposed program of Works accordingly.	Revised Work Program attached as ANNEX-3 along with Equipment and Manpower Deployment.							Bidder has fulfilled the Employer's Requirement.
9	Vol-II (BD), Section 1.3.2	Bid Drawings Civil Works	The Bid Level Drawings have partially been submitted, in terms of some figures, sketches and tables to elaborate the preliminary details. In addition bidder has attached 52 drawings for Civil Works as included in the Bidding document which reflect the tender level design dimensions, profiles and cross sections including other details of various components of the works. The Bidder has stamped and initialed all the pages submitted in the Bidding document, which contain the signatures of Employer and Management Consultants also. The Bidder shall clarify its intention to submit these Drawings? If the Bidder own the tender level drawings as contained in the	We have attached the Employer's provided drawings, design criteria and specifications to confirm and own Employer's Requirements. We believe that the Employer has spent a lot of time and money to prepare the design and would not contain major discrepancies. As far as the matter regarding additional cost or claims is concerned we understand it is not the appropriate time for such discussion and may be discussed during the contract award stage.	When a Bidder purchases a Bid Document and submit a Bid in response, the Bidder automatically confirms and own's Employer's Requirement(ER), until Bidder, officially submit the Deviations of some ER's in line with Bidding Document, if allowed. Clause 26.2 (c) (i) of the Instruction to Bidders is a part of Evaluation Criteria. This clause clearly mentions that "Designs/Drawings offered by the Bidder in the Bid (Generally known as Bid Level Drawings) will be Evaluated to determine the Responsiveness of Technical Bid. If the Bidder doesn't offer such Drawings, the technical Bid can't be Evaluated completely	We agree with your understanding and confirm the same, as per contract provisions.	We understand that Contractor has preferred to opt Tender Level Designs, therefore taking its responsibility, the Contractor shall confirm now that no claim shall be moved on account of an errors, discrepancies and change in dimensions in the Tender Level Designs, if encountered during EPC detailed design stage.	We agree and confirm the same, as per contract provisions.	The Bidder has agreed the responsibility of Tender Level Design/Drawings. However, the Bidder is required to confirm not to move any claim for errors, discrepancies and dimensions, if encountered during EPC detailed design stage.	We undertake/ Confirm	If considered appropriate, the Employer may require undertaking on stamp paper prior to award of Contract.

Item	Section	Employer's Requirement	Clarification	Response (GRC-SMS-JV)	Further Clarifications(1)	GRC-SMS-JV Response (1)	Further Clarifications(2)	GRC-SMS-JV Response (2)	Further Clarifications(3)	GRC-SMS-JV Response (3)	Conclusion
			submitted pages and confirm it as his own bid level drawings, the Bidder shall confirm in writing taking all responsibilities of errors, discrepancies and change in dimensions or missing items, if any. The Contractor is also required to confirm that no claim shall be moved on account of any errors, discrepancies and change in dimensions in the tender level drawings, if encountered during the EPC detailed design stage.		and the Bidder may be considered as “Non-Responsive” for relevant part. It is also a matter of real understanding of the project by the Bidder and to Estimate the value of Works in view of their offered Drawings in the Bid and to take its responsibility. As Bidder has not offered such Drawings, therefore may submit now to take its responsibility of any errors, discrepancies and change in dimensions in their offered Drawings. If contractor prefer to opt Tender Level Drawings, the contractor shall take its responsibility as well. Consequently, the Contractor is also required to confirm that no claim shall be moved on account of any errors, discrepancies and change in dimensions in the tender level drawings, if encountered during the EPC detailed design stage.						
10	Vol-II (BD), Section 1.2.2.8	Steel Lined Pressure Tunnel	The Bidder has committed reinforced concrete lined Headrace Tunnel along with all other works. (Scope of Work), however bidder is silent on limited part of steel lined Pressure Tunnel. The same shall be confirmed now including all associated works.	We have attached Bid Drawings as our Basic Bid Design and will construct steel Lined Pressure Tunnel as per specifications and Employer's requirements. However this will be reanalyzed during Detailed Design.							Bidder has made the Compliance of Clarification.



Item	Section	Employer's Requirement	Clarification	Response (GRC-SMS-JV)	Further Clarifications(1)	GRC-SMS-JV Response (1)	Further Clarifications(2)	GRC-SMS-JV Response (2)	Further Clarifications(3)	GRC-SMS-JV Response (3)	Conclusion
11	Vol-II (BD), Section 1.2.2.12	Barandoo River Bridge	Bidder has committed vide Clause 8.9 of Annex-AC, to construct Access road and Bridge to Weir, Surge Shaft, Powerhouse and Colony Area. The Bidder shall confirm that the bridge on Branadoo River will be constructed in line with Employer's Requirement vide clause No. 1.2.2.12.	We confirm that the bridge on Branadoo River will be constructed in line with Employer's Requirement vide clause No. 1.2.2.12. However this will be reanalyzed during Detailed Design.							Bidder has made the Compliance of Clarification.
Additional Clarifications											
12	Vol-II (BD), Section 1.3.2	Bid Drawing Civil 1.3.2 (e) General 1.3.2 (f) General 1.3.2 (g) General 1.3.2 (g) Genera	The Clause 1.3.2 of Volume-II of the BD, in addition to the other, refers the following drawings to be submitted along with the Bid. Details of any proposed site investigations or explorations undertaken by the Bidder Bore Logs of any Drill holes by the Bidder. Locations of Quarries, Borrow areas and Construction infrastructure/material. Site Roads The Bidder has not submitted any information regarding the said clauses. Consequently, the Associated Risks, if any, regarding Geology, Rock Classes, availability of Construction materials and difficulty in mobility during the execution of Works are deemed to be taken and considered by the Bidder in his submitted Bid in line with the Employer's Requirement Section 1.2.2.6, 2.11.5 and other relevant sections. Bidder shall confirm it accordingly.			We have already visited site and we have found that the borrow areas locations are available and site is also accessible but detail of site investigations, bore logs will be carried out during the detailed design.	We understand from Bidder's Response that the Bidder has confirmed the associated risks as highlighted in the clarification.	We agree with and confirm the same, as per contract provisions			Bidder has made the Compliance of Clarification.

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2.2 Electro-Mechanical Evaluation

Item	Section	Employer's Requirement	Clarifications	Response (GRC-SMS JV)	Further Clarifications (1)	GRC-SMS JV) Response (1)	Further Clarifications (2)	GRC-SMS-JV Response (2)	Further Clarifications (3)	GRC-SMS-JV Response (3)	Conclusion
A. MECHANICAL WORKS											
		Mechanical Equipment	Requirement								
1	BD Volume II (ER)2.2.2	Turbines									
2	2.2.2.3	Type	The Turbine Model Code "HLY255-WJ-110" requires deliberation of Alphabets and Numbers. The Bidder/ Manufacturer shall also confirm the metallurgy and other specifications of the Turbines to be in line with Employer's requirements.	We confirm offered turbine is Horizontal Francis. Model No.isHLY255-WJ and 110 is runner diameter in centimeters.							Bidder has made the Compliance of Clarification.
3	2.2.2.3	Runner Diameter	1236 mm	The Bidder shall confirm that the proposed smaller runner dia. of 1100mm with the same RPM (500) will ensure the required generation capacity as per Employer's Requirement.	The Bidder shall ensure the generated capacity and the "Diameter of Runner" is to be agreed during the detailed EPC design.	We shall provide calculations during detail design to justify selected runner diameter can ensure required generation capacity as per Employer's Requirement.					Bidder has made the Compliance of Clarification.
4	2.2.2.3	Weighted Average Turbine Efficiency	≥ 92.8%	The Bidder shall confirm that the proposed Turbine Model shall ensure the Weighted Average Turbine Efficiency in line with Employer's Requirement.							Bidder has made the Compliance of Clarification.
5	2.2.4.1	Runner Material: Martensitic Stainless Steel grade	C6NM to ASTM A743M	The Bidder shall confirm that the material of the Runner fulfils Specifications/Employer's Requirement and relevant Standards. The Bidder shall also confirm that other elements of the clause 2.2.4.1 of the Employer's Requirement shall be ensured during detailed designs.							Bidder has made the Compliance of Clarification.

Item	Section	Employer's Requirement	Clarifications	Response (GRC-SMS JV)	Further Clarifications (1)	GRC-SMS JV Response (1)	Further Clarifications (2)	GRC-SMS-JV Response (2)	Further Clarifications (3)	GRC-SMS-JV Response (3)	Conclusion
6	2.2.4.4	Turbine Shaft	The Bidder shall confirm that the material of the Turbine Shaft fulfills the Specifications/Employer's Requirement and relevant Standards. The Bidder shall also confirm that other elements of the clause 2.2.4.4 of the Employer's Requirement shall be ensured during detailed designs.	We confirm that the material of the Turbine Shaft fulfills the Specifications/Employer's Requirement and relevant Standards. We also confirm that other elements of the clause 2.2.4.4 of the Employer's Requirement shall be ensured during detailed designs.							Bidder has made the Compliance of Clarification.
7	2.2.7.2	Governor Functional Requirement s:	The Bidder shall confirm that the Functional Requirements of the proposed Governor and its associated parameters will meet the Employer's Requirement.	We confirm that the Functional Requirements of the proposed Governor and its associated parameters will meet the Employer's Requirement.							Bidder has made the Compliance of Clarification.
8	2.2.8	Main inlet Valve and its Type Butterfly Type	The Model Code "KD742X-10C DN1500" requires deliberation regarding the Alphabets and Numbers. The Bidder/Manufacturer shall also confirm the metallurgy and other specifications of the Main Inlet Valve to be in line with Employer's Requirements.	There is typing error. Mode no. of offered valve is KD741X-10C DN1500 means. KD741X means hydraulic operated butterfly valve with NBR rubber sealing arrangement, 10C means design pressure of 10kg, diameter of DN1500. We confirm that the metallurgy and other specifications of the Main Inlet Valve to be in line with Employer's Requirements.							Bidder has made the Compliance of Clarification.
9	2.2.10	No. JIB Cranes 2	The Bidder shall provide the relevant Specifications of the JIB Crane in line with Employer's Requirement.	We confirm JIB Crane will be in line with Employer's Requirement and the relevant specifications will be provided during the detailed design.							Bidder has made the Compliance of Clarification.

