PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION
ENERGY & POWER DEPARTMENT
GOVERNMENT OF KHYBER PAKHTUNKHWA

PRE-QUALIFICATION DOCUMENT

for

ENGINEERING, PROCUREMENT AND CONSTRUCTION OF 10.56 MW CHAPARE - CHARKHIL HYDROPOWER PROJECT DISTRICT, KURRAM

ICB NO: CCKHP- 01

PROJECT DIRECTOR

CHAPARE - CHARKHIL HYDROPOWER PROJECT

April, 2022

Room #219, Plot # 38/B2, Phase-V, Hayatabad, Peshawar. Tel: 091- 9217488, Email: pdcckhpp@gmail.com

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1. INVITATION FOR PRE-QUALIFICATION

Date: 14/04/2022.
Contract No. CCKHPP - 01

1. The **Pakhtunkhwa Energy Development Organization (PEDO)** has been entrusted by the **Government of Khyber Pakhtunkhwa** and provided funds to finance the cost of **Engineering, Procurement & Construction of 10.56 MW Chapare Charkhil Hydropower Project, District Kurram, Khyber Pakhtunkhwa** to eligible payments under the contract(s) for which this Invitation for Pre-qualification is issued.

2. The **Pakhtunkhwa Energy Development Organization (PEDO)** hereinafter, the Employer intends to pre-qualify the Applicant (Constructor) for the works of **Engineering, Procurement & Construction of 10.56 MW Chapare Charkhil HPP** which is a medium head project, located on Kurram River near village Chapare in Kurram District of KP. The weir site of the project is near village Charkhil, at a distance of about 10 km upstream of Thal Village on main Thal-Parachinar road and powerhouse site is about 3 km downstream of village Chapare on the right bank of Kurram River. The project consists of fixed weir, under sluices, power channel, head regulator, headrace channel / Tunnel, sediment excluder & spill channel, forebay &spill channel, powerhouse, tailrace channel, access road and project colony. A gross head of approximately 59.72 m is available for power generation because of the slope of the river. The forebay is connected to the Open powerhouse by means of a 247 m supported Penstock of 2.7 m internal diameter. The Project consist of three Francis Turbines (3.52 MW each). The Electricity from project will be dispatched to 132 kV Grid Station at Thal Village situated at 10 Km (approx.) from proposed powerhouse site. Moreover, the Feasibility Study has been reviewed and is being updated by the Management Consultants and subsequently the technical parameters will be accordingly incorporated in the Employer Requirement of bidding documents.

3. It is expected that Bid will be issued by June 2022 to pre-qualified constructors.

4. Pre-qualification is open to constructors/joint ventures of constructors who are registered with PEC in **Category (C-A)** for Construction of Engineering Works, described in para 2 mentioned hereinabove. Applications may be submitted for pre-qualification for the above Works.

5. Appropriate category PEC registered constructors may obtain the prequalification documents from the office of the Employer, at The Project Director, Chapare Charkhil Hydropower Project, PEDO House 38- B/2, Phase-V, Hayatabad, Peshawar, upon payment of Rs. 3,000/- in the form of CDR/Pay-order in favor of CEO- PEDO during office hours from 15th April, 2022 onwards up to 02 days before the closing date.

6. Minimum/Pre-requisite requirements for pre-qualification will be as given below:-

#	Pre-requisites	Yes/NO
1	The Firm / Joint Venture must have valid registration with Pakistan Engineering Council (PEC) in **C-A** category. (provide valid certificate)	
2	All bidders must have valid registration with Income & Sale Tax Department /NTN with active status. (provide valid certificate)	

3	All the bidders should be registered with Khyber Pakhtunkhwa Revenue Authority (KPRA), with active taxpayer status. (provide valid certificate)	
4	Joint Venture (JV) agreement as per PEC standard format must be submitted on a non-judicial stamp paper.	
5	Each of the partners of a Joint Venture, should provide an affidavit stating that the firms has not been backlisted by any government and private organizations in the last five years.	

The Applicant (including all members of a JV) must meet the above requirements of eligibility. *The Applicant fails to meet eligibility requirement, its application will not be processed further and declared dis-qualified.*

7. Applications must be submitted online on http://etender.pedo.pk (Soft Copy in PDF Format only) and applicants must send three (03) hard copies in sealed envelopes to Room No 219, PEDO House 38-B/2, Phase V, Hayatabad, Peshawar not later than 1400 hrs on 17th May, 2022. The applications must be clearly marked “Application for Pre-qualification for: Engineering, Procurement & Construction of 10.56 MW Chapare Charkhil Hydropower Project, District Kurram”.

   The Applications will be opened on the same date at 1430 hrs in the presence of the representatives of the bidders who chose to attend the bid opening meeting.

8. Any application submitted later than the mentioned time and date will be rejected.

9. Applicants will be informed, in due course, of the result of the evaluation of applications. Only the Firm /Joint Ventures (Constructor) prequalified under this process will be invited to submit bid.

2. INSTRUCTIONS TO APPLICANTS

2.1. Submission of Applications

2.1.1. Applications must be submitted online on http://etender.pedo.pk (**Soft Copy in PDF format only**) and **applicants must send three (03) hard copies** in sealed envelopes to **Room No 219, PEDO House 38-B/2, Phase V, Hayatabad, Peshawar** not later than **1400 hrs on 17th May, 2022**. The applications must be clearly marked "Application for Pre-qualification for: **Engineering, Procurement & Construction of 10.56 MW Chapare Charkhil Hydropower Project, District Kurram".**

2.1.2. The name and mailing address of the Applicant shall be clearly marked left hand on the envelope

2.1.3. The applications shall be prepared in the English language. Information in any other language shall be accomplished by its translation in English. Employer reserves the rights for Pre-qualification in case of non-compliance of the above requirement.

2.1.4. The Applicants must respond to all questions and provide complete information as advised in this document. Any lapses to provide essential information may result in dis-qualification of the Applicant.

2.1.5. The clarification meeting will be held on 10th May, 2022 on 1100 hrs at Conference room, PEDO House 38-B/2 Phase-V, Hayatabad, Peshawar, where all prospective Applicants may request clarification about the project and the evaluation criteria.

2.1.6. Clarification if required may be asked by post/electronic mail through

Email: pdcckhpp@gmail.com

Ph:091-9217488

2.2. Qualification Criteria

2.2.1. General

Pre-Qualification will be based on all the criteria given in succeeding paras 2.2.2 to 2.2.6 regarding the Applicant's (EPC) Financial Soundness, Experience Record, Personnel Capabilities and Equipment Capabilities as demonstrated by the Applicant's responses in the forms attached to this letter. The Employer reserves the right to waive minor deviations, if these don't materially affect the capability of an applicant to perform the contract. Sub-contractor's experience and resources shall not be taken into account in determining the Applicant's compliance with the qualifying criteria. However, Joint Venture experience & resources shall be considered. Consortium or Association of firms will be considered for similar treatment as in case of Joint Venture. The Employer evolve the following criteria for pre-qualification of an Applicant as individual or JV;

#	Description	Points
B.	Experience as Designer of Hydropower Project	15
C.	Experience as E&M Contractor	35
D.	Experience as Civil Contractor	50
	Total	**100**

Note: *Minimum qualifying score shall be 60%. Applicant shall score minimum 50% in each above category.*

The further detailed criteria for each category may be developed as given under the each head as follows:

2.2.2. Qualification Requirements as Designer Firm

Criteria, sub-criteria, and point system for the evaluation of the capability of Designer Firm responsible for designing of Civil Works, E&M Equipment and quality control through construction supervision during construction of civil works and installation, testing and commissioning of E&M equipment is given below and be supported by filling the attached forms for Designer Firm.

#	Description	Marks	Form
a.	Experience as Designer of Hydropower Project	300	**DFF-01& 02**
b.	Approach and Methodology to TOR	150	**DFF-03**
c.	Personnel Capability	500	**DFF-04**
d.	Work Experience in Pakistan	50	**DFF-05**
	Total	**1000**	

Note: *Qualifying score shall be 60%. Applicant shall score minimum 50% in each above category. Score obtained from above shall be equate to 15.*

a. Experience of the Firm as Designer of Hydropower Project:

The experience of the Firm shall be evaluated on the basis of prequalification requirement given in below Table. **Form – DFF-01** attached with the document be filled to support the Employer in evaluation of below criteria.

#	Description	Marks
i.	**General Experience as Designer**: Experience of designer in construction supervision Contracts in the role of Lead Contractor/Partner contractor of hydropower projects, JV member, or sub-Contractor should be at least 15 years, starting 1st January 2005.	50
ii.	**Specific Experience as designer of Hydropower Project**: Experience of Designer in Construction Supervision Contracts in the role of Lead Contractor/Partner contractor, JV member, or sub-Contractors have completed construction design and construction supervision of at least 3 Projects of the similar capacity and complexity, in the last 15 years, starting 1st January 2005.	250
	Total	**300**

b. Approach and Methodology:

As a designer clearly explain the role and responsibility in this Contract as part of their understanding of the project and satisfy the TOR requirement given in Section VI. Develop approach and methodology to complete this project satisfactory as per given TOR. The points system used for assessment of approach and methodology

is as;

- Technical Approach and Methodology: 30
- Work Plan: 35
- Organization and Staffing: 35
- Total: 100

Form – DFF-03 is attached and be filled by the Applicant to support evaluation of document.

c. Personnel requirement and capability

The following personnel are required to be part of the contract as designer. Kindly submit CV of each expert for evaluation of capability of these experts as per **Form – DFF-04**.

