1.1 GENERAL INFORMATION معلومات عمومی

Province: **ولایت**:	Ghor
District: **ولسوالی**:	Firozkoh
Name of Villages: **نام قریه:**	Shahr Khuro
Village code:: کد قریه	27-2710-0119
GPS: کوردینات قریه	65°19′51.445″E 34°50′3.517″N
Date of Technical Assessment: **تاریخ ارزیابی تخنیکی:**	22-11-2018
RBCC Engineer **انجینر شرکت:**	Senior Eng. Mohammad Hanif Yaqubi
Date **تاریخ**:	15-12-2018
Project brief description	The purpose of the Shahr Khuro project is the construction of a new solar water supply pipe scheme which contains the below structures: 1- Digging one Bore hole with the depth of 65m. 2- Construction of Solar Plant including stock room and solar stand. 3- Build of boundary fencing. 4- Construction of 21.5 cubic meter Reinforcement Concrete Cement (RCC) water reservoir. 5- Construction of five valve boxes, the first one in the reservoir adjacent and four others near to public stand taps area. 6- Construction of four public stand taps. 7- Laying of 941 m polyethylene pipe in main and distribution pipe.

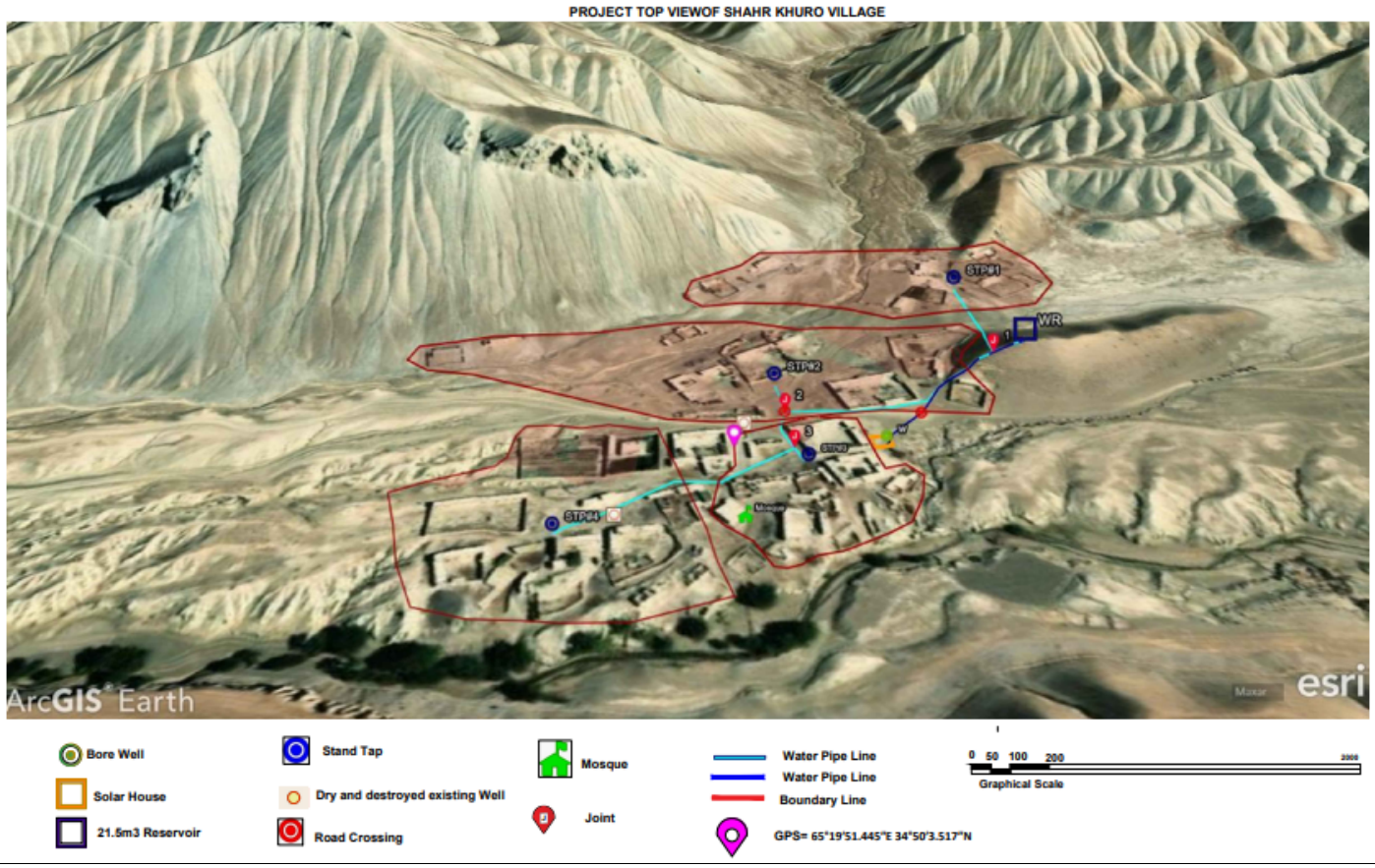
1.2 DESCRIPTION OF WORK تشریح کار

Excavation **حفاری**	Planned sub-structures that require excavation in different ground types are listed below: • Drilling a new bore hole with the depth of 65m. • Excavation of solar Plant, solar stand foundation& stock room. • Excavation of water reservoir, valve boxes with stand taps foundation. • Excavation of trench for laying the pipe. • Total excavation volume for the solar water supply pipe scheme project is **519.64** M^3.
Protection perimeter **حفاظت از محیط پیرامون**	The planned project and activities will have a positive effect on the perimeter.

	Planned infrastructures are on public non arable land that does not harm vegetation covers nor expose any risk to the religious or ancient and historical places. CRS technical team ensures considering all environmental -engineering techniques in the development and implementation of the project activities to protect natural resources. Technical team will train WMC members to develop water safety plan at community level, that enables community members to assess, prioritize, and regularly manage potential risks to water quality, quantity, and water relevant infrastructures from sources to consumers. To eliminate potential contaminates and reduce natural disasters risks, following points are duly considered: - Drilling of one bore hole is designed to provide water and it will protect water from surface water, flash flood, and other types of contaminations. Also, no risk of land sliding and avalanche is identified. In addition, Afghanistan seismic hazard assessment map indicates that Ghor province is not at