

### PAKISTAN WATER & POWER DEVELOPMENT AUTHORITY

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Chief Engineer-II (Hydro) Planning WAPDA, Sunny View Estate, Kashmir Road, Lahore

No. CE-1 (HP) SBP-1070 1169

Date <u>07-03-2022</u>

Director General (PR) WAPDA, G-32 Wapda House, Lahore

Subject:

SINDH BARRAGE PROJECT - PROCUREMENT OF CONSULTANCY

SERVICES FOR FEASIBILITY STUDY

#### ANNOUNCEMENT OF CONTRACT AWARD (PPRA RULE-47)

In accordance with PPRA Rule-47, kindly find attached the duly filled Contract Award Proforma I & II along with requisite documents pertaining to the procurement of Consultancy Services for Feasibility Study of Sindh Barrage Project for uploading on PPRA website, please.

Digital copy of Contract Award Proforma I & II alongwith allied documents has been emailed at wapdaprap1@gmail.com on March 07, 2022.

DA/As above

(Engr. Jawed Ahmed Qazi) Chief Engineer-II (Hydro) Planning

Manuel 1/3/22

#### Copy to:

- 1. SO to Member (Water) WAPDA, Wapda House, Lahore
- 2. APS to General Manager (Hydro) Planning WAPDA, Sunny View Estate, Lahore.
- 3. APS to General Manager (C&M), Water, WAPDA, Wapda House, Lahore
- 4. APS to General Manager (CCC) WAPDA, Wapda House, Lahore

#### **PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA)**

#### CONTRACT AWARD PROFORMA - I

<u>To Be Filled And Uploaded on PPRA Website In Respect of All Public Contracts</u> of Works, Services and Goods Worth Fifty Million or More

NAME OF THE ORGANIZATION/DEPTT.: Pakistan Water And Power

**Development Authority (WAPDA)** 

FEDERAL / PROVINCIAL GOVT.:
Federal Govt.

> TITLE OF CONTRACT: Consultancy Services for Feasibility

Study of Sindh Barrage Project

> TENDER NUMBER: PRD(L)/WAPDA/031(2021-22)

▶ BRIEF DESCRIPTION OF CONTRACT: Preparation of Feasibility Study

> TENDER VALUE: PKR 90,460,329/- (excluding Provincial

Sale Tax & Provisional Sum)

➤ ENGINEER'S ESTIMATE:

(for civil Works only)

> ESTIMATED COMPLETION PERIOD: Five (05) Months

WHETHER THE PROCUREMENT WAS INCLUDED IN ANNUAL PROCUREMENT PLAN?
No

> ADVERTISEMENT:

(i) PPRA Website: Yes (TS456861E)

(ii) News Papers: Yes

a. Daily "Express" dated August 05, 2021

b. Daily "Khabrain" dated August 05, 2021

> TENDER OPENED ON (DATE & TIME): September 21, 2021 at 1130 A.M.

(Technical Proposal)

November 11, 2021 at 1100 A.M

(Financial Proposal)

> NATURE OF PURCHASE: Local (Open Competitive Bidding)

> EXTENSION IN DUE DATE (If any): Yes

➤ NUMBER OF TENDER DOCUMENTS SOLD: Three (03)

(List of Buyers is attached as F/A)

WHETHER QUALIFICATION CRITERIA WAS INCLUDED IN BIDDING/TENDER DOCUMENTS: Yes (attached as F/B)

- WHETHER BID EVALUATION CRITERIA WAS INCLUDED IN BIDDING/TENDER DOCUMENTS:
  Yes (attached as F/C)
- > WHICH METHOD OF PROCUREMENT WAS USED:
  - a. Single Stage Two Envelope
    Procedure
  - PLEASE SPECIFY IF ANY OTHER METHOD OF PROCUREMENT WAS ADOPTED WITH BRIEF REASONS (i.e EMERGENCY, DIRECT CONTRACTING, NEGOTIATED TENDERING ETC.)
  - WHO IS THE APPROVING AUTHORITY: WAPDA Authority
- ➤ WHETHER APPROVAL OF COMPETENT AUTHORITY WAS OBTAINED FOR USING A METHOD OTHER THAN OPEN COMPETITIVE BIDDING: N/A
- > NUMBER OF BIDS RECEIVED: Three(03)
- > WHETHER THE SUCCESSFUL BIDDER WAS LOWEST BIDDER: QBS method was adopted. Financial proposal of only top ranked Firm/JV was opened and evaluated
- > WHETHER INTEGRITY PACT WAS SIGNED: Yes