Item	Section	Employer's Requirement		Clarifications	Response (GRC-SMS JV)	Further Clarifications (1)	GRC-SMS JV) Response (1)	Further Clarifications (2)	GRC-SMS-JV Response (2)	Further Clarifications (3)	GRC-SMS-JV Response (3)	Conclusion
10	2.2.12	Lifting Capacity of each JIB	5 Ton	The Bidder shall provide the relevant Specifications of the JIB Crane in line with Employer's Requirement.	We confirm JIB Crane will be in line with Employer's Requirement and the relevant specifications will be provided during the detailed design.							Bidder has made the Compliance of Clarification.
		Mechanical Auxiliaries		The Bidder shall confirm that the Designs, Technical Specifications and other relevant features of the Mechanical Auxiliaries shall be in line with Employer's Requirement and relevant standard of the Bidding Document. The Bidder shall also confirm that all other equipment/tools required under clause 2.2.12 shall be supplied in line with Employer's Requirement.	We confirm that the Designs, Technical Specifications and other relevant features of the Mechanical Auxiliaries shall be in line with Employer's Requirement and relevant standard of the Bidding Document. We also confirm that all other equipment/tools required under clause 2.2.12 shall be supplied in line with Employer's Requirement.						Bidder has made the Compliance of Clarification.	
11		Mechanical Spare Parts		The Bidder shall confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the Bidding Document, also in the Price Schedule-5, will be in line with Employer's Requirement and relevant standards of the Bidding Document.	We confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the Bidding Document, also in the Price Schedule-5, will be in line with Employer's Requirement and relevant standards of the Bidding Document.							Bidder has made the Compliance of Clarification.

Item	Section	Employer's Requirement		Clarifications	Response (GRC-SMS JV)	Further Clarifications (1)	GRC-SMS JV Response (1)	Further Clarifications (2)	GRC-SMS-JV Response (2)	Further Clarifications (3)	GRC-SMS-JV Response (3)	Conclusion
B. ELECTRICAL WORKS												
	BD Volume II (ER)1.2.4	Electrical Equipment	Requirement									
1	1.2.4.6	Generators, 11 KV	Two (2) synchronous generators, 3.5 MW each, Horizontal shaft	The Generator Model "SFW3552-10/2150" requires deliberation regarding the Alphabets Numbers.	SFW3552-10/2150 means generator design output is 3552kW, 10 poles and stator frame size is 2150mm. We confirm Generator output of 3500kW we can achieve at rated head and flow and rated power factor.	The offered Efficiency is 96%, therefore if Bidder finally proved Eligible, Qualified and its Technical Bid also proved Substantially Responsive to the Employer's Requirements, a penalty for loss of each 0.1% loss of Efficiency as proved at COD, will be negotiated prior to the Award and shall be made part of the Contract.	We agree and shall follow the tender documents and contract provisions.	Bidder's agreement to the proposal of Employer vide Further Clarifications (1) necessitate the negotiate the proposed penalty, prior to Award of the Contract, so that it could be made part of Contract. Please confirm it.	We agree and shall follow the tender documents and contract provisions.	The Bidder is required to provide an undertaking in writing that "The generator efficiency shall comply to the Employer's Requirements i.e., ≥ 97% and in case the bidder is unable to achieve the required efficiency, penalty@ USD 10,000/- against each 0.1% decrease shall be applicable."	Undertaking duly signed is attached as ANNEX-1.	Bidder has made the Compliance of Clarification.
2	1.2.4.6 (2)	Efficiency of generators	≥ 97 %	The Bidder shall confirm the Efficiency ≥ 97% as required in the Employer's Requirement.	We confirm the Efficiency ≥ 97% as required in the Employer's Requirement.							Bidder has made the Compliance of Clarification.
3	1.2.4.6 (2)	Rated range of voltage regulation	± 5 %	The Bidder/Manufacturer shall confirm the Rated range of voltage regulation as required in the Employer's Requirement.	We confirm the Rated range of voltage regulation as required in the Employer's Requirement.							Bidder has made the Compliance of Clarification.
4	1.2.4.6 (2)	Range of frequency variation	± 6 %	The Bidder/Manufacturer shall confirm the Range of frequency variation as required in the Employer's Requirement.	We confirm that the Range of frequency variation as required in the Employer's Requirement.							Bidder has made the Compliance of Clarification.
5	1.2.4.6 (2)	Insulation class Rotor and Stator	F/B	The Bidder/Manufacturer shall confirm that both the stator and rotor windings shall be insulated	We confirm that both the stator and rotor windings shall be insulated with							Bidder has made the Compliance of Clarification.

Item	Section	Employer's Requirement		Clarifications	Response (GRC-SMS JV)	Further Clarifications (1)	GRC-SMS JV) Response (1)	Further Clarifications (2)	GRC-SMS-JV Response (2)	Further Clarifications (3)	GRC-SMS-JV Response (3)	Conclusion
		winding connection*		insulated with class F material and the operating temperature rise shall be limited to Class B.	Class material and the operating temperature rise shall be limited to Class B.							
6	1.2.4.6 (2)	Generator Internal Fire fighting system	FM 200 fire extinguishing system.	The Bidder/Manufacturer shall confirm the Generator Internal Fire fighting system as required in the Employer's Requirement.	We confirm the Generator Internal Fire Fighting system as required in the Employer's Requirement.							Bidder has made the Compliance of Clarification.
7	1.2.4.17	Excitation system With ample excitation for the generator	Operating at its maximum capability at rated frequency, rated power factor and at 105% rated voltage	The Bidder/Manufacturer shall confirm that the proposed Model "WLT6200" is in line with Employer's Requirement.	We confirm that the proposed Model "WLT6200" is in line with Employer's Requirement.							Bidder has made the Compliance of Clarification.
8	1.2.4.17--2xvii	Power supply for the regulator and control modules.	Must be Redundant	The Bidder shall confirm that the specified Employer's Requirement will be ensured during Detailed Design.	We confirm that the specified Employer's Requirement will be ensured during Detailed Design.							Bidder has made the Compliance of Clarification.
9	1.2.4.17--4	Redundancy at full load operation	100%									Bidder has made the Compliance of Clarification.
10	1.2.4.17--5	Automatic Voltage Regulator (AVR)		The AVR Model "WLT6200" requires deliberation and explanation regarding the Numbers and Alphabets.	W= Microprocessor based L = Excitation T = Regulation 6 = Sixth Generation 2 = Dual AVR							Bidder has made the Compliance of Clarification.
11	1.2.4.19	Generator Circuit Breaker 02 No 11 KV, 630 A										
11.1	1.2.4.19--2	Rated dielectric strength	95 Kv	The Rated dielectric strength of 95 KV shall be confirmed by the Bidder/Manufacturer, in compliance with NTDC Specifications.	Offered Generator Circuit breakers will be of either Shandong Taikai. Shandong Taikai has supplied GCB panels for 84MW Gorkin Matitan HPP also. We confirm Generator Circuit Breakers and its associated parameters will be in compliance							Bidder has made the Compliance of Clarification.

Item	Section	Employer's Requirement	Clarifications	Response (GRC-SMS JV)	Further Clarifications (1)	GRC-SMS JV Response (1)	Further Clarifications (2)	GRC-SMS-JV Response (2)	Further Clarifications (3)	GRC-SMS-JV Response (3)	Conclusion
11.2	1.2.4.19--2	NTDC Specs P-44		with IEC 62271-100.							
12	1.2.4.20--2	Circuit Breakers	Circuit Breakers and its associated parameters shall be confirmed by Bidder/Manufacturer, in compliance with NTDC Specifications.	Offered Circuit breakers will be of either Schneider Electric or Shandong Taikai. Shandong Taikai has supplied 11kV MV Switchgear panels, 0.4kV LV Switchgear and panels and respective Circuit Breakers for 84MW Gorkin Matiltan HPP also. We confirm Circuit Breakers and its associated parameters will be in compliance with IEC 62271-100.							Bidder has made the Compliance of Clarification.
13	1.2.4.22	DC and UPS System	Bidder shall confirm the scope of work and specification of DC and UPS System and its associated parameters is in line with Employer's Requirement.	We confirm the scope of work and specification of DC and UPS System and its associated parameters will be in line with Employer's requirements.							Bidder has made the Compliance of Clarification.
14	1.2.4.22--4	Auxiliary Transformers	The Bidder shall confirm the Make, Model Nos. and Specifications of each category of the Auxiliary Transformers to be supplied in compliance with NTDC/PESCO Specifications.	We confirm the Make, Model Nos. and Specifications of each category of the Auxiliary Transformers to be supplied will be in compliance with NTDC/PESCO Specifications							Bidder has made the Compliance of Clarification.
17	1.2.4.25	Communication and Security System	The Bidder has just mentioned a Communication & Security System in the Scope of Work. The Bidder shall confirm the exact scope of Work, Specifications and	We confirm the scope of Work, Specifications and relevant details of the Communication and Security System will be in line with Employer's							Bidder has made the Compliance of Clarification.

