

# PURCHASE OF NEW YELLOW PLANT SCOPE OF WORK

**Bulk Material Services** 

Title: SOW – Purchase of New Yellow

Plant - Dozer

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SOC Ltd

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BMS Mobile Plant - HOD

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#### 1. Purpose

The purpose of this document is to outline the scope requirements for the purchase of new yellow plant fleet for the Eskom Rotek Industries (ERI) Bulk Material Services (BMS) Mobile plant.

#### 2. Brief overview of our business

Eskom Rotek Industries (ERI) Bulk Material Services (BMS) division provides, amongst other services, yellow (mobile) plant equipment for bulk materials handling (ash and coal) to various power stations across the country, mainly fossil power station, with the fossil power stations located in the Mpumalanga, Limpopo and Free State provinces/regions.

The yellow (mobile) plant equipment is used to provide various services to/for coal yards ash dams and dumps. In order for BMS to provide a high standard of service, a well maintained and reliable mobile fleet is essential.

#### 3. Description of Services

The services required are for the supply, delivery of new Bulldozer yellow plant fleet, with warranty services, to the ERI BMS mobile plant, Rosherville, Johannesburg.

# 4. Scope of Work

Below listed, are the Technical specifications that further describe the required equipment:

No.	Boundary/Equipment		Specification
4.1	Engine	•	4-cycle, water-cooled, direct injection type
		•	EU Stage 3 emissions equivalent
		•	Gross Engine power SAE J1995 - 268 to 274 Kw
		range	
		•	ISO Din – 264 to 269 Kw range
		•	Displacement range 15,2 to 15,25 L

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No.	Boundary/Equipment	Specification	
4.2	Blade	Coal Blade SAE Capacity - 11,7 to 12 m3 – Semi U typed	
4.3	Transmission	• 1 Forward 3,4 km/h – 3,8 km/h	
		• 2 Forward 5,6 km/h – 6,1 km/h	
		• 3 Forward 10,6 km/h – 11,6 km/h	
		• 1 Reverse 4,5 km/h – 4,6 km/h	
		• 2 Reverse 6,8 km/h – 8,0 km/h	
		• 3 Reserve 9,2 km/h – 14,2 km/h	
4.4	Fuel Tank Refill	Fuel Tank Range – 625 to 645 Litres	
	Capacity and system	Fill system, fuel, fast fill	
4.5	Weights	Operating weight range – 38 351 to 41 800 kg	
4.6	Undercarriage	Shoe type – Moderate Service	
		• Shoe width – 560 to 610 mm	
		• Shoes per side – 41 to 44	
		• Ground pressure (ISO 16754) – 88,6 to 90,2 kPa	
		Basic, suspended	
		Suspended with guarded idler	
4.7	Ripper	Single-shank, adjustable	
		<ul> <li>Number of pockets – 1</li> </ul>	
4.8	Hydraulic system	Pump type – Piston-type; variable displacement	
		<ul> <li>Dozer tilt hydraulics, dual tilt</li> </ul>	
		Rear attachment hydraulics	
		Tilt cylinder flow (rod and head) – 125 to 175 L/min	
4.9	Final Drive	Raised sprocket final drives	
	Arrangement	Electronic Turbocharger	
		Water separator	
4.10	Pre-cleaner	Pre-cleaner, with screen – dual stage	
		Pre-cleaner, turbine – single stage	
	Oil Change System	Oil change system, high speed	

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No.	Boundary/Equipment	Specification
4.12	Steering System	Minimum turning radius – 2,14 m 7'0"
4.13	Starters, Batteries & Alternators  Electrical	<ul> <li>Alternator, standard (150 amp)</li> <li>Batteries, standard, 1,000 CCA</li> <li>Starting receptacle, auxiliary</li> <li>Heater, engine coolant (240V)</li> <li>Alarm, back-up</li> <li>Converter, 24V to 12V</li> <li>Diagnostic connector</li> </ul>
		<ul> <li>Horn, forward warning</li> <li>Lights, six halogen work lights</li> <li>Lights, premium, 10 LED lights</li> </ul>
4.15	Operator Environment	<ul> <li>ROPS mounted air conditioner</li> <li>ROPS cab:</li> <li>All-weather, enclosed pressurized, Sound supressed single panel glass, Meets ISO 3471 standards</li> <li>Advisor operator interface; Electronic monitoring system; Diagnostic service information</li> <li>Seat – Cloth, air-suspension</li> <li>Heater, defroster and ventilation</li> <li>Visibility – Rear vision camera, rear view mirrors</li> <li>Lighting – Six lights package</li> <li>Interior LED courtesy lights</li> <li>Radio ready</li> <li>Power supply – 24V</li> <li>Screens – "sun" screen group; cab rear</li> <li>Steering, electronically controlled, power differential</li> <li>Brakes – Meets the ISO 10265:2008 standards</li> </ul>