#### **PUBLIC PROCUREMENT REGULATORY AUTHORITY (PPRA)**

#### CONTRACT AWARD PROFORMA – II

To Be Filled And Uploaded on PPRA Website In Respect of All Public Contracts of Works, Services & Goods Worth Fifty Million Rupees or More

- > NUMBER OF BIDDERS PRESENT AT THE TIME OF OPENING OF BIDS: Two (02)
- > NAME AND ADDRESS OF THE SUCCESSFUL BIDDER:

Joint Venture of M/s Deltares (P.O. BOX 177, 2600 MH Delft, Boussineqweg 1, 2629 HV Delft, The Nertherlands) & M/s Pakistan Engineering Services (Pvt.) Ltd (JV) (Building No.7, Street No. 12, Sector B, Commercial Area Phase-v, D.H.A, Lahore)

- RANKING OF SUCCESSFUL BIDDER IN EVALUATION REPORT: 1st
- ➤ NEED ANALYSIS (Why the procurement was necessary?)

The procurement of the Consultants was essential to carryout Feasibility Study of Sindh Barrage Project

- ➤ IN CASE EXTENSION WAS MADE IN RESPONSE TIME, WHAT WERE THE REASONS
  On the request of bidders, extension was granted due to:
  - i. COVID restrictions/ situations
  - ii. Complex nature if assignment in the coastal vicinity.

	WHETHER NAMES OF THE BIDDERS AND THE TIME OF OPENING OF BIDS:	IR PRICES WERE READ ( Yes	OUT AT TH
>	DATE OF CONTRACT SIGNING	March 03, 2022 (Copy of Agreement attack	ned as F/D)
>	CONTRACT AWARD PRICE:	PKR 107,140,665/-	
>	WHETHER COPY OF EVALUATION REPORT GI Bid Evaluation Report was uploaded on PPRA wel Rule 35 of PPRA regulations		Yes forma under (F/E)
>	ANY COMPLAINTS RECEIVED:		No
>	ANY DEVIATION FROM SPECIFICATIONS GIVE NOTICE/DOCUMENTS:	N IN THE TENDER	No
>	DEVIATION FROM QUALIFICATION CRITERIA:		No
>	SPECIAL CONDITIONS, IF Any (Give Brief Descri	ption):	No

#### **SINDH BARRAGE PROJECT**

Sr.No.	Firms/ Joint Ventures (Purchased The RFP Documents)				
1.	M/s. Dar Al-Handasah Consultants, Bahrain ( <b>Lead Firm</b> ) In JV with: M/s Mirza Associates Engineering Services (Pvt.) Ltd. (MAES)				
2.	M/s NS Violet, Pakistan (A subsidiary of NS Violet, UK)				
3.	M/s Deltares, Netherlands ( <b>Lead Firm</b> ) In JV with: Pakistan Engineering Services (Pvt.) Ltd				

- ii. Technical memorandum as required by the client.
- iii. All the data / working / findings shall be submitted to WAPDA.
- iv. Draft evaluation/ calculation/ recommendation reports shall be submitted to the Client in editable format.
- v. After recommendations/ suggestions from the client, if any, the Final Report shall be submitted.

#### 9 Time Schedule

Refer to **Figure-3**.

