

GENERAL SUMMARY-MMDP 2.0 PROJECT

S/No.	Name	No. of Units	Total Amount (NGN)
1	Solar Powered Borehole @ - Ubiaja Community, Edo State.	1	
TOTAL COST OF SOLAR POWERED BOREHOLE (NGN)			

DRILLING OF SOLAR POWERED BOREHOLE @ UBIAJA COMMUNITY, ESAN SOUTH EAST EDO STATE. (DEEP WELL)
Cordinates: LAT.N 06° 39' 18" N, LONG. E 06 ° 23' 04"

S/N	DESCRIPTION	QTY	UNIT	RATE	AMOUNT (NGN)
1	ELEMENT NO: 1: Preliminaries and Drilling				
a	Conduct Geophysical survey to ensure suitable location for the borehole punching and submit report for this. <i>This report is super important, as the basis for the punching.</i>	1	lumpsum		
b	Allow for the mobilization of drilling machine and other equipment to site in preparation for drilling and installation works	1	Lumpsum		
c	Drilling through all formation for Borehole: Fruitful well	250	m		
d	Supply and install 150 mm diameter UPVC casings (12 bar)	83	Pcs		
e	Supply & installation of 150 mm diameter UPVC screen of appropriate aperture depending on grain sizes (12 bar)	83	num		
f	Supply and place river gravel/sharp sand for gravel packing.	1	trip		
g	Borehole development with air compressor till water is clear, clean and silt free and disinfect	1	Lumpsum		
h	Conduct borehole pumping test (constant discharge/recharge) for not less than 3-5 hours	1	lumpsum		
i	Conduct water quality analysis (biological, chemical and physical) and borehole disinfection from approved laboratory in the state , as will be directed by the supervising engineer.	1	Lumpsum		
j	Provide and place cement grout down to 5m from surface to protect borehole from contamination and properly seal the apron of the borehole.	1	Lumpsum		
	To Collection				
2	ELEMENT NO: 2, Submersible Machine & Solar Installation Works				
a	Supply and installation of Grundfos XQ Flex type, 3.0 KW (380 -415 KV) . Submersible pump unit or its equivalent. Complete with grundfos electrical control panels with switch gear, safety switches and all necessary electrical connections works.	1	set		
b	Supply & Install Solar monocrystalline panels (300 w), well braced with angle iron and installed for sunray.	8	set		
c	Supply & Install Support Structure and frame for panels	1	num		
d	Supply of cable wire for pump connection flex 4-core	3	set		
e	Supply and Install Marine rope as anti-drop for the pump	1	roll		
f	Supply and Install High pressure 2 " PVC riser piping (10bar) for pump installation	1	Sum		
g	Provide and install steel protective cage over the bore-hole head work. Rates includes concrete base surrounding the borehole	1	set		
h	All-in-one Solar Street Light (412mm x 1130 mm) Specification - 80 watt mono, battery capacity ; 256 wh and height of installation -6-8 m and back up time of 3 raining days. Pole diameter made of CGI 50mm thick on the top and 75 mm thick as the base, frame as a single pole. Mounting Height of 7-8 m from the ground level.- Adjustable Angle of Installation. At least 3-year Warranty.	2	No.		
	To Collection				

	ELEMENT NO: 3 Erection of Elevated Water Tank (9000 Litres @ 6000 mm height)				
a	Excavate:1200mmx1200mmx900mm for pad footings	4	num		
b	Excavate: Trench 600mmx600mm to receive PVC water distribution pipes to taps stand.	4	m		
	<u>Concrete (1:3:6-20mm agg):</u>				
c	Blinding works on pad foundations	4	num		
d	In pad foundations 1200mmx1200mm x900mm	4	num		
e	Y 16 mm foundation reinforcement and stirup	4	length		
	<u>Steel Works Fabrication for Stanchion</u>				
f	Provide base plate 500mmx500mm with 4no, 18mm dia. holes (16mm thick)	4	num		
g	Apply 3 coats of paint on all steel (prime with red oxide) finishing paint (Aluminum) for the entire stanchion construction.	1	lumpsum		
h	100x 50 mm x 5mm angle bars for brazing & rail	98	m		
i	90X60X6mm angle bars for brazing	90	m		
j	Bolts and connection/ plate accessories	1	set		
	<u>Columns:</u>				
k	150 x 100mm H- Channel or equivalent welded, braced and bolted to 16mm base plate. 4 number of 6 m height from ground level	4	num		
	<u>Beams :</u>				
l	125 x 75mm H- Channel or equivalent welded, braced and welded to the columns for strength and stability.	12	num		
m	200 x 100mm Checker plate to receive the water tanks	6	num		
n	Allow for steel ladder cage, hand rails	1	num		
	<u>Storage Tanks</u>				
o	Supply and install 3,000Litres BLACK PVC tank, complete with all accessories and connections	3	num		
	To Collection				
	4 ELEMENT NO. 4 RETICULATION AND FETCHING POINTS				
a	Allow for reticulation works from the overhead tank to 3 number fetching points in the facility measuring a combine distance of 300 m from the water source using 1.5 inches pipes and all accessories required with excavation and backfilling works. With fetching points of 12 number in total. All costed together and all associated block works.	3	No.		
b	Diito: Three number soak-away shallow pit for the surface run water from the fetching points. Using 225 mm block work and Y10 mm for the slab. With the fetching point apron.	3	num		
c	Allow for tiling the entire area of the fetching points using- Nigerian Porcelain tiles, to prevent the action of algae and water dampness to the fence block. With the laying using wall tiles of 400 x400 mm 8mm thickness.	36	m2		
	To Collection				

5	ELEMENT NO: CHAIN LINK FENCE (6000 x 9000 mm)				
	Excavation and Earthworks				
a	Allow for the excavation of pits and concrete works for CGI pipes for the chain link fence. Spacing at 3000 mm c/c	10	num		
b	Fabricate and install double leaf see through metal gate, using GI wire mesh with a padlock (saw resistant) and key welded on the pipes accordingly	1	num		
c	Allow for the supply and installation of 75 mm CGI pipes for the chain link fence installation of 2 inches top rail as support on each columns	12	num		
d	Allow for the installation of 50 mm pipes -2.8m long CGI pipe columns welded at 45 degree 3000mm intervals to receive the chain links.	5	num		
e	Allow for the installation of mesh wire, welded to the CGI pipes poles, well braced and fixed properly welded.	72	m2		
	Landscaping				
f	Allow for the supply of sharp sand and gravel for soft landscaping of the fence area of the borehole stanchion area	2	trip		
	<i>To Collection</i>				
	<i>Summary Page</i>				
1	Preliminaries and Drilling				
2	Submercible Machine & Solar Installation				
3	Stanchion & Storage Works				
4	Reticulation and Fetching Points Construction				
5	Chain-Link Fence				
	Sub -Total				
	Add Contingencies				
	GRAND TOTAL				