

**SANSA MATJIESFONTEIN  
ELECTRICAL INSTALLATION - STANDBY GENERATOR INSTALLATION  
PART C1.2.4  
BILL OF QUANTITIES**

ITEM	DESCRIPTION		UNIT	QTY	RATE	TOTAL
1.0	<b>BILL NO. 1</b>					
	<b><u>PRELIMINARIES AND GENERAL</u></b>					
	<b><u>CONDITIONS OF CONTRACT</u></b>					
	Provisional and General items in order to comply with the Conditions of Contract associated with the works contained in this document.					
1.1	Test, Commission and prepare As-Built drawings		Item	1	R	-
1.2	Laminated drawings for all Plant rooms and Network rooms		Item	1	R	-
1.3	Insurances		Item	1	R	-
1.4	Mobilisation		Item	1	R	-
1.5	Project Management		Item	1	R	-
1.6	Site Tools and Instrumentation		Item	1	R	-
1.7	Maintenance and Guarantee for 12 months after practical completion		Item	1	R	-
1.8	Site Establishment		Item	1	R	-
1.9	Site Running Costs		Item	1	R	-
1.10	Demobilisation		Item	1	R	-
1.11	Vehicles		Item	1	R	-
1.12	Allowance to fix price for the duration of the contract		Sum	1	R	-
	<i>The rates in the remainder of the Bill of Quantities (BOQ) must exclude these costs, as they are to be priced under this item.</i>					
1.13	Remote Location Overhead Costs		Sum	1	R	-
	<i>Provide a lump sum cost for all additional expenses associated with working at the remote project site, located approximately 230 km from Cape Town and 5 km south of Matjiesfontein. This includes transportation of materials and personnel, accommodation, site establishment, and any other costs related to the remote nature of the location. The rates in the remainder of the Bill of Quantities (BOQ) must exclude these costs, as they are to be priced under this item.</i>					
1.14	<b><u>OTHER ITEMS</u></b>					
	Any other items tenderers may wish to add of a preliminary and general nature not specifically mentioned above in order to comply with the specification and contract conditions. Please add below:					
1.14.1			Item	1	R	-
1.14.2			Item	1	R	-
1.14.3			Item	1	R	-
	<b>TOTAL - BILL NO 1 CARRIED TO FINAL SUMMARY PAGE</b>				R	-

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ITEM	DESCRIPTION	UNIT	QTY	RATE	TOTAL
<b>2.0</b>	<b>BILL NO. 2</b>				
	<b>GENERATOR INSTALLATION</b>				
2.1.1	630KVA Prime rated generator	Supply	2	R	-
	<i>Close Coupled diesel driven generator in weather proof mild steel powder coated canopy inclusive of sound attenuation as per the specification to achieve 70 dB @ 7m. 314 Stainless steel exhaust section outside canopy. Lockable doors. Light inside the canopy.</i>	Install	2	R	-
2.1.1.1	Extra over cost for 3CR12 Canopy.	Supply	2	R	-
2.1.2	Set mounted circuit breaker control panel with <b>motorised</b> alternator protection circuit breaker and control equipment.	Supply	2	R	-
	<i>Controls to be allowed to achieve the functionality as required by the specification. Allowance is to be made for an appropriate size enclosure for the termination of the applicables as specified in the cable schedule</i>	Install	2	R	-
2.1.3	Rigging as required	Supply	2	R	-
	<i>Rigging to place all equipment into position as per the drawing SMFN-CAI-EE-C-DR-002_01 - Generator Building Equipment &amp; Diesel Reticulation Layout</i>				
2.1.4	Control Wiring and Equipment	Supply	2	R	-
	<i>Control equipment as required in the MLV to achieve the functionality required as per the specification. Remote Monitoring, BMS Communications Interface, Load test switch, Audible alarm and flashing beacon.</i>	Install	2	R	-
2.1.5	Commissioning of Generators	Supply	2	R	-
	<i>Complete to achieve functionality as required by the technical specification.</i>				
2.1.6	Extended Maintenance of twenty-four[24] months on Generators	Supply	2	R	-
2.1.7	Extended Guarantee for twenty-four[24] months	Supply	2	R	-
2.1.8	Main MLV panel - Refer to drawings	Supply	0		
	<i>SMFN-CAI-EE-XX-DR-005_01 - MLV Single Line Diagram</i>	Install	0		
2.1.9	Generator Sync Panel A	Supply	1	R	-
	<i>SMFN-CAI-EE-XX-DR-005_22 - GSP-A Generator Sync Panel A</i>	Install	1	R	-
2.1.10	Generator Sync Panel A	Supply	1	R	-
	<i>SMFN-CAI-EE-XX-DR-005_23 - GSP-A Generator Sync Panel B</i>	Install	1	R	-
2.1.1	Other items the tenderer may consider necessary to complete the installation				
2.1.11.1		Supply	1	R	-
		Install	1	R	-
2.1.11.2		Supply	1	R	-
		Install	1	R	-
<b>TOTAL - BILL NO 2 CARRIED TO FINAL SUMMARY PAGE</b>					<b>R -</b>