high seismic zone. - In coordination with community members, stand taps site selection is done in accordance with the MRRD norms which meet sphere standards for communal water point. - Taps are secured from natural disasters, and designed to assure water safety, easy access and withstand local environmental conditions for instance the extreme cold weather during winter season. - Suppling main and distribution pipes will be lay deep enough (100 cm) beneath the ground level to be safe from manmade and natural disasters, in particularly freezing in the cold winter season. - In general, the PE pipe alignment is safe from flash flood, and there is no need for the support structures. - To avoid stagnant water around the water user point, appropriate RCC aprons are designed to drain the spoiled water away and keep the surrounding dry and clean. - The workmanship of any planned infrastructure would be closely monitored by CRS technical staff, to oversee the quality of hard components. Technical staff would stay vigilant for and identify unanticipated risks that emerges during project implementation. In consideration of Afghanistan National Environmental Protection Agency (NEPA) polices and Environmental Law, the qualified technical staff would develop and implement appropriate mitigation measures that ensures environmental protection. - WMC committee members well receive training on how appropriate operation and maintenance. Caretaker will be responsible for regular cleaning and technician will be responsible for minor rehabilitation. - Selected sites for any considered structures are safe against potential natural disasters (flash flood, avalanche, land sliding, etc.)

	- Prior to handover, any construction waste will be disposed of in a landfill or NEPA-approved site to ensure elimination of all potential risks which may otherwise harm users or the environment.
Source Rehabilitation **احیای منابع**	CRS will be drilling a bore hole, prior to the installation of solar system, CRS will conduct the water pump test and water quality test to confirm that the well has the capacity of water supplying required and water quality should met the WHO standard. Construction of 21.5 M^3 RCC reservoir, five valve boxes with four stand taps planned in the village.
Network **شبکه**	The proposed water supply system for the Shahr Khuro village is new solar water supply pipe schemes. CRS will be drilling one borehole and convey the water through PE pipe into a storage reservoir, then the water will flow by gravity force into the main supply pipe to fed four public stand taps located at various points of the village.
Taps نل آب	Construction of 4 stand taps.