Item	Section	Employer's Requirement	Clarifications	Response (GRC-SMS JV)	Further Clarifications (1)	GRC-SMS JV) Response (1)	Further Clarifications (2)	GRC-SMS-JV Response (2)	Further Clarifications (3)	GRC-SMS-JV Response (3)	Conclusion
			relevant details of the Communication and Security System in line with Employer's Requirement.	Requirement and relevant documents are submitted however, more detailed documents will be submitted after the award of the Contract.							
18	1.2.4.31 to 1.2.4.34	Transmission Line, 11 KV, Double Circuit, 42 Km, 3-phase, with DOG conductor from Mujahidin HPP to Dam Site, Colony, according to WAPDA/NTD C Specs P-50.	Bidder shall confirm to construct the Transmission Lines, in line with Employer's Requirement, in accordance with NTDC/PESCO Specifications.	We confirm that Transmission Lines will be constructed, in line with Employer's Requirement, in accordance with NTDC/PESCO Specifications.							Bidder has made the Compliance of Clarification.
19	1.2.4.31 to 1.2.4.34	Transmission Line, 400/230 V 60 Km, Villages, 400/230 Volt Aluminium WASP Conductor selected as per NTDC Spec P-63	Bidder shall confirm to construct the Transmission Lines, in line with Employer's Requirement, in accordance with NTDC/PESCO Specifications.	We confirm that Transmission Lines will be constructed, in line with Employer's Requirement, in accordance with NTDC/PESCO Specifications.							Bidder has made the Compliance of Clarification.
20		Electrical Spare Parts	The Bidder shall confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the Bidding Document, also in the Price Schedule-5, will be in line with Employer's Requirement and relevant standards of the Bidding Document.	We confirm that the Designs, Technical Specifications and other relevant features of all the spare parts as required vide different clauses of the Bidding Document, also in the Price Schedule-5, will be in line with Employer's Requirement and relevant standards of the Bidding Document.							Bidder has made the Compliance of Clarification.

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Item	Section	Employer's Requirement	Clarifications	Response (GRC-SMS JV)	Further Clarifications (1)	GRC-SMS JV) Response (1)	Further Clarifications (2)	GRC-SMS-JV Response (2)	Further Clarifications (3)	GRC-SMS-JV Response (3)	Conclusion
Additional Clarification											
	BD Volume II Addendum No. 1 Foot Note at Sr. No. 2 of last Further Clarifications (1)	As per Volume-II All E&M Equipment	European Region		Foot Note: 2. The Bidder shall provide details of origin and country of manufacturing for all the E&M Equipment.	-Nil-	The Bidder shall provide details of origin and country of manufacturing for all the E&M Equipment. The Bidder shall also provide the details of proposed E&M Equipment from the specified origin in the BD/Addendum No. 1, in view of IB 14, for evaluation and record.	We agree and list of E& M Equipment attached as ANNEX- 2, as per the 1.2.4.2 Volume-II of bidding documents.			Further Clarifications (No.3) were required vide Serial No. 15 & 16 as listed below.
15	1.2.4.23 Electrical Protective Systems (Protective Relays)		The Bidder has provided some details for protection relays but do not indicate the required Compatibility with NTDC/PESCO Protection Relays System as per Employers Requirements. Bidder shall also ensure its conformity to the Employer's Requirement.	We confirm and ensure protection relays system will confirm to the Employer's Requirement. HN UNIS relays has been used for 84MW Gorkin Matiltan hydro project, and many other projects in Pakistan.	Protective Relays shall be of European origin as per the Employer's Requirements.	We agree with the requirement of Employer.	The Bidder shall also provide the details of proposed E&M Equipment from the specified origin in the BD/Addendum No. 1, in view of IB 14, for evaluation and record.	We agree and list of E& M Equipment attached as ANNEX- 2, as per the 1.2.4.2 Volume-II of bidding documents.	Bidder's proposed Manufacturers/Sub Contractors (HN UNIS) does not fulfil European origin criteria as per clause 1.2.4.2 Volume-II (BD). The Bidder is required to provide the manufacturer's Authorization, Reference projects, and User Certificates of the proposed European Sub-Contractors/Manufacturers i.e. Schneider Electric, Siemens & ABB. The Bidder is also required to submit the technical details for the relevant proposed Electrical Equipment, as specified in the aforementioned Clause for evaluation purposes.	All Protective Relays shall be from ABB. Relays catalogue is enclosed as ANNEX-2. Panel manufacturing shall be from HN UNIS.	The Expert has commented that "Response received indicate that required equipment will be supplied from European Manufacturers, compatible with NTDC/PESCO Protection Relays System as per Employers Requirements. The offered protection Relays full-fill the Employers Requirements."

Handwritten signatures and initials in blue ink.

Item	Section	Employer's Requirement	Clarifications	Response (GRC-SMS JV)	Further Clarifications (1)	GRC-SMS JV) Response (1)	Further Clarifications (2)	GRC-SMS-JV Response (2)	Further Clarifications (3)	GRC-SMS-JV Response (3)	Conclusion
16	1.2.4.24	SCADA System (Supervisor y Control & Data Acquisition System)	Contractor has provided general type of Catalogue for SCADA system. However, Bidder shall confirm the specific details of SCADA, in confirmatory to the Employer's Requirement.	We confirm and ensure SCADA system will confirm to the Employer's Requirement. HN UNIS SCADA has been used for 84MW Gorkin Matitan hydro project, and many other projects in Pakistan.	SCADA system shall be of European origin as per the Employer's Requirements.	We agree with the requirement of Employer.	The Bidder shall also provide the details of proposed E&M Equipment from the specified origin in the BD/Addendum No. 1, in view of IB 14, for evaluation and record.	We agree and list of E& M Equipment Manufacturer is attached as ANNEX- 2 , as per the 1.2.4.2 Volume- II of bidding documents.	Bidder's proposed Manufacturers/Sub- Contractors (HN UNIS) does not fulfil European origin criteria as per clause 1.2.4.2 Volume-II (BD). The Bidder is required to provide the manufacturer's Authorization, Reference projects, and User Certificates of the proposed European Sub-Contractors/ Manufacturers i.e. Schneider Electric, Siemens & ABB. The Bidder is also required to submit	SCADA system operator and engineering station shall be equipped with SCADA Software of Siemens. Catalog of same is enclosed. Only programming shall be done in China. Similarly, the Control and communication panels shall have PLC controllers, touch screen, communication modules from Siemens. Catalog of these major items are enclosed as ANNEX-3. All major components	The Electrical Expert has commented that "Response received indicate that required equipment will be supplied from European Manufacturers. SCADA offered , the Employers Requirements."

Item	Section	Employer's Requirement	Clarifications	Response (GRC-SMS JV)	Further Clarifications (1)	GRC-SMS JV) Response (1)	Further Clarifications (2)	GRC-SMS-JV Response (2)	Further Clarifications (3)	GRC-SMS-JV Response (3)	Conclusion
									the technical details for the relevant proposed Electrical Equipment, as specified in the aforementioned Clause for evaluation purposes.	of SCADA & Communication System are from European manufacturers, except that Panel assembly is done by HN UNIS.	






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روزنامہ اُکسپریس

ساتھریکسٹ 17 اگست 2024

پاکستان کے آج کے اخبار | 17 اگست 2024 | قیمت 40 روپے

INVITATION FOR BID FOR "DETAILED DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF 6.95 MW MUJAHIDIN HYDROPOWER PROJECT AT BARANDOO RIVER, DISTRICT TORGHAR ON EPC/TURNKEY BASIS"

SINGLE STAGE TWO ENVELOPE PROCEDURE

Bid Reference No: 123288-01 Date: August 16, 2024

The Public Works Energy Development Organization (PEDO) (the "Employer") has received a request from the Government of Khyber Pakhtunkhwa (Khyber Provincial Government) which has provided towards the implementation of the Project "6.95 MW Mujahidin Hydropower Project at Barandoo River, District Torghar (hereinafter referred to as the "Project") and the Employer has decided to invite bids for the Project under the Contract for detailed engineering design of all the project components, procurement, supply, construction, installation, testing and commissioning of the Project. The scope of work includes:

- Civil Works including but not limited to: intake, conduit, powerhouse, tunnel, surge tank, penstock, and dam works, powerhouse and related civil works, intake and outlet structures, culverts and access roads etc.
- Electrical/Electronic Plant & Equipment and Hydraulic Steel Structures
- 11 KV double circuit Transmission lines of approximate length 43 km & 400/230 Volt distribution system of approximate length 10 km is also included in the scope.

The Project is located at a distance of 70 Km from Peshawar and 130 Km from Islamabad in Right Bank of the Barandoo River in District Torghar, Khyber Pakhtunkhwa. The Contract period of the Project is 24 months (24 months) starting from the date of signing of the Contract. The following terms and conditions shall apply:

1. The Employer shall provide the following information to the bidders:
 - a. A valid license from Public Engineering Council (PEC) in category "Civil Engineering". A license holder is required to hold only the 2024 version with a valid registration in accordance with the revised provisions of the Licensing Document. A bidder must be registered with Khyber Pakhtunkhwa Revenue Authority (KPRA) and Federal Board of Revenue (FBR) in accordance with the relevant provisions of the bidding documents. Bidders may obtain further information from the Employer or visit the Employer's website from the office of the Employer, 344/444/444/444, open submission of a written application along with a non-refundable fee of PKR 25,000/- only in the form of Deposit at Call Centre of the Bank of Pakistan in favor of PEDO. PEDO & A 90-ND meeting will be held at the Project Director, PEDO office at Islamabad before September 11, 2024 at 11:00 hours. A 90-ND must be accompanied by a Security Deposit of the Bank of Pakistan or an equivalent amount in a freely convertible currency in the form of Deposit at Call or a Bank Guarantee or Call security form, issued by a scheduled bank in Pakistan or from a foreign bank duly certified/ guaranteed by a scheduled bank or institution, in favor of the PEDO, valid for a period twenty-eight (28) days beyond the bid validity date. 6. The bid must be delivered to the address given below on or before 24:00 hours, on October 14, 2024. Bids will be opened on the same day at 24:00 hours, in the presence of bidders' representatives who choose to attend. 7. The bidders must submit their technical and financial proposals in PDF format at info@pedo.gov.pk. In addition to the hard copy submission, if the website is accessible, the bidders must submit a PDF copy of their proposal, including a password-protected financial proposal, in a USB, at the time of bid submission.