#	Description	Marks
DKP-1	**Chief Hydropower Engineer (In-charge Designing Section):** S/he should at least be Bachelor's degree in Civil Engineering or other related engineering disciplines. Master's degree in related discipline will be given additional weightage. S/he shall have a minimum experience of 15 years with at least 10 years in the planning and design of hydropower projects as Hydropower Engineer.	100
DKP-2	**Chief Hydrology/Sedimentation:** S/he should have at least Master's degree in Hydrology / Sediment or other related engineering disciplines. Doctorate in related field will be given additional weightage. S/he should have at least overall experience of 15 years and with 10years exposure to the related assessment of hydrology and sediment for hydropower projects.	50
DKP-3	**Chief Hydraulic Structures:** S/he should have at least Master's degree in Hydraulics Engineering. S/he should have a minimum overall experience of 15 years with at least 10 years in design of similar hydraulic structures.	50
DKP-4	**Chief Structural Engineer:** S/he should have at least Master's degree in structural engineering. Doctorate in related discipline will be given additional weightage. S/he should have at least overall experience of 15 years with 5 years in design of similar weir, sedimentation basin, powerhouse and related structures of hydropower project.	50
DKP-5	**Chief Tunneling/Geotechnical Engineer:** S/he should have at least Bachelor's degree in Civil Engineering or related engineering disciplines or engineering geology. Master's degree in engineering geology / rock mechanics or related discipline will	50

	be given additional weightage. S/he should have overall experience of 10 years in the field of tunneling with 5 years to the related activities of hydropower tunneling.	
DKP-6	**Chief Mechanical Engineer:** S/he should have at least Bachelor's degree in Mechanical Engineering. Master's in related discipline will be given additional weightage. S/he should have overall experience of 15 years with at least 10 years in design and erection of equipment of similar hydropower projects.	50
DKP-7	**Chief Electrical Engineer:** S/he should have at least Bachelor's degree in Electrical Engineering. Master's qualification in related discipline will be given additional weightage. S/he should have overall experience of 15 years with at least 10 years in design and erection of equipment of similar hydropower projects.	50
DKP-8	**Chief Quality Control and Assurance:** S/he should have at least graduate degree in Civil Engineering from a recognized university. Additional weightage will be given to Master's qualification in the related field. S/he should have a minimum overall experience of 15 years with at least 5 years in the related discipline.	50
DKP-9	**Chief Contract:** S/he should have at least graduate degree in Engineering / Law from a recognized university. Master's in contracts will be given additional weightage. S/he should have an overall experience of 15 years with minimum 10 years of experience in the contracts management and administration of EPC Contract of hydropower project.	50
	Sub-total	500

The number of points to be assigned to each of the above positions or disciplines shall be determined considering the following three sub-criteria and relevant percentage weights and shall equate to above marks against each experts:

(i)	Qualification	20%
(ii)	Adequacy for the assignment	70%
(iii)	Experience in region and language	10%

Total weight: **100%**

d. Applicant must fill form **DFF-05** attached with application for works carried out in Pakistan as the Joint Venture member of EPC Contractor or engineering consultant in capacity of lead firm, as partner in JV or sub-consultants.

2.2.3. Qualification Requirements as E&M Contractor

The Employer have evolved the following criteria keeping in view the complexity and specialized work of the Project for E&M Contractor.

#	Category	Marks	Forms
a.	Financial Soundness	25	**EMCF-01 & 02**
b.	Experience as Hydropower E&M Equipment Contractor	45	**EMCF-03 & 04**
c.	Manufacturing Capabilities	30	**EMCF-05**
	Total:	**100**	

Note: *The applicant must secure at least 60% score in each above category. Achieved marks shall equate to 35.*

a. Financial Soundness

E&M Contractor as partner of EPC Contractor shall provide the following requirement to establish its financial soundness.

Sr. No.	Description	Criteria for Marks Obtained	Marks
i)	Financial Capability	(i) The Applicant shall demonstrate that it has access to, or has available, liquidated assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as US$ 6 Million for the subject contract(s) net of the Applicants other commitments	5
		(ii) The Applicant shall also demonstrate, to the satisfaction of the Employer, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.	5
		(iii) The audited balance sheets or, if not required by the laws of the Applicant's country, other financial statements acceptable to the Employer, for the last	5

Sr. No.	Description	Criteria for Marks Obtained	Marks
		3 years shall be submitted and must demonstrate the current soundness of the Applicant's financial position and indicate its prospective long-term profitability.	
ii)	Average Annual Supply Turner over	Minimum average annual construction turnover of US$ 10 Million, calculated as total certified payments received for contracts in progress and/or completed within the last 3 years, divided by 3 years.	10
	Sub-total:		**25**

Note: **Form EMCF-01 & 02** is attached and be filled by the Applicant with its application.

b. Experience as Hydropower E&M Equipment Contractor

E&M Contractor as JV Partner of EPC Contractor shall have the following experience in design, fabrication, transportation, erection, testing and commissioning of E&M Equipment of hydropower project of similar or above capacity. The Applicant must fill the **Form-EMCF-03 and 04.**

Sr. No.	Description	Marks
i)	Hydropower Projects (at least three and maxi. six) of similar nature, size and complexity completed in the last 15 years as E&M Contractor. Each project will score 2 marks. Additional project will get 1 mark each.	9
ii)	Manufactured and installed at least three turbines of similar type and size in two or more hydropower projects in the last 15 years which are in operation. Each project will scour 4 marks.	12
iii)	Manufactured and installed at least three Generators of similar type and size in two or more hydropower projects in the last 15 years which are in operation. Each Project will scour 4 marks	12
iv)	Manufactured and installed at least three transformers of similar type and size in two or more hydropower projects in the last 15 years which are in	12

Sr. No.	Description	Marks
	operation. Each project shall scour 4 marks.	
	Sub-total:	**45**

Note: E&M Contractor shall score 50% marks in each above category.

c. E&M Contractor as partner of EPC Contractor shall have the designing and manufacturing facilities for all major E&M Equipment required for hydropower project of similar nature. *Fill form **EMCF-05** attached to this document for manufacturing facilities details to support PQ Evaluation by the Employer. The E&M contractor must have the capacity and capability to procure, design, fabricate, transport, erection and commissioning experience for turbines and generator. E&M Contractor may sub-contract design, fabrication, transport, erect and commission the transformer and equipment for transmission line.*

2.2.4. Qualification Requirements as Civil Works Contractor

The Employer have evolved the following criteria keeping in view the complexity and specialized work of the Project for Civil Works construction of similar nature, volume and complexity.

#	Category	Marks	Form
a.	Financial Soundness	30	**CWCF-01 & 02**
b.	Experience in Hydropower Civil Works Construction	40	**CWCF-03, 04, 04(a) & 04(b)**
c.	Manpower Capabilities	10	**CWCF-05**
d.	Equipment Capability	20	**CWCF-06**
	Total	**100**	

***Note:** The applicant must secure at least 60% score in each above category. Achieved marks shall equate to 45.*

a. Financial Soundness

Civil Works Contractor as partner of EPC Contractor shall provide the following

requirement to establish its financial soundness.

Sr. No.	Description	Criteria for Marks Obtained	Marks
i)	Financial Capability	(i) The Applicant shall demonstrate that it has access to, or has available, liquidated assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as US$ 6 Million for the subject contract(s) net of the Applicants other commitments (ii) The Applicant shall also demonstrate, to the satisfaction of the Employer, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments. (iii) The audited balance sheets or, if not required by the laws of the Applicant's country, other financial statements acceptable to the Employer, for the last 3 years shall be submitted and must demonstrate the current soundness of the Applicant's financial position and indicate its prospective long-term profitability.	5 5 5
ii)	Average Annual Supply Turner over	Minimum average annual construction turnover of US$ 10 Million, calculated as total certified payments received for contracts in progress and/or completed within the last 3 years, divided by 3 years.	15
	Sub-total:		**30**

Note: *Fill form* ***CWCF-01 and CWCF-02*** *attached to this document for above to support PQ Evaluation by the Employer.*

b. Work Experience as Civil Works Contractor

Civil Works Contractor as partner of EPC Contractor shall have the following experience in procurement of material, transportation, construction of tunnel, weir, sediment basin and powerhouse of similar size and complexity. It shall work as

lead partner in JV.

Sr. No.	Description	Marks	Forms
i)	Hydropower Projects (at least three with maxi. Six projects) completed in the last 15 years as Civil Works Contractor as lead partner or JV partner in EPC Contract. Each project shall scour 2 marks. Additional project will get 1 mark each.	9	***CWCF-03***
ii)	Hydropower Projects (at least three with maxi. Four projects) of similar nature, size and complexity completed in the last 15 years as Civil Works Contractor as lead partner or JV partner in EPC Contract. Each project shall scour 3 marks. Additional project will get 1 mark.	13	***CWCF-04 & 4(a)***
iii)	Completed construction of large open rock excavation and construction of tunnel for headrace, tailrace and diversion tunnel of size mentioned in attached forms for three hydropower projects in the last 15 years. Each project shall scour 3 marks.	9	***CWCF-04 (b)***
iv)	Completed construction of conventional concrete mentioned in attached forms and rock support in tunnel and open excavation for three hydropower projects in the last 15 years. Each project shall scour 3 marks.	9	***CWCF-04 (b)***
	Sub-total:	**40**	

c. Personnel Capability of Civil Contractor

#	Description	Marks
CKP-1	**EPC Representative (In-charge Construction and Handing Over):** S/he should at least be Bachelor's degree in Civil Engineering or other related engineering disciplines. S/he shall have a minimum experience of 15 years with at least 10 years in the construction and supervision of hydropower project as Deputy Project Manager or Team Leader/Project Manager.	3
CKP-2	**Structural Engineer:** S/he should have at least be Bachelor's degree in civil engineering. S/he should have at least overall experience of 15 years with 5 years in in the construction and supervision of hydropower project.	2
CKP-3	**Tunneling/Geotechnical Engineer/Geologist:** S/he should have at least be Master's degree in Engineering Geology or related disciplines. S/he should have overall experience of 10 years in the field of tunneling with 5 years to the related activities of hydropower tunneling.	2
CKP-4	**Quality Control and Assurance:** S/he should have at least Bachelor' degree in Civil Engineering from a recognized university. S/he should have a minimum overall experience of 15 years with at least 5 years in the related discipline.	1
CKP-5	**Contract and Procurement:** S/he should have at least graduate degree in Engineering / Law from a recognized university. Master's in contracts will be given additional weightage. S/he should have an overall experience of 15 years with minimum 10 years of experience in the contracts management and administration of EPC Contract.	2
1	**Sub-total**	10

Note: *Fill form* ***CWCF-05*** *attached to this document for above list of Experts to support PQ Evaluation by the Employer.*

Above experts shall be evaluate as per criteria given under designer and equate to 10 marks.

d. Equipment Capabilities of Civil Works Contractor

#	Equipment Type and Characteristics	Marks
(i)	Excavators, Loaders, Bulldozers	3
(ii)	Vibrating Roller, Vibrators, Hydraulic &Hand Drill	3
(iii)	Concrete Mixing Batching Plant, Concrete Mix Trucks,	3
(iv)	Gantry Crane, Truck Crane	3
(v)	Concrete Mix Trucks, Dump Trucks, High Speed Mixer, Mortar Mixer	3
(vi)	Diesel Generating Sets 500 KW & 200 KW	2
(vii)	Aggregate Processing Plant, Metal Structure Equipment	1
(viii)	Welding Machine, Air Compressor, Mobile Air Compressor	1
(ix)	Water Pumps, Concrete Pumps, Grout Pumps	1
	Sub-total:	**20**

Note: *Fill form* ***CWCF-06*** *attached to this document to this document for above list of equipment to support PQ Evaluation by the Employer*

2.3. Joint Venture (JV)

2.3.1. Joint Venture must comply with the following requirements:-

a) Following are minimum qualification requirements:-

(i) The joint venture must collectively satisfy the criteria of paras 2.2.1 to 2.2.4, for which purpose the relevant figures for each of the partners shall be added together to arrive at the JV's total capacity. Individual members must satisfy each of the requirements of paras 2.4, 2.5 and 2.6, heretofore.

b) Any change in a prequalified JV after prequalification, shall be subject to the written approval of the Employer prior to the deadline for submission of bids. Such approval may be denied if:-

(i) Partner(s) withdraw from a JV and remaining partners do not meet the qualifying requirements.

