

BOQ - Alpha and Zeus Substations Borehole

Item	Description	Unit	Quantity	Rate	Amount
	ALPHA AND ZEUS SUBSTATIONS BOREHOLE				
	<u>SECTION NO 3</u>				
1.1	BOREHOLE POSITION				
1	GEO physical survey for borehole and provide a report - recommendation report	Item	2	R	-
	<u>New borehole</u>				
2	Full Borehole Drilling	Item	2	R	-
3	Recommend submersible pump to be used and depth of installation	Item	2	R	-
4	Testing of water, provide test results and recommend report of water treatment	Each	2	R	-
5	Supply & installation of temporary casing during drilling	Each	2	R	-
6	Borehole logging and geological profiling	Each	2	R	-
7	Airlifting/cleaning/development of borehole until clear	Item	1	R	-
8	Supply and install Borehole Pump/Wet End	Each	2	R	-
9	Supply and install recommended Motor	Each	2	R	-
10	Supply and install Control Box (dry run protection)	Each	2	R	-
11	Supply and Install HDPE Pipe	m	Rate only	R	-
12	Supply and Install Submersible cable	m	Rate only	R	-
13	Supply and install Scotch cast where required	Each	2	R	-
14	Supply and Install Baseplate	Each	2	R	-
15	Supply and install Safety rope	m	Rate only	R	-
16	Supply and install Fittings and valves water pipes	Each	2	R	-
17	supply and install Pump Protection Box	Each	2	R	-
1.2	<u>PUMP HOUSE CONSTRUCTION</u>				
18	Breaking and removing exist structure	Each	2	R	-
19	Construction of new pump house	Each	2	R	-
20	Supply and install steel door and ventilation grills	Each	2	R	-
21	Electrical installation (lights, sockets, switches)	Item	1	R	-
22	Painting and finishes in according to drawings for 2 house	Each	2	R	-
1.3	<u>BOREHOLE CASING & SCREENING</u>				
23	Supply and installation of casing	Each	2	R	-
24	Supply and installation of slotted screen	Each	2	R	-
25	Gravel packing (well-graded silica gravel)	Item	1	R	-
26	Borehole sealing (cement grout)	Item	1	R	-
1.4	<u>POWER CONNECTION & WATER CONNECTION</u>				
27	Supply and install new supply cable from existing pump house DB to the new PHDB	no	2	R	-
28	Supply and install equipped DB PHDB in the pump house (as shown in the drawing)	no	2	R	-
29	Supply and install cable from PHDB to borehole pump	no	2	R	-
30	Supply and install isolator switch at borehole for pump	no	2	R	-
31	Supply and install float switches in the head tank for control of the borehole pump	no	2	R	-
32	Commission and issue C.O.C	no	2	R	-
33	Install a trench for water pipes across the gravel road to connect the borehole to the existing tank	no	2	R	-
34	Lay and secure the water pipe along the trench	no	2	R	-
35	Connect the water pipe to the submersible pump outlet and extent to the existing location	no	2	R	-
36	Install connectors and adaptors to connect pipe to the tanks's inlet	no	2	R	-

1.5	TESTING AND COMMISSIONING				
37	Conduct thorough testing of the submersible pumps, water pipes connections, and reticulation systems.	no	2	R	-
38	Install purification reverse osmosis system at the kitchen of the office and control building	no	2	R	-
39	Check for any leaks, malfunctions, or irregularities in the system	no	2	R	-
40	Adjust and repair to ensure optimal performance	no	2	R	-
41	Water quality testing	no	2	R	-
42	Commission the intallation and provide operational instructions to the client	no	2	R	-
	<u>SUB TOTAL - CARRIED TO SUMMARY</u>			R	-