Project Director
6.95 MW Mujahidin Hydropower Project (MHP)
Public Works Energy Development Organization (PEDO)
1st Floor, N-5/2K House, 2nd R-2, Phase-4, Islamabad, Pakistan, 12, Pakistan.
Telephone: +92-01-3022005, 3022295, Email: info@pedo.gov.pk



 **PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION (PEDO)**
GOVERNMENT OF KHYBER PAKHTUNKHWA
ENERGY & POWER DEPARTMENT, PESHAWAR

CORRIGENDUM

INVITATION FOR BID FOR "DETAILED DESIGN, MANUFACTURE, SUPPLY, INSTALLATION TESTING AND COMMISSIONING OF 6.95 MW MUJAHIDIN HYDROPOWER PROJECT AT BARANDOO RIVER, DISTRICT TORGHAR ON (EPC/TURNKEY BASIS)"
SINGLE STAGE TWO ENVELOPE PROCEDURE

Refer to Para-6 of Advertisement no: INF(P) 2081/24:

"The Bid must be delivered to the address given below at or before 14 00 hours, on October 18, 2024. Bids will be opened on the same day at 14.30 hours, in the presence of bidder's representatives who choose to attend"

To be Read as

The Bid must be delivered to the address given below at or before 14 00 hours, on **November 1, 2024**, Bids will be opened on the same

Project Director
6.95 MW Mujahidin Hydropower Project (MHPP)
Pakhtunkhwa Energy Development Organization (PEDO)
1st Floor-NESPAK House, 24/8-2, Phase-V, Hayatabad, Peshawar, KP, Pakistan.
Telephone: +92-91-3072076, 9217295; Email: pd.barandoo@pedo.pk

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پاکستان کے سب سے بڑے اخبار

پنجشنبہ 27 اکتوبر 2024ء 131 سال 27 اکتوبر 2024ء 40 روپے

PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION (PEDO)
GOVERNMENT OF KH/BER PAKHTUNKHWA
ENERGY & POWER DEPARTMENT, PESHAWAR

CORRIGENDUM NO. 2

INVITATION FOR BID FOR "DETAILED DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF 6.95 MW MUJAHIDIN HYDROPOWER PROJECT AT BARANDOO RIVER, DISTRICT TORGHAR ON EPC/TURNKEY BASIS" SINGLE STAGE TWO ENVELOPE

Refer to Para-6 of Advertisement no: INF(P) 2081/24:
 "The Bid must be delivered to the address given below at or before 14:00 hours, on October 18, 2024. Bids will be opened on the same day at 14:30 hours, in the presence of bidder's representatives who choose to attend". The Deadline for Submission of Bids was previously extended till November 1, 2024 via Corrigendum No.1 having INF(P)2710/24.

To be Read as
 The Bid must be delivered to the address given below at or before 14:00 hours, on **November 28, 2024**. Bids will be opened on the same day at 14:30 hours, in the presence of bidder's representatives who choose to attend. INF(P)2883/24

Project Director
6.95 MW Mujahidin Hydropower Project (MHPP)
Pakhtunkhwa Energy Development Organization (PEDO)
 1st Floor-NESPAN House, 24/B-2, Phase-V, Hayatabad, Peshawar, KP, Pakistan.
 Telephone: +92-91-3072076, 7217295; Email: pd.barandoo@pedo.pk

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GOVERNMENT OF KHYBER PAKHTUNKHWA
ENERGY & POWER DEPARTMENT, PESHAWAR

CORRIGENDUM NO. 3

INVITATION FOR BID FOR "DETAILED DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF 6.95 MW MUJAHIDIN HYDROPOWER PROJECT AT BARANDOO RIVER, DISTRICT TORGAR ON L1/C/TURNKEY BASIS" SINGLE STAGE TWO ENVELOPE PROCEDURE

Refer to Para-6 of Advertisement no: INF(P)2081/24:
"The Bid must be delivered to the address given below at or before 14:00 hours, on October 18, 2024. Bids will be opened on the same day at 14:30 hours, in the presence of bidder's representatives who choose to attend". The Deadline for Submission of Bids was initially extended to November 1, 2024, through Corrigendum No. 1 bearing reference INF(P)2710/24, and subsequently further extended to November 28, 2024, via Corrigendum No. 2 under reference INF(P)2883/24.

To be Read as:
The Bid must be delivered to the address given below at or before 14:00 hours, on December 12, 2024. Bids will be opened on the same day at 14:30 hours, in the presence of bidder's representatives who choose to attend.

Project Director
6.95 MW Mujahidin Hydropower Project (MHPP)
Pakhtunkhwa Energy Development Organization (PEDO)
1st Floor-NESPAK House, 24/B-2, Phase-V, Hayatabad, Peshawar, KP, Pakistan.
Telephone: +92-91-3072076, 9217295; Email: pd.barandoo@pedo.pk



GOVERNMENT OF KHYBER PAKHTUNKHWA.
PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION
NESPAK House, 24/B-2 Phase-V, Hayatabad, Peshawar. Tele: +92-91-9211225. Email: pd_barandoo@pedo.pk



No. 1566-71/PEDO/Barandoo HPP
Dated: November 12, 2024

To ☒ All Prospective Bidders

Project: Construction of 6.95 MW Mujahidin HPP at Barandoo River, District Torghar, Khyber Pakhtunkhwa (ADP No. 357 (170368)).

Subject: MoM of the Pre-Bid Meeting - Addendum No. 1 to the Bidding Documents pursuant to IB 7 of the Instructions to Bidders.

Reference: 1) Pre-Bid Meeting

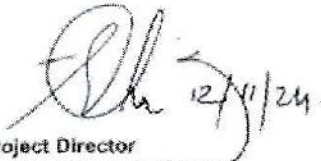
Dated 19.09.2024

Reference is made to the Pre-Bid Meeting held on September 19, 2024, chaired by the Project Director "6.95 MW Mujahidin Hydropower Project at Barandoo River, District Torghar" in the Committee Room of PEDO House, 38/B-2, Phase-V, Hayatabad, Peshawar, Khyber Pakhtunkhwa.

Please find enclosed Addendum No.1 to the Bidding Documents, issued in accordance with IB 7 of the Instructions to Bidders.

This Addendum constitutes an integral part of the Bidding Documents issued for the "Detailed Design, Manufacture, Supply, Installation, Testing, and Commissioning of 6.95 MW Mujahidin Hydropower Project at Barandoo River, District Torghar on EPC/Turnkey basis".

Encl: Addendum No.1


Project Director
Mujahidin HPP at Barandoo River
District Torghar, PEDO

Copy forwarded for information to:

1. PA to CEO, PEDO, Peshawar.
2. CE (DEV.), PEDO, Peshawar.
3. Regional Head (North), ACE, Lahore.
4. Team Leader/Project Manager, 6.95 MW Mujahidin HPP.
5. Office Copy.


Project Director
Mujahidin HPP at Barandoo River
District Torghar, PEDO



GOVERNMENT OF KHYBER PAKHTUNKHWA
PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION

Room: 313, PEDO House, 38 B-1 Phase-V, Hayatabad, Peshawar, Tdcl: +92-91-9417295, Email: pdh@kpo.gov.pk

6.95 MW MUGHAHIDIN HYDROPOWER PROJECT AT BARANDOO RIVER, DISTRICT TORGHAR

MINUTES OF PRE-BID MEETING DATED: 19.09.2024

ADDENDUM NO-1: REPLIES TO THE QUERIES OF BIDDERS

The Pre-bid meeting was convened as per the "Invitation for Bids" on Thursday, September 19, 2024, under the chairmanship of the Project Director, Mughahidin Hydropower Project (PD MHPP). The authorized representatives of the bidders attended the meeting, and the list of participants is attached as Annexure-1.

The queries of all the bidders were discussed in detail, which is reflected in the Addendum-1 to the Bidding documents, which incorporates both the queries raised and the clarifications/discussion points from the meeting. The Addendum-1 will be integral part of the Bidding documents in accordance with IB 7 of "Instructions to Bidders".

The PD MHPP concluded the meeting by requesting if there are any additional queries or concerns from the contractors, shall be formally submitted in writing. Detailed and comprehensive responses will be provided to address all issues raised. Please find below the responses to the queries submitted by the bidders:

S. No.	Bidding Documents Reference	Query/ Observation	PEDO's Response/ Clarification
L	VOLUME-I PARTICULAR CONDITIONS OF CONTRACT Sub-Clause 16.1 Performance Security (on Page 172)	Convert Performance Bank Guarantee into Insurance Guarantee. Considering the huge inflation instability in Pakistan's economy and things are now more uncertain and it is quite impossible to rationalize the prices and quote the price of the bid. Also, in Pakistan Engineering Council Guidelines Section 1. Instruction to Bidder 37.1, bidder has the prerogative to submit Performance Security either in the shape of Bank Guarantee or Insurance Guarantee (attached as Annex-A). KPPRA has also issued a notification in which the	Not Agreed The provisions of the Bidding Documents shall prevail. Please refer to KPPRA Notification No. S.R.O(18)/VOL-1-28/2023-24, dated April 08 2024/1021-33 under which the option of Insurance bond has been deleted.