(ii) The new partners to a JV are not qualified individually or as another JV; or

(iii) In the opinion of the Employer, a substantial reduction in competition would result.

c) Bid shall be signed by all members in the JV so as to legally bind all partners, jointly and severally, and any bid shall be submitted with a copy of the JV agreement providing the joint and several liability with respect to the contract.

2.3.2. The prequalification of a JV does not necessarily prequalify any of its partners individually or as a partner in any other JV or association. In case of dissolution of a JV, each one of the constituent firms may prequalify if they meet all the prequalification requirements and any partner of J.V has requested/shall request for the same and then his prequalification shall be subject to the written approval of the Employer.

2.4. Conflict of Interest

2.4.1. The Applicant (including all members of a JV) must not be associated, nor have been associated in the past, with the consultant or any other entity that has prepared the design, specifications, and other prequalification and bidding documents for the project, or was proposed as Engineer for the contract, over the last five years. Any such association may result in disqualification of the Applicant.

2.5. Updating Prequalification Information

2.5.1. Bidders shall be required to update the financial, personnel and equipment information used for prequalification at the time of submitting their bids, to confirm their continued compliance with the qualification criteria and verification of the information provided at the time of prequalification. A bid shall be rejected if the Applicant's qualification thresholds are no longer met at the time of bidding.

2.6. Other Factors

2.6.1. Only firms and JVs that have been prequalified under this procedure shall be invited to bid. A qualified firm or a member of a qualified JV may participate only in one bid for the contract. If a firm submits more than one bid, singly or as a JV, all bids including that bidder will be rejected. This rule will not apply in respect of bids which include specialist sub-contractors who are used by more than one bidder.

2.6.2. The Employer reserves the right to:-

a) Amend the scope and value of contract to be bid, in which event the bidder(s) will only bid among those prequalified bidders who meet the requirements of the contract as amended. However the Employer has

to review the disqualified bids who originally do not meet the specified criteria for Pre-qualification.

b) Reject or accept any application; an

c) Cancel the prequalification process and reject all applications.

The Employer shall neither be liable for any such actions nor be under any obligation to inform the Applicant of the grounds for rejection, however, may be debriefed if solicited.

2.6.3. Applicants will be informed in writing by fax or mail within ----------

days [Number of days to vary between 42-84 days i.e. the time required to complete prequalification process] of the date for submission of applications (para 8 of Chapter 2.0, Invitation for Prequalification) of the result of their applications and may be debriefed if solicited.

3. EVALUATION CRITERIA

Applicants meeting the minimum requirements mentioned in Para 2.2 besides other factors shall be considered for pre-qualification. No compromise shall be made on minimum requirements of 50% score in each category.

SECTION: 4 FORMS FOR APPLICANTION

Annex: A Application Form

Annex: B Applicant General Information

Forms for Designer Firm

Forms for E&M Contractor

Forms for Civil Works Contractor

Annex-A

Letter of Application

[Letterhead paper of the Applicant, or partner responsible for a joint venture, including full postal address, telephone no , fax no., telex no., cable and e-mail address]

Date:.....

To: .....

.....

[name and address of the Employer]

Sirs,

1. Being duly authorized to represent and act on behalf of ..... (hereinafter "the Applicant"), and having reviewed and fully understood all the prequalification information provided, the undersigned hereby apply to be prequalified as a bidder for the Construction of 10.56 MW Chapare – Charkhil Hydropower Project located along Kurram River in Kurram District, Khyber Pakhtunkhwa, Pakistan.

2. Attached to this letter are copies of original documents defining1:

   a) The Applicant's legal status;

   b) The principal place of business; and

   c) The place of incorporation (for applicants who are corporations); or the place of registration and the nationality of the owners (for applicants who are partnerships or individually-owned firms).

3. PEDO and its authorized representatives are hereby authorized to conduct any inquiries or investigations to verify the statements, documents, and information submitted in connection with this application, and to seek clarification from our bankers and clients regarding any financial and technical aspects. This Letter of Application will

1 *For applications by joint ventures, all the information requested in the prequalification documents is to be provided for the joint venture, if it already exists, and for each party to the joint venture separately. The lead partner should be clearly identified. Each partner in the joint venture shall sign the letter.*

also serve as authorization to any individual or authorized representative of any institution referred to in the supporting information, to provide such information deemed necessary and requested by yourselves or the authorized representative to verify statements and information provided in this application, or with regard to the resources, experience, and competence of the Applicant.

4. PEDO and its authorized representatives may contact the following persons for further information[2], if needed.

General and Managerial Inquiries	
Contact for Designer	Telephone
Contact for E&M Contractor	Telephone
Contract for Civil Works Contractor	Telephone
Personnel Inquiries	
Contact for Designer	Telephone
Contact for E&M Contractor	Telephone
Contract for Civil Works Contractor	Telephone
Technical Inquiries	
Contact for Designer	Telephone
Contact for E&M Contractor	Telephone
Contract for Civil Works Contractor	Telephone
Financial Inquiries	
Contact for Designer	Telephone
Contact for E&M Contractor	Telephone
Contract for Civil Works Contractor	Telephone

5. This application is made with the full understanding that:

   a) bids by prequalified applicants will be subject to verification of all information submitted for prequalification at the time of bidding;

   b) PEDO reserves the right to:

2 *Application by joint ventures should provide information on a separate sheet information for each party to the application.*

(i) amend the scope and value of contract under this project; in such event bids will only be called from prequalified bidders who meet the revised requirements; and

(ii) reject or accept any application and enol the prequalification process; and

c) PEDO shall not be liable for any such actions and shall be under no obligation to inform the Applicant of the grounds for actions at 5(b) herein above.

d) PEDO shall not be liable for consequence of, and shall be under no obligation to inform the applicant of the grounds for, actions taken under para 5(b) here above.

Applicants who are not joint ventures should delete para 6&7 and initial the deletions.

6. Appended to this application, we give details of the participation of each party, including capital contribution and profit/loss agreements, to the joint venture or association. We also specify the financial commitment in terms of the percentage of the value of the (each) contract, and the responsibilities for execution of the (each) contract.

7. We confirm that in the event that we bid, that bid as well as any resulting contract will be.

   a) Signed so as to legally bind all partners, jointly and severally; and

   b) Submitted with a Joint Venture agreement providing the joint and several liability of all partners in the event the contract is awarded to us.

8. The undersigned declare that the statements made and the information provided in the duly completed application are complete, true, and correct in every detail.

Signed	Signed
Name	Name
For and on behalf of (name of Applicant or lead partner of a joint venture)	For and on behalf of (name and signature of other partners of the joint venture)

Annex-B

General Information

All individual firms and each partner of a joint venture applying for prequalification are requested to complete the information in this form. Nationality information is also to be provided for foreign owners or applicants who are forming part of the Joint Ventures as required under the PEC Bye-Laws as a Partnership/Joint Venture.

Where the Applicant proposes to use named subcontractors for critical components of the works, or for work contents in excess of 10 percent of the value of the whole works, the following information should also be supplied for the specialist subcontractor(s).

1.	Name of Firm	
2.	Head Office Address	
3.	Telephone	Contact Person: Name: Title:
4.	Fax	Telex
5.	Place of Incorporation/Registration	Year of incorporation/registration

NATIONALITY OF OWNERS		
NAME		**NATIONALITY**
1.		
2.		
3.		
4.		
5.		

FORMS FOR DESIGNER FIRM

- Designer Firm Form: DFF-01 General Experience as Designer
- Designer Firm Form: DFF-02 Specific Experience
- Designer Firm Form: DFF-03 Description of Approach and Methodology
- Designer Firm Form: DFF-04 CURRICULUM VITAE (CV)
- Designer Firm Form: DFF-05 WORK EXPERIENCE IN PAKISTAN

Designer Firm Form: DFF-01

General Experience as Designer

Applicant's Name: *[insert full name]*

Applicant's Party Name*: [insert full name]*
Date: *[insert day, month, and year]*

Experience as designer and construction supervision Contracts in the role of Lead Contractor/Partner contractor of hydropower projects, JV member, or sub-Contractor for at least the last 15 years, starting 1st January 2005.

(fill the following information and us separate sheet for each project)

<table>
<tr><td colspan="2">Assignment Name:</td><td>Country: Pakistan</td></tr>
<tr><td colspan="2">Location within Country:</td><td>Professional Staff Provided by Your Firm: 04</td></tr>
<tr><td colspan="2">Name of Client:</td><td>No. of Staff:</td></tr>
<tr><td colspan="2">Address:</td><td>No. of Staff Months:</td></tr>
<tr><td>Start Date: (Month/Year)</td><td>Completion Date: (Month/Year)</td><td rowspan="2">Approximate Value of Services:</td></tr>
<tr><td></td><td></td></tr>
<tr><td colspan="2">Name of Associated Firms if any:</td><td>Number of Man-months of Professional staff provided by the associated Firms:</td></tr>
<tr><td colspan="3">Names of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:</td></tr>
<tr><td colspan="3">Narrative Description of Project:</td></tr>
<tr><td colspan="3">Description of Actual Services provided by your Staff:</td></tr>
</table>

Name of Consultant Firm: ----------

Designer Firm Form: DFF-02

Specific Experience as Designer of Hydropower Project

Applicant's Name: *[insert full name]*

Applicant's Party Name*: [insert full name]*
Date: *[insert day, month, and year]*

Experience as Designer and Construction Supervision Contracts in the role of Lead Contractor/Partner contractor, JV member, or sub-Contractor have completed construction design and construction supervision of at least 3 Projects of the similar capacity and complexity, in the last 15 years, starting 1st January 2005.

