

Project purpose: construction of sorlar powered water supply network
 project: DAWAM
 Province: Faryab

village
 Project # : A221873
 District Dawlat Abad

Date:

NO	ITEMS موضوعات	UNIT واحد	Work quantity and cost estimated برآورد احجام کاری		
			QUANTITY مقدار	Unit Cost (Af) قیمت فی واحد	Total cost(Afs) قیمت مجموعی
1	Site Preparation: to clean site from all existent materials.	M2	435.00		
2	Excavation: In ordinary soil-type three, excavation will be take place types 4	M3	1,448.56		
3	PCC (M-150, 1:2:4): The PCC work is for placement under the collecting stand according to the drawing considering the shuttering needs, using cement sand mortar base on given specifications. • Curing should be done for minimum 7 days.	M3	27.09		
4	Stone masonry 1:5: Providing and laying stone masonry with (35-40) % cement sand mortar 1:5, and it must include all good stone construction specification and site engineer satisfaction.	M3	40.00		
5	Pointing - M400 1:3: Pointing of all the joints of stone masonry work with sandy clay mortar of M400 specification. The pointing should be uniformed and well curing is needed as per drawing and specification.	M2	80.00		
6	RCC- M250 (1:1:2) Crushed gravel must be used, and curing must be continued up to one month, and all site engineer advices must be considered.	M3	23.69		
7	Shuttering: The shuttering should be done as per the drawing and specification, as according to site engineer advice.	M2	153.60		
8	gravelling according to the drawings and specification.	M3	36.54		
9	Painting: The work should be get done in proper way as per the drawing and specification any input of the site engineer.	M2	49.00		
	Plaster with water proof powder				
10	Plaster with water proof powder	m2	72.16		
	BackFilling				
11	Back filling as technical required	M3	1,330.16		
12	Fencing Posts and mesh with 2.4m door including transportation and installation cost	L.M	80.00		
	GI Pipe and Fittings for RCC Water Reservoir				
13	Galvanized Iron (GI) pipe, for Drain pipe, wall thickness 2.6 mm ,weight 2.9 kg/m, Nominal Diameter 1 1/2",..	m	3.00		
14	GI-pipe 3" Outlet Pipe with Glass Wool	m	2.00		
15	Galvanized Iron (GI) pipe, for over flow pipe, wall thickness 2.9 mm ,weight 5.18 kg/m, Nominal Diameter 2 1/2",..	m	3.00		
16	Galvanized Iron (GI) pipe, wall thickness 2.6 mm ,weight 2.9 kg/m, Nominal Diameter 1 1/2" ventilation of W.R	m	3.00		
17	GI-pipe 3" Inlet Pipe with Glass Wool	m	3.00		
	Galvanized Iron (GI) pipe, wall thickness 2.6 mm ,weight 2.9 kg/m, Nominal Diameter 1 1/2" ventilation of W.R	m	3.00		
18	GI-Nipple 3"	PCS	8.00		
19	Union 3"	PCS	6.00		
20	PE adapter 75mm to 2 1/2"	PCS	2.00		
21	Gate Valve 3" stainless steel	PCS	1.00		
	Gate Valve 2 1/2" stainless steel	PCS	1.00		
22	Teflon tape, thread seal tape shall.	PCS	4.00		
23	Skilled labour on site	md	0.50		
	GI Pipe and Fittings for valve box				
24	Galvanized Iron (GI) pipe, wall thickness 2.9 mm ,weight 5.18 kg/m, Nominal Diameter 2 1/2",..	m	6.00		
25	GI-Nipple 2 1/2 "	m	4.00		
26	Union 2 1/2 "	m	4.00		
27	PE adapter 75mm to 1 1/2 "	m	4.00		
28	Gate Valve 2 1/2 " stainless steel	PCS	4.00		
29	GI-pipe 2 1/2 "	PCS	6.00		
30	GI-Nipple 2 1/2 "	PCS	4.00		
31	Union 2 1/2 "	PCS	4.00		
32	PE adapter 63mm to 2"	PCS	4.00		
33	Skilled labour on site	md	0.50		
	Piping and fitting work of Network				

