



SCOPE OF WORK

**TECHNICAL SPECIFICATION STANDARD FORMAT FOR AMENDMENT OF RUIN
BOREHOLE, PIPE SCHEME, SOLAR PUMP AND HAND PUMP**

Provision of lifesaving drought affected people in Balkh, Afghanistan:

**“Negotiating procedures for rehabilitation/rebuilding operations of water system in
Keshindeh District, Balkh, Afghanistan.”**

**IMC -Afghanistan
April-2019**

SECTION .1 PURPOSE OF THIS “TENDERING DOCUMENT”

This tendering document concerns the project International Medical Corps (IMC) is planning to implement through the funding and collaboration of CHF 2nd Standard Allocation 2018 to improve the access to safe drinking water through amendment of digging, rehabilitating and installation of solar system for 6 drinking water sources in Bakhtar, Sharq Darya, Gharb Darya, Torghaior, Jelga and Aq Kamar Villages, Keshindeh district of Balkh province.

SECTION.2 DESCRIPTION OF THE ACTIVITIES

Below is a brief description of the activities to do:

- a. Installation of 10000 Liters reservoir and purchasing of 2” solar water pump at Aq Qamar village for existed water network.
- b. Extension of water network and installation of solar system with purchasing of 1” water pump made in china for Jelga village.
- c. Rehabilitating and amendment of one hand pump and installation of a gate valve in existed water tank at Sharq Darya village.
- d. Pipe extension, purchasing of a 2” solar water pump for borehole , installation of 2 taps and gate valve for water reservoir in Gharb Darya village
- e. Rehabilitation of solar system and replacing water reservoir pipes at Torghior village.
- f. Amendment and extension of water pipe scheme in Bakhtar village.

SECTION. 3 LOCATION AND ACCESSIBILITY

The water sources sites are located in Bakhtar, Sharq Darya, Gharb Darya, Torghaior, Jelga and Aq Kamar Villages, Keshindeh district of Balkh province.

IMC team in collaboration with the mentioned villages WASH Committee will verify the exact locations of the water sources site for rehabilitating/ rebuilding. IMC will hand over the site to successful contractor to initiate the agreed construction work of water sources through a joint IMC and community field visit.

SECTION.4 CONTRACTOR RESPONSIBILIY

- The contractor will have to start his activities, deliver his machinery, tools, material and equipment in the Keshindeh district, as per the agreed implementation plan and is aware of the accessibility constraints.
- The work contractor shall fill the 3 following documents which are to complete the parts of this file:
 - Work Contractor Form For A Service Contract
 - Work Contractor's Declaration (S) Including The Financial Identification and AISA Registration
 - Offer

- Besides, he will provide an additional and official pro forma and the technical specifications of all the items proposed.
- The purchase of all the material would be submitted to a service contract (approvals), under authority of IMC.
- The type of contract will be paid in real expenses and the quotation amount has to be presented in Afghani.
- The Contractor should be ready to start the works as agreed with IMC after the notification of call for negotiated procedure results.
- It is up to the Contractor to arrange at his own expenses the necessary for mobilization of required staff and stock of materials installation on site for the defined work. The contractor will manage with his own means the supply of adequate and necessary materials, equipment and labor to the working site.
- The Contractor will have to strictly follow the National guidelines of MRRD in term of Water Supply Technology/Technical options , as well as the technical requests and recommendations of IMC mentioned
- A good coordination between IMC and the contractor will have to be done through regular field visit and coordination meeting being arranged by the Logistics department of IMC Afghanistan.
- The work has to be realized in good co-operation with the mention village Water Committees that will be responsible of the Operation and Maintenance of the water sources (boreholes and water points) of the project after hand-over by IMC. The WASH Committees are hereby authorized to monitor the works of the contractor and report to IMC WASH staff for any dissatisfaction of works or materials being used at site.
- The contractor will have to respect a strict agreed execution of the planed works.
- Security on the field is under the contractor responsibility; however, the contractor will benefit from IMC network information. In case insecurity events occurred, a temporary suspension could be considered with prior authorization from IMC representative.
- It is also under Contractor responsibility to ensure a safety barrier around the site and to prevent any incident with the civilians.
- The Contractor will be responsible for the security of his equipment and staff on the building site and IMC will not be at any case responsible of any degradation or stealing of material and equipment or harm to contractor staff. It is up to the Contractor to ensure the security maybe by relying on guards.
- If it appears in the middle of the course of the work, that the Contractor cannot fulfill his obligation in time, he will have to reinforce his means in order to complete the work within the completion period.
- The Contractor will be fully responsible for cleaning and removing all the materials and equipment after the completion of the works. A clean place will have to be set up as it belongs to the governmental area.
- A visit of conformity for the materials will be carried out by IMC staff at the beginning of works, with an aim of notifying:
 - Conformity with the material proposed in the offer,
 - Compatibility between the capacities of this material, technical specification of this document and completion periods.
- The pronounciation of this conformity per official report does not relieve in any case the Assignee of his engagements.
- The Contractor is held to attend all the appointments of working site fixed by IMC. He will make sure that an agent whom will have all due capacities and power for the building site management will represent him.
- All the material that the contractor will use for the work will be subject to the approval of IMC Coordinator or its representative.
- All the defective materials will have to be evacuated by the Contractor at his own expenses.