<table>
<tr><td colspan="2">Assignment Name:</td><td>Country: Pakistan</td></tr>
<tr><td colspan="2">Location within Country:</td><td>Professional Staff Provided by Your Firm: 04</td></tr>
<tr><td colspan="2">Name of Client:</td><td>No. of Staff:</td></tr>
<tr><td colspan="2">Address:</td><td>No. of Staff Months:</td></tr>
<tr><td>Start Date: (Month/Year)</td><td>Completion Date: (Month/Year)</td><td rowspan="2">Approximate Value of Services:</td></tr>
<tr><td></td><td></td></tr>
<tr><td colspan="2">Name of Associated Firms if any:</td><td>Number of Man-months of Professional staff provided by the associated Firms:</td></tr>
<tr><td colspan="3">Names of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:</td></tr>
<tr><td colspan="3">Narrative Description of Project:</td></tr>
<tr><td colspan="3">Description of Actual Services provided by your Staff:</td></tr>
</table>

Designer Firm Form: DFF-03

DESCRIPTION OF APPROACH, METHODOLOGY, AND WORK PLAN IN RESPONDING TO SCOPE OF WORKS SECTION - VI

Description of the approach, methodology and work plan for performing the assignment, including a detailed description of the proposed methodology and the Employer staffing for training, if the Terms of Reference specify training as a specific component of the assignment.

a) Technical Approach and Methodology

b) Work Plan

c) Organization and Staffing

a) ***Technical Approach and Methodology.*** {Please explain your understanding of the objectives of the assignment as designer outlined in the Terms of Reference (TORs), the technical approach, and the methodology you would adopt for implementing the tasks*:* to deliver the expected output(s), and the degree of detail of such output. Please do not repeat/copy the TORs in here.}

b) ***Work Plan.*** {Please outline the plan for the implementation of the main activities/tasks of the assignment as designer, their content and duration, phasing and inter relations, milestones (including interim approvals by the Client), and tentative delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing your understanding of the TOR and ability to translate them into a feasible working plan. The work plan should be consistent with the Work Schedule Form.}

c) ***Organization and Staffing.*** {Please describe the structure and composition of your team, including the list of the Key Experts, Non-Key Experts and relevant technical and administrative support staff and organization of E&M Contractor and Civil Works Contractor and inter-relationship.}

Designer Firm Form: DFF-04

CURRICULUM VITAE (CV)

Position Title and No.	
Name of Expert:	{Insert full name}
Date of Birth:	{day/month/year}
Country of Citizenship/Residence	

Education: {List college/university or other specialized education, giving names of educational institutions, dates attended, degree(s)/diploma(s) obtained} ----------

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Employment record relevant to the assignment: {Starting with present position, list in reverse order. Please provide dates, name of employing organization, titles of positions held, types of activities performed and location of the assignment, and contact information of previous clients and employing organization(s) who can be contacted for references. Past employment that is not relevant to the assignment does not need to be included.}

Period	Employing organization and your title/position. Contact information for references	Country	Summary of activities performed relevant to the Assignment
[e.g., May 2005-present]	[e.g., advisor/contractor to… For references: Tel……/e-mail……; Mr. Hbbbbb, deputy minister]		

Membership in Professional Associations and Publications: ----------

Language Skills (indicate only languages in which you can work): ----------

Adequacy for the Assignment:

Detailed Tasks Assigned on Consultant's Team of Experts:	Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks
{List all deliverables/tasks as in TECH- 5 in which the Expert will be involved)	

Expert's contact information: (e-mail……., phone……)

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available, as and when necessary, to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client, and/or sanctions by the Bank.

Date {day/month/year}

Name of Expert Signature

Name of authorized Signature

Representative of the Contractor

(the same who signs the Proposal)

Designer Firm Form: DFF-05

WORK EXPERIENCE IN PAKISTAN

Applicant's Name: *[insert full name]*

Applicant's Party Name*: [insert full name]*
Date: *[insert day, month, and year]*

(Fill in the form below)

#	Name of Project and location	Name of Assignment	Detailed Description of Assignment performed as Designer	Amount of Services (US$)

FORMS FOR E&M CONTRACTOR

- E&M Works Contractor Form: EMCF-01 Financial Situation and Performance
- E&M Works Contractor Form: EMCF-02 Average Annual Construction Turnover
- E&M Works Contractor Form: EMCF-03 General Fabrication and Supply Experience
- E&M Works Contractor Form: EMCF-04 Specific Fabrication and Supply Management Experience
- E&M Works Contractor Form: EMCF-04 (a) Specific Fabrication and Supply Management Experience
- E&M Works Contractor Form: EMCF-04 (b) Fabrication and Supply Experience in Key Activities
- E&M Works Contractor Form: EMCF-05 Fabrication Facilities

E&M Works Contractor Form: EMCF-01

Financial Situation and Performance

[The following table shall be filled in for the E&M Works Contractor]

Applicant's Name: *[insert full name]*

Applicant's Party Name*: [insert full name]*
Date: *[insert day, month, and year]*

1. Financial data

Type of Financial information in (currency)	**Historic information for previous** *[insert number]* ***years,*** *[insert in words]* (amount in currency, currency, exchange rate*, USD equivalent)				
	Year 1	Year 2	Year 3	Year4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

2. Sources of Finance

[The following table shall be filled in for the E&M Works Contractor]

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

No.	Source of finance	Amount (US$ equivalent)
1		
2		
3		

3. Financial documents

The E&M Works Contractor shall provide copies of financial statements for *five* years. The financial statements shall:

(a) reflect the financial situation of the E&M Works Contractor and not an affiliated entity (such as parent company or group member).

(b) be independently audited or certified in accordance with local legislation.

(c) be complete, including all notes to the financial statements.

(d) correspond to accounting periods already completed and audited.

☐ Attached are copies of financial statements for the *[number]* years required above; and complying with the requirements

E&M Works Contractor Form: EMCF-02

Average Annual Construction Turnover

[The following table shall be filled in for the E&M Works Contractor]

Applicant's Name: *[insert full name]*

Applicant's Party Name*: [insert full name]*
Date: *[insert day, month, and year]*

Annual Turnover Data (Fabrication and Supply Only)			
Year	**Amount Currency**	**Exchange rate***	**USD equivalent**
[indicate calendar year]	*[insert amount and indicate currency]*		
		Average Annual Fabrication Turnover **	

* Rate of Exchange issued by State Bank of Pakistan 28 days before Application Submission Date.

** Total USD equivalent for all years divided by the total number of years.

E&M Works Contractor Form: EMCF-03

General Fabrication and Supply Experience

[The following table shall be filled in for the E&M Works Contractor]

Applicant's Name: *[insert full name]*

Applicant's Party Name*: [insert full name]*
Date: *[insert day, month, and year]*

[Identify contracts that demonstrate continuous fabrication of E&M works over the past 15 years pursuant to Section III, Qualification Requirement and Criteria. List contracts chronologically, according to their commencement (starting) dates.]

Starting Year	Ending Year	Contract Identification	Role of Applicant
[indicate year]	*[indicate year]*	Contract name: *[insert full name]* Brief Description of the Works performed by the Applicant: *[describe works performed briefly]* Amount of contract: *[insert amount in currency, mention currency used, exchange rate and US$ equivalent*]* Name of Employer: *[indicate full name]* Address: *[indicate street/number/town or city/ country/ email]*	*[insert "Prime Contractor" or "JV Member" or "Sub-contractor" or "Management Contractor"]*
		Contract name: *[insert full name]* Brief Description of the Works performed by the Applicant: *[describe works performed briefly]* Amount of contract: *[insert amount in currency, mention currency used, exchange rate and US$ equivalent*]* Name of Employer: *[indicate full name]* Address: *[indicate street/number/town or city/ country/ email]*	*[insert "Prime Contractor" or "JV Member" or "Sub-contractor" or "Management Contractor"]*

		Contract name: *[insert full name]* Brief Description of the Works performed by the Applicant: *[describe works performed briefly]* Amount of contract: *[insert amount in currency, mention currency used, exchange rate and US$ equivalent*]* Name of Employer: *[indicate full name]* Address: *[indicate street/number/town or city /country /email]*	*[insert "Prime Contractor" or "JV Member" or "Sub-contractor" or "Management Contractor"]*

* Rate of Exchange issued by State Bank of Pakistan 28 days before Application Submission Date.

E&M Works Contractor Form: EMCF-04

Specific Fabrication and Supply Management Experience (cont.)

[The following table shall be filled in for contracts performed by the E&M Works Contractor]

Applicant's Name: *[insert full name]*

Applicant's Party Name*: [insert full name]*
Date: *[insert day, month, and year]*

<table>
<tr><td>Similar Contract No.
[insert number] of [insert number of similar contracts required]</td><td colspan="4">Information</td></tr>
<tr><td>Contract Identification</td><td colspan="4">[insert contract name and number, if</td></tr>
<tr><td>Award date</td><td colspan="4">[insert day, month, year]</td></tr>
<tr><td>Completion date</td><td colspan="4">[insert day, month, year]</td></tr>
<tr><td>Role in Contract
[check the appropriate box]</td><td>Prime Contractor ☐</td><td>Member in JV ☐</td><td>Management Contractor ☐</td><td>Sub-contractor ☐</td></tr>
<tr><td>Total Contract Amount</td><td colspan="2">[insert total contract amount in local currency]</td><td colspan="2">US$ [insert Exchange rate and total contract amount in US$ equivalent]*</td></tr>
<tr><td>If member in a JV or sub-contractor, specify participation in total Contract amount</td><td>[insert a percentage amount]</td><td>[insert total contract amount in local currency]</td><td colspan="2">[insert exchange rate and total contract amount in US$ equivalent]*</td></tr>
<tr><td>Employer's Name:</td><td colspan="4">[insert full name]</td></tr>
<tr><td>Address:
Telephone/fax number
E-mail:</td><td colspan="4">[indicate street / number / town or city / country]
[insert telephone/fax numbers, including country and city area codes], [insert e-mail address, if available]</td></tr>
</table>

* Rate of Exchange issued by State Bank of Pakistan 28 days before Application Submission Date.

E&M Works Contractor Form: EMCF-04 (a)

Specific Fabrication and Supply Management Experience (cont.)

