

PART C2.2: BILL OF QUANTITIES

BILL No. 1 – PRELIMINARY AND GENERAL

Item	Description	Unit	Quantity	Rate	Amount
1.1	Preliminary and General Items				
1.1	Insurances				
(a)	Contract Works Insurance	Sum	1		
(b)	Public Liability Insurance	Sum	1		
(c)	Statutory Insurances (Compensation for Occupational Injuries and Diseases Act, UIF, Common Law Liability)	Sum	1		
1.2	Fixed Charge Items				
(a)	Contractual Requirements (excl. Insurances)	Sum	1		
(b)	Site Establishment	Sum	1		
(c)	Removal of Site Establishment	Sum	1		
(d)	Risk Analysis and Safety Plan to comply with Health and Safety Specification	Sum	1		
(e)	Quality Assurance Obligations	Sum	1		
(f)	Other fixed charge obligations	Sum	1		
(g)	Complying with ACAS's security and permit requirements.		1		
(h)	Attendance of site meeting	Sum			
1.3	Time Related Items				
(a)	Contractual Requirements (excl. Insurances)	months	.....	
(b)	Maintaining Site	months	.....	
(c)	Contractor's Supervision	months	.....	
(d)	Occupational Health and Safety Obligations	months	.....	
(e)	Operate and maintain Quality Control and Quality Assurance System	months	.....	
(f)		months	.....	
(g)		months	.....	
1.4	General				
(a)	Compilation of detail manuals, as-built drawings and documentation as specified	Sum	1		
(b)	Training	Sum	1		
	TOTAL (Carry to Summary)				

BILL No. 2 – EMERGENCY GENERATORS

Bill 2: Emergency Generators					
Item	Description	Unit	Qty	Rate	Amount
2.1	Supply of the Generator Sets				
2.1.1	Engine complete with cooling system	No.	2		
2.1.2	Alternator	No.	2		
2.1.3	Mechanical mounting	No.	2		
2.1.4	Exhaust system including cladding as specified	No.	2		
2.1.5	Starting battery sets, battery stands & cables	No.	2		
2.1.6	Ventilation ducting at radiator	Sets	2		
2.1.7	Set mounted control panel including synchronization controllers.	Sum	2		
2.1.8	Sound attenuators in radiator duct	Sets	2		
2.1.9	Integral fuel tank (300ℓ) with all pumps, valves, pipes, control gear, etc. as specified	No.	2		
2.1.10	Spares, Tools and Equipment	Sets	2		
2.1.11	Louvres: Inlet	No.	2		
2.1.12	Louvres: Outlet	No.	2		
2.1.13	Ultrasonic level detector for bulk diesel tank	No.	1		
2.1.14	Solenoid fuel valve	No.	2		
2.1.15	New distribution board including motorized circuit breakers.	No.	1		
2.2	Delivery and Commissioning				
2.2.1	Transport	Sum	1		
2.2.2	Off-loading & rigging	Sum	1		
CARRIED FORWARD					
Bill 2: Emergency Generators (continued)					
Item	Description	Unit	Qty	Rate	Amount
BROUGHT FORWARD					
2.2.4	Installation	Sum	1		
2.2.5	Commissioning	Sum	1		
2.3	Other Items				
2.3.1	Writing top	No.	1		
2.3.2	Portable notices and signage	Sets	2		

2.3.3	Fire extinguishers	No.	3		
2.3.4	First aid boxes	No.	2		
2.3.5	Official notices and signage	Sets	3		
2.3.6	Manuals	Sum	1		
2.3.7	Training	Sum	1		
2.3.8	Diesel in bulk tank at coastal rate date of site meeting	ℓ	1200		
2.3.9	Emergency lights connected to the battery of the generator set	Sum			
2.4	Fuel management system complete with pump, piping, drip trays and controls	No.	1		
2.5	Removal and safe storage of the existing generators including water proof covers	No.	2		
2.6	Removal and disposal of all other items	Sum	1		
2.7	Approvals, Inspection and tests				
2.7.1	Contractor's drawings and product information : Prepare and submit for approval prior to commencement of manufacture and installation	Sum	1		
CARRIED FORWARD					
Bill 2: Emergency Generators (continued)					
Item	Description	Unit	Qty	Rate	Amount
BROUGHT FORWARD					
2.7.2	Inspection and Testing of the generator sets and control panel at the premises of the manufacturer by the Engineer and the Client. Including transport, Engineer's travelling time (R900 per hour) and accommodation for the Engineer if not situated within the NMBM.	Sum	1		
2.7.3	Additional tests as required by the Engineer				
(a)	Provisional amount for the tests	Sum	1		R25,000.00
(b)	Mark-up and profit on item 2.7.3 (a)	%			
TOTAL (Carry to Summary)					