- The contractor is responsible for a regular supply of material to ensure the smooth work of the site in order to fulfill his commitments.
- Notwithstanding the approval of IMC for the quality of materials, the Contractor remains responsible for quality for the used materials.
- It is from his responsibility to carry out and at his own expenses, all the material analyses and all necessary tests to a good execution of the works.
- The Contractor is in charge to follow all the steps, for obtaining all authorizations or agreements and for paying for all the expenses, royalties or allowances resulting from the influence of the installation of building sites.
- The importation of materials and supplies will be subjected to the preliminary authorization of IMC on justification that equivalent materials or supplies cannot be found in Afghanistan. Any change in the origin of materials and supplies imported must be authorized beforehand by IMC.
- IMC will pay if the borehole is declared positive (definition in technical specifications). IMC will not pay any amount of money if the borehole is declared negative.
- A penalty of 2% from total amount of contract per day of delay in the completion of the work will be applied
- Contractor shall be familiar with all aspects of the work outlined in these specifications and shall possess ASIA valid license. Contractor shall have a minimum of five years' experience in well servicing and rehabilitation work and shall provide a minimum of three references of similar work completed within the last three years.

SECTION.5 TECHNICAL SPECIFICATION

A-Concrete Material

Cement:

- Cement used for the mortar and concrete will be preferably artificial Portland cement CPA 325. It will have to be delivered out of bags of 50 kg rather than any other packaging.
- Recoveries of cement dust will be prohibited.
- Cement use on the site should not be stored over long periods (more than two months); the Engineer on site will check the quality on regular basis.
- Stone Masonry- (50ft³)= the maximum water used would be 25 liters
- Type 2 (Concrete 1:2:4) = the maximum water used would be 25 liters
- Pointing (1:3)- = the maximum water used would be 18 liters

Sand:

- Sand calibration: 0.1-0.3mm
- The sand used to prepare the mortar must be washed to avoid any soil particles being available.

Gravel:

- The gravel used for the civil works (concrete) must be crashed, cleaned and have a 1 to 3 cm diameter.

Water:

- The water used for every concrete part needs to be clear (turbidity less than 5 NTU).

Gravel pack:

The gravel to use as filtering layer must have a size between 5 and 15 mm. They must be washed and clean.

B-Taps rehabilitation

- All broken taps should be changed for its number and more details please refer to BoQs.

C-Amendment of solar system

- Solar panels 270 watt made in china is considered for more details and its quantity please refer to BoQs.
- Cable with diameter of 8mm made in china is considered for the connection of solar panels.

D-Pipe Network Construction and rebuilding.

- Different sizes of polyethylene pipes made in china are considered for the network rehabilitation and extension.
- Destroyed water taps are considered to be replaced and to renew for more details please refer to BoQ.

Note: For additional details and information not listed above please refer to design and BOQs.

SECTION.6 SITE CLEANING

After each completion of the work, the contractor must remove all remaining sand, gravels, and cuttings from the site. He must also remove all rubbish left over from the workers and remove the drilling machines.

SECTION.7 WORK FOLLOW UP

In order to allow an effective follow-up of work, the Contractor will hold a book of building site on which all information related to the work will be reported. This book will allow the IMC controller, as of his arrival on the building site, to know exactly the progress report of rehabilitating work. The remarks and reserves of the Contractor and/or the person in charge for the program will be notified in the book of

building site. A copy of this field notebook will have to be given to IMC in the end of the project and might be used as intermediate or final report to the donor.

SECTION.8 WORK PLAN

Table:1 Showing the completion of work by the contractor									
NO	Description	May				June			
		1	2	3	4	1	2	3	4
1	Bakhtar village well rehabilitation								
2	Sharq Darya village well rehabilitation								
3	Gharb Darya village well rehabilitation								
4	Torghaior village well rehabilitation								
5	Jelga village well rehabilitation								
6	Aq Kamar village well rehabilitation								

SECTION.9 PROJECT BILL OF QUANTITIES

BoQ.1

Table:2 Showing bill of quantity for Bakhtar Village rehabilitating/rebuilding activities						
NO	Description	Unit	Quantity	Unit cost in Afs	Total Cost in Afs	Remarks
1	Steel tap, diameter 1 inch	No	13			
2	Elbow, diameter 2 inch	No	6			
	Steel Elbow for tap, diameter 32mm	No	2			
3	Tee 75x75x32mm	No	1			
4	Polyethylene pipe, diameter 2 inch	M	88			
5	Polyethylene pipe, diameter 32mm	M	300			
6	Steel pipe 2 inch	M	14			