Similar Contract No. *[insert number]* of *[insert number of similar contracts required]*	**Information**
Description of the similarity in accordance with of Section VI:	
1. Amount	*[insert amount in local currency, exchange rate, US$ in words and in Figures]*
2. Physical size of required works items: - Type and size of turbine - Type and size of Generator - Type and size of Transformer - Other features if any	*[insert physical size of items]*
3. Complexity: - Coordination with other contractor(s) at the same site - Other complexity if any	*[insert description of complexity]*
4. Methods/Technology - Fabrication of turbine by welding or casting - Construction of penstock by turning and welding - Fabrication of generator and transformer 5. Fabrication rate for key activities	*[insert specific aspects of the methods/technology involved in the contract]* *[insert rates and items]*
6. Other Characteristics	*[insert other characteristics as described in Section VI, Scope of Works]*

E&M Works Contractor Form: EMCF-04 (b)

Fabrication and Supply Experience in Key Activities

Applicant's Name: *[insert full name]*

Applicant's Party Name*: [insert full name]*
Date: *[insert day, month, and year]*
Applicant's Name: *[insert full name]*

Sub-contractor's Name (if NY): *[insert full name]*

All Sub-contractors for key activities must complete the information in this form as per Section III, Qualification Criteria and Requirements.

1. Size of Turbine (Single Site)

Total Number of Turbine under the contract: ----------

	Information			
Contract Identification	*[insert contract name and number, if*			
Award date	*[insert day, month, year]*			
Completion date	*[insert day, month, year]*			
Role in Contract *[check the appropriate box]*	Prime Contractor ☐	Member in JV ☐	Management Contractor	Sub-contractor ☐
Total Contract Amount	*[insert total contract amount in contract currency(ies)]*		US$ *[insert exchange rate and total contract amount in US$ equivalent]*	
Insert extent of participation, providing Project Description, Key details and Salient Feature of the Works, Project Location, Funding and other information to adequately describe the Project.				

Employer's Name:	*[insert full name]*

Address: Telephone/fax number E-mail:	*[indicate street / number / town or city / country]* *[insert telephone/fax numbers, including country and city area codes], [insert e-mail address, if available]*

	Information
Description of the key activities in accordance with Section III:	
	[insert response to inquiry indicated in left column]
Type of Turbine Similar to project	
Turbine Diameter 2 or more	
Bearing Cooling System	

2. Generator

Total generator under the contract: ----------

	Information			
Contract Identification	*[insert contract name and number, if*			
Award date	*[insert day, month, year]*			
Completion date	*[insert day, month, year]*			
Role in Contract *[check the appropriate box]*	Prime Contractor ☐	Member in JV ☐	Management Contractor	Sub-contractor ☐
Total Contract Amount	*[insert total contract amount in contract currency(ies)]*		US$ *[insert exchange rate and total contract amount in US$ equivalent]*	
Insert extent of participation, providing Project Description, Key details and Salient Feature of the Works, Project Location, Funding and other information to adequately describe the Project.				

Employer's Name:	*[insert full name]*
Address: Telephone/fax number E-mail:	*[indicate street / number / town or city / country]* *[insert telephone/fax numbers, including country and city area codes], [insert e-mail address, if available]*

	Information
Description of the key activities in accordance with Section III:	
	[insert response to inquiry indicated in left column]
Type of Generator Similar to project	
Generator Size 5 MW or more	
Cooling System	

3. Transformer

Total transformer under the contract: ----------

	Information			
Contract Identification	*[insert contract name and number, if*			
Award date	*[insert day, month, year]*			
Completion date	*[insert day, month, year]*			
Role in Contract *[check the appropriate box]*	Prime Contractor ☐	Member in JV ☐	Management Contractor	Sub-contractor ☐
Total Contract Amount	*[insert total contract amount in contract currency(ies)]*		US$ *[insert exchange rate and total contract amount in US$ equivalent]*	
Insert extent of participation, providing Project Description, Key details and Salient Feature of the Works, Project Location, Funding and other information to adequately describe the Project.				

Employer's Name:	*[insert full name]*
Address: Telephone/fax number E-mail:	*[indicate street / number / town or city / country]* *[insert telephone/fax numbers, including country and city area codes]* *[insert e-mail address, if available]*

	Information
Description of the key activities in accordance with Section III:	
	[insert response to inquiry indicated in left column]
Type of Transformer Similar to project	
Transformer 12 MVA or more	
Cooling System	

E&M Works Contractor Form: EMCF-05

Fabrication Facilities

Applicant's Name: *[insert full name]*

Applicant's Party Name*: [insert full name]*
Date: *[insert day, month, and year]*
Sub-contractor's Name (if any): *[insert full name]*

The Applicant shall provide adequate information to demonstrate clearly that he has the capability to meet the requirements for manufacturing and supply of turbine, generator and transformer listed in the Section: III Prequalification Requirement and Criteria and separate Form shall be prepared for each item of equipment by the Applicant.

1. Details of fabrication facility for turbine
2. Details of fabrication facility for Generator
3. Details of fabrication facility for Transformer
4. Details of fabrication facility for Switchgears

Facility at # 3 and # 4 may be of specialized sub-contractor. E&M Contractor must have fabrication facility for turbine and generator and must have designed, fabricated, transported, erected and commissioned E&M equipment in at least 3 or more hydropower project/plants.

FORMS FOR CIVIL WORKS CONTRACTOR

- Civil Works Contractor Form: CWCF-01 Financial Situation and Performance
- Civil Works Contractor Form: CWCF-02 Average Annual Construction Turnover
- Civil Works Contractor Form: CWCF-03 General Construction Experience
- Civil Works Contractor Form: CWCF-04 Specific Construction and Contract Management Experience
- Civil Works Contractor Form: CWCF-04 (a) Specific Construction and Contract Management Experience
- Civil Works Contractor Form: CWCF-04 (b) Construction Experience in Key Activities
- Civil Works Contractor Form: CWCF-05 CURRICULUM VITAE (CV)
- Civil Works Contractor Form: CWCF-06 Equipment Capabilities

Civil Works Contractor Form: CWCF-01

Financial Situation and Performance

[The following table shall be filled in for the Civil Works Contractor]

Applicant's Name: *[insert full name]*

Applicant's Party Name*: [insert full name]*
Date: *[insert day, month, and year]*

1. Financial data

Type of Financial information in (currency)	**Historic information for previous** *[insert number]* ***years****, [insert in words]* (amount in currency, currency, exchange rate*, USD equivalent)				
	Year 1	Year 2	Year 3	Year4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

2. Sources of Finance

[The following table shall be filled in for the Civil Works Contractor]

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

No.	Source of finance	Amount (US$ equivalent)
1		
2		
3		

3. Financial documents

The Civil Works Contractor shall provide copies of financial statements for *five* years. The financial statements shall:

(a) reflect the financial situation of the Civil Works Contractor and not an affiliated entity (such as parent company or group member).

(b) be independently audited or certified in accordance with local legislation.

(c) be complete, including all notes to the financial statements.

(d) correspond to accounting periods already completed and audited.

☐ Attached are copies of financial statements for the *[number]* years required above; and complying with the requirements

Civil Works Contractor Form: CWCF-02

Average Annual Construction Turnover

[The following table shall be filled in for the Civil Works Contractor]

Applicant's Name: *[insert full name]*

Applicant's Party Name*: [insert full name]*
Date: *[insert day, month, and year]*

Annual Turnover Data (Construction Only)			
Year	**Amount Currency**	**Exchange rate***	**USD equivalent**
[indicate calendar year]	*[insert amount and indicate currency]*		
		Average Annual Construction Turnover **	

* Rate of Exchange issued by State Bank of Pakistan 28 days before Application Submission Date.

** Total USD equivalent for all years divided by the total number of years.

Civil Works Contractor Form: CWCF-03

General Construction Experience

[The following table shall be filled in for the Civil Works Contractor]

Applicant's Name: *[insert full name]*

Applicant's Party Name*: [insert full name]*
Date: *[insert day, month, and year]*

[Identify contracts that demonstrate continuous construction work over the past 15 years pursuant to Section III, Qualification Requirement and Criteria. List contracts chronologically, according to their commencement (starting) dates.]

Starting Year	Ending Year	Contract Identification	Role of Applicant
[indicate year]	*[indicate year]*	Contract name: *[insert full name]* Brief Description of the Works performed by the Applicant: *[describe works performed briefly]* Amount of contract: *[insert amount in currency, mention currency used, exchange rate and US$ equivalent*]* Name of Employer: *[indicate full name]* Address: *[indicate street/number/town or city/ country/ email]*	*[insert "Prime Contractor" or "JV Member" or "Sub-contractor" or "Management Contractor"]*
		Contract name: *[insert full name]* Brief Description of the Works performed by the Applicant: *[describe works performed briefly]* Amount of contract: *[insert amount in currency, mention currency used, exchange rate and US$ equivalent*]* Name of Employer: *[indicate full name]* Address: *[indicate street/number/town or city/ country/ email]*	*[insert "Prime Contractor" or "JV Member" or "Sub-contractor" or "Management Contractor"]*

		Contract name: *[insert full name]* Brief Description of the Works performed by the Applicant: *[describe works performed briefly]* Amount of contract: *[insert amount in currency, mention currency used, exchange rate and US$ equivalent*]* Name of Employer: *[indicate full name]* Address: *[indicate street/number/town or city /country /email]*	*[insert "Prime Contractor" or "JV Member" or "Sub-contractor" or "Management Contractor"]*

* Rate of Exchange issued by State Bank of Pakistan 28 days before Application Submission Date.

Civil Works Contractor Form: CWCF-04

Specific Construction and Contract Management Experience

[The following table shall be filled in for contracts performed by the Civil Works Contractor]

Applicant's Name: *[insert full name]*

Applicant's Party Name*: [insert full name]*
Date: *[insert day, month, and year]*

Similar Contract No. *[insert number]* of *[insert number of similar contracts required]*	**Information**			
Contract Identification	*[insert contract name and number, if applicable]*			
Award date	*[insert day, month, year]*			
Completion date	*[insert day, month, year]*			
Role in Contract *[check the appropriate box]*	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Sub-contractor ☐
Total Contract Amount	*[insert total contract amount in local currency]*		US$ *[insert Exchange rate and total contract amount in US$ equivalent]**	
If member in a JV or sub-contractor, specify participation in total Contract amount	*[insert a percentage amount]*	*[insert total contract amount in local currency]*	*[insert exchange rate and total contract amount in US$ equivalent]**	
Employer's Name:	*[insert full name]*			
Address: Telephone/fax number E-mail:	*[indicate street / number / town or city / country]* *[insert telephone/fax numbers, including country and city area codes] [insert e-mail address, if available]*			

* Rate of Exchange issued by State Bank of Pakistan 28 days before Application Submission Date.