	Contractor is free to submit Performance Guarantee into Insurance Guarantee and it will be acceptable. (Notification attached as Annex-B). We, therefore, request you to facilitate the Bidders by converting the Bank Guarantee into an Insurance Guarantee for Performance security and also reduce from 10% to 5%.	
2.	<u>GENERAL</u>	Clarification The Bidding Document is not based on the percentage above/below/at par procedure. The Employer reserves the right to accept any Bid and to reject any or all Bids pursuant to IB, 32. Not Agreed The provisions of the Bidding Documents shall prevail.
3.	<u>VOLUME-I</u> <u>INVITATION FOR BIDS</u> <u>NOC'S FROM THE EMBASSY IN</u> <u>PAKISTAN</u>	We have observed that the Chinese Firms submit the Bids, without getting NOC from the Embassy of China in Pakistan. As the Embassy of China in Pakistan has imposed restrictions of working in certain areas of Pakistan, and it is mandatory to get Embassy's NOC for working in any area. Due to not having NOC, cannot submit Bank Guarantees and cannot mobilize their staff. Ultimately Employer suffers and huge time is wasted. Therefore, it should be added in the bidding documents that the companies from China shall also attach NOC of the Embassy along with the Bid.
4.	<u>VOLUME-II, SCOPE OF WORKS</u> <u>Clause 1.1 Para (5) – Sub-clause (iv)</u> <u>Physical and/or Computational</u> <u>Model Study</u>	Please confirm only CFD analysis is required. Model testing will very expensive and not required for this kind of small project. Agreed

	VOLUME-II, SCOPE OF WORKS <u>Clause 1.1.5.2</u> <u>Training of Employers O&M Staff -</u> <u>Basic O&M Training Program</u>		Clarification
5.		Training duration of 2 months for 10 people is very long. Please confirm the location of training. Whether at site or in the country from where equipment's are imported?	The classroom training will be supplemented by visits to the operational project facilities within Pakistan.
6.	VOLUME-II, SCOPE OF WORKS <u>Clause 1.1.5.2</u> <u>GENERATOR EFFICIENCY $\geq 97\%$</u>	For these small unit's maximum generator efficiency shall be 96%.	Not Agreed The provisions of Employer's Requirements shall prevail for "Efficiency $\geq 97\%$ ".
7.	VOLUME-II, SCOPE OF WORKS <u>Clause 1.2.4.6 - Sub-clause 4 a)</u> <u>Stator, rotor, slip-rings and slip-ring compartments, suspended type thrust bearing, guide bearings with supporting bearing brackets, air/oil cooling equipment etc.</u>	Suspended bearings are applicable for Vertical units.	Agreed Being a horizontal shaft Unit, a combined thrust and guide bearing shall be incorporated between Turbine and Generator.
8.	VOLUME-II, SCOPE OF WORKS <u>Clause 1.2.4.6 - Sub-clause 4 b)</u> <u>Internal Lighting in Generator and Collector Housing</u>	Applicable for Vertical units	Agreed
9.	VOLUME-II, SCOPE OF WORKS <u>Clause 1.2.4.8 - Sub-clause 1) para (1)</u> <u>Generator Housing</u>	For Horizontal generators generally IP20 is used.	Not Agreed The provisions of Employer's Requirements shall prevail for IP 44.
10.	VOLUME-II, SCOPE OF WORKS <u>Clause 1.2.4.8 - Sub-clause 3) d) para (1)</u>	We propose to use oil operated brakes. Pressurized oil taken from governing system.	Not Agreed Pneumatic operation of brake is a standard practice.

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	<u>The generator may be provided with suitable air operated brakes</u>		<u>The Employer's Requirements of Air operated Brakes shall prevail/maintained.</u>
11.	<u>VOLUME-II, SCOPE OF WORKS</u> <u>Clause 1.2.4.8 - Sub-clause 3) c) para (1)</u> <u>The generators are to be provided with the following monitoring devices</u>	Vibration detector, Partial discharge monitoring, air gap monitoring and latest vibro system are not required for this kind of small unit.	Not Agreed The provisions of Employer's Requirements shall prevail.
12.	<u>VOLUME-II, SCOPE OF WORKS</u> <u>Clause 1.2.4.16 - Sub-clause 1</u> <u>Generator Spare Parts</u>	1 (One set) Spare Stator Windings is very large qty. over the period of time, it may get spoiled in stores. (Two sets) Poles, one of each polarity. Please confirm 2 sets mean two nos. of poles, one no. of south and one of north polarity.	Clarification: ~1/3 rd quantity of the stator coils of a single Unit and four numbers of rotor poles, two each of south and north polarity is essentially required.
13.	<u>VOLUME-II, SCOPE OF WORKS</u> <u>1.2.4.19 Generator Circuit Breaker</u> <u>11 kV (GCB) and 11 kV Circuit Breakers</u> <u>Rated dielectric strength, Lightning impulse withstand voltage, peak - 95kV</u>	As per IEC for 11 kV voltage rating Lightning impulse withstand voltage peak=75kV.	Not Agreed Lightning impulse withstand voltage peak = 95 kV is required as per NTDC Spec. P-44.
14.	<u>VOLUME-II, SCOPE OF WORKS</u> <u>2.2.2.3 Turbine Leading Parameters</u> <u>Turbine Efficiency > 92.8%</u>	For small units generally, Turbine efficiency is around 91.5%.	Not Agreed Rated efficiency of 92 % at rated discharge and rated head is acceptable. However, average weighted guaranteed efficiency of > 92.8% shall prevail / maintained.

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15.	VOLUME-II, SPECIFICATION 2.2.8. Main Inlet Valves. 2.2.8.2 Type of Valves Butterfly Valves dia. of 1200mm	Diameter of valves shall be left to designer's requirement. It shall be selected as per spiral case inlet diameter requirement.	Clarification All sizing and configuration of turbine and associated equipment have been calculated by using TURBNPRO and verified by empirical data sheets. These sizes are indicative design parameters and are necessarily required to enable the bidder for costing purposes. It is a normal practice and very much understood that these are indicative values which will be finalized during detailed designing by the EPC Contractor. Final dimensions of the MIV's shall be kept according to the rated head and discharge through turbines. However design of the MIV Butterfly type shall be such that opening operation of the valve disc should be in the direction of the flow.
16.	VOLUME-II, SPECIFICATION 2.2.12.5 Cooling Water System Closed circuit cooling water systems shall be adopted. One complete system shall be provided for each generating unit.	For these small units closed loop cooling water system will be expensive. It will increase the cost of project overall. Please accept open loop system.	Not Agreed The repair and Maintenance cost of open loop cooling system is much higher than closed loop system. When these costs of maintenance and overhauling are deployed over 5 years, the cost of both systems are equalised. Also, since quality of water is unknown / uncontrolled, therefore open loop system is not recommendable. The impact of initial cost is minor as compared to long term benefits of trouble-free operation. Therefore, the Employer's Requirement shall prevail.



17.	VOLUME-I INVITATION FOR BID (page 2) <u>Extension in Bid submission/Opening date.</u>	The date of submission of bids must be extended by 04 (four) working weeks to ensure the preparation of a competitive bid proposal.	Clarification. The Deadline for Submission of Bids is extended till November 28, 2024.
18.	VOLUME-II <u>Clause 2.4.2 Land Acquisition for Permanent and Temporary Works</u> <u>Land Acquisition.</u>	Land acquisition status regarding project components, access roads, and the transmission line may please be informed as it may be a governing factor in meeting the timelines.	Clarification The Employer will ensure the availability of Land corresponding to the Project components as per the Contractor's Proposed Programme of Work.
19.	<u>Pre-Bid Site Visit.</u>	The Client is requested to facilitate/guide in conducting a pre-bid site visit to familiarize the bidder with the site conditions and project layout or another Pre-Bid meeting may be scheduled at Project Site as it would be also helpful in eliminating major concerns regarding timely Project completion.	Clarification In Pre-Bid meeting, the Employer assured full facilitation to the Bidders for Site visits.
20.	VOLUME-I, Particular Conditions of Contract, Sub-Clause 11.1 Site Data, para (3) (on page 199) VOLUME-II, Scope of Work, clause 1.1 para(5) (vi) (page II-3), Clause 1.1.1.1 (a) (page II-3) & Clause 1.2.2.6 para (4, 5 & 6) (page II-12 & II-13) <u>Geological Risks.</u>	Risk of variation in geology specifically in the tunnel should be borne by the client. Not Agreed The risk of variation in geology should be borne by the contractor. The provisions of Employer's Requirement shall prevail.	Not Agreed The risk of variation in geology should be borne by the contractor. The provisions of Employer's Requirement shall prevail.
21.	Volume-II <u>Clause 1.2.2.1(2-h)</u> <u>Site Security</u>	Security concerns related to the District may be updated as prospective E&M Company will be from China/Turkey and further modus operandi regarding security transfer of foreigners to the site (their stay) and back to Islamabad.	Clarification There are no security threats at Site. In case, a foreign company is part of the JV, foolproof security regarding secure

