TENDER FOR CONSTRUCTION SOLAR POWERED MINI WATER YARD WITH DRIP IRRIGATION SYSTEM, REF. NO. SIDA 09 2021

TENDER FOR CONSTRUCTION SOLAR POWERED MINI WATER YARD WITH DRIP IRRIGATION SYSTEM, REF. NO. SIDA 09 2021

BACKGROUND/INTRODUCTION

Islamic Relief is an independent humanitarian and development UK based organization, with an active presence in over 40 Countries across the globe, we strive to make the world a better and fairer place for people still living in poverty. Islamic relief began its humanitarian operation in South Sudan in 2004 focusing on providing lifesaving aid and implementing developmental Programmes to support people affected by flood, drought and Conflict establishing three sub offices in Narus (Kapoeta East), Wau, Warrap. A satellite office in Yei and Main office in Juba.

Our vision:

Inspired by our Islamic faith and guided by our values, we envisage a caring world where communities are empowered, social obligations are fulfilled and people respond as one to the suffering of others.

Our mission:

Exemplifying our Islamic values, we will mobilize resources, build partnerships, and develop local capacity, as we work to:

Enable communities to mitigate the effect of disasters, prepare for their occurrence and respond by providing relief, protection and recovery.

Promote integrated development and environmental custodianship with a focus on sustainable livelihoods.

Support the marginalized and vulnerable to voice their needs and address root causes of poverty.

We allocate these resources regardless of race, political affiliation, gender or belief, and without expecting anything in return.

INTRODUCTION

IRSS through funding from SIDA-2021 is responding to priority needs of the conflict affected population in Kajokeji and Yei Counties. Through improvement of the livelihood status of the targeted communities by rendering support towards agricultural production. Hence building resilience towards sustainable livelihood. Irrigation through the modern drip system is a supplement to natural rainfall for the successful cultivation of needed crops. The proposed drip irrigation system is an integral part of modern agro-technics, especially those crops that are dependent upon reliable water provision.

Furthermore, the intervention will give due attention to Protection and Inclusion related matters, based on its elaborated policy on Prevention of Sexual Exploitation and Abuse (PSEA) and Safeguarding, and initiate mass gender

equality and GBV awareness sessions and trainings on peace promotion and conflict reduction for key stakeholders within the communities.

In order to achieve these objectives Islamic relief intends to construct one (01) complete unit of drip irrigation system in Yei County. Specific objective of this scheme is to uplift the economic status of the targeted local farmers groups through increasing access to crop irrigation to the targeted communities that will ultimately contribute to the improvement of farmer's livelihood. In this regard IRSS is sourcing for a competent bidder to carry out the construction of the proposed project in Yei County.

These modern drip system is IRSS's SIDA 2021 funded project intended to improve farmers in targeted payams of Yei County

1. Scope of Work:

Scope of the project

- Location: The project is expected to be implemented in Yei County of central Equatoria state. The project site is located in Dongoda village lying some 4 kilometres North-west of Yei town.
- The overall size of area that will be covered by the project is 3,800 m^2, however the specific size of farm land 3,500m^2
- Hydro geophysical survey of the place to determine the most promising site.
- Drilling and development of a high yield borehole.
- Supply and installation of solar powered submersible pump to the required specification, complete with all accessories.
- Fabrication and installation of metallic tower designed to carry two plastic water tanks of 5,000 litres each.
- Supply and installation of two plastic tanks with capacity of 5,000 litres.
- Supply and installation of solar panels on a well fabricated metal frame work, correctly mounted above the tanks.
- Fencing of the whole perimeter around the borehole and the tank (7.00m length x 7.00m width (49 m^2)
- Supply and carry out plumbing work from well head to tank and from tank to pipe main line, including establishment of one tap stand with a ¾" water tap for water collection.
- Supply and install drip irrigation system : HDP PVC mains, drip lateral pipes, main valves, mini valves, flush valves covering surface area of 3,500 square meters.

- The job is expected to take 45 days including mobilization.

General notes:

1. Rates and process- the contractor is deemed to have allowed in the rates and prices inserted in the bill of quantities for all charges in providing labour, equipment, materials, transport, supervision and profits in carrying out and completing the work.

2. Child labour (any person under the age of 18 years) – The contractor shall certify that no forced or indentured child labour is used to carry out any kind of job in part or whole during the period.

3. Protection of the public – Contractor to put in place buffer zones and warning signs, all as necessary to protect the public clear away from the site.

4. Decommissioning(debris, rubbish and clearing away etc) – The contractor shall keep the site free from all debris and wastes arising from the execution of the work such as sharp objects that could cause injuries, or any other objects that negatively affects the environment.

5. Contractor to ensure all materials put in the execution and completion of the work should conform to the recommended standard and qualities as per the building and drilling regulations.