Project map **نقشه پرو ژه**



1.2 PROJECT FEASIBILITY **امکان پذیری پروژه**

Social **از نظر اجتماعی**	Based on the community this village has 80 household with 400 beneficiaries. The community do not have access to safe drinking water. Inhabitants currently fetch their daily needed water unprotected water sources such unprotected spring Irrigation canals which located in the Darah village more than 3 Km form Shahr khuro, and natural stream. These resources are prone to fecal contamination and other type of pollution like dust, turbid, leaving of vegetable, meanly animal manure that is used as fertilizer in the agriculture fields. these water resource used for several purpose such as irrigation, animal watering and washing clothes. Technical assessment forms indicates that the residents of Shahr Khuro village reported increased diarrheal diseases cases and large number of people who suffer abdominal pain in the spring and summer times. Based on Sphere Minimum Standard (2018) maximum distance between users and nearby water source should not exceed 500meters or the round trip and waiting time for fetching water should not be more than 30minues. However, because of its mountainous topography people in this village struggle to collect their daily which takes more than an hour of time during winter season. This cumbersome task exacerbates the daily the usual task of women and children who are largely responsible for water supply at household level. Due to active conflict and security issues in road to the community, this village remained underserved for long time. Two non-functional wells were existence which both of them dried and all the equipment's were not available, as well as one private well were existence in the village which used in irrigation purposes by well owner and the rest of community not allowed to take their drinking water from that well, however the community excavated some wells but the water are salty and not useable, based on the community the half of village which located near the mountain and north of the sub road the ground water are salty, but the rest of the village which are in south of the sub road the ground water is not salty, therefor the well will drilling in this part of the village which showed map project and site plan. Shahr Khuro village is a well-organized village, no one has reported any social conflict or disagreement during surveying time. The situation is stable and there is no concern for implementing this project. In addition, because of the 2017-2018 severe drought, the surface water sources become leaned which induce degraded water quality and complicate water access. The Shahr Khuro community members are ready to contribute project work and sing MOU with CRS, through which an established water management committee support labors mobilization and accept operation and maintenance responsibilities upon project completion and after its handover to the village. Solar plant located near to the village no needed to guard during the night .
Technical **از نظر تخنیکی**	Based on technical survey the design of solar water network pipe scheme which included drilling one bore well, build of solar Plant, construction of 21.5 M3 RCC reservoir, build of

	four public stand taps as needed. This pipe scheme will fulfill the community water needs and will provide easy access to potable drinking water. Having a closer look at the topography of the village and community custom it shows that we planned the minimum stand tap number if we decrease the number of stand taps, many barriers in place (social structurer and distances) would make water collection tough, particularly for women and children those who are responsible to supply water at household level. Nevertheless, proper well drilling and extension of piped network supported by hygiene promotion messages, ensures water safety from well to end user and will decrease water borne diseases. Technically project implementation is possible, no particular concern has been noted by engineering team. **Water Source:** Absence of freshwater spring and high salinity of dug wells water withing some part of the village, make the construction of a combined motorized and gravitational force water supply system the last resort for this village. According to community, and existence some dug well the half of village which located near the mountain and north of the sub road which passed within the village the water are salty, but the rest of the village which are in south of the sub road the water potable for drinking therefor the well will drilling in this part of the village which showed in map project and site plan. Technical assessment data indicated that water level is 30m from earth surface and the well will be drilling 65m. To deduce crucial information on sustainable yield (Q) and the expected drawdown(s) within the bore well after several pumping hours, CRS will test the response of groundwater aquifer at the inception of the project work. **Adequacy and Reliability:**

Design of a percolation well

$$Q = (H^2 - h^2)\frac{\prod kf}{2.3\log(R/rw)}$$ Dupuits formula

Where :

Q	Discharge	
H	Destance from End point of well up to water level Bore pumping of water from the well	
h	Static water level	
Kf	Permeability factor	for nonuniform sandy gravel land the permeability coefficient = (0.1-0.003) m/s
R	Radius of influence	R=3000.s.(kf)^0.5 in meter
r	Radius of well	
S	Drawdown in well	

Given data :

Water tabel	30 m
Static water Level	30 m
Depth of well	65 m
Permeability Factor	0.017 m/sec
Radius of well	0.2032 m
Dynamic Water Level	45 m

Solution :

H	35	m
h	30	m
Kf	0.016785	m/s
R	5830.1	m
r	0.2032	m
s	15	m

$(H^2-h^2) = 325$

$2.3\text{Log } R/r = 10.252824$

$\prod * Kf = 0.0527049$

$$Q=(H^2-h^2) * \frac{\prod Kf}{2.3\text{ Log}(R/r)}$$ 1.671 l/s 6.014 m^3/hr

The well as per the above criteria and design calculation shows that it can have a discharge of 6.014 cubic meter per hour. This quantity of water is beyond the needs of the project however, it is though that this value is conservative if fluctuation of water table is considered based upon the climate change of the region.