Civil Works Contractor Form: CWCF-04 (a)

Specific Construction and Contract Management Experience (cont.)

Similar Contract No. *[insert number]* of *[insert number of similar contracts required]*	**Information**
Description of the similarity in accordance with Section III:	
1. Amount	*[insert amount in local currency, exchange rate, US$ in words and in Figures]*
5. Physical size of required works items: - Type and size of water intake and weir - Span, height and length of powerhouse(s), - Size, length and type of lining of waterway tunnel(s) - Type, diameter and length of steel penstock - Other features if any	*[insert physical size of items]*
6. Complexity: - Coordination with other contractor(s) at the same site - Other complexity if any	*[insert description of complexity]*
7. Methods/Technology - Excavation method and support system of Open excavation - Excavation method and support system of tunnel(s) - Capacity of drain pump(s) in tunnels 5. Construction rate for key activities	*[insert specific aspects of the methods/technology involved in the contract]* *[insert rates and items]*
6. Other Characteristics	*[insert other characteristics as described in Section VI, Scope of Works]*

Civil Works Contractor Form: CWCF-04 (b)

Construction Experience in Key Activities

Applicant's Name: *[insert full name]*

Applicant's Party Name*: [insert full name]*
Date: *[insert day, month, and year]*
Sub-contractor's Name (if any): *[insert full name]*

1. Large Scale Open Cut Rock Excavation (Single Site) and Support

Total Quantity of Activity under the contract: ----------

	Information			
Contract Identification	*[insert contract name and number, if*			
Award date	*[insert day, month, year]*			
Completion date	*[insert day, month, year]*			
Role in Contract *[check the appropriate box]*	Prime Contractor ☐	Member in JV ☐	Management Contractor	Sub-contractor ☐
Total Contract Amount	*[insert total contract amount in contract currency(ies)]*		US$ *[insert exchange rate and total contract amount in US$ equivalent]*	
Insert extent of participation, providing Project Description, Key details and Salient Feature of the Works, Project Location, Funding and other information to adequately describe the Project.				

Employer's Name:	*[insert full name]*
Address: Telephone/fax number E-mail:	*[indicate street / number / town or city / country]* *[insert telephone/fax numbers, including country and city area codes]* *[insert e-mail address, if available]*

	Information
Description of the key activities in accordance with Section III:	
	[insert response to inquiry indicated in left column]
Steep Cut Slope with height of 30 m or more	
Rock Excavation at a rate of 20,000 m³/month or more on	

2. Tunnel Excavation

Total Quantity of Activity under the contract: ----------

	Information			
Contract Identification	*[insert contract name and number, if*			
Award date	*[insert day, month, year]*			
Completion date	*[insert day, month, year]*			
Role in Contract *[check the appropriate box]*	Prime Contractor ☐	Member in JV ☐	Management Contractor	Sub-contractor ☐
Total Contract Amount	*[insert total contract amount in contract currency(ies)]*		US$ *[insert exchange rate and total contract amount in US$ equivalent]*	
Insert extent of participation, providing Project Description, Key details and Salient Feature of the Works, Project Location, Funding and other information to adequately describe the Project.				

Employer's Name:	*[insert full name]*

Address: Telephone/fax number E-mail:	*[indicate street / number / town or city / country]* *[insert telephone/fax numbers, including country and city area codes]* *[insert e-mail address, if available]*

	Information
Description of the key activities in accordance with Section III:	
	[insert response to inquiry indicated in left column]
Excavation consisting of Tunnel having Diameter of 3 m or more	
Tunnel Excavation at a rate of 2 to 3 m per shift or more on average	

3. Tunneling including Rock Supports and Full Concrete Lining

Total Quantity of Activity under the contract: ----------

	Information			
Contract Identification	*[insert contract name and number, if*			
Award date	*[insert day, month, year]*			
Completion date	*[insert day, month, year]*			
Role in Contract *[check the appropriate box]*	Prime Contractor ☐	Member in JV ☐	Management Contractor	Sub-contractor ☐
Total Contract Amount	*[insert total contract amount in contract currency(ies)]*		US$ *[insert exchange rate and total contract amount in US$ equivalent]*	

Insert extent of participation, providing Project Description, Key details and Salient Feature of the Works, Project Location, Funding and other information to adequately describe the Project.

Employer's Name:	*[insert full name]*
Address: Telephone/fax number E-mail:	*[indicate street / number / town or city / country]* *[insert telephone/fax numbers, including country and city area codes]* *[insert e-mail address, if available]*

	Information
Description of the key activities in accordance with Section III:	
	[insert response to inquiry indicated in left
Tunnel Excavation Section Area 8 m² or more	
Tunnel Excavation at a rate of 2 to 3 m per day or more on average	

4. Conventional Vibrated Concrete (CVC) Works

Total Quantity of Activity under the contract: ----------

	Information
Contract Identification	*[insert contract name and number, if*
Award date	*[insert day, month, year]*
Completion date	*[insert day, month, year]*

Role in Contract *[check the appropriate box]*	Prime Contractor ☐	Member in JV ☐	Management Contractor	Sub-contractor ☐
Total Contract Amount	*[insert total contract amount in contract currency(ies)]*		US$ *[insert exchange rate and total contract amount in US$ equivalent]*	
Insert extent of participation, providing Project Description, Key details and Salient Feature of the Works, Project Location, Funding and other information to adequately describe the Project.				

Employer's Name:	*[insert full name]*
Address: Telephone/fax number E-mail:	*[indicate street / number / town or city / country]* *[insert telephone/fax numbers, including country and city area codes]* *[insert e-mail address, if available]*

	Information
Description of the key activities in accordance with Section III:	
	[insert response to inquiry indicated in left column]
CVC Works for weir, powerhouse and sediment basin of total concrete volume of 10,000 m³ including 2nd stage Concrete	
Concrete placement at a rate of 1,000 m³/month or more on average	

Civil Works Contractor Form: CWCF-05

CURRICULUM VITAE (CV)

Position Title and No.	
Name of Expert:	{Insert full name}
Date of Birth:	{day/month/year}
Country of Citizenship/Residence	

Education: {List college/university or other specialized education, giving names of educational institutions, dates attended, degree(s)/diploma(s) obtained} ----------

---

Employment record relevant to the assignment: {Starting with present position, list in reverse order. Please provide dates, name of employing organization, titles of positions held, types of activities performed and location of the assignment, and contact information of previous clients and employing organization(s) who can be contacted for references. Past employment that is not relevant to the assignment does not need to be included.}

Period	Employing organization and your title/position. Contact information for references	Country	Summary of activities performed relevant to the Assignment
[e.g., May 2005-present]	[e.g., advisor/contractor to… For references: Tel……/e-mail……; Mr. Hbbbbb, deputy minister]		

Membership in Professional Associations and Publications: ----------

Language Skills (indicate only languages in which you can work): ----------

Adequacy for the Assignment:

Detailed Tasks Assigned on Consultant's Team of Experts:	Reference to Prior Work/Assignments that Best Illustrates Capability to Handle the Assigned Tasks
{List all deliverables/tasks as in TECH- 5 in which the Expert will be involved)	

Expert's contact information: (e-mail……., phone……)

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available, as and when necessary, to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client, and/or sanctions by the Bank.

Date {day/month/year}

Name of Expert Signature

Name of authorized Signature

Representative of the Consultant

(the same who signs the Proposal)

Civil Works Contractor Form: CWCF-06

Equipment Capabilities

Applicant's Name: *[insert full name]*

Applicant's Party Name*: [insert full name]*
Date: *[insert day, month, and year]*

The Applicant shall provide adequate information to demonstrate clearly that he has the capability to meet the requirements for each and all items of equipment listed in the Section: III Prequalification Requirement and Criteria and separate Form shall be prepared for each item of equipment listed or for alternative equipment proposed by the Applicant.

Item of Equipment		
Equipment information	1. Name of manufacturer	2. Model and power rating
	3. Capacity	4. Year of manufacture
Current status	5. Current location	
	6. Details of current commitments	
Source	7. Indicate source of the equipment ☐ Owned ☐ Rented ☐ Leased	

Omit the following information if it is owned by the Applicant or partner.

Owner	8. Name of owner	
	9. Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreement	Details of rental/lease specific to the Project.	

SECTION: 5 INTEGRITY PACT

INTEGRITY PACT

The EPC Contractors (the "Contractor") hereby declare that they have not obtained or included the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoP)/(GoKP) through any corrupt business practice.

Without limiting the generality of the foregoing, the Contractors represent and warrant that they have fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or including the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP/GoKP except that which has been expressly declared pursuant hereto.

The, Contractors certify that they have made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP/GoKP and have not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

The Contractors accept full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. They agree that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to GoP/GoKP under any law, contract or other instrument, be avoidable at the option of GoP/GoKP.

Notwithstanding any rights and remedies exercised by GoP/GoKP in this regard, the Consultants agree to indemnify GoP/GoKP for any loss or damage incurred by them on account of their corrupt business practices and further pay compensation to GoP in an amount equivalent to ten time the sum of any commission, gratification, bribe, finder's fee or kickback given by the Consultants as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation of benefit in whatsoever form from GoP/GoKP.

Name of Client: …… Name of Consultants: ……

Signature: ……---------- Signature: ----------

……

[Seal] [Seal]

SECTION: 6 SCOPE OF WORKS

SECTION: 6

SCOPE OF WORKS

1. PROJECT MANAGEMENT CONSULTANTS

A joint venture of Electra Consultant Peshawar, Technical, Engineering and Management – TEAM Consultants Pvt. Ltd. Lahore and CIV-TECH, Associates, Peshawar shall be responsible for project management during procurement and construction of the Project till its completion and defect liability period.

Project Management Consultants shall complete tender design, tender documents, procurement of the EPC Contractor and award of the Contract to lowest responsive in international competitive bidding and also supervise the construction and defect liability period as project management consultant.

2. THE PROJECT

The construction of Chapare-Charkhil Hydropower Project Chapare Charkhil Hydropower Project (the "Project") is run of river project and located along Kurram River near Chapare and Charkhil village in district Kurram. The Project is planned to be implemented through the following contract:

Contract No. ICB-CCKHPP-EPC-01	Construction of Works for 10.56 MW Chapare Charkhil Hydropower Project.

2.1. LOCATION

Chapare Charkhil Hydropower Project is located in the Lower Kurram of the Khyber Pakhtunkhwa Province (KPK) along Kurram River in the North-West mountainous areas of Pakistan. The proposed diversion weir site is located about 10 km upstream of Thal Town. The weir is situated near village of Charkhil. The site for powerhouse is located downstream of the Chapare village about a distance of 3 km on the right bank of Kurram River.