#### 10 Scope of Services and Qualification & Experience of the Expert

#### **10.1** Coastal Hydraulics Expert (Expatriate)

The expert shall identify the complications / problems in the design of hydraulic structures proposed in the proximity of coastal environment, evaluate the possible impacts and propose remedial measures after review / analysis of the available data, site inspection and further investigations. The expert shall prepare a comprehensive design report on coastal hydraulics based upon site conditions and practices in-vogue internationally in such circumstances. The assignment shall include, but not limited to following tasks;

- Review of proposed Sindh Barrage concept, hydraulic studies for structural components i.e. main & auxiliary barrage, reservoir & downstream protection dykes, drainage channel etc. considering the coastal hydraulics and geomorphological conditions of Indus River.
- Evaluation of hydraulic conditions at and downstream of proposed Main and Auxiliary Barrage.
- Hydraulic design of barrage structures and embankments along coastal area.
- Optimize the capacity of Main barrage, Auxiliary barrage and Indus River channel as per coastal hydraulic condition & climate change.

#### The expert should possess the qualifications and experience as mentioned below:

Hydraulics / Coastal Hydraulics from a well reputed and recognized university. Ph.D. qualification in related disciplines will be given additional weightage. He should have at least 25 years' overall experience with minimum of 08 years in Coastal Hydraulics discipline in large scale/ similar projects. He should have at least provided his services on at least 1 or more projects as Expert Coastal Hydraulics. He should have knowledge of related computer software. The expert with published research articles on Coastal Hydraulics will be given preference.

#### **10.2** Delta Reclamation Expert (Expatriate)

The expert shall identify the problems, evaluate the possible impacts and propose remedial measures after review / analysis of the available data, site inspection and further investigations. The expert will prepare a comprehensive report by considering both structural & non-structural measures on delta protection & reclamation based upon site conditions and practices in vogue internationally on such situations. The assignment shall include, but not limited to following tasks;

- i. Review of previous reports, available data on historic formulation of Indus delta. Evaluate climatic / hydrological / groundwater / environmental conditions in project area such as rainfall, evaporation, drainage, surface runoff in the area; probable maximum minimum average flow of Indus River below Kotri.
- ii. Determine causes for vulnerability of coastal landscape.
- iii. Propose plan to enhance active delta, mangroves swamps, conservation / restoration of coastal and estuarine habitats within the available resources of water & sediment load downstream Kotri and proposed Sindh barrage.
- iv. Propose alternate plans / techniques for existing delta protection and restoration / reclamation of Indus Delta and comparative analysis of the proposed plans / techniques being used internationally with due consideration to social and environmental issues at the project site.
- v. Formulate an investigation plan and advise / supervise / conduct on-site sampling, testing, evaluations and analysis of environmental conditions including sedimentation pattern, soil, sub-soil, surface and groundwater characteristics both quantitative and qualitative.
- vi. Propose integrated plan for delta area preservation / reclamation by provision of seashore & marshy area stabilization / reclamation plans through both structural and non-structural interventions.
- vii. Formulation of implementation, monitoring, management and controlling plans for delta reclamation / restoration.

#### The expert should possess the qualifications and experience as mentioned below:

He should have at least Master's Degree in related discipline / Delta Reclamation from a well reputed and recognized university. Ph.D. qualification in related disciplines will be given additional weightage. He should have at least 25 years' overall experience with minimum of 08 years in Delta Reclamation discipline in large scale/ similar projects. He should have at least provided his services on at least 01 or more projects as Expert Delta Reclamation. He should have knowledge of related computer software. The expert with published research articles on Delta Reclamation will be given preference.

#### 10.3 Hydraulics Structure Expert

The expert shall identify the complications / problems in the design of hydraulic structures proposed in the proximity of coastal environment, evaluate the possible impacts and propose remedial measures after review / analysis of the available data, site inspection and further investigations.

The assignment shall include, but not limited to following tasks;

- i. Review of proposed Sindh Barrage concept, hydraulic studies for structural components i.e. main & auxiliary barrages, reservoir dykes & downstream protection dykes, drainage channel etc. considering the coastal environment i.e. structures foundation on saline alluvium and water logged conditions.
- ii. Review/ update (if required) field investigations required for hydraulic studies i.e. Topographic Survey, Bathymetric / Hydrographic Survey of the concerned river reach.
- iii. Review/ analyze the project components i.e. main & auxiliary barrages, upstream & downstream barrage dykes, canals & head regulators with due consideration of design discharge and hydraulic stability of structures against surface & sub-surface flow conditions i.e. seepage, uplift pressure, piping etc.
- iv. Numerical / latest software modelling to be used for determination of location of sea water fresh / river water interface and flow characteristics at different locations under different flow conditions.
- v. Any other specific assignment/ study/ survey/ investigation/ tests related to hydraulics of the project area; as deemed necessary.
- vi. Review the hydraulics report on standard format or required by the Client on concerned project components considering site conditions and practices in-vogue.

