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|  | **Annex-1-BoQ-tender no-001**  |  |
| **NEAR EAST FOUNDATION**  |
| **MALEKNHOM 2, ABIENAJOK, JIIR PAYAM, RUMBEK COUNTY, LAKES, SOUTH SUDAN.**  |
| **Project - Resilience and Recovery**  |
|  | ***Bidder Representative/Vendor Name:*** |
| **ITEM** | **Item Description** | **Unit** | **QTY** | **Unit Cost**  | **Amount** |
| **BILL NO.**  | **UPGRADING A BOREHOLE INTO 5 CUBIC METER STEEL STORAGE, 6 METERS HIGH TOWER WATER YARD-AT MALEKNHOM 2, RUMBEK CENTRE COUNTY** | **$                               -** |   |   |   |
|  | **Drawing, Handpump dismantle** |  |  |   |   |
|   | Design and submit drawing of the construction to WASH staff. Carefully dismantle the existing handpump by removal of head assembly, water tank assembly, riser main pipes and connecting rods, cylinder assembly. handover to the local authority all the removed items in the presence of NEF staff . Supply riser main pipes, wires, Grundfos submersible pump.  | LS | 1 |   | 0 |
|  | **Pump testing** |  |  |  | 0 |
|  | conduct pump testing to check if the borehole is able to provide a yield of 3m3 /hr.  |  |  |   | 0 |
|   | Conduct step drawdown and recovery test as per ToR specification. | hr | 8 |   | 0 |
|   | Conduct constant rate and recovery test as per ToR specification. | hr | 8 |   | 0 |
|   | **Water quality analysis** |   |   |   | 0 |
|   | Collect 2 x 1 liter water samples, and submit to an approved laboratory for analysis. Water quality shall comply with the minimum South Sudan quality standards and report shared to NEF/R&R WASH infrastructure technical lead | LS | 1 |   | 0 |
|   | Conduct field testing using portable water quality testing equipment for EC, TDS, Temperature, PH and Turbidity. | LS | 1 |   | 0 |
|   | Clean and disinfect the borehole as per ToR. | LS | 1 |   | 0 |
|   | Submit well completion report as per NEF/R&R requirements including results of water quality analysis as per the ToR | LS | 1 |   | 0 |
|  | **Installation of submersible pump and solar system** |  |  |   | 0 |
|   | **IMPORTANT NOTES:** |   |   |   | 0 |
| 1- Solar based water pumping schemes- Contractual Responsibility of Bidder is design, procurement, installation, commissioning and full-service warranty of minimum 1 year. |   |   |   | 0 |
| 2- Bidder shall submit full technical proposal with design and all related documents as per the needs. Details of model brands and quantities shall be provided. |   |   |   | 0 |
| 3- Items include all related necessaries. |   |   |   | 0 |  |
| 4- Sizing of system to be reviewed and agreed following pump tests. Payment to be as per Actual executed quantities |   |   |   | 0 |  |
|   | Design, Supply and install a Dayliff, Grundfos or Lorentz solar system providing at least 36m3/day considering the peak sun hours of sunshine per day. The submersible pump size shall be decided after the test pumping results and designing the water supply solar system in which case a VO may be issued. The system shall comprise of a submersible pump and well probe, ( borehole pressure sensor) float switch, smart PSU with wireless data connect, PV Disconnect, surge protector and lighting arrestor with a minimum of 1 piece of 8‐foot copper‐plated grounding rod. Design of the solar system needs to be inspected and validated by NEF staff prior to procurement and installation. | LS | 1 |   | 0 |  |
|   | Supply and install a parallel series solar panels certified to ISO, IEC 61215 and 61730 (TÜV Rheinland) and CE oversized by 1.2 to 1.3 times the motor size. The solar panels shall be mounted facing south and a tilt angle of  not less than 7deg and not exceeding 15 degree, mounted onto a fabricated frame above the storage tanks. NB: The actual configuration of the solar shall be decided after the water supply solar system design in which case a VO may be issued. | LS | 1 |   | 0 |  |
|   | Horizontal installation of 2 flow meters, 1 at the inlet of the storage, and 1 per water kiosk. | pcs | 2 |   | 0 |  |