		transfer of foreigners to the site (stay) and back to Islamabad would be provided by the Employer/Government. However, the fool proof internal security at Site shall be ensured by the Bidders as per Clause 1.2.2.1(2-h) of the Employer's Requirements as well as the SOPs issued by the Ministry of Interior from time to time. The SOPs issued by the Ministry of Interior from time to time may be kept for record purposes by the bidder and shared with the Management consultants.
22.	<u>VOLUME-I, GENERAL CONDITIONS OF CONTRACT, CLAUSE 26.3</u> <u>Earlier Completion</u>	Not Agreed The provisions of the Bidding Documents shall prevail. Early project completion should be rewarded @ 0.0125% of bid value per week. Max value to be set by PEDO.
23.	<u>VOLUME-I, PARTICULAR CONDITIONS OF CONTRACT</u> <u>SUB-CLAUSE 33.1 TERMS OF PAYMENT</u> <u>Schedule No.1 - Plant and Equipment Supplied from Abroad</u>	Not Agreed Sub-Clause 33.1 Terms of Payment, Schedule No.1 - Plant and Equipment Supplied from Abroad is maintained. Sixty-Five percent (65%) of the total C/P amount should be paid within 14 days upon the delivery from manufacturer premises on presentation of shipping documents etc., adjusting this payment term will help reduce project costs and facilitate smoother transactions during the import of machinery.
24.	<u>VOLUME-I, PREAMBLE TO CONDITIONS OF CONTRACT, SECTION-5, Sub-clause 1.1.40 Warranty period</u>	Clarification This warranty is related to the Manufacturer of the Plants/ Goods/ Equipment, who may be a Partner or Sub-contractor of the Bidder. The Manufacturer shall fulfill such

		obligations, as a common worldwide practice and shall consider compliance while Bidding.
25.	VOLUME-II, SCOPE OF WORKS 1.2.2.11 Flood Protection wall (page II-15) The proposed flood protection wall at powerhouse, i. Type - Counterfort, RCC Wall (G-28), ii. Height - Varies 16.5m to 8m, iii. Length - 96m, iv. Top EL of Wall - 496m	Not Agreed The proposed Elevation will reduce the Net Head significantly, thereby changing Plant Size, Plant Designs, loss of Energy and all Economics of the Project. The provisions of Employer's Requirement shall prevail.
26.	VOLUME-II, SCOPE OF WORKS 1.2.4 Electrical Equipment Design Requirements, 1.2.4.2 para (2) Engineering Standards and Specifications	Clarification E&M Equipment shall be of European Origin and European Standards, manufactured in Europe or otherwise, meeting the Employer's Requirements.
27.	VOLUME-II, SCOPE OF WORKS 1.2.4.6 Generators 11kV, 3 Phase, Page II-46 c) Mechanical Braking and Jacking system or as proposed by the manufacturer.	Agreed Jacking system is not applicable to Horizontal Shaft Units. However Pneumatic Braking system to be applied against the Generator Flywheel should be included in the design.
28.	VOLUME-II, SCOPE OF WORKS 1.2.4.6 Generators 11kV, 3 Phase, Page II-46 c) Monitoring Systems (page II-49)	Not Agreed The provisions of Employer's Requirements shall prevail for the Monitoring system.
29.	VOLUME II, SCOPE OF WORKS 1.2.4.16 Spare Parts 1) Generator Spare Parts	Clarification Already clarified at Sr. No: 12

	i. 1 (One set) Spare Stator Windings, with required mounting material xiii. 1 (One set) High pressure oil pump and motor of each type (AC and DC) 2) Other Spares b) combine bearing ii. 1 (One set) electric circulation pump/oil cooler unit. iii. 1 (One set) AC pump for the oil injection. d) Maintenance Equipment iv. 1 (One set) Protection Relay tester	Protection Relay tester is high cost for small power plant. Please review and confirm.	1(i) Clarified as: "1/3rd quantity of the stator coils of a single Unit and four numbers of rotor poles, two each of south and north polarity is essentially required. 2b) ii. Not Agreed. One electric circulation pump / oil cooler Unit should be provided for combined thrust and guide bearing of each horizontal shaft Unit. iii. Oil injection system is not applicable to horizontal shaft Unit d) iv. Protection Relay tester is required.
30.	<u>VOLUME-II, SCOPE OF WORKS</u> <u>1.2.4.22 DC and UPS Systems</u> <u>No requirement for cell voltage.</u> <u>3. Spare Parts</u> <u>4. 1 (One Set) each type of cells with covers.</u>	For cell voltage, 2V or 12V? For cell spare, bidder think one set means one piece. Please review and confirm.	Clarification Cell Voltage 12 V (or as proposed by the manufacturer) Spare set of cell. (04 Nos.)
31.	<u>VOLUME-II, SCOPE OF WORKS</u> <u>1.2.4.28 Earthing and Lightning Protection Systems</u> <u>No requirement for material of earthing conductor.</u>	Bidder propose to adopt Galvanized flat steel for earthing conductor. Please review and confirm.	Clarification Earthing and Lightning Protection System for the Project shall comprised of copper conductors and copper rods.
32.	<u>VOLUME-II, SCOPE OF WORKS</u> <u>1.2.4.29 MV and LV Cables Systems</u> <u>No requirement for material of MV (11kV) and power Cable.</u>	Please clarify the material of MV cable and power cable, copper or aluminium?	Clarification (1) LV wires and cables shall be copper. (2) 15 KV MV cables as per NEDC Specs. P-29, Compacted Aluminium.



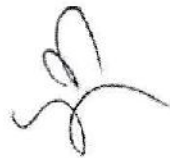
33.	<u>VOLUME-II, SPECIFICATION</u> <u>2.2.4.6 Spiral Casing</u> Four equally spaced stainless-steel taps 25 mm in diameter shall be provided at the turbine inlet for head measurement and two or more taps provided for Win- ter Kennedy flow measurement.	Shall bidder consider the Winter Kennedy Flow Measurement on spiral casing? And bidder will set Ultrasonic flow measurement on penstock. Please confirm.	Agreed and further clarified as Bidder can propose his own arrangement of flow measurement at turbine inlet. The Employer will consider if the proposal complies with the relevant Standards. Winter Kennedy Flow Measurement is required for measurement of relative efficiency of the prototype. However acoustic flow meter should be provided at each penstock for display of discharge in SCADA system.
34.	<u>VOLUME-II, SPECIFICATION</u> <u>2.2.4.21 Turbine Spare Parts</u> viii. 1 (one set) Bearing oil cooling pump. xii. 1 (one set) Vapour type thermometer with sensing bulb xiii. 1 (one set) Solenoid valves.	Our turbine structure has some different: vii. No need bearing oil cooling pump. viii. Adopt RTD (PT 100) xiii. No need solenoid valve for turbine	Clarification xiii. 1 (One Set) Solenoid valves is deleted. For others, the provisions of Employer's Requirements shall prevail. Depending upon the design, Centralized Oil Cooling system for combined thrust and guide bearings and Generator bearings shall require Oil circulating pump. Separate RTDs shall be provided for thrust pads metal temperature measurement and Guide bearing pads temperature, display on local panel and main control room.
35.	<u>VOLUME-II, SPECIFICATION</u> <u>2.2.5 Turbine Model Tests</u> <u>Relating requirements</u>	Bidder propose to cancel the turbine model test. Because of the project unit is small, this cost is not necessary. Please confirm.	Agreed The bidder should provide Hill Chart of their reference model of turbine similar in size and operating conditions of head and discharge. The contractor shall carry out Modelling in CFD to ascertain performance

			characteristics of the prototype turbine Runner.
36.	<u>VOLUME-II, SPECIFICATION</u> 2.2.7.2 Functional Requirements ii. Output Control iii. Flow Control iv. Turbine Creep Detection	The small governor system excludes the following functions, ii Output Control (from main control board) iii Flow Control iv. Turbine Creep Detection	Not Agreed The provisions of Employer's Requirements shall prevail.
37.	<u>VOLUME-II, SPECIFICATION</u> 2.2.7.3 Hydraulic Pressure Unit for Governor The governor oil pressure systems are foreseen to operate at about 10 bars and Nitrogen is required to maintain the oil pressure at certain value and keep the pressure available for servomotors as well as Main Inlet valve hydraulic cylinders.	Bidder propose the rated pressure is 160 bars. The HPU is only for governor, HPU for main inlet valve will be considered separately. Please confirm.	Not Agreed The provisions of Employer's Requirements shall prevail, however, the manufacturer can provide his own design calculations and technical detail for review and approval by the Engineer at the EPC design stage. A 16 Bar HPU shall be provided for Governing system of each Turbine. For operation of MIV's a separate oil pressure system shall be provided.
38.	<u>VOLUME-II, SPECIFICATION</u> 2.2.7.4 Oil Pumping System Each HPU shall have two (2) Screw type self-priming pumps.	Bidder proposes to adopt gear self-priming pumps. Gear pump is suitable for small HPU.	Not Agreed The provisions of Employer's Requirements shall prevail.
39.	<u>VOLUME-II, SPECIFICATION</u> 2.2.8.3 Hydraulic Power Unit for MIV - "synchronized with the unit governor is recommended" - "operate at about 60 bars" - "The MIV's will be provided with two double acting hydraulic cylinders for opening and closing"	- Hydraulic Power Unit for MIV is set separately, not for governor. - The operating pressure will be at 160 bars - the MIV is small, which only equip one acting hydraulic cylinder	Not Agreed The provisions of Employer's Requirements shall prevail, however, the manufacturer can provide his own design calculations and technical detail for review and approval by the Engineer at the EPC design stage. Explained at Sr. No.37 Above.