Tasks and expected days of work

- The contractor is expected to carry out the job accordingly, while assigning specific and clear task of jobs to specific team group e.g. Drillers, Geologist, plumbers, welders, masons, and water engineers and technicians. The work is expected to take maximum 45 days including mobilization.

Roles and responsibilities

The contractor:

- Is solely responsible for provision of all the materials, services, transportation and personnel needed for the work, ensure that all materials, services and personnel conform to approved grade, skills and standards.

- Responsible for the team deployed for the work, all their basic needs are catered for, should not interfere with the work.

- Provide weekly update to the project officer in Yei of work progress, Challenges and constraints should be reported and challenges addressed.

IRSS:

- Responsible for coordination with authorities, communities and other stake holders in all matters pertaining to the construction work.

- Conduct regular monitoring visits, inspection of all materials and services involved in the work.

- Will provide guidance and technical advice and support as deemed necessary.

Interface

- Ensure there is very good line of communication and coordination between Islamic relief and the company.
- All communication and coordination should be done through the company focal person designated for that in the field and the organization's officer in the field.
- No direct communication between any company staff and IRSS, unless an informal one.
- IRSS engineer can be directly contacted any time for consultation and advice.

Reporting

- Contractor to report on each phase of work successfully completed, this includes: Geophysical survey conducted, drilling and development of the borehole, installation of the submersible pump, fabrication and installation of the tower, installation of the tank including plumbing work from and to the tank, fixing of solar systems complete, installation of drip irrigation systems.

Handing over

- Final inspection will be jointly conducted with the department of agriculture, water supply and sanitation and community leaders. Various components of the system will be inspected. In case of defaults in any component, has to be rectified before final handing over is done.
- After the facility is handed over, IRSS will carry out post construction monitoring for a period of three months as defect liability period.

Visibility

- The contractor is expected to fix two signed posts as follows: Sign post (a) length 1.20m x height 0.80 m fix fabricated using 20mmx30mm rectangular pipes in main frames, on 21/2" x 21/2" stands (legs) at least 1.80m from the ground level. Sign post (b) is length 1.20m x height 0.80m framed, without legs but to be fixed up on the tower cage.

DELIVERY DETAILS

Case	Delivery Destination
Supplier must have export permission or be able to supply locally from South Sudan.	Delivered Duty Paid (DDP) to defined destinations inside South Sudan (Central equatorial counties of Yei)

All tenders are required to be submitted before **Tuesday 5th Oct 2021, 4.00 pm Local time** pursuant to the attached guidelines for submitting a quotation and be returned to; **HAND DELIVERY TO IRSS TENDER BOX** upon registration on the bid receipt form.

For any issues relating to the tender or its contents please email directly to; IRSS.Tender@islamic-relief.or.ke

All quotation providers are requested to fill in Appendix 1 and 2 below when submitting their proposal to IRW.

APPENDIX 1

Summary of Bid Prices

No.	*Description*	*Total Price in USD ($)*
1	**Grand Total Bid Price**	
2	**Discount Ratio (if any) … % and the amount**	
3	**Grand Total after Discount**	
4	**Delivery time scales (in days)**	

We have carefully checked and examined all bid documents and we are offering the costs above on a fixed basis and they are not subject to any changes or alterations including those due to currency fluctuations.

Total Price **USD ($)**
In words **[_____]**
Bidder's Signature Stamp Date

Bidder is required to stamp this document with their legal company stamp no bid will be accepted without a genuine company stamp

APPENDIX 2 BILL OF QUANTITIES

Please also use our table when filling the prices. If you do not have the item just keep it empty. Your offer should be for the quantity that we request, not less and not more.
Please only use USD ($) as the currency for your offers as per the guidelines.

BILL OF QUANTITY FOR CONSTRUCTION OF SOLAR POWERED MINI WATER YARD WITH DRIP IRRIGATION SYSTEM.

Project: Integrated humanitarian response for conflict affected people in south Sudan (SIDA) 2021
Project location: Yei – County

Ref Number	Item description	Quantity	Unit	Unit cost - USD	Amount - USD
Item (1) Water supply system development					
01	Preliminaries – physical assessment and survey of the site.	01	job		
02	Mobilization- transportation of whole drilling unit to site, setting up and dismantling of drilling equipment and other support units.	01	job		
03	Carry out hydro geophysical survey of the site to identify the most potential location for the borehole drilling. Allow for taking of 03 VES profiles, including clearance of bush for running of electrodes	01	job		
04	Drilling of the borehole 8-9 inches diameter from 0-100m depth	100	Meter		
05	Drilling of the borehole 8-9 inches diameter from 100-120m depth-	20	Meter		
	Drilling of the borehole 8-9 inches diameter above 120m depth if necessary	20	Meters		
06	Supply and install 6 inches nominal diameter UPVC screen casing with end cap, at aquifer zones.	12	Meter		
07	Supply and install 6 inches plain UPVC casings with threads, at non aquifer zones.	108	meters		
08	Supply and install 8 inches diameter plain permanent casing,	06	Meters		

