



KENYA ELECTRICITY GENERATING COMPANY PLC

KGN-TURK-002-2024

RFx: 5000014607

TENDER FOR CONSTRUCTION OF WATER SEDIMENTATION TANK IN
TURKWEL POWER STATIONS STAFF CAMP.

(WOMEN ENTERPRISES ONLY)

Date: 11th March, 2024

Addendum No.2

In accordance with the Tender for Construction of Water Sedimentation Tank in Turkwel Power Stations Staff Camp, KenGen hereby issues Addendum No.2 as follows;

1. EXTENSION OF TENDER CLOSING DATE

INITIAL TENDER CLOSING DATE	REVISED TENDER CLOSING DATE
Tender Closing Date: 12th March 2024 at 2.00 p.m.	Tender Closing Date: 19th March 2024 at 2.00 p.m.
Tender Opening Date: 12th March 2024 at 2.30 p.m.	Tender Opening Date: 19th March 2024 at 2.30 p.m.

2. REVISED BILLS OF QUANTITIES

BILL OF QUANTITIES/SCHEDULE OF RATES

BILLS OF QUANTITY FOR THE CONSTRUCTION OF SEDIMENTATION CONCRETE WATER TANK?					
ITE M NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A.	<u>ELEMENT NO 1:</u> <u>PRELIMINARY AND GENERAL</u> Provide prime cost sum for mobilization of Tools and plant equipment	ITEM			

B.	Provide prime cost sum for Survey (instrumental survey e.g. level data transfer and excavation level), environmental management and specified related protection regulations.	ITEM			
C.	Provide prime cost sum for all laboratory testing and related quality control costs as directed by KenGen representative	ITEM			
D.	Provide prime cost sum to be used for purchasing the following tools for supervision work, digital tape measure, 100metre survey measuring tape and testing concrete testing hammer (Schmidt Hammers).	ITEM			
E.	Allow for prime cost sum of ksh.80,000/= for communication	ITEM			
F.	Provide prime cost sum for safety Environment and Equipment that include safety gears for workers, Site hooding (made of timber and iron sheets), ribbons during work and concrete beacon mark (“for underground pipes”) along the berried pipes upon the completion of the work, to the entire main pipe,	ITEM			
G.	Provide prime cost sum for testing and commission of entire Water plant system include testing and commissioning of pumps and training of the staffs.	ITEM			
H.	Demobilization and site clean up	ITEM			
j.	Production of detailed as built drawings	ITEM			
TOTAL FOR ELEMENT NO 1: PRELIMINARY AND GENERAL CARRIED TO SUMMARRY					
<u>MASS EXAVATION AND FILLING FOR STRUCTURE.</u>					

A.	Site clearance of all vegetation bushes, shrubs cut down trees grab up their roots and burn the arising	SM	220		
B.	Mass Excavate from top soil and not exceeding 1.5m depth.	CM	245		
C.	Excavation of Drainage trench from the top soil and not exceeding 1.5m depth	CM	30		
D.	Extra over in hard rock (Class I) include drilling and blasting of the rock surfaces	CM	80		
E.	Return fill excavated trench materials ram to seal concrete base tank	CM	120		
F.	Cart Away surplus excavated material and remove from site.	CM	90		
G.	300mm thick Crushed stone hardcore well compacted for foundation stabilization	CM	60		
H.	50mm thick quarry dust for hardcore blinding ready to receive concrete	CM	10		
TOTAL FOR ELEMENT NO.2: MASS EXAVATION AND FILLING FOR STRUCTURE.					
<u>ELEMENT NO 3:</u>					
<u>REINFORCE CONCRETE FRAME</u>					
<u>Mass concrete class (15/20) as described, in</u>					
A.	100mm thick Plain concrete (1:3:6) under slab base.	CM	20		
B.	Ditto: but to the lower base of the drainage channel	CM.	5		
<u>Reinforce concrete(VRC) class (25/20) water proof mix made of cement rapid</u>					

	<u>strength of 42.5Mpa as described, in</u>				
D.	Concrete base slab includes edges and top walk way slab	CM	72		
E.	Ditto: but concrete walling includes baffle wall	CM	80		
F.	Ditto: but Walling and base of the drainage	CM	13		
	<u>Ribbed steel bar reinforcement to BS 4449 (All provisional) including bends, hooks, tying wire and distance blocks(H-bar);</u>				
G.	H12mm(D12) bar to ground slab, top slab and concrete wall	KG	5040		
H.	Ditto: But Concrete Walling.	KG	3850		
J.	Ditto: But H10mm(D10) bar to the drainage	KG	1105.		
	<u>Marine board formwork</u>				
K.	Sides of Slab base	SM	40		
L.	Ditto: Sides of walling slab	SM	760		
M.	Ditto: Soffit of the slab walkway	SM	70		
N.	Ditto: but side of drainage	SM	60		
O.	Provide and apply FOSROC CONPLAST WL water proofing liquid for concrete mix of concrete tank.	LTS	60		
P.	DIY option with crystalline/elastomeric water proof system or other equal approved water proofing material in cement sand (1:3) mortar in floor slab, top slab, and both internal wall and external wall surface.	SM	900		
TOTAL FOR ELEMENT NO.3: REINFORCE CONCRETE FRAME					