Availability:

To guarantee the availability of potable water at each user point for 24 hours a day, CRS have designed a combined motorized and gravitational forces water supply system. An electronic submersible will pump water from to reservoir, after that water will be distributed through a gravity pipe scheme to the stand tap located at four various locations as shown in the map.

Based on the community this village has 80 family and 400 population in the present. so, we calculate the water reservoir capacity.

$P_n=P0(1+i)^n$

Present Papulation Household	80	
Design duration = n	20	
Papulation Growth = i	3%	
Demand Per capital/day	25	
Average Person Per Family	5	
Present papulation = P0	400	
Peak factor (PF)	1.8	
Wastage-Leakage (WL)	1.1	
Water Pump Output (litr/hr)	4500	Average

It is a solar water pump. It can pump 4500 liters per hour in average based on the solar power production as it is used to fluctuate through different season of the year. But the pump we select for this project can pump water beyond this limit. The effective hour of pumping is taken 6.5 hours in our calculation.

Design

$Pn=P0(1)^n$ Future Population 722

Item	Papulation	Daily water Demand (Liter)
Q max Present	400	10000
Q max Future	722	35761

Pump Flow rate in liter/hour 6000

Water consumption schedule for calculation of water reservoir capacity

Time period (hr.)	Duration (hr.)	% Use	Water Available Liter	Water demand	Deference in liter	Accumulated water
6 Am - 8 Am	2	30%	0	10728	-10728	-10728
8 Am - 4 Pm	8	40%	48000	14304	33696	22967
4 Pm - 8 Pm	4	30%	0	10728	-10728	12239
8 Pm - 6 Am	10	Negligible	0	0	0	12239
Total	24	100%	48000	35761	33696	

By considering the free board and sedimentation 24.6 m3 RCC water reservoir is needed to regulate the flow with demand and serve as back up for at least one cloudy day.

Hydraulic Design:

Hydraulic calculation for each branch and main pipes is done with EPANET 2

Length of water supply network				**Epanet Designed Pipe Criteria**			
From	**To**	**Actual(M)**	**Design(M)**	**Type of Pipe**	**Pressure (m)**	**Velocity (m/sec)**	**Flow (L/Sec)**
Borewell	Reservoir	224.56	247.0	PE100PN16-50mm	1.7	1.3	1.67
Reservoir	Joint1	31.84	35.024	PE100PN10-50mm	5.82	0.6	0.9
Joint #1	Stand Tap#1	120	132	PE100PN10-32mm	8.68	0.36	0.225
Joint #1	Joint#2	181	199.1	PE100PN10-50mm	16.45	0.45	0.675
Joint#2	Stand Tap#2	45.5	50.05	PE100PN10-25mm	11.43	0.64	0.225
Joint#2	Joint#3	43.2	47.52	PE100PN10-32mm	14.65	0.73	0.45
Joint#3	Stand Tap#3	41	45.1	PE100PN10-25mm	13.05	0.64	0.225
Joint #3	Stand Tap#4	169.1	186	PE100PN10-25mm	11.98	0.64	0.225
Total length(M)		**856.19**	**941.81**				

Valve boxes:

In total, we need to construct five valve boxes. The first one would be adjacent the reservoir, and the four others are in near of the four stand taps for controlling each tap separately.

No of stand taps: four public stand taps, all the stand taps will be feeding by Bore well.

Total required pipe:

PIPE -PN16PE100 high standard Afghanistan (PE 100, HDPE NP16Bar) _ @ 50mm
=247M

PIPE -PN10PE100 high standard Afghanistan (PE 100, HDPE NP16Bar) _ @ 50mm
=235M

PIPE -PN10PE100 high standard Afghanistan (PE 100, HDPE NP10Bar) _ @ 32mm
=180M

PIPE -PN10PE100 high standard Afghanistan (PE 100, HDPE NP10Bar) _ @ 25mm
=281M

The details for pipes and their locations are both in the drawing and hydraulic calculations sheet.

