

	BILL OF QUANTITIES FOR REHABILITATION & SUBSTATION BALASTING LOT-3-MT. KENYA				
ITEM NO.	DESCRIPTION	UNIT	QTY.	UNIT RATE	AMOUNT
	<u>Preliminaries-For All substation sites in the Lot</u>				
1	Allow for a temporary site office preferably portable that can be shifted to multiple site or external arrangement as per contractor convenience(Works lasting only 4 months)	ITEM	1		
2	Ditto but provide at his own risk and cost where directed on the site weatherproof lockup sheds for the safe storage and custody of material for the Works and for the use of workmen engaged thereon and shall remove such sheds and make good damaged or disrupted surfaces upon completion to the satisfaction of the Project Manager	ITEM	1		
3	Allow for clean water for the works	ITEM	1		
4	Allow for all the necessary statutory approvals for the	ITEM	1		
5	Allow for temporary sign post for the proposed works	ITEM	1		
6	The Contractor shall allow and be entirely responsible for the security of all the Works, stores, materials, plant, personnel, etc, both his own and sub-contractors' and must provide all necessary watching, lighting and other precautions as necessary to ensure security against theft, loss or damage and the protection of the public.	ITEM	1		
7	Allow for Insurance Cover for the proposed works and workers.	ITEM	1		
8	Allow for a qualified personel conservant with Kenya Power safety regulations for the entire contract period	ITEM	1		
10	Allow for supply of power or provide for an adequate Capacity Generator on site for the supply of power for use for the works.	ITEM	1		
11	Allow for demobilization and relocation to different site	ITEM	1		
	TOTAL TO SUMMARY PAGE 1				

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
	<b>OTHAYA 33/11KV SUBSTATION</b>				
	<b>SWITCHYARD (Both Live area and Gura 33kv Incomer Bay)</b>				
1	ALLOW for oversite removal of shrubs bushes ,clearing all vegetation on non live areas within the KPLC	SM	2300		
2	Excavate oversite vegetable soil average depth 150mm and cart way to Municipal Council designated dumping	SM	2300		
3	Average 0.1mm thick selected well compacted imported and approved murram fill, compacted in layers of 150mm thick using a plate compactor to receive ballast to gradual slope terminating at storm drain(ms)	CM	230		
4	Apply suitable and approved weed killer, herbicide to surfaces of backfill as per the Manufacture's written instructions and a 12 month guarantee and provide a copy to client.	SM	2300		
5	1000 gauge polythene or other equal and approved mebrane laid on compacted and treated surface with weltd laps of 200mm wide.	SM	2300		
6	Supply and spread uniformly 150mm thick (30-40mm) crushed Agregates/ ballast in switchyard. (machine crushed)	SM	1500		
8	Provide 150mm precast concrete or CAST insitu channel 200mm above switchyard level along the edges of invert drain block(ms),road edges(ms) to secure ballast from falling	LM	350		
9	Allow for 1 Nos. Shmidt hammer and 1No. Hand held GPS device .including Testing & Calibration as necessary. Provide documents to supprt calibration for client ue within project.Provisional 150,000	ITEM	1		
10	Allow for quarry chips surfacing 50mm for non live area	SM	1000		
11	Allow PM office facilitation to Client supervision representative-on communication & data-Provisional 450,000	ITEM	1		
	TOTAL TO SUMMARY PAGE 2				

ITEM NO.	DESCRIPTION	UNIT	QTY.	UNIT RATE	AMOUNT
	<b>CABLE TRENCHES &amp; DUCTS</b>				
1	Refurbish existig cable trenches by hacking 150mm tongue and grove and extension to 300mm above ground by lean concrete on the 150mm walls- including road crossing and manholes on both sides and new extension as necessary	LM	100		
2	Provide and put in place (900x300x75mm) thick precast concrete trench covers reinfoced with Y8 bars spaced at 100mm both ways with fair face finish on both side; concrete to class 20	NO	330		
	<b>STORM WATER DRAINAGE</b>				
1	Excavate on site drain trench not exceeding 1.5m deep including plunking and struting, dispoasl of soil to receive drainage channels and forming sloping sides well compacted to receive side slabs (ms)	CM	380		
2	Lay (300x450mm) precast concrete invert block drains to a suitable fall with grooved edge and tounded joints filled with cement/sand mortar (1:3) and laid on 50mm thick plain concrete bed terminating at storm oulets.	LM	150		
3	Allow for 300mm diameter culverts at the 2 gates or 300mm wide gratings and storm interceptor channels as necessary	LM	12		
4	Supply and lay on sides of sloped trench (75x230mm wide) precast concrete slabs jointed in 1:3 cement sand mortar	LM	300		
	<b>PERIMETER WALLING 198MX1.2M - 600MM AGL</b>				
	Block walling in cement sand mortar (1:3) including and reinforced with 20 SWG hoop iron in every two alternating course.including all bases excavations ,concrete works & dewatering				
1	200mm thick natural stone wall	SM	240		
2	Ditto but pile pillars	No.	85		
	TOTAL TO SUMMARY PAGE 3				