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ITEM	DESCRIPTION		UNIT	QTY	RATE	TOTAL
3.0	<b>BILL NO. 3</b>					
	<b>DIESEL FUEL SUPPLY SYSTEM AND BULK STORAGE</b>					
3.1	1000L base/belly tank	Supply	Each	2	R	-
	<i>Double skin base tank per generator</i>	Install	Each	2	R	-
3.2	Fuel pipes and hoses	Supply	Sum	1	R	-
	<i>All pipes, valves, sensors, solenoids, etc to achieve the required system performance as per the specification.</i>	Install	Sum	1	R	-
3.3	Filling Kiosk	Supply	Each	1	R	-
	<i>Filling kiosk with bulk tank level gauges, low and high level alarms, pump start/stop controls, selector switches, etc</i>	Install	Each	1	R	-
3.4	Diesel Filler Connection at filling kiosk	Supply	Each	4	R	-
	<i>Filling point with non return nozzle for bowser connection inclusive of all pipework from filling kiosk to bulk tank.</i>	Install	Each	4	R	-
3.5	Sump Drain Connection at filling kiosk	Supply	Each	4	R	-
	<i>Connection for pumping out diesel from bulk diesel storage sump inclusive of all pipework. Sump drain to terminate at the bottom of a sump pit and on the outside the bund wall.</i>	Install	Each	4	R	-
3.6	Bulk Diesel Storage - 23000L	Supply	Each	4	R	-
	<i>Above Ground bulk tank as per the specification</i>	Install	Each	4	R	-
3.7	Pumps and auxiliary equipment for fuel system	Supply	Sum	1	R	-
	<i>All pumps, valves, level switches, and pipe connection not already allowed.</i>	Install	Sum	1	R	-
3.8	Duvalco Diesel Polishing/Filtering Sytem or equal	Supply	Each	4	R	-
	<i>System per bulk tank inclusive of all components required.</i>	Install	Each	4	R	-
3.9	Other items not included above that are not of a preliminary nature and have not been covered in any other sections of the tender document. Note : Items included under this section shall be of a technical nature and be applicable to the context of this section					
3.9.1		Supply	Each	1	R	-
		Install	Each	1	R	-
3.9.2		Supply	Each	1	R	-
		Install	Each	1	R	-
	<b>TOTAL - BILL NO 3 CARRIED TO FINAL SUMMARY PAGE</b>				<b>R</b>	<b>-</b>