|   | Supply and installation of 6.0-meter-high metallic stand tower for tank, evenly coated with a layer of anti-oxide paint and overlayed with an additional coating of grey/silver paint and fitted with a hooped cat-ladder, top walkways of 2.1mm thickness and safety hand railings.                Tower to comply to manufacturing standards: Dead/Live load analysis to BS 399.Wind load analysis to CP3 ch V 1972.Structural steel work to BS 5950 Part 1 1990. | LS | 1 |   | 0 |  |
|   | Supply and installation of 5 Cubic meter steel tank with a free boat of 300mm. The tank shall be constructed of mild steel pressed panels of 6mm thick for the bottom, first layer of panels and 5mm thickness for the top layer of panels and include internal bracings, brackets and a calibrated level indicator with a 1.5mm thick mild steel roof cover, thermo-resistant sealant, coated with 2 layers of black bituminous paint on the inside, a single layer of zinc phosphate primer on the outside covered with a single layer of silver Aluminum paint. NB: The tank capacity and material may be changed after pumping test results and water quality analysis results in which case a VO may be issued. For subprojects located in deep field locations it may inconvenience the contractor in terms of mobilization | LS | 1 |   | 0 |  |
|   | Supply and install 2-1/2'' HDPE underground distribution and uPVC, PPR class 10 above ground pipeline and fittings including GI pipe for the tank outlet/ back wash and overflow. NB: The pipe size may also be changed after the water supply solar system design in which case a VO may be issued. | m | 50 |   | 0 |  |
|  | **WATER YARD SITE LAYOUT** |  |  |   | 0 |  |
|   | The borehole shall be fitted with a well head casted in a concrete platform of minimum 0.3m height and protected by a man hole height not less than 800mm ms with a cast iron trap fitted with a lockable system. | LS | 1 |   | 0 |  |
|   | 600mm x 600mm man hole of height not less than 800mm off setting by 200mm above ground level with a lockable steel cover shall be constructed to enclose, protect and ease monitoring of flow meter.  | No | 1 |   | 0 |  |
|   | Levelling of the site and laying a 300mm thickness well compacted murram of 60% minimum aggregate approved by the IOM Supervisor prior to installation. | LS | 1 |   | 0 |  |
|  | **WATER YARD FENCE** |  |  |   | 0 |  |
|   | Supply and install with all structural accessories 10 x 10-meter Chain-link fence all around the water yard area - Approx. 40metres perimeter as stated in detail in the drawing, BOQ and TOR to enclose elevated tower and well connection.  | m  | 40 |   | 0 |  |
|   | Supply and install for access to the fencing Single leaf gate overall size 1200x2000mm high; comprising heavy duty slide bolt assembled with 4mm thick steel hasp and padlock as described in TOR.  | LS | 1 |   | 0 |  |
|   | 700mm high Razor wire mounted on top of gate using and including 40x40x3mm steel angle bars welded at 1500mm centers to coping bar over chain-link fence.  | LS | 1 |   | 0 |  |
|   | **WATER KIOSK AND COLLECTION POINT CONSTRUCTION.**  |   |   |   | 0 |  |
|   |   Construct within the facility /institution neighborhood at approximate distance of max 100m from elevated tower a water kiosk with 4 talbot Talflow self-closing taps each in hollow block and concrete masonry, soak way system for wastewater collection as described in detailed in the BOQ and engineering drawing.  |   |   |   | 0 |  |
|   | Construct within the facility /institution premises at approximate distance of max 50m from elevated tower a water collection point with 4 talbot Talflow self-closing taps each in hollow block and concrete masonry, soak way system for wastewater collection as described in detailed in the BOQ and engineering drawing.  |   |   |   | 0 |  |
|   | **GRANT TOTAL** |   |   |   |   |  |
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