40.	<u>VOLUME-II, SPECIFICATION</u> <u>2.2.8.3 Hydraulic Power Unit for MIV</u> <u>Key Parameters of Main Inlet Valve</u> <u>(page II-118)</u> <table><tr><td>Sealing System</td><td>Stainless Steel</td></tr></table>	Sealing System	Stainless Steel	Bidder suggests to adopt Rubber Seals, which is the same with clause 2.2.8.2 spare parts requirements.	Clarification The spare parts mentioned in clause 2.2.8.4 The disc seals should be of Neoprene rubber coated with sulphide as lubricant while the body seat should be made of stainless steel.
Sealing System	Stainless Steel				
41.	<u>VOLUME-II, SPECIFICATION</u> <u>2.2.8.4 Inlet Valve Spare Parts</u> iv. 1 (one set) Needle tip and seat ring for the bypass needle valve.	Bidder propose electrical motor-driven bypass valve. Please confirm.	Agreed Motorized bypass valve is acceptable.		
42.	<u>VOLUME-II, SPECIFICATION</u> <u>2.2.10 Main Lifting Equipment</u> Two (02), 5-ton capacity JIB shall be provided to operate the Draft Tube gates and stoplogs.	Bidder proposes screw hoist instead of JIB crane. Please confirm.	Not Agreed The provisions of Employer's Requirements shall prevail.		
43.	<u>VOLUME-II, SPECIFICATION</u> <u>2.2.12 Mechanical Auxiliaries</u> <u>2.2.12.1 Scope</u> i. Compressed Air system/ High Pressure xi. Powerhouse Elevator	No need high pressure compressed air system. No need elevator for the horizontal group powerhouse. Please confirm.	Clarification The provisions of Employer's Requirements shall prevail for compressed air system, however, Elevator stand omitted for all the Bidders. 120 Psi compressed air systems is recommended for station air services and pneumatic brakes for generators.		
44.	<u>VOLUME-II, SPECIFICATION</u> <u>2.2.12.5 Cooling Water System</u> <u>Closed circuit cooling water systems</u> <u>comprise a primary cooling water circuit</u> <u>and a secondary cooling water circuit.</u>	Bidder propose to adopt one circuit cooling water system, which connect with penstock and discharge to the tailrace. Please confirm.	Not Agreed The provisions of Employer's Requirements shall prevail. Closed loop cooling water system should be provided in the design.		

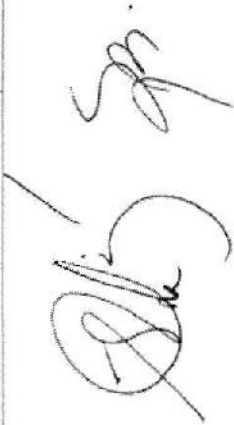
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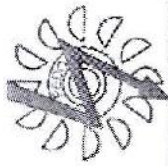
45.	<u>VOLUME-II, SPECIFICATION</u> <u>2.2.12.15 Hydraulic Steel Structures</u> <u>4) Gantry Cranes (for Stop log and Gates)</u> <u>2.2.13 Hydraulic Hoists and Gantry Cranes.</u>	For the small power station, bidder suggests to adopt screw hoist for lifting stop logs and gates. Please confirm.	Clarification The provisions of Employer's Requirements shall prevail. A Monorail system with motorized hoisting device for lifting of stop logs should be provided.
46.	<u>VOLUME-II, SPECIFICATION</u> <u>2.9.4 Vehicles</u> The Six (6) vehicles stated shall become the property of the Employer on completion of the works. <u>i. Double Cabins (4x4) - 3 Nos, ii. Suzuki (Jimny) - 3 Nos</u>	Please confirm the quantity of vehicles, better with vehicle brand.	Clarification The Standard Specifications shall prevail. Vehicle Spec. may be added to avoid future confusion. i. Provision of latest diesel driven 5-seater, 4-wheel drive pickup type Toyota Hilux Revo G Automatic Double Cabin or Equivalent - 3 Nos. ii. Latest Suzuki Jimny (4x4) / Equivalent - 3 Nos.
47.	<u>VOLUME-II, SCOPE OF WORKS</u> <u>1.2.4.8 Structural arrangement of generators - Para (1&2)</u>	These specifications are for vertical generators. Horizontal generators of this capacity do not air-water coolers. These are natural air cooled. Firefighting system for this capacity generators is generally water sprinkling. Does not required FM2000 CO2 system. Else it will impact the cost significantly. As per the drawing no. MHPP-ELE-001 provided in Volume-III from generator outgoing directly power is fed into the 11KV line.	Not Agreed The provisions of Employer's Requirements shall prevail for the Air/water cooling of Generators and FM 200 for the firefighting system.
48.	<u>VOLUME-III, Drawing no. MHPP-ELE-001</u>	We suggest 11KV/11KV isolation transformers shall be provided to protect the generators and other equipment. Else any disturbance in outgoing line will impact the powerhouse operation.	Not Agreed The powerhouse operation will not be disturbed by outgoing lines due to impedance at generator neutral point. The impedance value selection will be such that to allow limited Earth Fault Current and to



		trip the 11 KV Circuit Breaker of outgoing feeder without disturbance to Generators etc. The provisions of Employer's Requirements shall prevail.
49.	<u>GENERAL</u>	Please confirm units will operate in Grid or Off-Grid. What is the load connected to 11kV line and how much generation capacity is available on the 11KV line? Also please confirm percentage of times on-grid and off-grid operation in anticipated. Clarification Primarily the Transmission Lines from MHPP is an Isolated system/Off-grid. However, PEDO after completion of the Project and initial operation of the Isolated Transmission System, may decide in future as considered appropriate. However, protection system should be design for both Isolated mode (Islanding) as well as connection with national grid system.
50.	<u>VOLUME-II, SPECIFICATION</u> <u>2.2.9 Powerhouse crane is proposed</u> <u>of 35/5T</u>	Partially Agreed The Bidder can propose the capacity of Powerhouse Crane based on heaviest load to be lifted with safety factor of 1.2 times.
51.	<u>Volume I, Table B1: Personnel</u>	Clarification At Bidding stage, the Bidder may submit the CVs of key personnel listed in "Form B8 (a): Personnel" only. The CVs of personnel mentioned in "Table B1" like Welders, Technicians etc., can be provided and approved during the Execution Stage, and are not required at the Bid Stage.
52.	<u>Formwork:</u>	Clarification The Employer emphasized that the Bidder shall use at Site an advanced Formwork system for the Weir Structure and Powerhouse Building to achieve the excellent finish.

Volume 11. Employer's Requirements, Sub-Clause 2.1.8.1 (iii)	The Bidder shall consider in his Bid, the PERI Formwork System or alternate equivalent (conditioned with, Satisfaction and Approval of the Engineer) for the Weir Structure and Powerhouse Building.
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PEDO
Pakhtunkhwa Energy Development Organization
Government of Khyber Pakhtunkhwa

Pre-Bid Meeting

Attendance Sheet of the Bidders for

Construction of 6.95MW Mujahidin Hydropower Project at Barandoo River, District Torghar, KKP.

Date: Sep 19, 2024
Time: 11:00 am

Sr. No.	Name of the Contractor	Representative Name	Designation	Email	Contract No.	Signature
01	DESIGNMEN Consulting Engrs.	Imran I Choun	Contract Engr.	engr.imran.ianadi@gn- out.com	0345-634334	
02	DESIGNMEN	Najam-uz-Sopib	Pr. Engr. Hyd	najam2501@yahoo.com designmen.ishanabad@gmail.com	0333542300	
03	Designmen	Sohail Ishaq	Project Engr	sohail.iwqne@hotmail.com	03008545564	
04	MK Engineers & Consultant Pvt Ltd	WAHIB QADROM	BDO	wahib@mkengineers.com PK	0312-8061227	
05	Talish (Cape)	Talish Agha	Office Mgr	Talish Agha	0335-929060	
06	Muhammad Shoaib (GRC)	General Manager	General Manager	03017900079 mshoaib@gn.com		
07	Rana Sagheer Ahmad Railcop	Railcop	Bidding Specialist			
08	RAILCOP Railcop	Arslan Khaliq	Assistant Manager	arslan.khaliq railcop.com.pk	0311-1334280	
09	Shameen & Sons	ASHIQ HUSSAIN	Manager	Shameenandsons@gmail.com	0341-9487930	
10						



GOVERNMENT OF KHYBER PAKHTUNKHWA.
PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION
NESPAC House, 24/B-2 Phase-V, Hayatabad, Peshawar. Tele: +92-91-9217295. Email: pd.barandoo@pedo.pk



No. 2020-27/PEDO/Barandoo HPP
Dated: March 25, 2025

To

- 1) Chief Engineer (Procurement & Contracts), PEDO,
- 2) Chief Engineer (Dev.), PEDO,
- 3) Director Finance, PEDO,
- 4) Team Leader/Project Manager, MC, Mujahidin HPP,
- 5) Contract Specialist/Procurement Expert, MC, Mujahidin HPP,

Project: Construction of 6.95 MW Mujahidin HPP at Barandoo River, District Torghar, Khyber Pakhtunkhwa (ADP No. 357 {170368}).

Subject: Minutes of the Procurement Committee Meeting on the Technical Bid Evaluation Report (T-BER) prepared by the Management Consultants (MoM No. 009).

Dear Sir (s),

Reference to the subject captioned above, find enclosed herewith minutes of the Procurement Committee meeting held on March 24, 2025 at the Project office "Mujahidin HPP" 1st Floor NESPAC House, Peshawar on "Technical Bid Evaluation Report (T-BER)", for your information and record.