ELEMENT NO 4:
FIXING PIPE,LADDER AND HANDRAILS
SUPPORTS (GALVANIZED IRON PIPE
CLASS B)

A.	Supply and fix 75mm (3"inch) diameter GI pipe class B. as main Supplier pipe to coagulation and outlet pipe supply to filter tank include all necessary fittings.	LM	100
B.	Supply and fix 63mm (2.5"inch) diameter GI pipe class B,as Supply pipe to booster pump include all necessary fittings.	LM	90
C.	Supply and fix Gate valve "PEGLER" water point supplies size 75mm diameter (3") to main pipe include all necessary accessories	NO	6
D.	Ditto: But 64mm diameter (2.5" inch) to subsidiary pipe.	NO	4
E.	Supply and fix Ball valve Stainless steel, high pressure valve to water line size 75mm diameter (3") to Ring main pipe include all necessary accessories	NO	2
F.	Ditto: But 64mm diameter (2.5") to subsidiary pipes	NO	2
G.	Supply and fix GI TEE-Joint junction supply size 75mm(3") From main supply(RING MAIN) to subsidiary GI pipe include all necessary accessories	NO	2
H.	Supply and fix GI TEE-Joint REDUCER junction supply reduce from 75mm to 63mm (3" to 2.5")include all necessary accessories	NO	3
I.	Supply and fix CONCENTRIC REDUCER SOCKET, Stainless steel high pressure reduce from 75mm to 63mm(3" to 2.5") include all necessary accessories	NO	4

J.	Supply and fix ELBOW GI joint (both 90 ^o ,75 ^o ,60 ^o ,45 ^o and 30 ^o) size 75mm diameter to all sections bend of pipes in inlet and outlet pipe line include all necessary accessories	NO	8		
K.	Ditto: but 63mm diameter pipe	NO	6		
L.	Supply and fix SOCKET joint to the main supplier water pipes 75mm diameter GI joints class B and fix to form continuous pipes include all necessary accessories	NO	6		
M.	Ditto: but 63mm diameter pipe	NO	6		
N.	Supply and fix UNION joint to the main Water supply inlet and outlet pipes 75mm diameter GI joints class B and fix to form continuous pipes include all necessary accessories	NO	6		
O.	Ditto: but 63mm diameter pipe	NO	6		
P.	Supply and fix Y- STRAINER in the main pipe size 75mm diameter from the tank include all necessary accessories	NO	1		
Q.	Provide prime cost sum for ANTI-RUST spray painting of all pipes in three coat paint before laying on trench.	ITEM			
R.	Allow for prime cost sum of ksh. 60,000 to all necessary accessories pipe fitting works	ITEM			
S.	Supply and fix NON-RETURN VALVE joint to the main Water supply inlet and outlet pipes 75mm diameter GI joints class B and fix to form continuous pipes include all necessary accessories	NO	2		
T.	Supply and fix pre-stressed steel ladder and protection/safety cage and overshoot approximately 4.5metre High consisting 38 x 38 x 4mm Thick Flat Bars,75mm diameter stringers, safety hoops, handrail and landing plate include all necessary fittings	NO	1		

U.	<p>Provide and fix purpose made guard railing consist of Handrail UPPER RAIL and lower rail made of Circular hollow section (CHS 75mm diameter,4mm thick tube), inner post place at 2metre distance c/c horizontally (75mm diameter,4mm thick), balusters rails (CHS 50mm diameter 4mm thick) Guard rails welded firm in apposition with two coat red oxide primer as described (see the drawing) the balustrade is 1m high to be fix on walkway top of the tank.</p> <p><u>Touch up primer, prepare and apply one undercoat and three finishing coats of super gloss oil paint to:-</u></p>	LM	100		
V.	<p>To the surfaces of the metallic rails surfaces of guard rails include pipes</p>	SM	50.		
TOTAL FOR ELEMENT NO 4: FIXING PIPE, LADDER AND HANDRAILS.					
A.	<p><u>PUMP EQUIPMENT AND ELECTRICAL WORKS</u></p> <p>Supply and fix include testing and commission Grundfos TRANSFER/BOOSTER PUMP With the following specs:</p> <ol style="list-style-type: none"> 1. Rated power 2.2KW 2. Mains frequency 50HZ 3. Rated speed 2280-2910 RPM 4. IE efficiency class IE2 5. Insulation class (IEC 85)F <p>Enclosure class (IEC 34-5) IP 55</p>	NO	4		