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ITEM	DESCRIPTION		UNIT	QTY	RATE	TOTAL
4.0	<b>BILL NO. 4</b>					
	<b>REMOTE MONITORING</b>					
4.1	Monitoring for Generators	Supply	Each	2	R	-
	<i>Allowance for all communication equipment to allow for the generator parameters and alarms to be communicated to a web interface. Sim cards to be procured by the client.</i>	Install	Each	2	R	-
4.2	Other items not included above that are not of a preliminary nature and have not been covered in any other sections of the tender document. Note : Items included under this section shall be of a technical nature and be applicable to the context of this section					
4.2.1		Supply	Each	1	R	-
		Install	Each	1	R	-
4.2.1		Supply	Each	1	R	-
		Install	Each	1	R	-
	<b>TOTAL - BILL NO 4 CARRIED TO FINAL SUMMARY PAGE</b>				<b>R</b>	<b>-</b>
5.0	<b>BILL NO. 5</b>					
	<b>MISCELLANEOUS</b>					
5.1	Signage for plantroom as per specification	Supply	Each	2	R	-
	<i>"Automatic start-up" signage on each generator</i>	Install	Each	2	R	-
5.2	Signage for filling kiosk as per specification	Supply	Sum	1	R	-
	<i>Bulk tank size notification</i>	Install	Sum	1	R	-
	<i>Identification of filling nozzle</i>					
	<i>Identification of sump drain</i>					
	<i>Identification of earth bar</i>					
5.3	Signage for Bulk Storage as per specification	Supply	Sum	1	R	-
	<i>Tank Number Identification</i>	Install	Sum	1	R	-
	<i>Identification of earth bar</i>					
	<i>"No Smoking"</i>					
	<i>"No Open Flames"</i>					
5.4	Provision of hearing protection	Supply	Sum	1	R	-
	<i>Supply and install a wall mounted rack housing four (2) off SABS approved ear muffs</i>	Install	Sum	1	R	-
	<b>TOTAL - BILL NO 5 CARRIED TO FINAL SUMMARY PAGE</b>				<b>R</b>	<b>-</b>

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ITEM	DESCRIPTION		UNIT	QTY	RATE	TOTAL
6.0	<b>BILL NO. 6</b>					
	<b>GENERAL</b>					
6.1	Protection of equipment during construction	Supply	No	1	R	-
		Install	No	1	R	-
6.2	Other items not included above that are not of a preliminary nature and have not been covered in any other sections of the tender document. Note : Items included under this section shall be of a technical nature and be applicable to the context of this section	Supply	No	1	R	-
		Install	No	1	R	-
6.3	Council electrical department, pollution and noise control approvals	Supply	No	1	R	-
		Install	No	1	R	-
6.4	Allowance for air travel, rental car and accommodation for one night for the engineer to witness the FAT. (If the FAT is in Cape Town this is not applicable)	Supply	No	1	R	-
		Install	No	1	R	-
	<b>TOTAL - BILL NO 6 CARRIED TO FINAL SUMMARY PAGE</b>				<b>R</b>	<b>-</b>
7.0	<b>BILL NO. 7</b>					
	<b>ADDITIONAL ITEMS</b>					
7.1	Other items the tenderer may consider necessary to complete the installation					
7.1.1		Supply	Each	1	R	-
		Install	Each	1	R	-
7.1.2		Supply	Each	1	R	-
		Install	Each	1	R	-
7.1.3		Supply	Each	1	R	-
		Install	Each	1	R	-
	<b>TOTAL - BILL NO 7 CARRIED TO FINAL SUMMARY PAGE</b>				<b>R</b>	<b>-</b>

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ITEM	DESCRIPTION		UNIT	QTY	RATE	TOTAL
	<b>FINAL SUMMARY PAGE</b>					
	<b>BILL NO. 1</b>					
	PRELIMINARIES AND GENERAL				R	-
	<b>BILL NO. 2</b>					
	GENERATOR INSTALLATION				R	-
	<b>BILL NO. 3</b>					
	DIESEL FUEL SUPPLY SYSTEM AND BULK STORAGE				R	-
	<b>BILL NO. 4</b>					
	REMOTE MONITORING				R	-
	<b>BILL NO. 5</b>					
	MISCELLANEOUS				R	-
	<b>BILL NO. 6</b>					
	GENERAL				R	-
	<b>BILL NO. 7</b>					
	ADDITIONAL ITEMS				R	-
	Any other items tenderers may wish to add of a Technical nature not specifically mentioned above in order to comply with the specification and contract conditions. Please add below:					
	<b>TOTAL CARRIED TO BILL NO. 16 ELECTRICAL INSTALLATION - STANDBY GENERATOR INSTALLATIONPART C1.2.4</b>				R	-