The MC is hereby directed to finalize the Clarifications and the Technical Bid Evaluation Report (T-BER) in accordance with the MoM strictly and be submitted expressly, because the Clarifications submitted today was the repetition of the previous Clarifications without giving any clue for the finalization of the Technical Bid Evaluation.

The meeting was attended by the MC's head office and experts on zoom.

Best Regards!

Encl: Minutes of Meeting.

Copy forwarded for information to:

1. PA to CEO, PEDO, Peshawar.
2. The Regional Head (North), ACE, Lahore.
3. Office Copy.


Project Director
Mujahidin HPP at Barandoo River
District Torghar, PEDO


Project Director
Mujahidin HPP at Barandoo River
District Torghar, PEDO

MINUTES OF THE PROCUREMENT COMMITTEE MEETING

Held on March 24, 2025 at PD MHPP Office, NESPAK Building, Peshawar

The meeting of the Procurement Committee held at the Project Office, Mujahidin HPP to review the Draft Technical Evaluation Report (T-BER) submitted by the Management Consultant.

List of participant is attached as Annex-I.

At the very outset, PD MHPP welcomed all participants of the meeting. Formal proceeding started with the recitation of the Holy Quran. Thereafter, the meeting continued towards the following discussion points;

S.No.	Description/Issue	Discussion	Consensus	Action Required
1	PEC License of the Bidder's Design Consulting Firm	The Pakistan Engineering Council (PEC) license for the Bidder's Design Consulting firm i.e., Paradigm Engineering Consultants, remains unavailable to date. The committee inquired the MC's contract specialist whether the requirement of valid PEC License for the design consulting firm be categorized as a major or minor deviation. The consultants responded that it may be considered as a minor requirement, however, shall be provided before award of the contract.	It was agreed that the requirement shall be treated as a condition for the award of the contract.	MC's Contract Specialist/ Bidder through Clarification.



2	E&M Equipment Origin Requirement s – Addendum-1 & Technical Requirement s for the Electrical Equipment	The procurement committee sought the MC's perspective on the E&M origin requirement as per Addendum-1 to which the MC's contract specialist responded that E&M equipment generally includes both electrical and mechanical components. The Project Authority opined that the concern may be analyzed in conjunction with the query asked by the potential bidder exclusively quoting the paragraph (2) of the clause 1.2.4.2 of the Employer's Requirement (Volume-II) of the bidding documents, which categorically implies to only Electrical equipment. Senior Electrical Expert from the MC further elaborated that Addendum-1 requirement for the E&M specifically correspond to be of European origin and European standards, as mentioned under clause 1.2.4.2 of the Employer's Requirement (Volume-II) of the bidding documents, namely Communication System, SCADA System, Control System and Protective Relays. The MC team Leader/Project Manager in the context of the issue added that as per contract law, the theme of the issue shall prefer over the words and anything not requested for cannot be granted, resultantly establishing that the origin requirement is only applicable to the Electrical Equipment as mentioned under paragraph (2) clause 1.2.4.2 of the Employer's Requirement (Volume-II) of the bidding documents.	After detail discussion, it was agreed that the origin requirement is only applicable to the Electrical Equipment as mentioned in the paragraph (2) of the clause 1.2.4.2 of the Employer's Requirement (Volume-II) of the bidding documents. It was further agreed that the bidder shall provide the manufacturer authorization and technical details of the electrical equipment, as specified in the aforementioned clause for evaluation purposes.	MC's Contract Specialist / Bidder through Clarification
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3	Deviation in Generator Efficiency	The bidder has deviated from the Employer's Requirements by offering a generator efficiency of 96%, whereas the specified requirement is 97%. The MC team highlighted that the bidder did not provide a clear response to the clarification on the specific requirement of Generator's Efficiency. After discussion, it was agreed to obtain a formal undertaking from the bidder, ensuring that the generator efficiency shall comply to the Employer's Requirements i.e., 97%. In case the bidder is unable to achieve the required efficiency, penalty @ USD 10,000/- against each 0.1% decrease shall be imposed.	It was agreed to obtain a formal undertaking from the bidder through clarification, ensuring that the generator efficiency shall comply to the Employer's Requirements i.e., 97%. In case the bidder is unable to achieve the required efficiency, penalty @ USD 10,000/- against each 0.1% decrease.	MC's Contract Specialist / Bidder through Clarification
4	Bid Level Design and Drawings	The bidder has not provided the bid level design and relevant drawings for civil works as per the Employer's Requirements. Instead, they have duplicated the Tender level drawings as issued by the Employer, signing each page without assuming design responsibility. The MC is of the view that any errors or discrepancies arising from the tender level design & drawings must be solely attributed to the bidder, with no claims entertained.	The procurement committee accented that the Bidder's undertaking shall be asked in this regard. Moreover, the MC was directed to prepare clarifications and provide the same to Bidder at the earliest for their consent.	MC's Contract Specialist / Bidder through Clarification



MINUTES OF MEETING (MoM No.10)

**held at the office of the Project Director, Mujahidin HPP, NESPAK Building,
Peshawar, on May 8, 2025**

The meeting of the Procurement Committee (PC) was convened at the Project office of 6.95 MW Mujahidin Hydropower Project (MHPP) to review the Final Draft of the Technical Bid Evaluation Report (T-BER), submitted by the Management Consultants (MC) on May 5, 2025.

The MC's Deputy Regional Head (North) and Contract Specialist (CS) participated virtually via Zoom. The list of attendees is enclosed as Annexure-A.

The Project Director (PD), 6.95 MW Mujahidin HPP, formally welcomed all participants. The proceedings commenced with the recitation of the name of Allah. The key discussion points are summarized as follows:

S. No.	Description/ Issue	Discussion	Consensus	Action Required
1	Pakistan Engineering Council (PEC) License of the Bidder's Design Subcontractor/ Consulting Firm.	The requirement for the PEG license pertaining to the Bidder's Design Subcontractor was re-examined and discussed in detail.	The PC members unanimously reaffirmed that the requirement for the PEC License shall be considered a condition precedent to the award of the Contract.	MC
2	Technical Bid Evaluation Report Clause 6.6 - Design & Manufacturing Experience of the Bidder/ Bidder's Subcontractor	Clause 6.6 of the T-BER was thoroughly deliberated by the MC's CS. In the report, the MC presented two alternatives - Option A and Option B - along with a detailed explanation of the potential concerns associated with adopting Option B. Specific focus was given to equipment compatibility and warranty implications arising from a scenario in which equipment manufactured by a European-origin company is installed by the Bidder's Chinese Subcontractor.	The PC members unanimously resolved that the equipment of European origin, to be installed by the Chinese Subcontractor, is compliant with the Employer's Requirements, based on the expert opinion given by the MC's Electrical Expert; and as stated in the draft report that "it is the bidder's responsibility to ensure the compatibility of the equipment. He further advised that equipment of European origin, utilizing European software and assembled by the Chinese Subcontractor in conjunction with their panel assembly, would be functionally suitable and consistent with practices adopted in other similar projects". The manufacturer warrantee Certificate shall be provided by the Bidder.	MC

SP

3	Technical Bid Evaluation Report Clause 7.3.2 - The Employer's Requirement vide Addendum No. 1, in line with clause 1.2.4.2 (Paragraph 2) Volume-II of the Bidding Document (BD)	Clause 7.3.2 of the T-BER was appraised by the MC's CS in the context of Addendum No. 1, specifically regarding the origin requirements for equipment outlined in Paragraph 2 of Clause 1.2.4.2 of the Employer's Requirements, including Protective Relays, SCADA, and Communication Systems. The mixed solution comprising Equipment manufactured by a European origin company and installed by the Bidder's Chinese Subcontractor along with its compatibility aspects, was presented to the PC for consensus.	The PC members unanimously endorsed, the same resolution as stated above, under Serial No. 2	MC
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In view of the foregoing, the Management Consultant (MC) was instructed to submit the finalized Technical Bid Evaluation Report (T-BER) for the sign and seal of all-members of the Procurement Committee (PC), for onward submission to and approval by PEDO's Executive Committee.

[Signature]
9/6/2025
PD, MHPP



PEDO
Pakhtunkhwa Energy Development Organization
Government of Khyber Pakhtunkhwa



*** Attendance Sheet**

Procurement Committee Meeting on Technical Bid Evaluation Report (T-BER) Final.

for the "Construction of 6.95MW Mujahidin Hydropower Project at Barandoo River, District Torghar, KP"

Date: May 08, 2025
Time: 11:00 AM

Sr. No.	Name	Designation	Department	Email	Contact No.	Signature
01	Sayyid Hussain	Project Director MHP	PEDO - Mujahid	pt.kamran@pado.pk	0331-9361475	[Signature]
02	Rizwan Rahman	Contract Specialist	PEDO	—	0340826038	[Signature]
03	M. Shazib	DD (Geo)	PEDO	—	0349-4957493	[Signature]
04	Zain ul Arifeen Khattak	AD (PCC)	PEDO	—	03339229353	[Signature]
05	Waqar Afridi	AD (Accounts)	Finance, PEDO	—	0331-9776584	[Signature]
06	M. Ejaz Khan	Proj. Coordinator	MC - ACE	—	03339536559	[Signature]
07	ARRAB Usman	JE	MC - PCC	—	03339373902	[Signature]
08	Imdad Ali	AD (MHP)	PEDO	Engr.imdad13@gmail.com	03339995371	[Signature]
09	Leelat Meo	Contract Specialist (CS)	MC - ACE	—	0333-4299741	Via Zoom
10	Farooq Khattak	Deputy Regional Head (N)	MC - ACE	—	0333-4221228	Via Zoom