Water Quality:

The water quality test conducted from privet existing water well in the village,
the water quality test of new well will conduct during the well drilling and after completing the well work.

Parameter	Ph	Turbidity	TDS	Thermotolerant Coliform	Arsenic (only for water source)	Free Residual Chlorine (only if chlorination)
Unit	-	NTU	ppm	CFU	µg/L	mg/L
Limit	6.5 – 8.5	<5	1000	0 - 10	0 µg /100ml	0.2 to 0.5
	7.8	0.45	271	0	0	

Environmental
از نظر محیطی

As a result of intervention ground water source will protected from contamination. By directing the spiled water to the field green area will increase in the community. Community members can plant trees close to the water stand taps.

The construction activities will harm the vegetation and green areas. Produced wastes during the project implementation will collected and will be safely disposed in NEPA approved dumping pits.

Submersible pump:

We need PEDROLLO product the submersible model: 4SR6/31, it is designed by the solar design app with flow rate (6.0142m^3 /hour).
Note: The solar system is designed by a program (AMO Water Management), that allows the designer manually to select pump, PV generator, and other accessories.

Electrical part of solar system

Solar plant:

A critical part of establishing a photovoltaic power system (PVPS) is the selection of an appropriate site for the solar panels. The selected site for the installation of the PV array should be in the foreground of sunshine. Since the lifetime of such systems is as long as 25 years, selecting a location for the solar power plant that allows it to obtain maximum energy is critical. Given the construction costs, it will not be possible to change the location of the system after installation. CRS understands the importance of keeping solar plants close to well.
as far as there is enough space available in the village. Therefore, the solar house well be constructed there. And the solar house well be protected by surrounding wall and barbed wires.

The solar plant area is near the well and located in public land, neighbors guarantee that no one build any structure or implant tall tress such as (poplar or etc.) that limit sunlight and impose shading on the panels during the day. Also selected site is safe from natural disasters such as flash floods, landslides, storms, and cyclones.

Pole mounted structure of the solar panels:

For solar stand it is planned to construct two pole mounted structure whose constructional details come in the attached drawing. The poles mounted solar systems in this project support ten numbers of solar panels on a single pole and elevate panels higher off the ground. These poles mounted solar incorporates tracking systems, which manually tilt the solar panels to capture the optimal amount of sunshine.

This tracking systems can increase the production of solar panels by 25 percent or more. Single axis tracking systems move the solar panels over the course of the day to follow the sun as it moves through the sky.

The design for both concrete and steel structure is taken from technical manual of Citizen Charter Program of Ministry of Rural Rehabilitation and Development MRRD.

To keep panels out of reach from children and to ensure plant security, CRS will surround the area with a fence with 1.5 m high with 60 cm barbed wire on top.

Solar Panels:

From the result of designing software for our solar system we should use 20 numbers of (TOMMATECH) solar company (Poly crystalline 270w, 9.71A,38.00V) PV panels for running the system.

Inverter:

The controller (Inverter) VACON 4 KW IP 66 380V is designed for this system and can control the fluctuation of the electrons and prevent the pump from most breakdown.

Operation and Maintenance:

To ensure the sustainability of solar water supply systems, CRS create a Water Management Committees (WMC) in each village and provide the necessary capacity building trainings to ensure communities can maintain the water system for long term without external support.

CRS will establish WMC in all villages to support the operation and maintenance (O&M) of water supply systems. There is currently no water management system in any of surveyed villages. FGDs revealed that CDC members and elders are the key persons for village planning, as such, CRS is planning to incorporate the CDC members into the WMC committees and empower the members with knowledge and tools required for O&M to ensure sustainability of projects.

CRS will support the creation of WMC. It will consist of a board with a chairperson, a secretary, and a treasurer responsible for managing the water point(s) in the community. CRS will encourage women to be part of the WMC board with the goal of ensuring female representation in the committees, particularly at the highest positions, in all communities. CRS will train two technicians for the community on basic maintenance of the system. Technicians and other WMC members will be trained on CRS design and will be responsible to keep the documentation regarding the system.

CRS will organize a training session for WMC members on their key roles and responsibilities, as well as other topics such as how to make minor repairs, preventive operational and maintenance, hygiene promotion, conflict resolution, financial management basic book-keeping, and fee collection.