34	Pipe 90 mm HDPE 100: Pipe 90 mm OD, HDPE 100, PN-10, Thickness 5.4 mm & Weight 1.46 kg/m	m	131.00		
35	Pipe 75mm HDPE 100: Pipe 75mm OD, HDPE 100, PN-10, Thickness 4.5 mm & Weight 1.02 kg/m	m	674.00		
36	Pipe 63mm HDPE 100: Pipe 63mm OD, HDPE 100, PN-10, Thickness 3.8 mm & Weight 0.721kg/m	m	167.00		
37	Pipe 50mm HDPE 100: Pipe 50mm OD, HDPE 100, PN-10, Thickness 3 mm & Weight 0.453kg/m	m	186.00		
38	Pipe 40mm HDPE 100: Pipe 40mm OD, HDPE 100, PN-10, Thickness 2.4 mm & Weight 0.295kg/m	m	2860.00		
39	Pipe 90 mm HDPE 100: Pipe 90 mm OD, HDPE 100, PN-16, Thickness 8.2 mm & Weight 2.14kg/m for well to Reservoir	m	111.00		
40	PVC pipe 4" for covering of stand taps	m	77.00		
41	Glass wool for the 100m length pipe 75@ with installation.	m	100.00		
42	Pipe Fittings	lot	1.00		
43	Skilled labor on site	md	5.30		
44	Unskilled labor on site	md	2.47		
Solar System					
45	2.5 inch Submersible pump in stainless steel. Stainless steel EN 1.4401 AISI 316, Rated power - P2: 5.5 kW, Rated voltage: 3 x 220-230 V Main frequency: 50 Hz Avg. water production per day: (12.31 m ³ /h) , Total dynamic head: 93.58 m , Pump Max head:121 m Solar pump 5.5 KW according to the technical specification and requirements, The contractor must submit a manufacturer warranty for the solar Pump for a period not less than 3 years. The visible label on a solar panel with technical specification and accepted by MRRD The contractor must submit all the required certificates for the solar pump The serial number of the Solar pump should be certified by the manufacturing company	No	1.00		
46	Wire 16 mm2 for submersible pump,	m	100.00		
47	Renewable solar inverter with its Control box and Fuse box 3-phase 208V, 380V or 440V IP66-5.5KW 18A Quick Setup wizard preconfigured inputs Build in MPPT (Maximum Power Point Tracking) AC&DC power source compatible solar solution for up to 250kw and compatible with pump and whole required tools. Compatible inverter: IP 66 , pure sine wave ,VFD and soft starter Also with (SPD) surge protection Device As per needed in whole sytem and remote Monitoring data logging and remote controlling device Contractor must submit manufacturer warranty for inverter for a period not less than 3 years. Contarctor must submit all required certificates for inverter,and accepted by MRRD Serial number of inverter should be certified by manufacturing company .	No	1.00		

48	Solar panels 8100 watt, standard: Range of ambient temperature: 233-358 K Electrical data: Maximum power point voltage: 30.9 V. to 31.2 V. Open circuit voltage: 37.7 V to 45.8 Max power point current: 8.42 A Module shortcut current: 8.89 A Maximum power output: 260 W to 270 W. Solar module type: POLYCRYSTALLINE CE certificate for monocrystalline and monocrystalline, ISO 9001:2007 Certificate, DIN EN certificate, Efficiency for Monocrystalline 18%-20%, Efficiency for Polycrystalline 15%-18%, Performance to 10 years (min 90% power output), Performance to 25 years (min 80% power output), Visible label on solar panel with technical specification and accepted by MRRD.having certificate from manufacturer.	No	8100.00		
	Solar Panels Frames with stand for 30 Solar Panels.	No	3.00		
49	electrical solar cable 1*10mm2	m	50.00		
50	electrical sensor cable 3*1.5mm2	m	100.00		
51	Maintenance box for inverter Switch	No	1.00		
52	Plastic Rope	m	200.00		
53	Cable locking Clip	No	20.00		
54	Well Probe Sensor	No	1.00		
55	Float Switch set (Mechanical Device for tank water level detection from well to reservoir with with cable and all other necessary tools)	No	1.00		
56	earthing system	set	1.00		
57	Delivery and Installation Cost	Lot	0.00		
	Drilling of well				
58	Well drilling with percussion machine with 16" dia	m	100.00		
59	Diameter=(8") inches, Class D, Min Wall Thickness (10.3) mm, Min weight (10.3	m	60.00		
60	PVC Filter Pipe 8" dia Class D, opening area does not exceed 25% of total area.	m	40.00		
61	Gravel Packing back of the filters pipes in 25m length, based on soil texture, River Gravel sized from 3mm to 12mm according to the soil texture, as per advise of WVA WASH Engineer	m	5.60		
62	Backfilling of Casing Pipe with soft Clay without any gravel	m3	3.74		
63	Pump Test for determination of Hydrogeological parameters	Hour	8.00		
64	Supplying and installation of all required fittings for well	Lot	1.00		
65	Isogam one layer for the top of the water reservoir	m2	24.50		
66	Supply and installation of metallic sign board	No	2.00		
67	Metering System: House connection from main pipe to inside houses, public buildings (school, mosque and clinic) with its all accessories including 1/2" Saddle clamp, Elbow, Female threaded adapter, (MTA), Gate valve, Water meter, Meter Box Non return valve, Water tap, Socket with 20m Pipe 20mm OD, HDPE 100, PN-20, Thickness 2.3 mm & Weight 0.133kg/m. as attached drawing	No	110.00		
Total Cost for Jar Qala Project					

This BoQ contains required in the Offer documents and shall be signed by a duly authorized person. Any addition, deletion or alteration in the BoQ may result in rejection of the Offer. Please have a Site visit before submit your offer and also attach the site visit picture with your bid documents

The works actually executed shall be measured, contractor shall visit the site of the works and obtain all information that may be necessary for completing their offer as under the provision of this contract no claim for additional work is accepted once the contract is signed.

Mobilization, Demobilization, Access road to construction site or other temporary works required for the execution of the items listed above, plus site restoration will be the responsibility of the contractor. Hence all the unit prices above are assumed to cover all activities associated with the works mentioned, and the total contract cost quoted is all inclusive to complete the total works.

Work Completion Certificate will provide after the measurement take place by WV team. The network scheme (length of the pipes) may change in field due to the community members request so the pipes will measure base on actual work completed in field with consideration of the quality of the work then the work completion certification will provide.

Prepared by: Sayed Masoud Tural

Designation: WASH Engineer

Signature: 

Date: 08/08/024

Technical Review: Farooq Jawid

Designation: WASH Adviser

Signature: 

Date:

Aug 11, 2024

Technical Checked: Yama Hewadmal

Designation: Technical Coordinator

Signature: 

Date:



Aug 8, 2024