Parachinar is the administrative headquarter of Kurram Valley. It has offices of Administration officers Deputy Commissioner, Assistant Commissioner etc, and Law enforcement Agencies Like Kurram Police, and Kurram Militia, a part of the Frontier Corps (FC) and Pak Army. Total area of the Kurram district is 3380 Km².

The Kurram River is the right bank tributary of Indus River. Kurram River originates from watershed of spin Gar in the Paktia Province of Afghanistan and the District Kurram of Pakistan. Passing through the mountain ranges joins the Indus River near Isa Khel. It drains the southern flanks of the Spin Ghar mountain range.

Topography of the catchment area of Kurram River is generally mountainous in upper reaches near Ali Khel, Mirazi Khel, Peer Khaili, Kharlachi, Parachinar and Thal areas.

Near Bannu city, the river flattens up and follows consistent mild slope up to its outfall in to the Indus River near Isa Khel. The elevations ranging from about 4750 m to 200 m and sloping northwest–southeast. Most of the flat terraces available along the river are utilized for agriculture for which water from the river is utilized. Kurram River irrigates around 80,000 acres of land. Kurram River flows in South East direction and approaches the Indus River almost perpendicular at the following approximate co-ordinates: E-71º 21' 27.65'', N-32º 37' 36.34''.

The direct benefits of the project will be not less than 3 x 3.52 MW available electrical power and some 73.56 GWh of electrical energy on average per year. The overall project layout is attached as **Annex 1**.

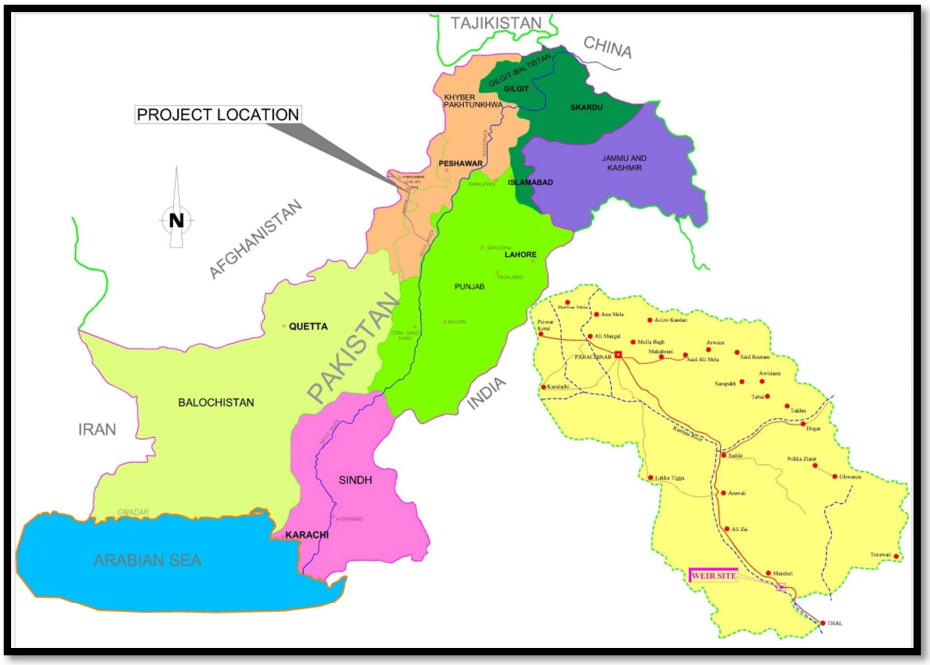

Figure: Project Location

2.2. Project Component Data

The Main Project Characteristics are detailed in the following table:

0	**GENERAL**	
	Project Name	Construction of Chapare-Charkhil Hydropower Project (Lower Kurram Agency)
	Employer	Pakhtunkhwa Energy Development Organization (PEDO).

	Consultant	Chapare-Charkhil HPP Consultant – A Joint Venture of ELECTRA, CIV-TEC and TEAM
	Location	Chapare, Lower Kurram Agency, KP, Pakistan
	Hydropower type	Run of the River Project at Kurram River
1	**HYDROLOGY**	
	Catchment area	5312 km^2
	Normal pond level	865.5 m.a.s.l.
	Design discharge for power	23 or may also be 30 m^3/sec
	Design flood for weir	100-year frequency
	Flood discharge, 100 yr.	2,347.86 m^3/sec
	Flood discharge 1000 yr.	3,936.58 m^3/sec
2	**DIVERSION WEIR**	
	Type	Ogee Type
	Crest of Ogee section	865.5 m.a.s.l.
	Total weir length	176.15 m
	Length of Ogee section	142.5 m
	Width of Under sluices	27.0 m
	Width of Fish Ladder	2.0 m
	Surcharge due to design flood	3.9 m
	Weir height	2.50 m from river bed
	Stilling basin	USBR Type IV
	Size of basin	142.5 x 16 m
3	**HEAD REGULATOR**	
	Type	Ogee Type
	Design discharge	25or may be 32 m^3/s
	Crest	864.0 m.a.s.l.
	Length of head regulator	17.78 m
	Width of head regulator	14.5 m
	Height	1.0 m from river bed
4	**CONNECTING CHANNEL (BETWEEN HEAD REGULATOR & HEADRACE**	
	Design discharge	25 or may be 30 m^3/s
	Length	81 m
	Water depth	2.6 m
	Size of channel	14.5 m x 3.0 m
	Side slope	Vertical

	Bed slope	1 in 2000
	Free board	0.4 m
5	**HEAD RACE**	
	RECTANGULAR CHANNEL	
	Design discharge	25 or may be 30 m^3/s
	Length	750 m + 308 m
	Size of channel	4.1 m x 3.5 m
	Side slope	Vertical
	Bed Slope	1 in 1000
	Water Depth	2.4 m
	Free board	0.6 m
	Flow velocity in headrace channel	2.2 m/sec
	TRAPEZOIDAL CHANNEL	
	Design discharge	25 or may be 32 m^3/s
	Length	6064 m or may be tunnel having diameter of 3 to 4 m
	Size of channel	3.7 m x 3.5 m
	Side slope	1: 2 (H:V)
	Bed Slope	1 in 2000
	Free board	0.6 m
	Flow velocity in headrace channel	1.7 m/sec
	SYPHON 01 or May be Avoided	
	Design discharge	25 or may be 32 m^3/s
	Length	247 m
	Pipe Diameter	3.5 m
	Flow velocity in pipe	2.65 m/sec
	SYPHON 02 or May be Avoided	
	Design discharge	25 or may be 32 m^3/s
	Length	600 m
	Pipe Diameter	3.5 m
	Flow velocity in pipe	2.65 m/sec
	AQUEDUCT 01	
	Design discharge	25 or may be 32 m^3/s
	Length of aqueduct	51 m
	Freeboard	0.6 m
	Trough Size	4.5 m x 3.6 m
	Bed slope	1 in 500 m

	AQUEDUCT 02	
	Design discharge	25 or may be 32 m^3/s
	Length of aqueduct	42 m
	Freeboard	0.6 m
	Trough Size	4.5 m x 3.5 m
	Bed slope	1 in 500 m
6	**SEDIMENT EXCLUDER**	
	No. of Chambers	04
	Critical sediment grain size	0.2 mm
	Average velocity in chambers	0.2 m/sec
	Length of main chambers	31.5 m + 30.5 m = 63 m
	Overall Longitudinal slope	4.2 %
	Length of upstream transition	17 m
	Length of downstream transition	13.2 m
	Free board	0.6 m
	Width of chambers	6.8 m
	Depth of chamber at start	5.7 m
	Depth of chamber at end	8.4 m
	Hoper depth	2.0 m
	Flushing discharge	1.15 m^3/s
	Total head losses in the sand trap	0.09 m
7	**FOREBAY**	
	Type	Open Tank
	Volume Capacity	3,405 cu. m
	Dimensions	33 m x 16.5 m
	Freeboard	1.5 m
	Height of Forebay	10 m
8	**PENSTOCK**	
	Type	Steel cladded in RCC
	Structural steel used in the	ASTM A36
	Invert level of Penstock	EL. 848.538 m
	Total length of main Penstock	383 m
	Diameter of penstock	2.7 m
	Trifurcation Diameter	1.5 m
	Thickness of penstock	14 mm
	Average velocity in penstock	4.01 m/sec
	Gross head at penstock	59.72 m

	Head losses in penstock	3.67 m
	Normal tail water level at	EL. 797 m
9	**POWER FACILITIES**	
	Powerhouse	Surface Powerhouse
	Size of Powerhouse (including	57 m x 19 m x 17 m
	Turbine	Horizontal Francis
	Units	Three
	Total Turbine Discharge	7.64 m^3/sec
	Each Turbine Capacity	3.52 MW
	Turbine Combined Capacity	10.56 MW
	Average annual energy	73.56 GWh
	Plant Factor	79.49 %
10	**TAILRACE CHANNEL**	**Trapezoidal Concrete Channel**
	Dimension (3 Branches)	2.5 m x 2.1 m
	Longitudinal Slope	1:1000
	Average velocity	1.63 m/sec
	Flow depth	1.5 m
	Free board	0.6 m
	Dimension (Main Channel)	6.6 m x 2.1 m
	Side Slope	2:1
	Average velocity	2.02 m/sec
	Flow depth	1.5 m
	Length of Main Channel	10 m
	Free board	0.6 m

3. THE PROJECT OTHER DATA

3.1. Valley Access Road

Project site is accessible from Peshawar via Peshawar – Kohat road. Kohat is linked with Kurram District via Hangu – Doaba – Thal road. The Project site is about 8 km from Thal toward Parachenar. Weir is near Charkhil village while the powerhouse is opposite to Chapare Village. Chapare Check post is starting point of District Kurram.

Road from Thal to Parachenar run along left bank of Kurram River. A bridge (Ahmadi Chama) exists across the Kurram River about 2 km downstream of Charkhail village for crossing from left bank toward right bank. A single lane road exist along the right bank of

Kurram River. Right bank road toward upstream from bridge is metaled and in good condition and toward downstream up to selected powerhouse site is single tracks which needs surfacing.

