STANDBY GENERATOR SET INSTALLATION BILLS OF QUANTITIES

PREAMBLE

These Bills of Quantities form part of the Contract Documents, together with the drawings and are to be read in conjunction therewith. It shall be completed and returned upon tender closing date.

A price or rate shall be entered against each item in the Bills of Quantities, whether quantities are stated or not. Items which are not priced shall be considered as covered by other prices or rates in this Bills of Quantities.

Provisional cost amounts shall be treated as stated in the Conditions of Contract and in the Bills of Quantities.

The Quantities in the Bills of Quantities are to be regarded as approximate and not necessarily the actual quantities of work to be done.

The unit rates entered into the Bills of Quantities shall include the cost of all smaller items of installation according to the requirements of the Specification and generally required for the Electrical and Associated Installations.

The exact net quantity of measured work shall be taken as the basis for payment to the Contractor. The Contractor must allow in the rates for all cutting and waste.

No alteration, additions or erasure may be made to the text of the Bills. If such an alteration, addition or erasure is made, it shall not be acknowledged and the original wording of the text shall apply.

The unit rate entered under the heading "unit rate" shall be taken as the correct rate tendered for the execution of the Work. Should there be any difference between the grand total of the Bills rates and the Tender prices, the Electrical Engineer shall have the right to make adjustments to individual prices as may be deemed necessary in order to reconcile the grand total in the Bills of Quantities with the Tender Price In such a case the contractor will be consulted, but failing to reach an agreement between the two parties, the decision of the Electrical shall be final and binding.

General directions and descriptions of work and material given in the Specification are not necessarily repeated in the Bills of Quantities.

The Contractor shall refer to the Specification for this information.

The final Contract Value for the completed contract shall be calculated from the actual measured

material used and work done priced against the unit rate tendered for the various items in the Bills of Quantities.

All prices and tariffs completed herein shall be net, VAT shall be added to the sub total to give an inclusive Final Contract Value.

STANDBY SET ELECTRICAL INSTALLATIONS

ITEM		No	QTY	RATE	AMOUNT
	PREAMBLES Refer to attached Specification for the Standby Set installations				
1	GUARANTEE AND MAINTENANCE Guarantee and maintenance for the complete installation of the Standby Set Installation including fittings, materials and workmanship for a period of TWELVE MONTHS after first delivery of the plant.	Item			
2	TESTING & COMMISSIONING Allow for testing and commissioning the whole of the Standby Set Installation as laid down in the specification, for retesting as may be required after making good of all defective work to the entire satisfaction of the Department Engineer and Hospital Personnel	Item			
3	AS BUILT DRAWINGS Provision for the drawings showing all site cable routes, conduit routes, drawboxes and positions of outlets, etc.	Item			
4	CERTIFICATE OF COMPLIANCE Provision for the Certificate of Compliance to be issued on completion by the Standby Seet Installer	Item			
5	SITE ESTABLISHMENT Allow for site establishment costs	Item			
6	OPERATING AND MAINTENANCE manuals are to be provided Copies of the operating and maintenance manuals are to be provided and basic instruc- instructions on emergency procedures are to be given to appointed members of staff	No	4		
7	TRAINING of HOSPITAL STAFF Allow for TRAINING of HOSPITAL STAFF as per TRAINING REQUIREMENTS SPECIFICATION	Item			

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	STANDBY SET ELECTRICAL INSTALLATIONS			_	
ITEM	DESCRIPTION	No	QTY	RATE	AMOUNT
1	THE NEW 630 KVA STANDBY SET				
	Allow to Supply and Install a NEW 630 kVA				
	3-phase at 0,8 power factor, DIESEL DRIVEN				
	STANDBY GENERATOR SET consisting of the				
	Engine a Volvo Model TAD1642GE, and Marelli				
	Alternator (Both rated in excess of 630kVA)				
	or equal and approved, complete with all				
	ancillary equipment and including the				
	CONTROL PANEL as per detail specification	No	1		
•	AIEW DAY TANK				
2	NEW DAY TANK				
	The New Standby Set to include a 1000 litre				
	DAY TANK in the base of the Unit				
	The Day Tank provided with two 90° Isolating				
	Ball Valves (for both the supply and feeder pipe				
	work runs), a Sight Glass, Level Control & Ball Valve (to refill the Day Tank from the				
	,				
	respective Bulk Tank), and to connect pipe work runs to Bulk Storage tank				
	and Standby Diesel Set, as per detail spec.	No	1		
	and Standby Dieser Set, as per detail spec.				
3	THE NEW CONTROL PANEL				
	Allow to Supply and Install a New Stanby Set				
	Control Panel, in the position presently as				
	indicated. Refer to Specification for detail.	No	1		
4	THE NEW SOUND SILENCERS				
4	Allowance for revision of Sound Silences to				
	Supply and Install Sound Silencers for both				
	the Outlet and Intake Air Grilles as per detail				
	specification.				
	The Sound Silencers are to be revised to allow				
	for the attenuation levels of the New Standby Set				
	Noted that allowance must be made to remove				
	the existing before installation of the New				
	Silences. Hence Removal and Installation	Item			
5	NEW INTAKE SOUND SILENCER				
	Allow to Supply and Install a new Sound				
	Silencer to match frame work size of new				
	90° Cowl and new Cooling Air Grille,				
	provisional size to be 1600x1500x1500mm				
	as per detail specification.	No	1		
6	OUTLET SOUND SILENCER				
	Outlet Sound Silencer provisional size shall				
	be 1600x1500x1500mm and is to match the				
	size of the intake grille and radiator	No	1		