The expert should possess the qualifications and experience as mentioned below:

He should have at least Master's Degree in Hydraulics structures engineering from a well reputed and recognized university. Ph.D. qualification in related disciplines will be given additional weightage. He should have at least 20 years' overall experience with minimum of 10 years in design of Hydraulic structures of dams / barrages projects of similar size. He should have provided his services on minimum 2 similar projects as Hydraulics Expert. He should have knowledge of related computer software.

#### 10.4 Geotechnical Design Expert

The expert shall identify potential geotechnical complications at main & auxiliary barrages, canal head regulator, cross drainage works and in / under reservoir area, reservoir dykes, d/s protection dykes, drainage channels & canal alignment. Evaluate the

possible impacts and propose / adopt remedial measures after review / analysis of the available data, site inspection & further investigations.

The assignment shall include, but not limited to following tasks;

- i. Review of proposed Sindh Barrage concept & major structural components of the project, available data / reports on geology / geotechnical formation in the project area / vicinity.
- ii. Review/ update (if required) geotechnical field investigations of project components i.e. Main & Auxiliary Barrages, reservoir dykes, protection dykes downstream barrage area, canals & allied structures and selection of design parameters.
- iii. Review geotechnical design of project components with due consideration to barrage foundation on saline alluvium and embankments / dykes on saline & waterlogged area.
- iv. Review/ update (if required) geotechnical instrumentation plan on various project components for effective monitoring.
- v. Any other specific assignment/ study/ survey/ investigation/ tests related to Geotech of the project area; as deemed necessary.
- vi. Review the geotechnical report on standard format as required by the Client on concerned project components considering site conditions and practices in-vogue.

The expert should possess the qualifications and experience as mentioned below:

He should have at least Master's Degree in Geotechnical engineering from a well reputed and recognized university. Ph.D. qualification in related disciplines will be given additional weightage. He should have at least 20 years' overall experience with minimum of 10 years in Geotechnical design discipline in dam / barrage projects of similar size. He should have provided his services on minimum 2 similar projects as Geotechnical Expert. He should have knowledge of related computer software.

#### 11 Additional Services

Regarding any services additional to those specified above, the Consultants, if specifically requested by WAPDA, shall;

Provide specialist technical advice on aspects of the works that are not normally required / provided during these studies. However, any services which are not specifically mentioned in the TOR above, but are allied and essential for the effective implementation and completion of the Project will also be provided by the Consultants and will be deemed to have been part of this TOR.

ITC Clause Reference					
19.1	An online option of the opening of the Technical Proposals is offered:				
	The opening of Technical Proposals shall take place at:				
	Office of General Manager (HRM), WAPDA				
	228-Wapda House, Lahore. Telephone: (+92-42) 99202631				
	Facsimile: (+92-42) 99202795				
	Email: Email: gmpndwater@gmail.com				
	Date: same as the submission deadline indicated in 17.7. Time:1130 hours				
19.2	In addition, the following information will be read aloud at the opening of the Technical Proposals.				
	N/A				
<b>21.1</b> (for FTP)	Criteria, sub-criteria, and point system for the evaluation of the Fu Technical Proposals:				
	(i) Specific experience of the Consultant (as a firm) relevant to the Assignment: [25]				
	a) Feasibility Study of barrage structure 13				
	b) Feasibility Study of dykes/ embankments for any water retaining				
	structure on alluviums 12				
	Specific / similar assignments completed in the last 10 years.				
	No. of Project(s) %age Marks				
	1 60				
	2 100				
	(ii) Adequacy and quality of the proposed methodology, and work plan in responding to the Terms of Reference (TORs): [10]	n			
	a) Technical approach and methodology 05				
	b) Work Plan 05				

