

## PROJECT: CEMS REPLACEMENT PROJECT AT KUSILE POWER STATION (ONCE OFF)

ITEM NO	DESCRIPTION	UNIT	NO	QTY	RATE	AMOUNT
<b>ITEM 1</b>						
<b>1</b>	<b>PRELIMINARIES AND GENERALS</b>					
<b>1.1.</b>	<b>Fixed Costs</b>					
1.1.1	Establishment of Facilities on the Site ( <i>Once-Off Delivery of Containers</i> )	Once Off	1	1		
1.1.2	De-establishment of Facilities on the Site ( <i>Once-Off Removal of Containers</i> )	Once Off	1	1		
1.1.3	Scaffolding Establishment	Once Off	1	1		
1.1.4	Scaffolding De-establishment	Once Off	1	1		
1.1.5	Plumber Subcontractor Establishment	Once Off	1	1		
1.1.6	Plumber Subcontractor De-establishment	Once Off	1	1		
1.1.7	CFK Subcontractor Establishment	Once Off	1	1		
1.1.8	CFK Subcontractor De-establishment	Once Off	1	1		
1.1.9	NGR Subcontractor Establishment	Once Off	1	1		
1.1.10	NGR Subcontractor De-establishment	Once Off	1	1		
1.1.11	Entry Medicals	Once Off	1	15		
1.1.12	Exit Medicals	Once Off	1	15		
1.1.13	PPE (Once Off)	Once Off	1	15		
1.1.14	Security / Police Clearance certification	Once Off	1	15		
1.1.15	Safety File	Once Off	1	1		
<b>1.2.</b>	<b>Time-Related Costs</b>					
1.2.1	Site Office Container (1 Off Insulated, with Air-Con): 12m x 6m	Monthly	1	11		
1.2.2	Site Kitchen Container (1 Off): 6m x 3m	Monthly	1	11		
1.2.3	Site Storage Container (1 Off): 12m x 2m	Monthly	1	11		
1.2.4	Ablution Unit (Serviced) (2 Off): 6m x 3m	Monthly	2	11		
1.2.5	Travelling (1 Off Kombi 14 Seater)	Monthly	1	11		
1.2.6	Site Bakkie (4x4 Double Cab Bakkie)	Monthly	1	11		
1.2.7	NGR - Rigging/Assembly 2 No Teams (for 11 months)	Sum	1	1		
1.2.8	CPGP - Scaffolding 2 No Teams (for 11 months)	Sum	1	1		
1.2.9	Hire of scaffolding - 70 tons (for 11 months)	Sum	1	1		
<b>Sub-Total Item 1 (Preliminaries and Generals) Carried to Final Summary</b>						
<b>ITEM 2</b>						
<b>2</b>	<b>SITE RESOURCES</b>					
<b>2.1</b>	<b>NORMAL TIME</b>					
Normal working hours are working hours that fall within the following periods:						
<i>Mondays - Fridays: 07:00 - 16:00</i>						
2.1.1	Installation Manager (5 - 9 Years Experience) (1 Off)	Hours	1	1 088		
2.1.2	Quality Control Manager (5 - 9 Years Experience ) (1 Off)	Hours	1	1 088		
2.1.3	Engineer (5 - 9 Years Experience) (1 Off)	Hours	1	1 088		
2.1.4	Project Coordinator (5 - 9 Years Experience) (1 Off)	Hours	1	1 088		
2.1.5	Application Specialist (5 - 9 Years Experience) (1 Off)	Hours	1	1 088		
2.1.6	Commissioning Technician (5 - 9 Years Experience) (1 Off)	Hours	1	1 088		
2.1.7	Installation Technician (5 - 9 Years Experience) (2 Off)	Hours	2	1 088		
2.1.8	General Labour (0 - 3 Years Experience) (3 Off)	Hours	3	1 088		
2.1.9	Semi-Skilled Labour (5 - 9 Years Experience) (3 Off)	Hours	3	1 088		
2.1.10	Safety Officer (0 - 3 Years Experience ) (1 Off)	Hours	1	1 088		
<b>Subtotal Item 2.1 Normal Time</b>						
<b>Sub-Total Item 2 (Site Resources) Carried to Final Summary</b>						
<b>ITEM 3</b>						
<b>3</b>	<b>CEMS EQUIPMENT</b>					
3.1	Additional Scope for Water Supply Control and Signal to Control Room	Item	1	1		
3.2	Multicomponent Analyser System	Item	1	1		
3.3	FWE200DH	Item	1	1		
3.4	Flow Measurement	Item	1	1		
3.5	Temperature and Pressure Measurement	Item	1	1		
3.6	Commissioning Parts	Item	1	1		
3.7	Wear and Tear Parts for 2 Years	Item	1	1		
3.8	Spare Parts for 2 Years	Item	1	1		
3.9	Design and instrument Air and Water Purge Fabrication	Item	1	1		
3.10	OEM supervision and installation	Item	1	1		
3.11	Gravimetric Comparison Measurement	Item	1	1		
<b>Sub-Total Item 3 (CEMS Equipment) to Final Summary</b>						

ITEM NO	DESCRIPTION	UNIT	NO	QTY	RATE	AMOUNT
	<b>ITEM 4</b>					
<b>4</b>	<b>FABRICATION</b>					
4.1	Supply and deliver CEMS platform	Item	1	1		
4.2	Supply and deliver CEMS ports	Item	1	1		
	<b>Sub-Total Item 4 (Fabrication) to Final Summary</b>					
	<b>ITEM 5</b>					
<b>5</b>	<b>WATER SUPPLY</b>					
5.1	Supply and install water pipeline to pump	Item	1	1		
	<b>Sub-Total Item 5 (Water Supply) to Final Summary</b>					
	<b>FINAL SUMMARY</b>					
ITEM 1	PRELIMINARIES AND GENERALS					
ITEM 2	SITE RESOURCES					
ITEM 3	CEMS EQUIPMENT					
ITEM 4	FABRICATION					
ITEM 5	WATER SUPPLY					
	<b>Final Summary Total</b>					