

# **TENDER DOCUMENT**

**Socio-economic and technical feasibility for  
designing water supply schemes in villages of  
Balochistan and Sindh**

## **TENDER NOTICE**

1. For undertaking a socioeconomic and technical feasibility study including design, tenders are invited from national firms/NGOs for following:-
  - o To collect socio-economic and technical information to identify the feasibility of setting up water supply systems.
  - o To undertake a dialogue with communities to identify water needs and means of collaboration
  - o To design in a participatory manner proposed water supply systems energized with solar and/or mechanical energy
2. Registration and tender documents containing details of scope of work and other terms/conditions may be obtained from Alternative Energy Development Board office in Islamabad on any working day at a price of Rs 200. These documents can also be downloaded from AEDB official website ([www.aedb.org](http://www.aedb.org)) and Public Procurement Regulatory Authority (PPRA) official website ([www.ppra.org.pk](http://www.ppra.org.pk)).
3. The tenders should reach AEDB Office, Room 342, Prime Minister's Secretariat, Islamabad by 20 May 2007 at 1:00 pm accompanying a Demand Draft equal to 2% of the bid price (refundable).
4. The AEDB reserves the right to reject any or all Tenders, without assigning any reason. Decision of the Board will be binding and final in all matters.
5. Proposals will be opened on 20 May 2006 at 1:30 pm in Conference Room of AEDB in the presence of the bidders who choose to be present.
6. The Bid should be valid for a period of 6 months from the date of the opening of the tender.

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# **INTRODUCTION**

## **General.**

In the framework of the solar electrification of remote villages of Balochistan and Sindh undertaken by the Alternative Energy Development Board, a socio-economic and technical feasibility study shall be conducted in order to design water supply schemes, and propose a system for community involvement in construction and operation and maintenance.

## **Objective**

The objective of this feasibility study is:

- To collect socio-economic and technical information to identify the possibility of setting up water supply systems.
- If feasibility has been judged positive:
  - o To undertake a dialogue with communities to identify water needs and means of collaboration; and
  - o To design in a participatory manner proposed water supply system.

The survey will take place in the villages listed in Annexe I for Sindh. For Balochistan, a list of around 200 villages will be given in July 2007. These villages will be located in the regions of Balochistan: South western area of Zhob, North Western area of Killa Saifullah, Southern area of Lorelai, South East area of Musakhel, Central Bolan, Lasbela, Kalat, Noshki, Awaran, Killa Abdullah and Chaghi.

# **TERMS AND CONDITIONS**

- 1 A two stage, two envelope bidding procedure as per rule N°36D of PPRA Rules 2004 as amended in 2006 will be followed.
- 2 The costs related to preparation of tender proposals and all related documents will be solely borne by bidders.
- 3 Two copies (1 original clearly indicated (ORIGINAL) and 1 additional copy clearly indicated (COPY)) have to be submitted. The original will be used as reference in case of discrepancy.
- 4 All documentation is to be provided in English.
- 5 2 % of the bid price will be submitted as Bid Security along with the offer in the form of bank guarantee or bank draft / pay-order.
- 6 Documents indicating conformance of firm/NGO to all other legal requirements for government procurement like payment of professional tax and sales tax must be attached with the technical offer.
- 7 Details of qualification and experience of existing staff (technical and administrative) and similar projects/jobs undertaken previously must be listed in the offer.
- 8 The scope of works includes but is not limited to:**
  - a Collect/mesure socio-economic and technical information to identify the possibility of setting up water supply systems**
    - i Existing sources of domestic water
      - (1) Existing sources of drinking water and reliability
      - (2) Distance between existing domestic water sources and village; Time spent per day in fetching water
      - (3) Quantity of drinking water available as of now
      - (4) Have some drinking water sources dried up in the past? (period, frequency...)
      - (5) Number of tube wells and location (in km from the village)
      - (6) Washing point (male and female)
      - (7) Washing location for clothes and cooking utensils
      - (8) Quality of water (as of now and potential future source)
      - (9) Hydrological data to assess the quantity of water available, depth of water table and seasonal and yearly variations
      - (10) If well exist (in the village or surrounding) : Recovery flow rate, drawdown, capacity of the well
    - ii Population
      - (1) Total population
      - (2) Livestock
      - (3) Irrigated agriculture (with irrigation methods)
    - iii Sanitation
      - (1) Existing sanitation systems if any
    - iv Waste water
      - (1) Disposal of waste water
      - (2) Use of wastewater if any (irrigation, washing, livestock)...
      - (3) Orchards
    - v Community
      - (1) Presence of a school, operating or not, (girls and boys, co-education)
      - (2) Presence of a CBO/NGO in the village
      - (3) Previous development projects undertaken in the village, by whom, issues
      - (4) Presence of a technician in the village
      - (5) Leaders of the community