ITEM NO.	DESCRIPTION	UNIT	QTY.	UNIT RATE	AMOUNT
3	Allow class 20 concrete for strips and bases including all necessary formwork and the like	CM	45		
4	Allow for plaster/finishes,with 2coats of black bituminous paint	SM	340		
5	Allow for 350x350 x 50mm Thick precast concrete copings bedded on top of 200mm. thick walling in 1:4 Cement sand mortar	LM	250		
	<b>REFURBISHMENTS</b>				
1	Rehabilitate the existing gate house,metal gate, repair/replace all broken windows ,panes, replace dillapated wooden door,Lighting, including creating opening and gate at security sentry entrance on the new wall using the refurbished gate.Internal and external finishes as necessary by prepare and applying first grade undercoat and two coat of paints on refurbished walls to match existing colours. Repar damaged roof and fascia board and pain as necessary	Item	1		
2	ALLOW for External painting of control building to match existing including making good splash aprons and skirting with black bituminous paint	SM	150		
3	Allow for repair and reinforce existing chainlink- <b>240m long</b> and gates, posts,mesh,strands where dilapidated and realign well with new proposed half wall ,all works including either priming all metal posts and associated work to make good including re-aligning the two main metal gates and drop bolts to client satisfaction	Item	1		
	<b><u>ACCESS ROAD REPAIR (Live Switch-yard)</u></b>				
1	ALLOW for hard compacted 5m wide (250sm) gravel road on33/11kv side with average 500mm compacted layers to 95MDD including road kerbs,channels and all road paintings.finished surface with quarry chips 100mm, including extra over on provision to curved section near tranformer areas.	SM	250		
2	Allow for removal of heaps of soil/murram and carting away at the entire substation front area including opening up the blocked draingaes/culverts and leveling the area for ease of entry to the substation	Item	1		
	TOTAL TO SUMMARY PAGE 4				

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ISIOLO 33/11KV SUBSTATION					
ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
	<b>SWITCHYARD (Both Live area and Non-live )</b>				0
1	ALLOW for oversite removal of shrubs bushes ,clearing all vegetation on non live areas within the KPLC	SM	4825		
2	Excavate oversite vegetable soil average depth 150mm and cart way to Municipal Council designated dumping	SM	4825		
3	Average 0.1mm thick selected well compacted imported and approved murram fill, compacted in layers of 150mm thick using a plate compactor to receive ballast to gradual slope terminating at sorm drain(ms)	CM	485		
4	Apply suitable and approved weed killer, herbicide to surfaces of backfill as per the Manufacture's written instructions and a 12 month guarrantee and provide a copy to client.	SM	4825		
5	1000 gauge polythene or other equal and approved mebrane laid on compacted and treated surface with weltd laps of 200mm wide.	SM	4825		
6	Supply and spread uniformly 75mm thick (30-40mm) crushed Agregates/ ballast in switchyard. (machine crushed)-To top up 3 inches to existing	Tons	300		
8	Provide 150mm precast concrete or CAST insitu channel 300mm above switchyard level along the edges of invert drain block(ms),road edges(ms) to secure ballast from falling	LM	450		
9	Allow cleaning and re use of existing ballast to appointed areas in the live area/yard	SM	1500		
10	Allow 50mm Quarry chips in treated non live area	SM	2345		
11	Allow Clearing of all drain on subststion front,de-silting and cart away all soil to designated approved location	ITEM	1		
12	ALLOW for Making good finished surface,top up marum and compaction, with quarry chips 50mm, including extra over on provision to curved section near tranformer areas.-on exsisting access area and kerb restraint.	SM	400		
	TOTAL TO SUMMARY PAGE 1				