#### **ITC Clause** Reference

(Notes to Consultant: the Client will assess whether the proposed methodology is clear, responds to the TORs, work plan is realistic and implementable; overall team composition is balanced and has an appropriate skills mix; and the work plan has right input of Experts}

#### (iii) Key Experts' qualifications and competence for the Assignment: *Notes to Consultant: each position number corresponds to the same for the Key Experts in Form TECH-6 to be prepared by the Consultant*}

Sr. #	Key Experts	Weightage	
<b>Sr.</b> #	<b>Key Experts</b>	Weightage	
1	Expert (Coastal Hydraulics) (Expatriate)	25	
3	Expert (Delta Reclamation) (Expatriate)	25	
4	Expert (Hydraulics Structure)	7.5	
5	Expert (Geotechnical Design)	7.5	
	Total:	65	

#### **Total points for criterion (iii):**

[20%]

Required qualification and experience of Key Experts are provided in Term of Reference (TOR).

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

1) General qualifications (Masters and PhD):

	Basic requirements of education:	15%
	Higher than required education:	5%
2)	Adequacy for the Assignment (General Experience, Exsector / similar assignments / position):	xperience in [70%]
	Overall General experience:	20%
	Specific experience:	30%
	Specific experience of working in specific position:	20%
3)	Special trainings / courses / knowledge of related computant Research Papers (Related to Specific Job):	ter software <i>[10%]</i>
	Total weight:	[100%]
	Total points for the three criteria:	100

# PAKISTAN WATER AND POWER DEVELOPMENT AUTHORITY



## CONTRACT FOR CONSULTANCY SERVICES FOR

FEASIBILITY STUDY

OF

SINDH BARRAGE PROJECT

#### between

### WATER AND POWER DEVELOPMENT AUTHORITY (WAPDA)

and

#### A Joint Venture of:



M/s Deltares, P.O Box 177, 2600 MH Deflt, Boussinesqweg 1, 2629 HV Delft, The Netherlands (Lead Firm)



M/s Pakistan Engineering Service (Pvt.) Ltd., Building No. 7, St No. 12, Sector-B, Commercial Area, Phase-V, D.H.A, Lahore Cantt, Pakistan (JV Partner)

March, 2022







#### I. FORM OF CONTRACT

#### **TIME BASED**

This CONTRACT (hereinafter, together with all Appendices/Exhibits attached hereto and forming integral part hereof, called the "Contract") is made on the \_\_\_\_\_\_day of March of 2022, between, on the one hand, Pakistan Water and Power Development Authority (WAPDA) (hereinafter called the "Client" which expression shall include the successors, legal representatives and permitted assigns) and, on the other hand, a **Joint Venture** consisting of the following entities, each member of which will be jointly and severally liable to the Client for all the Consultant's obligations under this Contract, namely, M/s DELTARES (Lead Firm) and Pakistan Engineering Services (Pvt.) Ltd. (JV Partner) (hereinafter collectively called the "Consultants" which expression shall include the successors, legal representatives and permitted assigns).

#### WHERE AS:

- (a) the Client has requested the Consultants to provide certain consulting services as defined in the General Conditions of Contract attached to this Contract (hereinafter called the "Services"); and
- (b) the Consultants, having represented to the Client that they have the required professional skills, and personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this Contract;

NOW THEREFORE the Parties hereby agree as follows:

- 1. The following documents attached hereto shall be deemed to form an integral part of this Contract:
  - (a) the General Conditions of Contract;
  - (b) the Special Conditions of Contract;
  - (c) agreed minutes of meeting of negotiation;
  - (d) the following Appendices:

Appendix A: Description of Services

Appendix B: Reporting Requirements

Appendix C: Key Personnel and Sub-consultants

Appendix D: Breakdown of Contract Price in Foreign Currency

Appendix E: Breakdown of Contract Price in Local Currency

Appendix F: Services to be Provided by the Client &

Counterpart Personnel to be made available to the consultants by

the client (Not Applicable)

Appendix G: Medical Certificate (Not Applicable)

Appendix H: Hours of work for Consultants's Personnel.

Appendix I: Form of Bank Guarantee for Advance Payment.