7	Pipe trench digging	M ³	380			
8	Plumbing tape	Role	10			
9	PCC with 10cm thickness	M ³	1.5			
10	RCC for tap upon	M ³	1			
11	Bolder stone under concrete	M ³	2			
12	Skillful worker	Labor	2			
13	Unskillful worker	Labor	7			
Section Total Costs						

BoQ.2

Table:3 Showing bill of quantity for Torghayor Village rehabilitating/rebuilding activities						
NO	Description	Unit	Quantity	Unit cost in Afs	Total Cost in Afs	Remarks
1	Steel tap, diameter 1 inch	Each	4			
2	Elbow, diameter 2 inch	Each	1			
3	Gate valve 2"	Each	1			
4	Steel pipe, diameter 2 inch	M	2			
5	Solar fuse	M	1			
6	Plumbing tape	Role	10			
7	Skillful worker	Labor	2			
8	Unskillful worker	Labor	2			
Section Total Costs						

BoQ.3

Table:4 Showing bill of quantity for Jelga Village rehabilitating/rebuilding activities						
NO	Description	Unit	Quantity	Unit cost in Afs	Total Cost in Afs	Remarks
1	Solar panel 270 watt	Panel	6			
2	Solar panel 270 watt transition	Panel	6			
3	Solar panel 270 watt installation	Panel	6			
4	Frame for 6 solar panel	Panel	1			
5	Transition of Solar frame	Panel	6			

6	Installation of 6 Solar frame	Panel	1			
7	Polyethylene pipe , diameter 32mm	M	700			
8	Polyethylene , diameter 25mm	M	400			
10	Steel pipe, diameter 2 inch	M	10			
11	Solar fuse	M	1			
12	Elbow , diameter 2 inch	Each	2			
13	Steel elbow, diameter 1 inch	Each	2			
14	Reducer 75/50 mm	Each	1			
15	Reducer 50/32 mm	Each	1			
16	Chinese Solar Water pump 1 inch	Each	1			
17	Cable for water pump 8mm	M	70			
18	Plumbing tape	Role	10			
19	Pipe trench digging	M ³	675			
	Filling pipe trench	M ³	675			
20	Skillful worker	Labor	2			
21	Unskillful worker	Labor	8			
Section Total Costs						

BoQ.4

Table:5 Showing bill of quantity for Gharb Darya Village rehabilitating/rebuilding activities						
NO	Description	Unit	Quantity	Unit cost in Afs	Total Cost in Afs	Remarks
1	Steel tap, diameter 2 inch	Each	2			
2	Steel Elbow for tap, diameter 32mm	No	2			
3	Tee 75x75x32mm	No	1			
4	Polyethylene pipe, diameter 32mm	M	500			
5	RCC for tap upron	M ³	1			
6	Gate Valve, diameter 2 inch	Panel	1			
7	Solar Water pump, diameter 2 inch	Each	1			
8	Plumbing tape	Role	10			
9	Solar fuse	No	1			
10	Pipe trench digging	M ³	500			
11	Skillful worker	Labor	1			
12	Unskillful worker	Labor	4			
Section Total Costs						

BoQ.5

Table:6 Showing bill of quantity for Sharq Darya Village rehabilitating/rebuilding activities						
NO	Description	Unit	Quantity	Unit cost in Afs	Total Cost in Afs	Remarks
1	Well pump rod	M	6			
2	Cylinder	Panel	1			
3	Foot Valve	M	1			
4	Flange	M	1			
5	Flange washer	M	1			
6	Foot valve washer	Each	1			
7	Adhesive	Each	2			
8	Plumbing tape	Role	10			
9	Pipe PVC 2 inch	M	10			
10	Plumbing tape	Role	10			
11	Skillful worker	Labor	2			
12	Unskillful worker	Labor	4			
Section Total Costs						

BoQ.6

Table:7 Showing bill of quantity for Aq Kamar Village rehabilitating/rebuilding activities						
NO	Description	Unit	Quantity	Unit cost in Afs	Total Cost in Afs	Remark
1	Polyethylene pipe 2 inch	M	60			
2	Elbow 2 inch	Each	1			
3	Elbow 1.5"	Each	2			
4	Socket 1.5"	Each	2			
5	Tee 1.5"*1.5"*1"	Each	1			
6	Steel socket 3"	Each	1			
7	Steel pipe, Diameter 3"	M	5			
	Steel pipe, Diameter 2"	M	3			
8	Tap 1"	Each	4			
9	Solar water pump, 2"	Each	1			
10	Cable for solar water pump 8 mm	M	40			
11	Flange washer	M	1			
12	Foot valve washer	Each	1			
13	Adhesive	Each	2			
14	Plumbing tape	Role	10			

15	10000 litter Original Steel Water reservoir, 3mm thickness of steel	Each	1			
16	Transition of water reservoir to Keshindeh	Each	1			
17	Installation and plumbing of water reservoir	Each	1			
18	Skillful worker	Labor	2			
19	Unskillful worker	Labor	20			
Section Total Costs						

Grand Total Costs						
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