- (6) Level of cohesion in the community
  - b Initiate and conduct a dialogue with communities in order to design a water supply scheme and an appropriate management system. The design shall include the following elements:**
    - i Proposed water supply scheme design with estimated costs
      - (1) Technical design
      - (2) Mapping ( including location of the reservoirs and water points)
      - (3) Estimated costs
      - (4) Distance of water point from the farthest house
      - (5) Ownership of land on which water points are if any, results of negotiations
      - (6) Rules to be established for using water scheme acceptable to community
      - (7) Additional structures: washing point...
      - (8) Quality of water and filtering/cleaning system if necessary
    - ii Proposed waste water management system with estimated costs
    - iii Proposed improved sanitation system with estimated costs
    - iv Proposed participation of the community
      - (1) Work/ raw material/ cash/other
      - (2) Equal participation of all members?
    - v Proposed O&M system
      - (1) Estimated costs
      - (2) Estimated O&M activities
      - (3) Availability of spares on the market
      - (4) Participation of communities, task sharing
  - c Submit to AEDB a technical and managerial design for each village that has been approved formally by the targeted communities
  - d Provide a final design taking into account the remarks and comments of the AEDB.
- 9 The technical design for water supply schemes shall adopt one of the following technologies:
- a Water drawn by pumping from an existing pond to be equipped with sand and gravel filter. Pumps can be either solar operated pumps or hand pumps
  - b Water drawn from an existing dug well through a solar driven pump or a hand pump
  - c Water drawn from a new well (maximum boring depth of 400 feet, maximum depth of pumping 350 feet) and pumped out through a solar operated pump or a hand pump; or
  - d Water brought from an existing tube well to the village through solar operated pump (the agreement of the tubewell owner is mandatory in this case).
- 10 If solar pumping is recommended, the design shall preferably use DC operated pumps (donkey pumps can be considered).
- 11 In any case, a least system cost shall prevail (considering both investment and operation costs).
- 12 If digging of well is recommended, the design shall cater for a realistic drop of water table in the next 15 years depending on local conditions.
- 13 Energy efficiency shall be optimized in the design.
- 14 The minimum quantity of water to be provided is 25 liters per person and per day (a reserve of 50% of the total volume has to be catered for population growth).
- 15 Quality of water shall fulfill WHO requirements and/or Pakistani Standards.
- 16 All houses shall be at less than ½ km and 20mn walking distance from the closest water point.
- 17 The contractor will submit the final draft report by latest 15 September 2007 for Sindh and by 31 December 2007 for Balochistan.
- 18 Payment to contractor will be made in Pak Rupees as per government procurement procedures.
- 19 Payment to contractor shall be made as per schedule given below.

- a 20% of payment shall be made as mobilization advance on signing of the contract against bank guarantee;
- b 20% of each installment made to the contractor shall be deducted in order to cover the mobilization advance;
- c 80% of payment of each batch (consisting of at least 10 villages) shall be made on submission and acceptance by AEDB of feasibility reports for batch.
- d 20% of payment shall be made on submission and acceptance by AEDB of the final report.

20 Qualification and evaluation criteria are given at Annex II.

21 Interested parties may contact AEDB for any clarification before submission of bids.

**ANNEXES**

**ANNEXE I**  
**LIST OF VILLAGES**

**Disstt. Tharparker  
Taluka: Chachro**

NAME OF VILLAGES	UNION COUNCIL
1 Roherar Sameja	Chachro
2 RinchoiJo Ta	Chachro
3 Arriro Nohari	Kantio
4 Tago Jo Tar	Kantio
5 Dabarcha	Kantio
6 Pir Jo Tar	Chelhar
7 Mithrio Suthar	Mithrio Charan
8 Nakraio	Mithrio Charan
9 Keetari	Khensar
10 Khensar	Khensar
11 Noorani	Khensar
12 Jetrar	Tar Ahmed
13 Deburi Nohri	Tar Ahmed
14 Khiyaro Habib	Tar Ahmed
15 Dhoor Gadhro	Parno
16 Bagal	Parno
17 Khariyoon	Jese Jo Par
18 Paban	Jesse Jo Par
19 Bitwaro	Jesse Jo Par
20 Behrani	Jessi Jo Par
21 Neblo	Gadhro
22 Katho	Gadhro
23 Gadhro	Gadhro
24 Khadi	Gadhro
25 Gogasar Landhani	Gadhro
26 Siar Nohari	Gadhro
27 Peerani Jo Par	Perani Jo Par
28 Khami Jo Par	Perani Jo Par
29 Lakhinio Samjea	Perani Jo Par
30 Sajjan Par	Perani Jo Par
31 Tharo Jo Par	Perani Jo Par
32 Garario	Jeese Jo Par
33 Phulrabah	Jeese Jo Par
34 Qaboobi Jo Par	Laplo
35 Allah Rakhio Jo Par	Laplo
36 Bhamrani	Laplo
37 Joghari Jo Par	Laplo
38 Dahli	Dahli
39 Qasiyani	Dahli
40 Shah Beg Ji Veri	Gadhro
41 Qaboolani	Sarainghiar
42 Dalan Jo Tar	Vejhiar
43 Muhammad Yameen No	Chelhar
44 Wasand Ji Veri	Jeese Jo Par

