



Office of the Project Director

Dhaka Environmentally Sustainable Water Supply Project (DESWSP)
Dhaka Water Supply and Sewerage Authority
WASA Bhaban, 98, Kazi Nazrul Islam Avenue (9th Floor)
Kawran Bazar, Dhaka-1215

Website : www.deswsp-dwasa.com, Email: pddeswspgwtp@gmail.com Tel 880-02-8189095

Memo No: 46.113.618.00.00.G-155/deswsp/ 2697

Date 14.3.2017

Invitation for Bids(ICB)
(Deadline for Submission of Bids : 30th April 2017)

Date : 14th March 2017

Loan No. and Title: 3051-BAN (COL) Dhaka Environmentally Sustainable Water Supply Project (DESWSP)
Contract Nos. and Title: Subsoil Investigation along Package 2 & 3 Pipelines **Contract No. ICB-05/PW /deswsp /2017**
under the Dhaka Environmentally Sustainable Water Supply Project.

1. The People's Republic of Bangladesh has received a loan from the Asian Development Bank (ADB) toward the cost of Dhaka Environmentally Sustainable Water Supply Project. Part of this loan will be used for payments under the contract named above. Bidding is open to Bidders from eligible source countries of the ADB.
2. The Dhaka Water Supply and Sewerage Authority (DWASA) represented by the Project Director, Dhaka Environmentally Sustainable Water Supply Project (DESWSP), (Employer) invites sealed Bids from eligible bidders having requisite experience in subsoil investigation for the execution of **Subsoil Investigation along Package 2 & 3 Pipelines, Contract No. ICB05 /PW/ deswsp /2017**. The Intended **Completion Date is 26 weeks after the Start Date**.
3. International Competitive Bidding will be conducted in accordance with ADB's "**Single-Stage: Two-Envelope** Bidding procedure and is open to all Bidders from eligible countries as described in the Bidding Document.
4. Only eligible Bidders with the following key qualifications should participate in this Bidding:
 - Minimum average annual construction turnover of **US\$ 2.5 million**, calculated as total certified payments received for contracts in progress or completed, within the last five (5) years.
 - 'Participation in **at least two contracts** that have been successfully or substantially completed within the last **ten (10) years** and that are similar to the proposed works, where the value of the Bidder's participation in each **contract exceeds US\$ 750,000**. The similarity of the Bidder's participation shall be based on the physical size, nature of works, complexity, methods, technology or other characteristics as described in Section 6 (Employer's Requirements).'
 - The Bidder or his proposed Subcontractors shall have experience of:
 - Cable Percussion Boreholes – land based
 - Cable Percussion Boreholes – floating platform or jack up platform
 - Piezo cone CPTu
 - Dissipation Testing
 - Seismic Cone Testing
 - Soil Resistivity Testing
 - Soil and water sampling (including chain of custody to laboratory)
 - Soils Laboratory Testing
 - Factual Reporting
 - Production of digital data – AGS, gINT or similar

Outline information on the scope of the contract is included in Appendix 1.

5. To obtain further information and obtain an electronic copy of the bidding documents, bidders should contact:

Project Director
Dhaka Environmentally Sustainable Water Supply Project (DESWSP)
98 Kazi Nazrul Islam Avenue, Kawran Bazar
9th Floor, WASA Bhaban
Dhaka 1215.
Country: BANGLADESH.
Facsimile number: 880-2-8189095
E-mail: pddeswspgwtp@gmail.com



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6. To purchase the bidding documents in English, eligible bidders should:

- Collect the printed Bidding Documents, with CD ROM, from the office of Dhaka Environmentally Sustainable Water Supply Project (DESWSP) at the address above and pay a non-refundable fee of BDT.10,000 or US\$ 150; or
- The documents may be collected in person by an authorized representative of the Bidder or by request for courier delivery, in which case an additional fee of \$ 150 shall be paid by the Bidder. The method of payment will be by Demand Draft or Pay Order made in favour of '**Dhaka Environmentally Sustainable Water Supply Project (DESWSP), DWASA**'. Upon receipt of payment, the document will be sent by courier to the Bidders or their representatives. However, no liability can be accepted for their loss or late delivery.

7. The Employer will arrange for a pre-bid meeting to be held over a two day period (including site visit) from **3-4 April 2017. The meeting should include:**

- very brief introductory presentation on the project and the bidding documents from DWASA and PMU and consultant**
- verbal response to any questions formally raised prior to the meeting**
- Opportunity for Bidders to raise questions in an open (plenary) session.**

Attendance at the pre-bid meeting is greatly encouraged for the bidders and their specialist subcontractors. If requested, the Employer shall issue a letter of invitation to support a visa application on behalf of the bidder up to one week before the pre-bid meeting date. To assist in the planning for the meeting, it is requested that the bidders within seven days after purchasing the document advise the undersigned on the number of people that will attend.

8. Bids must be delivered to the address below at or before **2:00 pm on 30th April, 2017**. All Bids must be accompanied by a Bid Security in the amount stated in the bid document. Electronic submission of Bids is not allowed.

Bids will be opened at **2:15 pm on 30th April 2017** in the presence of bidders' representatives who choose to attend.