Discussions with WMC will also cover additional management techniques such as restricting access and limiting the volume of water being extracted per day during drought to preserve water supply.

CRS will identify a minimum of two people per community in the WMC as technicians to help coordinate and manage water supply activities and maintain the water sources in the long term via a fee mechanism. Any community members interested in learning how to maintain parts of the water system will be trained, because CRS has learned that sustainability is often dependent on other interested community members taking responsibility for repairs in times of need.

WMC members will be selected using the following criteria:

- Willing to respond for the needs of the community.
- Strong enough for rehabilitation or maintenance work (should be physically fit and active).
- Permanent resident of the village, preferably near to water point.
- Have good reputation and respect from the community.

Technicians and interested members of the communities will be trained by CRS on:

- Conflict resolution
- Collection of monthly fees from each individual user.
- Periodical check of gate valves.
- Periodical check of panels and all other electrical accessories.
- Replacing the taps in case of breakage.
- Hygiene care around each water point.
- Environmental and social safeguarding

Note: CRS will provide additional spare parts that are most fragile. CRS also equips WMC members with required tools before project handover

CRS encourages saving boxes and regular fee collection. As part of the training, WMC will estimate the O&M budget (for preventive and corrective maintenance). This budget will be explained to the

Solar System Maintenacne Schedual **زمان بندی نگهداری**
سولر سیستم

Maintenance Task **موارد نگهداری**	**Daily** **روزانه**	**Weekly** **هفته وار**	**Monthly** **ماه وار**	**Quarterly** **هرسه ماه**	**Annualy** **سالانه**	**Required tools or spare parts** **وسایل یا پرزه جات مورد ضرورت**	Estimted probable annual cost for each line (AFs) مصارف احتمالی سالانه برای هر لاین (افغانی)
System output voltage ولتاژ خروجی سیستم	√					Visual check مشاهده بصری	1000
Solar panels cleaining پاک کاری سطوح شمسی ها		√				Cleanser liquid ,brush and hand tools, Bucket مایع پاک کننده ،ستل اب ، برس همرا دسته کلان	2500

Solar panels check چک ظاهری سولر			√			Visual check مشاهده بصری	1000
Checkng inverter چک کردن انورتر			√			Voltemeter(to measure current and Voltage) میگر برای اندازه جریان وولتاژ	1000
Complete system check چک کلی سیستم سولری				√		Technical inspection by electrical technician وارسی کلی سیستم سولری توسط شخص تخنیک (برق)	2500
Checking wiring چک کردن وایرنگ				√			
Checking grounding چک گروندینگ				√			
Cecking submersible چک نمودن واتر پمپ					√	Technical inspection by electrical technician وارسی کلی سیستم سولری توسط شخص تخنیک (برق)	15000
Checking Float switch چک کردن سویچ شناور					√		
PV-stand condition وضعیت پایه وچوکات سولر پنل ها					√		
Array configuration وضعیت و ترتیب سولرپنل ها					√		

Well and Piped Network Maintenacne Schedual **چاه و سیستم ابرسانی**						**زمان بندی نگهداری**	
Maintenance Task **موارد نگهداری**	**Daily** **روزانه**	**Weekly** **هفته وار**	**Quarterly** **هرسه ماه**	**Semi unnual** **شش ماه**	**Annualy** **سالانه**	**Required tools or spare parts** **وسایل یا پرزه جات مورد ضرورت**	Estimted probable annual cost for each line (AFs) مصارف احتمالی سالانه برای هر لاین (افغانی)
Resrvoir surround and appron cleaning	√					Water bucket and Brush with handle سطل آب وبرس همرای دسته	1000

پاک کاری اطراف وصوفه ذخایر							
Checking of the Gate vlaves چک کرن گیت وال ها			√			Wrench , screw driver, Long nose pliers, other hand tools . رینج ، پیچ کش ، موش پلاس ، دیگر وسایل دستی	2000
Reservoirs cleaning پاک کاری ذخایر				√		Water bucket and Brush with handle ستل آب وبرس همرای دسته	2000
Complete system disinfection				√		Chlorine , Water bucket, Brush with hand tools کلورین ، ستل آب، برس همرای دسته	2500
Checking complete piped network and all main and supplying pipes چک تمام شبکه ابرسانی ، پایپ های اساسی وتوزیعی					√	Pick Axe and Shovels with handle, Wheel barrow بیل ،کلند ،کراچی	3000
Tap stand surround and appron cleaning پاک کاری اطراف وصوفه شیر دهن عمومی		√				Water bucket and Brush with handle ستل آب وبرس همرای دسته	1200
Replacing the whole tap or its handle and valve spindle if the tap casing is intact. تعویض شیر دهن بصورت کامل یا تعویض مغزی و دسته آن					√	Valve spindle and handle مغزی و دسته شیر دهن	1600
Grand Total							**35300**