NAME OF VILLAGES	UNION COUNCIL
45 Pabinio Punhoon	Jeese Jo Par
46 Charnore	Sarainghiar
47 samarhar Nohari	Tardos
48 Tardos	Tardos
49 Raryaro	Peerani Jo Par
50 Gongio	Kantio
51 Aasario	Gadro
52 Bisarani Nohri	Tar Ahmed
53 Bhane Jo Tar	Heerar
54 Wali Muhammad Nohari	Laplo

**Disstt. Tharparker  
Taluka: Diplo**

SR.N	NAME OF VILLAGES	UNION COUNCIL
1	Paneli	Jhirmiro
2	Wingi	Jhirmiro
3	Bandhro	Jhirmiro
4	Odhano	Jhirmiro
5	Chachichapro Bheel	Jhirmiro
6	Rohal	Jhirmiro
7	Geo Soomro	Jhirmiro
8	Malkar	Jhirmiro
9	Pabuhar Rahmoon	Dabhro
10	Jat Tarai	Dabhro
11	Balhiyari	Dabhro
12	Seengalo	Bolhari
13	Dondio	

**Disstt. Tharparker**  
**Taluka: Nagarparker**

SR.NO	NAME OF VILLAGES	UNION COUNCIL
1	Pillo	
2	Bhanbhan Tobo	
3	Rohiraharo	
4	Malsario	
5	Lakhi Jo Windio	
6	Adhigam	
7	Jethiyar	
8	Hirar Deda	
9	Hirar Detha	
10	Waghi Ji Veri	
11	Ranpario	
12	Shahoo Sand	
13	Tagusar Waghila	
14	Dendario	
15	Geochar Daras	
16	Chorio	
17	Bartala	
18	Gadhro Charan	
19	Jhaglio	
20	Goondi	
21	Vemri	
22	Rathi	
23	Jojpario	
24	Koya Indersingh	
25	Tejmal Ji Veri	
26	Sakarvero	
27	Bhliyari	
28	Tar Abdul Rahim	
29	New Tar	
30	Resham Jo Tar	
31	Wagho Bajeer	
32	Kharoro Dal	
33	Orhamar (Khair Muhammad Dal)	
34	Tankario	

**Disstt: Tharparker**  
**Taluka: Mithi**

SR.NO.	NAME OF VILLAGES	UNION COUNCIL
1	Godhio Lanja	Manjthi
2	Jaroon Bhri	Manjthi
3	Doojih	Manjthi
4	Jurio Bheel	Manjthi
5	Bendhnalus	Manjthi
6	Gat	Manjthi
7	Choorel	Manjthi
8	Wadhan	Manjthi
9	Ok raro	Manjthi
10	Madhiakar	Manjthi
11	Unri	Manjthi
12	Samaro Lanja	Manjthi
13	Chhachhi Doni	Manjthi
14	Kangeeni	Manjthi
15	Ali Muhammad Lanjo	Manjthi
16	Pharihoon	Manjthi
17	Vingar	Manjthi
18	Godangri	Manjthi
19	Sohrab Junejo	Manjthi
20	Aqib Junejo	Manjthi
21	Mohario	Bhakuo
22	Bitri	Bhakuo
23	Jhangro	Bhakuo
24	Kuran	Bhakuo
25	Alliari	Bhakuo
26	Tisangri	Bhakuo
27	Dabhri	Bhakuo
28	Giryanchho	Bhakuo
29	Siringhwari	Bhakuo
30	Jhaba	Bhakuo
31	Aleri	Bhakuo
32	Jhanpo	Bhakuo
33	Gorano	Bhakuo
34	Veri Bhagat	Bhakuo
35	Soniath Bheel	Bhakuo
36	Pabuhari Lanja	Bhakuo
37	Gowaran	Bhakuo
		Khario Ghulam
38	Mutoo-Jo-Tar	Shah
		Khario Ghulam
39	Ahsan Shah Jo-Tar	Shah
		Khario Ghulam
40	Meero Rajar	Shah
		Khario Ghulam
41	Sanhioon Bheel	Shah
42	Siringhoo	Islamkot
		Khario Ghulam
41	Sanhioon Bheel	Shah
42	Siringhoo	Islamkot

## **ANNEXE II**

# **Qualification criteria**

1. The Bid security shall be submitted in order for the bidder to qualify for evaluation of proposal.

## **Evaluation criteria**

2. A mark between 0 and 100 will be given to each bidder, 80% of which will be given on the technical evaluation and 20% on the financial evaluation.
3. The following criteria will be used for the technical evaluation:
  - a. Understanding and comments of the socio-economic aspects (10 point)
  - b. Understanding and comments of the technical aspects (10 point)
  - c. Methodology proposed (20 points)
  - d. Quality of staff (technical and administrative) (20 points)
  - e. Previous experience in design of water supply schemes (20 points)