9. When comparing Bids, ADB's Domestic Preference Scheme will NOT be applied.


Md Mahmudul Islam,

Project Director,

Dhaka Environmentally Sustainable Water Supply Project (DESWSP)
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- The Managing Director, Dhaka WASA
- The Superintending Engineer/Deputy Project Director....., DESWSP, Dhaka WASA.
- The Executive Engineer/ SrWSE ----- Dhaka WASA.
- Sr FAO/ Procurement officer / SGO(Envi) and SGO(SG)/ FM Expert MDSC
- Senior System Analyst, GIS Dhaka WASA-with the request to arrange publication of the Tender Notice in DWASA web-site.
- The Dy. Chief P.I.O., Dhaka WASA – with the request to arrange publication of the Tender Notice in four National Daily news papers (Two in Bengali & Two in English).
- Deputy Director, CPTU, IMED, Dhaka- with the request to arrange publication of the Tender Notice in CPTU web-site.
- Country Director, Bangladesh Resident Mission , ADB, Dhaka
- Team leader , MDSC , DESWSP, DWASA .



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Appendix 1 – Draft Scope of works under the Contract

This appendix is for information only and will not form part of any contract. The Bidder is to refer to the Bidding Documents.

DWASA, with funding provided by the Asian Development Bank, Agence Francaise de Development (AFD) and the European Investment Bank have implemented the Dhaka Environmentally Sustainable Water Supply Project (DESWSP) in order to improve the water supply network in Dhaka and achieve the following high level objectives:

Financial

- Reduce level of non-metered water

Environmental

- Reduce reliance on groundwater abstraction

Safety

- Improved health through more and better quality water
- Institutional improvements in H&S through safety in design

Social

- Job creation
- Water supply to low income communities
- Improved gender equality
- Community training

The Project comprises:

- Package 1 (not within the scope of this investigation)
 - A new river intake and pumping station at the Meghna River
 - New pipeline
 - A new Water Treatment Works at Gandharbpur
- Package 2
 - 14 km of new pipeline from Gandharbpur to an injection point to the existing network near Gulshan Lake
- Package 3
 - 21 km of system reinforcements in the Gulshan and Airport areas.

The purpose of the investigation is to provide:

- Parameters required to design;
- Information required for characterising in ground risks (liquefaction and soil suction in particular), and
- Information required for temporary works and buildability

for the following Ground Engineering Activities:

- Pipeline
- Access road
- Access road earthworks
- River crossings and;
- Ancillary pipeline structures and infrastructure;
 - Valves
 - Thrust blocks.

The Contractor will be required to gather samples, carry out laboratory testing and provide detailed factual reports. As overview of the quantities of work is provided in Table 1. The proposed techniques are summarised in Table 2.



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Table 1: Investigation overview

	Hole type					
	Borehole		Cone Penetration Test		Trial Pit	
	No	Length (m)	No	Length (m)	No	Length (m)
Section 1 (Package 2)						
Class 1 - Road	19	490	50	750	19	57
Class 2 - Rural	5	150	8	120	5	15
Class 3 - Fill	4	100	10	150	4	12
Class 4 - Over Water	4	120				
Section 2 (Package 3)						
Class 1 - Road	15	340	81	810	15	45
Total	47	1200	149	1830	43	129

The classification of locations is as follows:

- Class 1 Road access – exploratory locations in this class have been positioned on, or adjacent to existing roads. Provisional co-ordinates are provided although the exact locations can be amended on site to suit the local conditions for accessibility, traffic management, utilities and any other local constraint.
- Class 2 Rural locations – exploratory locations in this class have been positioned in fields along the pipeline route. Access to and from these positions will be more difficult as there are no existing access tracks.
- Class 3 Land Filling Areas – exploratory locations in this class have been positioned in areas where the natural land is being raised by placing sand fill by hydraulic pumping / placing. The land filling provides a raised and stable area that is more convenient than "Rural Locations".
- Class 4 Over Water – exploratory locations in this class are located within river channels and require floating or jack up platforms to execute the works.

Table 2: Summary of investigation aims and techniques

	Location		In situ Testing		Sampling and monitoring										Laboratory																			
Investigation Objective	P ₁	P ₂	P ₃	River crossings	Valves & thrustblocks	Hole Type	SPT N	Constant head permeability	Dissipation test	Seismic cone	Shear vane	Wenner Resistivity	Disturbed	Bulk	Environmental	Water	Standpipe (50 mm slotted)	1 mm Casagrande piezometer	NMC and Atterbergs	Grading	Organic content	Particle Density	Suction Paper Test	Oedometer (inc heave)	Triaxial (UUT)	Triaxial (CUT)	Shear box	Concrete	Environmental	Compaction (2.5 kg)	Laboratory CBR	MCV		
Pipeline design	x	x	x	x	x	BH	x				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
Bedding and backfill design	x	x				TP						x	x																x	x	x			
Liquefaction assessment	x	?	x			BH	x																											
Suction / collapse assessment	?	x				CPT		x															x	x										
River Crossing design			x			BH	x	x			x																							
Pipeline corrosivity design						CPT		x				x	x		x		x	x	x	x	x	x	x	x	x	x								
In ground concrete aggressivity assessment	x	x	x	x	x	BH																												
(Unexpected) contamination	x	x	x			BH									x																			