1.3 BENEFICIARY DESCRIPTION تشریح مستفیدین

	Number served by the rehabilitated source تعداد افرادی که از منبع احیا شده مستفید میشوند
Female اناث	207 Female
Male ذکور	193 Male
Total individuals مجموع افراد	400 Individuals
Households خانوارها	80 Households

1.4 WORK DURATION مدت زمان کار

Project duration in months	Four months

Action plan for construction(Solar Pawored network) activities in (Shahr Khu

Work Plan for Solar water supply network

Name of staff:		م	سلم ا نلکر
Title of staff:			ظ یفوه:
Duty station:		ظ	حلم یفوه:

No/ه	[Activities] فعالیت ها	[Who] توسط		Week 1	Week 2	Week 3	Week 4	Week5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15	Week 16
1	Site preparation	Unskilled/ اغرير																	
2	Digging Well																		
3	Excavation of foundation in grad 2 land	Unskilled/ اغرير																	
4	PE Pipe and fittings	Unskilled/ اغرير ه	Skilled/ ا و																
5	GI-PIPES and Fittings (water supply system)	Unskilled/ اغرير ه	Skilled/ ا و																
6	Back Filling with winnowed soil and sandy gravel	Unskilled/ اغرير ه	Skilled/ ا و																
7	Stone Masonry of foundation & Supper structure with 1:5 mortar	Unskilled/ اغرير ه	Skilled/ ا و																
8	Shuttering	Unskilled/ اغرير ه	Skilled/ ا و																
9	Steel working (Reservoirx,taps,slabs	Unskilled/ اغرير ه	Skilled/ ا و																
10	RCC M:250(1:1:2) (reservoir,Tap stands....	Unskilled/ اغرير ه	Skilled/ ا و																
11	PCC ,vavle boxes, Stand tap	Unskilled/ اغرير ه	Skilled/ ا و																
12	Insulation	Unskilled/ اغرير ه	Skilled/ ا و																
13	Plastering of Water, ReservoirSTAND TAP	Unskilled/ اغرير ه	Skilled/ ا و																
14	metallurgy of PV stand	Unskilled/ اغرير ه	Skilled/ ا و																
15	Casting foundation for PV stand and installation of PV stand	Unskilled/ اغرير ه	Skilled/ ا و																
16	Cabling of PV panels and Grounding	Unskilled/ اغرير ه	Skilled/ ا و																
17	Solar System installation	Unskilled/ اغرير ه	Skilled/ ا و																
18	Water quality test after completion ستت بفسک آ عد لکملیز	Formane/وفن	Engineer جنجنو																
19	Refresher training for technical WMC member شط ختکک را اضای عوتهک	Formane/وفن	Engineer جنجنو																
20	supervision of work activity	Formane/وفن	Engineer جنجنو																
21	quality check by ک جفسک رد وستطژ شامهخفسکی ر ت	TA and PO																	
22	Sharing water results ب آ ستت کیفجه شلگی	Formane/وفن																	
23	Handover to community حق لی د ری وبهق شو راهق																		