Appendix J: Integrity Pact/ Disclosure by the Consultants

- 2. The mutual rights and obligations of the Client and the Consultants shall be as set forth in the Contract, in particular:
  - (a) the Consultants shall carry out the Services in accordance with the provisions of the Contract; and
  - (b) the Client shall make payments to the Consultants in accordance with the provisions of the Contract.



Aln



IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names in two identical counterparts each of which shall be deemed as the original, as of the day, month and year first above written.

For and on behalf of Client

**Pakistan Water and Power Development Authority (WAPDA)** 

Witness - WAPDA

Signatures:	Manual Alsa	Signatures	: Mond
Name:	MUHAINMAD ABID SHAIR	И Name:	Jawed Ahmed Qazi
Title:	General Manager	Title:	Chief Engs. (HP)-II
(Seal)	Hydro Planning Wapda Sunny View, Lahore.		7 0

For and on behalf of JV of the Consultants	
1. M/s DELTARES, Netherlands	Witness - M/s DELTARES
2003	
Signatures: Deltares	Signatures:
Name: Mohamed Yossef	Name: D.J.R. Walstra
Title: Advisor	Title: Director
(Seal) info@deltares.nl Team Leader	
enabling delta life	

2. M/s Pakistan Engineering Services Witness - M/s PES (PES) (Pvt.) Ltd.

Signatures: Relative Restaurance

Name: DR. ZAHEER M. MALIN

Title: DIRECTOR PROSECTS

(DESIGN & STYDIES) Signatures: Social A Name: SOHALL ANWER HASAN

**Chief Executive** Title: PAKISTAN ENGINEERING SERVICES (PVT) LTD. (Seal)

### Evaluation Report (As Per PPRA Rules, 2004)

1.	Name of Procuring Agency:	Pakistan Water And Power Development Authority (WAPDA)
2.	Method of Procurement:	Single Stage Two Envelope
3.	Title of Procurement:	Consultancy Services for Feasibility Study of Sindh Barrage Project
4.	Tender Inquiry No.:	PRD(L)/WAPDA/031(2021-22)
5.	PPRA Ref. No. (TSE):	TS456861E
6.	Date & Time of Bid Closing:	September 21, 2021 at 11:00 hrs
7.	Date & Time of Bid Opening:	September 21, 2021 at 11:30 hrs
8.	No of Bids Received:	Three (03)
9.	Criteria for Bid Evaluation:	Criteria of Bid Proposal attached as Annexure-II
10.	Details of Bid(s) Evaluation:	As Below

	Marks			Rule/Regulation/SBD*/
Name of Bidder	Technical (if applicable)	Financial (if applicable)	Evaluated Cost (EC)** (Rs.)	Policy/ Basis for Rejection / Acceptance as per Rule 35 of PP Rules, 2004.
Joint Venture: M/s Deltares & M/s Pakistan Engineering Services (Pvt.) Ltd	84.15 %	•	83,741,964	Highest/ Top Ranked Proposal (PP Rule 3(B) (ii) (c-iii) &9(4)of 2010)
Joint Venture: M/s Dar Al-Handasah & M/s Mirza Associates (Pvt.) Ltd	76.13 %	-	-	2 <sup>nd</sup> ranked
M/s NSViolet	13.05 %	ù <b>-</b>	•	PP Rule 9(3) of 2010 & PP Rule 36 (b) (v) of 2004

<sup>\*</sup> SBD: Standard Bidding Documents

Most Advantageous Bidder:

M/s Deltares - Pakistan Engineering Services (JV)

11. Any other additional / supporting information, the procuring agency may like to share: The Procurement was carried out in line with Public Procurement Rules & Regulations. The bidding was done on Quantity Based Selection (QBS) Method. The Contract is being awarded to Top Ranked JV.

Signature:

General Manager

Hydro Planning
Official Stamp: Wapda Sunny View, Lahore.

<sup>\*\*</sup>EC is the Evaluated Cost used for evaluation purpose and includes only the cost of competitive component (i.e. Remuneration and Direct Non-Salary Cost) and is exclusive of Provisional Sum, Indirect taxes and cost of WAPDA counterpart staff. Financial proposal of only top ranked Consultants were opened and evaluated by the committee, other proposals will be returned unopened.