BILLS OF QUANTITIES

PART A: DESIGN, SUPPLY & INSTALLATION OF NEW LV BOARD

ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL PRICE DDP VAT EXCLUSIVE	TOTAL PRICE DDP VAT INCLUSIVE
A	**GENERAL ITEMS**					
A/1	Allow for the inspection of the existing LV and meter boards, decommissioning, disconnection of the existing boards and services and handing over to the client with signed delivery note, modifications and replacement of any accessories such as cable glands and lugs etc.	Lot	1			
A/2	Allow for the preparation of all "As Built" drawings after testing and commissioning	Set	3			
A/3	The Tenderer is to describe hereunder inserting any relevant clause number, any other works, obligations or items that may be referred to in the Conditions of Contract, Specification, Drawings or Data Schedule in respect of the works for which he desires to enter a separate charge (this charge is to be entered in the Amount column). If no charge is entered hereunder, rates and amounts elsewhere in the schedule of prices shall be deemed to cover all expenses for such works, obligations or items.	Lot	1			
	SUB-TOTAL – A					

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ITEM	DESCRIPTION		UNIT	QTY	UNIT PRICE	TOTAL PRICE DDP VAT EXCLUSIVE	TOTAL PRICE DDP VAT INCLUSIVE
B	**ELECTRICAL DISTRIBUTION**						
	Supply, install, test, commission and set to work the following, at Basement: -						
B/1	**SECTION 1 – SUPPLY TX**						
	B/1.1	1250 A TPN draw out type MCCB main incomer (630KVA transformers)	No	1			
	B/1.2	415V three-phase surge diverter	No	1			
	B/1.3	1200A TPN insulated copper bus bars	No	1			
	B/1.4	1000Amp MCCB	No	1			
	B/1.5	400A TPN MCCB(adjustable in 250 – 400A range)	No	1			
	B/1.6	Set of neon/LED phase presence indicator lamps - All indicators	No	1			
	B/1.7	1No. CT Chambers	No	1			
	B/1.8	Automatic Voltage Regulator 630 kVA	No	1			
	B/1.9	1000 A 3P Isolator Switch (with Key interlock) refer GTP	No	3			
	B/1.10	Space for 1No. KPLC TPN cut-out	No	1			
	B/1.11	Space for 1 No. KPLC TPN Meter	No	1			
	B/1.12	The spaces to be provided with punched studs for installing Kenya Power's seals.	No	1			
	B/1.13	Sufficient cable ways and 20% spare space for any future additions	Lot	1			
B/2	**SECTION 2 –GENSET & ATS**						
	B/2.1	1000 A TPN MCCB	No	1			
	B/2.2	400 A TPN MCCB(adjustable in 250 – 400A range)	No	1			
	B/2.3	Supply CT three phase digital check meter for Genset	No	2			
	B/2.4	Space for 2No. check meter	No	1			
	B/2.5	The spaces to be provided with punched studs for	Lot	1			

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ITEM	DESCRIPTION		UNIT	QTY	UNIT PRICE	TOTAL PRICE DDP VAT EXCLUSIVE	TOTAL PRICE DDP VAT INCLUSIVE
		installing Kenya Power's seals.					
	B/2.6	Set of neon phase presence indicator lamps - All indicators	No	1			
B/3	**SECTION 3 – CHANGE OVER**						
	B/3.1	Automatic Change Over switch (refer GTP)	No	1			
	B/3.2	Set of neon phase presence indicator lamps - All indicators	No	1			
B/4	**SECTION 4 – LOAD & PFCU**						
	B/4.1	Set of neon phase presence indicator lamps - All indicators	No	1			
	B/4.2	Supply CT three phase digital check meter	No	5			
	B/4.3	1000Amp TPN insulated copper bus bars	No	1			
	B/4.4	250A TPN MCCB, (adjustable in 100 – 250A range) sprinkler room	No	1			
	B/4.5	250A TPN MCCB, (adjustable in 100 – 250A range) PFCU	No	1			
	B/4.6	250A TPN MCCB, (adjustable in 100 – 250A range) SPARE	No	1			
	B/4.7	200A TPN MCCB, (adjustable in 80 – 250A range)	No	1			
	B/4.8	175A TPN MCCB, (adjustable in 80 – 200A range)	No	1			
	B/4.9	150A TPN MCCB, (adjustable in 80 – 200A range)	No	1			
	B/4.10	125A TPN MCCB, (adjustable in 80 – 200A range)	No	2			
	B/4.11	100A TPN MCCB, (adjustable in 80 – 200A range)	No	1			
	B/4.12	16A TPN MCCB, (adjustable in 10 – 50A range)	No	2			
	B/4.13	150A TP change-over for (allow sprinkler board during fire emergencies)	No	1			
	B/4.14	Sufficient cable ways and supply of 1No. 250 A	No	1			