3.2. Transportation

Transportation of the equipment from abroad will be either by sea through Karachi port or by air. Highways/Motorways of good conditions may be used for transportation on road from Karachi to Peshawar. From Peshawar- Kohat-Hangu-Doaba-Thal to project site at Charkhil (Project Area) transportation of road will follow Indus Highway-M9-M6-M5-M3-M2-M1-Kohat Road to Project Area. Present condition of Road right bank of the Kurram River require surfacing and some repairs/maintenance for some areas to ensure safe transportation of equipment to site. The Employer has been requested to make arrangements for improving road conditions. The contractor will be responsible to access the existing road conditions from the port of entry into Pakistan to the project area. Within the project area access to construction sites, transport of equipment, material, staff etc. will be the responsibility of the contractor.

3.3. Temperature

Parachinar has a moderate humid subtropical climate with fairly respectable rainfall. The most reliable long-term data concerning precipitation and temperature are recorded at Parachinar and Bannu stations. Temperature recorded at Parachinar climatological station varies throughout the year reaching its minimum during January and its maximum during July. The recorded mean minimum monthly temperature at Parachinar is 2.1 °C during January and the mean maximum monthly temperature is 12.1 °C during July. The recorded absolute maximum temperature is 35.0 °C and the absolute minimum temperature is -11.6 °C.

3.4. Floods

In the project area floods in Kurram River are mainly originated by snowmelt but monsoon rains are important components and can cause extreme floods. The highest observed flood occurred in 1978 with an estimated peak of approximately 1809 m³/s in Kurram River at thal, 8 km downstream of power house.

3.5. Catchment Area - Rainfall

At Parachinar with an elevation of about 1523 m an annual precipitation of 881.3 mm was recorded. This rain gauge station is approximately 60 km towards north-west of the proposed weir at Kurram River.

3.6. Water for Drinking and construction

Drinking water of good quality is available in the Project area. A number of channels other than Kurram River flow in the project area. However, the people of the area use drinking water from springs which are common.

Ground water is also not at deep level and may be of good quality due to existence of river and channel network. However, there quality would be tested during geo-technical drilling and environmental investigation.

3.7. Petrol, Diesel and Lubricant

In the town of Thal, Shell Pakistan and Pakistan State Oil operating fuel station. These stations are along Kohat – Thal – Parachinar road and in the town of Thal.

3.8. Communication

The following communication facilities are available throughout Pakistan and particularly in Kurram Valley, however such facilities could be extended to the O&M colony and project camps sites by approaching different network provider. Such facilities could be helpful during the transportation and safe handling of the equipment.

a) Cellular mobile network

b) PTCL landline

c) PTCL broadband network

3.9. Telephone/Internet

Telephone, telegraph and fax facilities are available near the project area, especially in the town of Thal and Parachinar. Internet access is available with limited speed through the telephone network. Fast speed connections do not exist in the Kurram Valley.

Further a number of Mobile Phone Companies and wireless phone companies are also operating in the project area. Now a day's mobile connection and its operation is much easier and cheaper in Pakistan.

3.10. Hotels and Restaurants

Parachinar city is famous touristic place. The people from different part of the country travel for enjoying their holidays. The summer season is very famous for tourists. A number of good quality hotel, resorts and restaurants are being operated by locals. Accommodation and good quality of food is available everywhere along the Kurram valley. Pakistan Tourism Department is also operating one lodge at Parachinar Town, which offer good quality of food.

Pakistan Arm has Rest Houses in Thal Town for which booking shall be obtained from Pakistan Arm at Parachinar.

No hotel and restaurant is available in the project area, however, office and residential accommodation may be available on rent basis in Thal Town.

A small rest house is available at Chapare along the Kohat – Thal – Parachinar road which is in the control of District administration.

4. BIDDING PROCEDURES AND FORM OF CONTRACT

This pre-qualification document is for the selection of potential contractors interested in bidding for the Works comprising of: Engineering Design of Civil, Hydraulic steel and electromechanical works, Procurement of Plant/ Equipment & transmission line and Construction of Civil Works and hydraulic steel structures. International Competitive Bidding procedure as per KPPRA guidelines for procurement of works will be followed.

International competitive procedure shall be applied and EPC bidding document shall be prepared on by the Standard Bidding Document (SBD) for procurement of works issued by the KPPRA – 2016.

PEDO intends to pre-qualify the Applicant (Constructor) on EPC mode. Applicant means a Firm (having experience in engineering (Design), procurement (E&M Contractor) and construction (civil works contractor)) or Joint Venture of the following Firms/Contractor:

- **Engineering**; means the Engineering Firm responsible for design of civil works and E&M equipment and quality control of civil construction, fabrication, installation, testing and commissioning of civil and E&M Equipment;

- **Procurement**; means the E&M Equipment Supply/Fabrication Contractor/Firm responsible for Procurement, Design, Fabrication, Transportation, Erection, Testing, and Commissioning of all E&&M Equipment required for Hydropower Plant including Transmission Lines; and

- **Construction**; means the Construction Contractor/Firm responsible for construction, supply, procurement and quality control of all Civil Works required for Hydropower Plant. Also responsible for fabrication, procurement, transportation, installation, testing commissioning of hydraulic steel structures.

5. SCOPE OF WORKS AND SERVICES FOR EPC CONTRACTOR

The project will be developed on Engineering, Procurement and Construction (EPC) mode. Therefore, the following are the scope services and works for engineering, procurement and construction.

5.1. Scope of Services for Engineering Firm

The Engineering firm is responsible for the following works and services

- Supervision of additional investigation required for design of civil works and E&M works.
- Stage – 1 and Stage – 2 design of civil works, hydraulic steel structures, E&M works and transmission line works
- Construction supervision for quality control of civil works, hydraulic steel structure, transmission line and E&M Works
- Coordination with Project Management Consultant and the Employer and the Employer Representative for design and quality related matters and standards.

5.2. Scope of Works and Services for Procurement Firm

Procurement firm (E&M Contractor) is responsible for design of all E&M equipment required for hydropower project for robotic operation and their fabrication in own fabrication facilities and supply, installation, testing and commissioning till acceptance by the Employer. It must do the following activities.

- Design and model testing of hydraulic turbine
- Must have the fabrication facility for fabrication of all equipment required for the Project
- Supply at site and responsible for transportation
- Installation and erection
- Testing and commissioning
- Commercial operation and handing over to Employer.

5.3. Scope of Works and Services for Civil Works Contractor

The civil works contractor is responsible for procure and supply of construction material and construction of all civil works such as defined below but not limited and responsible for testing and commissioning and remind at the Project till completion of defect liability period. The following structures shall be part of the Project and Civil Works Contractor shall complete to the satisfaction of the Employer.

Diversion Weir

The diversion weir site is located in Charkhil village. This village is located along left bank of Kurram River and founded over bed rock which are about 20 m high above river bed. River bed is wide at selected site and bed width is 179 m about. River is flowing toward right bank at present. However, River has meandering tendency to change its course toward right or left bank.

The Diversion Weir at this site may consist of concrete part and earthen embankment on both sides of concrete structure. Undersluice is provided along right bank of fixed weir. Then Weir with its allied structures is designed at 100 years of Return Period of Flood.

Power Intake

The reinforced concrete power intake structure is arranged parallel to the Weir axis on its right abutment. The power intake structure will be provided with trash rack, raking machine and intake service gate.

Sediment Basin

Four Open desander of 64 m length without transition and 6.8 m wide for removal of suspended sediment from the diverted river flow will be provided. The desander construction includes upstream and downstream Transitions, flushing Channel as well as the corresponding hydraulic steel structure equipment to operate the desander works satisfactory.

Headrace

The 3.554 km and 3.2 km long headrace Rectangular Channel and tunnel respectively shall Constructed. Tunnel shall be excavated by conventional drill and blast method. It shall be concrete lined over its entire length with an internal diameter of about 3.5 m and horse-Shoe cross-section. It is designed to be a free flow tunnel with a slope of 1:2000 to achieve adequate drainage by gravity during construction and for inspection.

Forebay

The Reinforced concrete Forebay is designed 19X16.50 m of size. Inlet Size is as power Channel. Its length is 36.275 m from headrace tunnel to the portal at open free surface.

Penstock

The headrace Channel is connected to the Open powerhouse by means of a 247 m supported Penstock of 2.7 m internal diameter.

Powerhouse

Powerhouse site is proposed along confluence of Kurram River and natural stream named Salikhani Khawar with tailrace discharging in to natural stream and ultimately to Kurram River.

The Power house shall be reinforced concrete and shall comprise the following, but not be limited to:

- A sub-structure of reinforced concrete housing auxiliary rooms and pit for turbine and pits.
- A superstructure of reinforced concrete, above ground, comprising the machine hall and operating facilities.
- Outdoor Switchyard
- An access Road shall be constructed to reach the powerhouse area.
- The dimensions of the machine hall shall be determined by the hoisting requirement of the crane. An erection bay shall be provided at the access road level to facilitate assembly of parts during erection and maintenance of equipment. The machine hall shall be designed of reinforced concrete.
- The Control building shall be preferably located adjacent to the machine hall and shall have ground level at the erection bay floor level.
- The control Building shall include switchgear room, Battery Charger room, and an office room, a workshop and other facilities. The control building shall be designed of reinforced concrete.

Tailrace

The Tailrace Channel of 30 m length from Powerhouse end, is designed as free surface flow channel with concrete lining at bottom and side walls. It has a slope of 1:1000 (V:H) and under normal flow conditions the depth of flow will be approximately 1.5.0 m

Provision of Camp and office Facilities

EPC Contractor shall be responsible for site camp, temporary installation, power supply during construction, security, health and safety of his worker force and work force of the Employer.

Interface Management

Lead partner will be expected to produce detailed program in Primavera format. Construction scheduling and coordination between Main Civil Contractor (JV), Contractor for Electrical-Mechanical Equipment (JV) and Firm responsible design.

6. CONSTRUCTION PERIOD

The overall time Schedule covers a period of 5 years starting in September 2021 with the Detailed Engineering Design stage. The schedule covers pre-construction engineering and land acquisition activities as well as civil construction, equipment design, manufacturing and installation. The entire year 2022 is reserved for the tender procedure from prequalification to award of contract to the selected contractors and suppliers. Start of construction is assumed for January 2023. Construction design, construction of civil works, manufacturing of equipment, installation, testing and commissioning shall be completed after 48 months in September 2026 according to the overall time schedule. A preliminary overall time schedule is attached as **Annex-2**, which is indicative and for bidding purposes only.

7. ENVIRONMENTAL PROTECTION

The Applicants must possess environmental and social expertise in the application of Pakistan legislation and policies related to environmental assessment, protecting labor rights, occupational health and safety.