COALITION FOR HUMANITY
Improving Community Resilience

TERMS OF REFERENCE FOR UPGRADING BOREHOLES INTO SOLARIZED WATER YARDS IN LEER COUNTY, UNITY STATE, SOUTH SUDAN

Title: TOR for upgrading Boreholes into solarized water yards in Leer County, Unity State, South Sudan

About Coalition for Humanity (CH)
Coalition for Humanity (CH) is a non-profit organization committed to finding lasting solutions to humanitarian and development challenges in South Sudan. CH has its headquarters in Juba, with a presence in Leer, Panyijiar, Mayiendit, Koch, Mayom, and Rubkona counties in Unity State; Maiwut and Longuchuk in Upper Nile State; Ruweng Administrative Area; Aweil West in Northern Bahr El Ghazal (NBeG); and Pochalla in Greater Pibor Administrative Area (GPAA).

Starting in 2020, CH has integrated humanitarian response approaches with sustainable development programming. In addition to emergency response, the organization focuses on sustainable development goals, with goal 16 forming the backbone of its interventions. CH advocates for peace and security while continuing to improve access to water and sanitation, food security and livelihood, healthcare and education, and ending gender-based violence (GBV) and other forms of inequality in the country.

CH is currently implementing a WASH program in nutrition facilities in Leer County, funded by SSHF. To support this program, CH is seeking for suitable and qualified companies both locally and international with clean record in upgrading boreholes into solarized water yards in Leer County, Unity State, South Sudan.

Nature of work
Upgrading boreholes to solarized water yards in Leer County, Unity State, South Sudan.

Scope of the project

The project will be implemented in Leer County, Unity State. The specific project sites are Pilieny, Thornyor, Adok and Rubinchar Payams.

- The scope of the job would be up-grading of existing boreholes into motorized system, which involves the use of solar powered submersible pumps and overhead tanks of 5,000Ltrs capacity
- The intention is to have a dual pumping system, i.e., the submersible pump integrated with solar used together with the hand pump. A special stainless-steel cylinder for the hand pump will be installed, this special cylinder is equipped with a by-pass valve that allows water from the submersible pump pass through. A special water tank assembly with dual out-let will also be used to make this system work. Each out-let is equipped with a gate valve that will be used in an alternating manner.
- Elevated PVC water tank of capacity 5,000Ltrs will be installed on a steel tower, preferably 6m above the ground as in the sketch drawing. There shall be 2 water

COALITION FOR HUMANITY 16 OCT 2023 SOUTH SUDAN

collection points (public water stands) in each site to serve the community. Each stand post will be equipped with 3 bib cocks (taps) fixed in a concrete work stand (as per drawing outline).

Key information/notes for the contractor:

Materials: -All materials used on this project must be of the highest new standard available, as recommended under BSF. Items with specific makes and manufacturers are to be used as samples only. With the employer's approval, the contractor may offer similar products from other manufacturers, but must ensure that the quality of the products is equivalent.

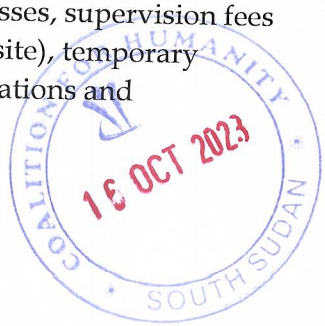
Quantities: -All quantities in the Bill of Quantities (BOQ) are estimated and should not be taken as 100% accurate. The Contractor should allow for a small percentage (not exceeding 3%) of the total value to cover any increases in quantities. This is especially important for plumbing work from the tank outlet to various water collection points, plumbing work from the submersible pump to the wellhead and then from the wellhead to the tank, and concrete work on footings.

Special conditions

- Maintenance and repair work for any system components that fail due to poor workmanship will be the responsibility of the contractor for the first three months. A 10% defect liability will be withheld from the total cost until after a post-construction inspection is conducted immediately following the three-month period. If the contractor fails to rectify any defects identified and communicated to them within the specified period, the organization has the right to rectify the defects from the 10% defect liability and share a report with the contractor.
- The contractor must establish a buffer zone and erect warning signs around the construction site to protect the public
- The contractor shall certify that no child under the age of 18 years, including forced or indentured child labor, is used to carry out any part of the implementation process. The contractor shall also ensure that no exploitation of human labor that amounts to modern slavery is involved.
- The contractor must keep the site free and clear of all debris and waste generated during the work. This includes hazardous waste, such as sharp objects, chemicals, and human waste, which can directly cause injury and indirectly harm public health.

Tasks and Expected Work Days

- The contractor is expected to complete the job according to the specifications, assigning specific and clear tasks to each team group, such as plumbers, welders, masons, and water engineers and technicians. The work is expected to take a maximum of 60 days, including mobilization.
- The unit price quoted for each item in the bill of quantities shall include all operations necessary to execute, complete, and maintain that item. This includes all costs of any kind, including the supply of materials, transportation and handling, labor costs, equipment and plant, supervision and relocation, taxes and gate passes, supervision fees to government staff from line ministries (not to exceed 50 USD per site), temporary works, and the performance of all works and fulfillment of all obligations and responsibilities as defined.