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ITEM	DESCRIPTION		UNIT	QTY	UNIT PRICE	TOTAL PRICE DDP VAT EXCLUSIVE	TOTAL PRICE DDP VAT INCLUSIVE
		MCCB and 2No. 100A MCCBs					
	B/4.15	Supply and install of 150 kVAR power factor correction capacitor bank in LV Switchboard	Lot	1			
	Tenant supply						
	B/4.16	100 A TPN MCCB, (adjustable in 80 – 100A range)	No	4			
	B/4.17	Automatic Change-over Contactor Unit	No	4			
	B/4.18	CT three phase digital check meter	No	4			
	B/4.19	Space for 4No. check meter	No	1			
	B/4.20	Space for 4No. KPLC TPN Meter	Lot	1			
B/5	Carry out load balancing on all phases.		Lot	1			
B/6	Supply and install complete all earthing requirements for the above boards including, inspection pits, rods, tapes etc. all as per the requirements of the technical specifications.		Lot	1			
B/7	Allow for the transfer of all existing circuits to the new main Switchboard. This will involve supply and installation of all necessary cables. Please study the existing arrangement first before pricing this item. **Bidders to do site inspection to ascertain cable requirement before quoting this section.**		Lot	1			
B/8	**GSM/GPRS module incorporated to send SMS alerts.** • Power monitoring (using branch circuit monitor) • Genset low fuel alerts • Operation of changeover • High Temperature alerts • Faults		Lot	1			

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ITEM	DESCRIPTION		UNIT	QTY	UNIT PRICE	TOTAL PRICE DDP VAT EXCLUSIVE	TOTAL PRICE DDP VAT INCLUSIVE
	NOTE: You will be required to carry out the configuration to achieve the above.						
B/9	**Supply and installation of Fireman Switch** As per drawing or appropriately design to ensure overall safety.			1			
B/10	**Supply of spare parts**						
	SUB-TOTAL - B						
C	**CIVIL WORKS**						
	C/1	All cables to be secured on appropriate cable trays	Lot	1			
	C/2	Supply and install Light units (60 x60 LED lights)	No.	8			
	C/3	Paint the whole area with fire rated paints and ensure no dust	Lot	1			
	C/4	Label of rooms with KPLC logo's Carry out comprehensive labelling of all the bus bars, circuit breakers etc. of the board above, indicating the areas served, outgoing cable sizes etc.	Lot	1			
	C/5	Supply and install Evacuations fans/units 2 the LV Switch room Units auto control with temperature sensors i.e. temp >30°C	Lot	1			
	SUB-TOTAL – C						

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ITEM	DESCRIPTION		UNIT	QTY	UNIT PRICE	TOTAL PRICE DDP VAT EXCLUSIVE	TOTAL PRICE DDP VAT INCLUSIVE
D	**TRAINING & TOOLS**						
	D/1	Training to certification on PLC (of type Centurion Systems, AFRIALTI courses)	No	6			
	D/2	Laptop	No	1			
	D/3	Toolbox complete with assorted tools	No	3			
	SUB-TOTAL - D						
PART A	**TOTAL SUPPLY & INSTALLATION OF NEW LV BOARD (A, B, C, D)**						

NOTE: Refer to item No **A/3**
And note that the successful bidder will be required to provide all necessary cables to be utilized in the project i.e. incoming cables from the transformer and supply cable to the AVR.

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PART B: SUPPLY & INSTALLATION OF RISER BOARDS & ACCESSORIES

ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL PRICE DDP VAT INCLUSIVE
E	**GENERAL ITEMS**				
E/1	Allow for the inspection of the Riser LV and meter boards, decommissioning, disconnection of the existing boards and services and handing over to the client with signed delivery note, modifications and replacement of any accessories such as cable glands and lugs etc.	Lot	1		
E/2	Allow for the preparation of all "As Built – one line diagrams" drawings after testing and commissioning	Set	2		
E/3	The Tenderer is to describe hereunder inserting any relevant clause number, any other works, obligations or items that may be referred to in the Conditions of Contract, Specification, Drawings or Data Schedule in respect of the works for which he desires to enter a separate charge (this charge is to be entered in the Amount column). If no charge is entered hereunder, rates and amounts elsewhere in the schedule of prices shall be deemed to cover all expenses for such works, obligations or items.	Lot	1		
	SUB-TOTAL – E				
F	**RISERS DISTRIBUTION BOARDS REFURBISHMENT**				
F/1	Decommissioning of existing Distribution boards, Fuses and tiding the risers, Painting	Lot	1		
F/2	Tracing of line and ensuring retouch of existing circuits and labelling to detail.	Lot	1		
F/3	Making good all electrical wiring and electrical fittings, • Labelling and marking of all circuits • Replacement of cable/up ratings	Lot	1		

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ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL PRICE DDP VAT INCLUSIVE
	• Cable trays and making good of risers NOTE: As pertains to riser boards, the successful bidder will be required to: i. Provide new supply cables to each floor as per the Single line diagram. ii. Carry out painting in the riser boards. iii. Provide cable tray covers along the risers.				
F/4	**Supply and installation of DBs to floors**				
F/4.1	16 way TPN DBs 160A 4P Isolators at 415Vac, 50Hz; each comprising of:	Qty	4		
	32A 1P MCBs	Lot	1		
	10A 1P MCBs	Lot	1		
F/4.2	8-way TPN DBs 160A 4P Isolators at 415Vac, 50Hz; each comprising of:	Qty	2		
	32A 1P MCBs	Lot	1		
	10A 1P MCBs	Lot	1		
F/5	**Allow for (provisional) 2.5mm sq cable (single core PVC/SWA/PVC) to be used on the risers.** Bidders to do site inspection to ascertain cable requirement before quoting this section.	Lot	1		
	SUB-TOTAL – F				
PART B	**TOTAL RISER BOARDS & ACCESSORIES (E, F)**				
	GRAND TOTAL FOR NEW LV BOARD, RISER BOARDS & ACCESSORIES (A, B, C, D E, F)				

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