	including sanitary seal of grout cement				
09	Provide and insert filter gravel packing 2mm-4mm size, well placed.	2.5	M^3		
10	Allow for borehole development work(surging/flushing by air of completed well until the water is crystal clear)	3.00	Hours		
11	Mobilization – carry out pumping test , 6 hours step draw down and 4 hours constant discharge test – including installation , removal of pumping test equipment and water level observation – for not less than 10 hours .	01	job		
12	Provide and install for well head, Indian MK II pedestal with appropriate cap and out-let. Allow but 1:2:4 plain concrete in 0.60x0.60 apron at well head.	01	No		
13	Supply and install solar powered submersible pump of capacity 1,400 Watt , phase 1 , Q= 3,500 liters/hours , corresponding to the capacity of the well drilled to 80m- 120 m head . Preferably SQF series Model D P2 18 13, VDC 30-300, VAC 1x90-240 V. cables and accessories. Ensure electrical cables from well head to CU are protected in a conduit.	01	set		
14	Ditto ditto but 1" PVC riser mains from pump to well head, complete with safety wire and plastic cable clamps.	110	Meters		
15	Supply and install – solar panels (preferably 120-200 Watt solar panels) corresponding to pump capacity complete with CU box,	01	set		

	stands, cables and other accessories.				
16	Provide, manufacture and install tank tower as per specifications provided in the technical drawings.	01	set		
17	Provide but 1:2:4 r.c in footings as specified in the technical drawings.	2.50	M^3		
18	Supply and install Two PVC tanks 5,000 liters each, complete with provision for 1" inlet and 2" outlet. Preferably from ROTO tanks. Provision of 2" gate valve	02	Pieces		
19	Supply and install 2 "G.I.pipes from tank out let to ground level connecting to main line	6	Meters		
20	Supply and install 1 " HDP pvc from well head to tank	16	Meters		
21	Supply and install 2" water meter down at ground level out let, completed in a 0.40x0.40m manhole box with a lid and provision of locking.	01	No		
22	Supply and carry out fencing around the, tank to perimeter of 28 m long (7.00mx7.00m) – provision of 21/2 " angled iron bars for main posts and strainers, chain link , razor wire , line wire , gravel , cement , sand etc. and a metallic gate complete with provision for lock.	01	no		
23	Decommission – demobilization of the drilling unit and support systems. Removal and disposal of extra drilling wastes and well-disposed off, all wastes generated from the activities.	01	No		

24	Provide and install 2” screen filter of 150-200 micron, non corrosive, complete with fittings.	01	No		
Subtotal (1) Water system development					
Item (2) drip irrigation system development					
	Supply and install 2” HDP pvc pipes in Manifold complete with necessary fittings as shown in the technical drawings.	5.0	Meters		
16	Supply and install 2” HDP pvc pipe in twine main lines from the manifold that runs parallel to each other, each main is 70.00 m long and equipped with 2” gate(ball) valve, complete with all the necessary fittings (2” PE elbows, sockets, unions, nipples). Provision of 02 flush valves fixed at end of each drip main line. Each main line will be supported on the ground using 6mm dia.x 150mm long U-hold downs at 3.5m intervals, to ensure the main line is well aligned and does not move sideways.	140.00 40	Meter Pieces.		
20	Supply and install 16mm dia. lateral Drip pipes to 25.0m long each. 232 No . each drip pipe has emitters fixed at 30cm spacing, use of short-path emitters (For 2.0 l/hr- 0.6 gph). There are going to be 83 emitter/each drip pipe, overall total of 19,256 emitters.	5,800	Meters		
	Supply and install mini (shut-off) valves connected to each drip pipe.	232	No		
21	Provide and allow for setting up of one tap stand 5 meter away from the main line – 1” G.I. pipe, 0.80 m high completed with ¾”	01	no		

	water tape, 1:2:4 plain concrete work for 1.00mx1.00m apron with raised edges in apron. Allow for provision of all fittings.				
22	Allow for provision of two sign posts as described: sign post (a) height 0.80m x length 1.20 m , firmly fixed on the tank cage. Sign post (b) height 0.80 m x length 1.20 m on metal legs 1.80 m high from ground level , this sign post is firmly fixed near the entrance gate to the farm land	02	Pieces		
24	Decommissioning and handing over	01	No		
Subtotal (2) drip system					
Grand total : subtotal(1) + subtotal(2) = USD					

- This bill of quantity is for one borehole only
- Has to be multiplied by five (05) for overall total