Roles and responsibilities

The contractor:

- Is solely responsible for providing all materials, services, transportation, and personnel required for the work, and ensuring that all materials, services, and personnel meet the approved grade, skills, and standards.
- Shall be responsible for the team deployed for the work. He/she must ensure that all of their basic needs are met, but they should not interfere with the work
- Provide CH WASH project coordinator with a weekly update on work progress, challenges, and constraints. Challenges should be addressed in the update.

Coalition for Humanity (CH):

- Shall be 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.

Reporting

Contractor must report on the successful completion of each phase of work, including:

- Installation of the submersible pump and test pumping results
- Fabrication and installation of the tower
- Installation of the tank, including plumbing from and to the tank
- Installation of the solar system

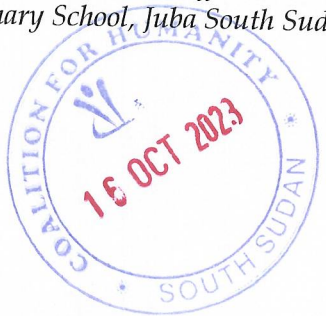
Handing over

- The final inspection of the water supply system will be conducted jointly with the Department of Water Supply, and Sanitation, and community leaders. All components of the system will be inspected. If any defects are found, they must be rectified before the system is handed over.
- After the facility is handed over, CH will conduct post-construction monitoring for a period of three months, which is the defect liability period

APPLICATION:

- Interested COMPANIES who meet the conditions specified herein are invited to submit their tender documents as in the annex including legal documents and a clear demonstration of understanding and interpretation of this Terms of Reference (TOR) to procurement.juba@ch-int.org
- Remember to indicate the title of this TOR in the subject line of the e-mail, to reach us not later than **30th October, 2023**
- Proposals in hard copies must be sealed and bound in one document and sent to the following address:

Coalition for Humanity (CH), Gudele 1 Area, Block 4 Plot No. 1784 Off Gudele Road Along Seven Eleven Supermarket Road next to Big Ben Primary School, Juba South Sudan | +211 (0) 917 094 299 /http://www.ch-ssd.org/



Annex

BOQ for upgrading boreholes into solarized water yards in Leer County, Unity State

S/No	Description of Work	Unit	Qty	Rate (USD)	Amount (USD)
1.0'	**Installation of Submersible Pump**				
1.1	Mobilization: allow for the cost of transporting all equipment, material and personnel to site and demobilization at completion	LSM	1		
1.2	Site survey, preparation and set ups.	LSM	1		
1.3	Allow for overhauling of the existing hand pump, thereafter, carry out pump testing	LSM	1		
1.4	Supply and installation of Grundfos SQfLEX (3A-10) submersible Pump, including all accessories	LSM	1		
1.5	Supply and install solar panels (preferably 100-120 Watt panels) corresponding to pump capacity. Solar panels of 200 Watts is of high advantage.	PCS	6		
1.6	Solar Control panel (CU 200), grundfos.	PCS	1		
1.7	Supply and install 4mm 2-3 core underground cable, in a PVC conduit provision for crossing roads.	M	20		
1.8	Supply and install 4mm 2-3 core submersible drop cable, complete with water proof couplings.	M	80		
2.0'	**Water Tower Construction**				
	Foundation Works				
2.1	Excavation for four water tower footing foundation. This work include proper backfilling and compacting around the footing foundation after casting	M3	6.48		
2.2	Casting of four C25 reinforced concrete pad column footing as per specifics in the design and according to the layout given	M3	0.65		
2.3	Casting of four C25 reinforced concrete column pedestal, 400mm by 400mm as per specifications in the design with 100by100by6mm RHS column connected directly with reinforcement positioned inside the pedestal. (Cost includes the supply of sand and gravel purchased locally, proper curing period is required)	M3	1.15		
2.4	Casting of C25 reinforced concrete ground beam 300mmby300mm as per 1:2:3 mix design, to connect all concrete pedestal	M3	0.72		
2.5	Steel Supply, Bending and fixing of reinforcement Bars	M3			
	a) T16 in pad footing	KG	95.56		
	b) T12 in starter columns	KG	40.7		
	c) T12 in Ground Beam	KG	42.4		

	d) Y6 in starter columns	KG	34.5		
	e) Y6 in Ground Beam	KG	19.87		
	Metal Works				
	Fabrication and Installation of Metallic Tower Main Frame using RHS 100by100 including RHS 50by50 Diagonal Bracing as per design. Work include all the required priming and painting				
2.6	100by100by6mm RHS, vertical members	M	24		
2.7	50by50by3mm RHS, Bracings	M	52.8		
2.8	160by83by8mm 1-Beam	M	18		
2.9	3mm MS Plate flooring as per design	M2	9		
2.10'	Fabrication and installation of Water Tank encasing frame and railings using RHS 50by50 as per Design. Work includes all the required priming and painting	LSM	1		
3.0'	**Water Networks**				
3.1	Excavation of a trench for pipe laying measuring 400mm by 500mm depth from submersible pump to water tank and from the water tank to the tap stand	M3	6		
3.2	Supply of all water network connecting materials and installation to make the network fully operational within a 200m radius	LSM	1		
3.3	Construction of a tap stand plinth walls and slab including plastering and screeding with proper drainage slopes	LSM	2		
3.4	Supply and installation of 5,000-liter PVC water Tank on the tower	LSM	1		
	GRAND TOTAL				

COALITION FOR HUMANITY · SOUTH SUDAN · 16 OCT 2023