BILL No. 3 – LV RETICULATION

Bill No 3: LV RETICULATION					
Item	Description	Unit	Qty	Rate	Amount
3.1	LV Cables between the alternator and the new distribution board. Tenderers shall allow for single core copper cables with copper conductors and XLPE insulation on heavy duty galvanised mesh wire baskets. The current capacity of the cables shall not be less than 1000A in an ambient temperature of 45 A :				
	Set 1 (distance)	m	35		
	Set 2 (distance)	m	35		
	Earth Conductor (70mm ²)	m	70		
	Cable basket	m	70		
	Supports for cable basket	Sum	1		
	Cable terminations	Sum	1		
3.2	Termination of existing feeder cables onto the new distribution board	Sum	1		
TOTAL (Carry to Summary)					

BILL No. 4 – PROVISIONAL SUMS

Bill No 4: Provisional Sums and Day Rates					
Item	Description	Unit	Qty	Rate	Amount
4.1	Provisional Sums				
4.1.1	Provisional sum for alterations to existing infrastructure on site including builders work.	sum	1	-	R 350,000.00
4.1.2	Profit and attendance on item 4.1.1	%	.....	
4.1.3	Provisional sum for decommissioning of existing underground bulk storage tank and installation of new above ground storage tank.	Sum	1	-	R 600,000.00
4.1.4	Profit and attendance on item 4.1.3	%	.....	
4.1.5	Provisional sum for the interfacing to the existing SCADA system.	Sum	1	-	R 90,000.00
4.1.6	Profit and attendance on item 4.1.5	%	.....	
4.1.7	Provisional sum for the interfacing to the Photovoltaic system.	Sum	1	-	R 30,000.00
4.1.8	Profit and attendance on item 4.1.7	%	.....	

4.1.9	Provisional sum for design refinement.	Sum	1	-	R 100,000.00
4.1.10	Profit and attendance on item 4.1.9	%	.....	
4.1.11	Provisional sum for interfacing to fire suppression system	Sum	1	-	R100,000.00
4.1.12	Profit and attendance on item 4.1.11	%	.....	
	CARRIED FORWARD				

Bill No 4: Provisional Sums and Day Rates (continued)					
Item	Description	Unit	Qty	Rate	Amount
	BROUGHT FORWARD				
4.2	Dayworks				
4.2.1	Foreman				
	Normal Time	man hours	15		
	Over Time	man hours	15		
	Sunday Time	man hours	15		
4.2.2	Qualified Artisan				
	Normal Time	man hours	15		
	Over Time	man hours	15		
	Sunday Time	man hours	15		
4.2.3	Labourer				
	Normal Time	man hours	30		
	Over Time	man hours	30		
	Sunday Time	man hours	30		
4.2.4	Engineer				
	Normal Time	man hours	5		
	Over Time	man hours	5		
	Sunday Time	man hours	5		
4.2.5	Transport				
	Up to 5t	km	2500		
	Bakkie 1t	km	2500		

Section	Description	Amount
1	Preliminary & General Items	R _____
2	Emergency Generator Set	R _____
3	LV Reticulation	R _____
4	Provisional Sums	R _____
	SUB TOTAL A	R _____
	Add 10% for contingencies on subtotal A	R _____
	SUB TOTAL B	R _____
	Add 15% VAT on subtotal B	R _____
	CONTRACT PRICE CARRIED FORWARD TO FORM OF OFFER	R _____

	Car	km	500		
	Note: Dayworks rates will only be considered for additional work instructed by the Engineer not related to any aspect of the Specified Scope of Works				
TOTAL (Carry to Summary)					

FINAL SUMMARY