S/no	Item Description	Unit	Quantity	Unit cost	Amount-USD
	(A) Preliminaries				
01	Preliminaries: Survey that includes desk top study of the proposed site to establish information that can guide in decision making regarding the proposed location	Unit			
02	mobilization – Allow for cost of transporting all equipment, personnel to site(s) setting up and dismantling of the drilling rigs, and demobilization at completion of the project	Unit			
	(B) Boreholes drilling				

	Geophysical survey- Conduct geophysical survey using recommended equipment, resistivity meter to identify the most promising site for drilling of a successful borehole.	Site	01		
03	Carryout drilling 7”- 8” borehole from 0 – 75 meters depth in all types of soil formation using air and DTH hammer.	Meter	75		
	Carryout drilling 7”- 8” borehole from 76– 100 meters depth in all types of soil formation using air and DTH hammer.	Meter	25		
04	Supply and Install 125mm (5 inch) nominal internal diameter plain UPVC casings.	Meter	101		
05	Supply and Install 125mm (5 inch) nominal internal diameter Slotted UPVC casings, Including UPVC end caps	Meter	09		
06	Supply and Install Permanent casing 8 inch nominal internal diameter UPVC plain casing up to hard formation.	Meter	06		
07	Supply and insert filter gravel packing 2mm - 4mm size of round and clean siliceous material. Insert sanitary seal (grout) not less than 1.50m deep from ground level.	M^3	2.00		
	Borehole development				
08	Allow for borehole development work, surging by air of a completed well until the water is crystal clear.	hours	4		

09	Pump testing completed well, time taken until pump is removed, recovery should be around 80% .	hour	4		
10	Allow for water quality test based on recommended parameters for south Sudan, both physical, bacteriological and chemical.	test	01		
	Hand pump installation and apron construction				
10	Apron construction-general Excavation of top soil & cart away depth n.e 200mm (assume 3.00m dia. channel inclusive) Filling well compacted approved material thickness n.e 300mm . Blinding on top fill approved material well compacted thick n.e 50mm. Provision and placement of BRC Mesh as apron reinforcement , drainage channel length 6.00m	Job	1		
11	Provision and placing of RC in pump platform, Apron and drainage channel Slab 150mm thick mix 1:2:4, well finished in grout cement.	M^3	3		
12	Provision and installation of Indian MK II/III hand pump- pedestal , head assembly , water tank , 11/4" G.I. pipes & connecting rods and cylinder assembly to depth not exceeding 60 m	set	1		
13	General Landscaping around Bore hole 10m radius	Job	1		
14	Provide and allow for excavation of soakage pit 1.20m diameter, filled with recommended filling materials and well covered.	Job	1		
15	Provide and allow for fixing of a metallic signed post as specified in the description of visibility length	N0	1		

	1.20mx 0.80m width x 1.70 m legs using 2mm iron plate and 30mmx30mm hollow section pipes for main frame and legs (See item No 6 in the TOR)				
Subtotal (1) total USD					
Grand total= Sub total (1) x 5 USD					

IMPLEMENTATION PLAN: WATER MINI-YARD) BOREHOLES

Project: Integrated humanitarian response for conflict affected people in south Sudan

Location: Yei County

Implementation plan: Construction of drip irrigation system

		Months											
		October 2021				November 2021				December 2021			
Activity #	Activity description	Wk 1	Wk 2	Wk 3	Wk 4	Wk 1	wk2	Wk 3	Wk 4	Wk 1	Wk 2	Wk 3	Wk 4
1.00	Mobilization of equipment , personnel and materials including movement of the construction team to project location												
2.00	Site survey, site clearance, Geophysical survey to determine the most promising location for the drilling of high yield borehole.												
3.00	Drilling of borehole, including borehole development and test pumping. Developing the well head and plat form.												
4.00	Fabrication of tank stands, excavation of trenches, casting of concrete footings and curing.												
5.00	Installation of tank tower, welding of the bearers, fixing the cage and ladder, fixing of solar panels and accessories Installation of the tanks.												

6.00	Installation of the submersible pump, plumbing work from pump to tank and from tank to main line.												
7.00	Plumbing work for drip irrigation system, including laying of manifold, main lines and drip lines.												
8.00	Testing of the system												
9.00	Final inspection and handing over												

LOGOs

Supplier Code of Conduct

1 Islamic Relief's Supplier Code of Conduct

2 Islamic Relief Worldwide requires all suppliers to adhere to:

The Modern Slavery Act 2015

The International Labour Standards as defined by the ILO (International Labour Organisation).

The United Nations Global Compact's 10 principles as stated below:

Human Rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights;

and

Principle 2: Make sure that they are not complicit in human rights abuses.

Labour

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Principle 4: The elimination of all forms of forced and compulsory labour;

Principle 5: The effective abolition of child labour;

and

Principle 6: The elimination of discrimination in respect of employment and occupation.

Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges;

Principle 8: Undertake initiatives to promote greater environmental responsibility;

and

Principle 9: Encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.