B.	Supply and fix include testing and commission Grundfos DOSAGE PUMP. With the following specs: <ol style="list-style-type: none"> 1. Flow rate 0-100LPH @4 Kg/, cm squared 2. Working Temp 10 to 40 degrees centigrade. 3. Power supply 230V, 50HZ 4. Flow adjustment 0-100% (min 10%) 	NO	4		
C.	Supply and fix include installation and commission SMART 2 CONTROLLERS DAYLIFF with the following specs: <ol style="list-style-type: none"> 1. IP 55 2. SINGLE PHASE 2.2 KW 3. MIN POWER 0.37 KW, MAX POWER 2.27KW Include all necessary accessories and fittings.	NO	4		
D.	Supply and fix COMPLETE DISTRIBUTION BOARD include testing and commission with the following items” <ol style="list-style-type: none"> 1. Breaker 125A -1 pc 2. Double pole 32A -2PCS 3. Triple pole 100A -2pcs 4. Double pole 10 A -2pcs Include all necessary accessories	NO	1		
E.	Supply and fix include testing FLOOD LIGHT 300Watts LED outdoor	NO	3		
F.	Supply and fix 6mm2 cable single core with the following color: <ol style="list-style-type: none"> 1 red (one roll) 1 black (one roll) 1 yellow (one roll) 	ROLL	3		
G.	Supply and fix electrical cable 4-core copper armored cable 16mm ² size include heavy duty plastic conduit 50mm diameter include excavation and laying of the pipe and all necessary fixtures.	LM	300		
H.	Allow for prime cost sum of ksh. 300,000 to electrical works include cabling, circuit brakers switches and all necessary fittings to all pumps operating in the system.	ITEM			

G.	Allow for prime cost sum of ksh 100,000 for construction of drossing pump shade include mounting concrete base, block dwarf wall, mesh and metal frame and roofing.	ITEM			
TOTAL FOR ELEMENT NO 5: PUMP EQUIPMENT AND ELECTRICAL WORKS					
<u>ELEMENT NO 6 :</u>					
<u>FINISHES AND INSTALLATION OF TANKS</u>					
A.	32mm thick wall and slab plastering cement sand mortar (1:3) mix with waterproofing mix.	SM	900		
B.	Supply and apply 32mm TERAZZO mix to the internal and walk ways of sedimentation tank	SM	580		
C.	Supply and fix plastic water tank 10,000lts made of heavy-duty plastic	NO	2		
D.	Ditto: but 2500lts	NO	2		
E.	Ditto: but 1000lts	NO	3		
TOTAL FOR ELEMENT NO 6: FINISHES AND INATALLATION OF TANKS					
-					
SUMMARY					
1.	Preliminary And General				
2.	Mass Excavations And Filling For Structure.				
3.	Reinforce Concrete Frame				

4.	Fixing Pipe, Ladder and Handrails.	
5.	Pump Equipment And Electrical Works	
6.	Finishes and Installation Of Tanks	
	Allow Contingency Sum Of Ksh.400,000/=	
	TOTAL (EXCLUSIVE OF V.A.T).	
	V.A.T (16%).	
	GRAND TOTAL (INCLUSIVE OF V.A.T).	

NOTE: These bills of quantities are further supported by construction drawings e.g. Drawing plan,

NOTE: All quantities shall be measured and confirmed prior to the payment (No item shall be paid before measurement

Name of tenderer.....*[insert complete name of tenderer]*

Signature of tenderer..... *[signature of person signing the Tender]*

Date..... *[insert date]**

3. REVISED STAGE 2. TECHNICAL EVALUATION ON CAPACITY TO DELIVER THE CONTRACT

TR 1 & TR 2 are revised as follows:

No.	TECHNICAL SPECIFICATION	FOR THE BIDDERS.	No.
TR1	NCA	<ul style="list-style-type: none"> Valid Registration certificate (NCA 7 and above) Building Category. 	

		<ul style="list-style-type: none"> Valid Practicing license in NCA 7 and above in building category. A Site supervisor with a minimum of Five (5) years specific experience in similar works of equivalent nature and volume, with a minimum of Degree/ Higher National Diploma in Electrical Engineering or equivalent from a recognized institution. (Must be registered with EPRA attach certificate) Attach CVs & Relevant certificates. 	
TR2	Experience of personnel (CVs should be presented and provide Copies of Certificates With IDs for Relevant Employees)	<p>Project manager with degree/ Higher National Diploma in building & Construction or related field with 10 years relevant experience and above.</p> <p>A Site Agent with a minimum of Five (5) years specific experience in works or works of an equivalent nature and volume, with a minimum of Degree/ Higher National Diploma in Civil Engineering or equivalent from a recognized institution.</p>	

4. DELETION OF TECHNICAL REQUIREMENT (TR 3)

TR 3 is deleted from the Technical Evaluation Requirements as follows and shall not form part of Evaluation:

NO.	TECHNICAL SPECIFICATION	FOR THE BIDDERS.	RESPONSE (YES or NO)
TR3	Evidence of Qualifications	CVs should be presented and provide Copies of Certificates With IDs for Relevant Employees	

BIDDER'S ACKNOWLEDGEMENT OF ADDENDUM NO.2

We, the undersigned, hereby certify that the addendum is an integral part of the document and the alterations set out in the addendum has been incorporated in our tender document.

Signed.....

Tenderer.....

Date.....