STANDBY SET ELECTRICAL INSTALLATIONS

ITEM	DESCRIPTION	No	QTY	RATE	AMOUNT
1	THE EXISTING STANDBY SET Allow to disconnect and remove the existing Standby Set and Control Panel and accessories including existing battery sets and transport to a Hospital in Durban, The Hospital to be nominated by the DOH Refer to detail specification.	Item			
2	NEW INLET COOLING AIR GRILLE Allow to supply and install a new Inlet Cooling Air Grille for the new 630 kVA Standby Set - large enough for the Standby Set to be installed and removed via the opening - consisting of outer door frame and removable external louvre section. All parts to be fully hot dipped double galvanised after manufacture. As per detail specification.	No	1		
3	EMERGENCY STANDBY GENERATOR Allowance must be made to ensure that emergency power is available during the period of the Installation when the standby set alterations are being carried out and until completion and handover of the standby set installation	Item			
4	NEW DUCT SECTION Allow to Supply and Install a NEW Fabricated Galvanised Steel DUCT SECTION to connect RADIATOR to the existing 90° Exhaust Air Grill	No	1		
5	IN LINE COWL GRILL Allow to remove the existing In Line Cowl Grill and dipose of accordingly	Item			

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STANDBY SET ELECTRICAL INSTALLATIONS

ITEM	DESCRIPTION	No	QTY	RATE	AMOUNT
1	NEW COOLING AIR GRILLE Allow to Supply and Install a new In Line Cooling Air Grille approx. 650mm in depth in order to close off the entire opening of the duct. To be manufactured in size to fit the diamensions of the New Sound Silencer. The entire Grille to be double dipped galvanised after manufacture, all as per detail specification	No	1		
2	EXISTING EXHAUST PIPE RUN Allow to adjust as required and reconnect to the existing West Standby Set Exhaust Pipe Run Include as an intergral part of the installation to ensure the free flow of exhaust air. NOTE: The new and existing EXHAUST SYSTEMS are all COASTAL GRADE STAINLESS STEEL	Item			
3	LEVEL CONTROLS Allow to Supply and Install the Supply & Level Control Cables and Connections for the supply and control wiring of the Day Tank.	No	1		
4	PIPE CONNECTION TO DAY TANK Allow to Supply and Install 25mm dia. Pipe connection to Night Day tank.	m	12		

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STANDBY SET ELECTRICAL INSTALLATIONS

ITEM	DESCRIPTION	No	QTY	RATE	AMOUNT
	MAIN POWER SUPPLY CABLES Allow to Supply and Install the Main Power Supply Cables between the New Generator Set and New Main Generator Set Control Panel, and connecting of cables for supply to the New Main Low Tension Switchboard.				
1	240mm² 4-core PVC SWA PVC cable (3 runs in parallel)	m	30		
2	TERMINATIONS Allow to Supply and Install terminations for cables below as follows Standby Set Cables - 3 x 240mm² 4-core PVC				
	SWA PVC Cables	No	6		
3	Supply Cables to New Low Tension Switchboard - 3 x 240mm² 4-core PVC SWA PVC Cables	No	3		
4	MAIN EARTH CONDUCTORS Supply & Install 240mm² single core insulated earth conductor lugged and connected on ends:Standby Set, Control Panel and to Main LT Switchboard	m	20		
5	POWER STATUS CONTROL CABLES Power Status Signals for the supply to the Main Psychiatric Ward Fire Panel installed as specified under the Electrical Installation specification. A 10 Amp single pole 5 kA Circuit Breaker is to be installed into the Standby Set Control Panel for power status signal	No	1		
6	Existing Power Signals Allow to supply and install Switchgear and connections for the existing control Panels as requred for the Existing West Block	Item			

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STANDBY SET INSTALLATION SECTION 2

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