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
	<b>CABLE TRENCHES &amp; DUCTS</b>				
1	Refurbish existig cable trenches by hacking 150mm tongue and grove and extension to 300mm above ground by lean concrete on the 150mm walls- including road crossing and manholes on both sides and new extension as necessary	LM	100		
2	Provide and put in place (600x300x70mm) thick precast concrete trench covers reinfoced with Y8 bars spaced at 100mm both ways with fair face finish on both side; concrete to class 20	NO	300		
	<b>STORM WATER DRAINAGE</b>				
1	Excavate on site drain trench not exceeding 1.5m deep including plunking and struting, dispoasl of soil to receive drainage channels and forming sloping sides well compacted to receive side slabs (ms)	CM	810		
2	Lay (300x450mm) precast concrete invert block drains to a suitable fall with grooved edge and tounded joints filled with cement/sand mortar (1:3) and laid on 50mm thick plain concrete bed terminating at storm oulets and suiable concrete bump	LM	450		
3	Allow for 300mm diameter culverts at the gate or 300mm wide gratings and storm interceptor channels as necessary	LM	10		
4	Supply and lay on sides of sloped trench (75x230mm wide) precast concrete slabs jointed in 1:3 cement sand mortar	LM	900		
	<b>PERIMETER WALLING 292M long X1.2M High - 600MM AGL</b>				
	Block walling in cement sand mortar (1:3) including and reinforced with 20 SWG hoop iron in every two alternating course.including all bases excavations ,concrete works & dewatering				
1	200mm thick natural stone wall	SM	350		
2	Ditto but pile pillars	SM	95		
	TOTAL TO SUMMARY PAGE 2				

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
3	Allow class 20 concrete for strips and bases including all necessary reinforcements in D10 @ 200 centers , formwork and the like	CM	51		
4	Allow for plaster/finishes,with 2coats of black bituminous paint	SM	295		
5	Allow for 350x350 x 50mm Thick precast concrete copings bedded on top of 200mm. thick walling in 1:4 Cement sand mortar	LM	286		
	<b>REFURBISHMENTS</b>				
1	Rehabilitate the existing gate house,2nos. metal gates(Main & live area), repair/replace all broken windows ,panes,Lighting, including creating a chain-link fence around the guard house (10m long), shifting the existing door from wherer it is to the front side of the substation on the new wall using the new half wall. Internal and external finishes as necessary by prepare and applying first grade undercoat and two coat of paints on refurbished walls to match existing colours.Repair roof appropriately and pain fascia board.	Item	1		
2	ALLOW for External painting of control building to match existing including making good splash aprons and skirting with black bituminous paint	SM	150		
3	Allow for repair and reinforce existing chainlink(for the main perimeter wall and the live area - <b>Total 450m long</b> ) and gates, replace dammaged/worn out posts,mesh,strands where dilapidated and realign well with new proposed half wall. All works including either priming all metal posts and associated work to make good including re-aligning the two main metal gates and drop bolts to client satisfaction	Item	1		
4	Allow for drainage well/pit maximum 30 feed deep for water seepage (storm)including all masonry wall at 1m,RC slab cover and including diverting all drainage water from open channels	Item	1		
5	Allow PM office facilitation to Client supervision representative-on communication & data-Provisional 450,000	ITEM	1		
	TOTAL TO SUMMARY PAGE 3				



ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT RATE	AMOUNT
	<b>MURRAM ACCESS ROAD (Live area and in non-live area)</b>				
6	Supply and install 110mm diameter class 41 UPVC ducts. with and including 150mm thick concrete class 20 surround and murrum compaction underlying pipe bases as per as per engineer's instructions at various places, and terminate to equipment where necessary	LM	80		
7	Allow for 110mm diameter, 90 degrees medium duty PVC bends, Tees and the like not exceeding 50 nos. including all bulders work and connection from equipment to trenches and the like.	LOT	1		
	TOTAL TO SUMMARY PAGE 4				
	SUMMAY PAGE			AMOUNT	
	TOTAL FROM PAGE 1				
	TOTAL FROM PAGE 2				
	TOTAL FROM PAGE 3				
	TOTAL FROM PAGE 4				
	SUB-TOTAL ISIOLO 33 /11 SUBSTATION				
	SUMMARY PAGE LOT 3 MT. KENYA				
	SUB-TOTAL. OTHAYA33/11 KV SUBSTATION				
	SUB-TOTAL ISIOLO 333/11KV SUBSTATION				
	TOTAL				
	ADD 0.03% LEVY				
	ADD 16% VAT				
	TOTAL TO FORM OF TENDER LOT 3-MT KENYA				
	Amount in words:.....				
	.....				
	.....				
	Company Stamp				
	Signed: .....				
	Name: .....				
	Address: .....				
	Contract Period: ...12 MONTHS COMPLY TO DURATION .....YES.....NO.....				