6.Community Labor کار در قریه

Short description of work	**Gender**	**Daily cost**	**# of individual**	**# of days**	**Total**
تشریح مختصر کار	**جنس**	**مصارف روزانه**	**تعداد افراد**	**تعداد روزها**	**مجموع**
Unskilled labor: site clearing at start & end of the project	Male & female	350	6	1.4400	3,024.00
Unskilled labor: excavation-pipe alignment, foundations	Male	350	10	20.7856	72,749.77
unskilled labor: stone masonry		350	10	5.1903	18,166.05
Skilled labor: stone masonry	Male	700	2	12.9758	18,166.05
Unskilled labor: Back filling pipe alignment	Male	350	10	11.2578	39,402.30
Skilled labor: PCC	Male	700	1	7.3009	5,110.61
Unskilled labor: PCC	Male	350	3	12.1681	12,776.51
Skilled Labor: For RCC Work:	Male	700	2	6.8579	9,601.06
Unskilled Labor: For RCC Work:	Male	350	10	7.0538	24,688.44
Skilled Labor: For Shuttering:	Male	700	1	10.9554	7,668.78
Unskilled Labor: For Shuttering:	Male	350	1	13.6943	4,792.99
Skilled Labor: For Steel Work:	Male	700	4	5.6725	15,882.94
Unskilled Labor: For Steel Work:	Male	350	1	13.2358	4,632.52
Skilled labor: plastering	Male	700	3	5.0093	10,519.60
Unskilled labor: plastering	Male	350	4	7.5140	10,519.60
Skilled labor: insulation	Male	700	1	24.0295	16820.65
Unskilled labor: insulation	Male	350	1	24.0295	8410.33
Skilled labor: pipe and fittings	Male	700	2	7.6640	10729.60

Unskilled labor: pipe and fittings	Male	350	2	12.4730	8731.10
Unskilled labor: filling of solar house area	Male	350	2	2.0000	1400.00
Skilled labor for stock room	Male	700	3	3.8000	7980.00
Unskilled labor for stock room	Male	350	3	7.6000	7980.00
Skilled labor: steel elements	Male	700	3	3.1864	6691.44
Unskilled labor: steel elements	Male	350	3	6.3728	6691.44
Unskilled labor: Concrete curing	Female	350	2	19.1701	13,419.04
Total					346,554.81

The table above calculates the total value of cash for work (both skilled and unskilled) required to complete the work. The total value of cash for work paid to the workers will not be revised nor increased if the time to complete the work increases.

Note: Table indicates some of planned tasks that would be physically feasible for females. These are specified only because they are not cumbersome tasks or heavy duties. But women are welcomed to contribute to project work as much as they can, and whenever they feel comfortable and will be encouraged to do so, as per indicated in the CPP.

در جدول بالا کل مبلغ پول مورد نیاز برای تکمیل کار (هم نیروی کار ماهر و هم نیروی کار غیر ماهر) محاسبه شده است. در صورتی که مدت زمان مورد نیاز برای تکمیل کار افزایش یابد، مبلغ مجموعی پول که به کارگران پرداخت میگردد نه بازنگری شده و نه افزایش می یابد.

1.5 TOTAL COST OF THE PROJECT

	Community contribution (Afs) سهمگیری و کمک قریه	CRS contribution (Afs) سهمگیری و کمک سی آر اس	Total cost (Afs) مجموع مصارف
Labor (as per attached BoQ) کار(نظر به بل تعداد ضمیمه شده)	0	346,554.81	346,554.81
Material) as per attached BoQ) مواد (نظر به بل تعداد ضمیمه شده)	0	2,294,003.27	2,294,003.27
Total مجموع	0	2,640,558.08	2,640,558.08

Bill of Quantity and Technical drawings are attached to this CPP.

بل تعداد و رسامی های تخنیکی به این پلان محلی پروژه (CPP) ضمیمه شده است.

CRS is withholding the amount of tax due from wage payments to participants of cash for work activities and transmitting them to the government as per the taxation law. Taxes will be applied from daily wage according to the following thresholds:

1. Between 165-411 AFA per day = 2% tax
2. Between 412-3,288 AFA per day = 10% of the amount + 5 AFA tax

مؤسسه سی آر اس از دستمزدهای پرداختی به اشتراک کننده گان فعالیتهای کار در مقابل پول مطابق با قانون مالیه بر عایدات مالیه لازم را موضوعی نموده و به حساب دولت انتقال می دهد. مطابق ذیل بر دستمزد روزانه مالیه تطبیق می شود:

1- بین 165 تا 411 افغانی در روز = 2% مالیه

2- بین 412 تا 3288 افغانی در روز= 10% از مبلغ به اضافه 5 افغانی.

1.6 SIGNATORIES امضا کننده گان

CRS سی آر اس			Community Shura شورای قریه		
Name and position نام و وظیفه	Date تاریخ	Signature امضا	Name and position نام و وظیفه	Date تاریخ	Signature امضا
WASH Engineer واش انجینر					
Senior WASH Engineer انجنیر ارشد واش					
WASH TA مشاور تخنیکی واش					
Program Manager مدیر پروگرام					
Head of Office رییس دفتر					