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#### 5. Equipment monitoring hardware/software

The equipment must be fitted with hardware / software to facilitate online real monitoring of the following:

Location tracking

- Hours
- Fuel usage
- Productivity
- Diagnostic codes

# 6. Warranty

- One year/0 2500 hours standard, extended to 6000 hours on power train components
- Service to be conducted every 250 worked hours, with a lenient gap of 50 hours for the service to be conducted before the warranty becomes obsolete

## 7. Delivery of Equipment

- Delivery of fully finished product within agreeable timelines from order
- Supplier must deliver/transport the machine to Rosherville, Johannesburg
- · Commissioning of product must be within 3 days after delivery on site.

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# 8. After Sales/Market Support

No.	Service
1.	24/7 technical support and parts/spares sales
2.	Average response time of 9 to 24 hours on warranty breakdowns and warranty services
	and confirmation of aftermarket support for next 6 years minimum
3.	95% OEM Parts availability in stock
4.	Seven (7) days turn-around time to import spares if not available locally
5.	Supplier must be in a position to assist with a same specification loan equipment to
	ensure a machine uptime of at least 90%
6.	Supplier to provide free technical training for Artisans
7.	Provide free Operator and Supervisor training within 30 days of delivery
8.	Technical training on specific equipment to Eskom mechanical technician
9.	Supplier to conduct quarterly machine health monitoring inspections and submit reports
	to Plant Management

#### 9. Recommendations

Recommendations from a technical perspective, will be based on the following conditions:

- · Machine complies with the required specifications
- Price
- Product availability
- Technical specification compliance

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## 10. Technical Evaluation

Appendix A

# Gatekeepers

- ISO 9001 accreditation.
- 100% compliance with technical specification
- · Must be sized to meet the required bucket capacity
- Supplier must be in a position to assist with a loan Equipment (if their equipment were to fail) to ensure a machine uptime of at least 90%
- Product delivery time line to not exceed 8 months

Description	Technical Criterion	Scoring Criteria	Weight (%)
OEM or Accredited Distributors	hip		
Verifiable Proof of OEM status or	OEM registration or distributorship agreement (Submit	10 = Verified and compliant	10
accreditation	signed letter from OEM)	0 = Not verified and or compliant	0
Capability and Resources			
Proof of OEM repair resources	Inspection of facilities conforming to OEM	10 = Acceptable facilities and proof of conformance to OEM	10
which consists of	standards(submit signed letter from OEM)	standards	0
Local support facilities in Gauteng and/or Mpumalanga		0 = Unacceptable standards and or no proof of conformance to OEM standards	

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Description	Technical Criterion	Scoring Criteria	Weight (%)
Technical compliance		<u> </u>	
Machine specifications. Refer to	Confirmation of:	20 = Compliant	20
scope	Engine Kw	0 = Non-compliant	
	Transmission speeds		
	ROPS cab		
	Weight		
	Specify standard warranty		
	Coal bucket capacity		
Equipment monitoring hardware	Proof of online GPS Location tracking, Hours, Fuel usage,	10 = Compliant	10
/ software as per criteria	Productivity and Diagnostic codes capability	0 = Non-compliant	
OEM workshop accreditation	Proof of OEM workshop accreditation	10 = Compliant	10
	Trees of 62 in well-one desired later	0 = Not compliant	
ISO 9001 Compliant	Proof of current ISO 9001 certificate	5 = Compliant	5
		0 = Not compliant	

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Description	Technical Criterion	Scoring Criteria	Weight (%)
Aftersales support confirmation	1		
24/7 technical support and parts/spares sales	Documentation confirming 24/7 technical support and parts/spares sales	3 = Compliant 0 = Non-compliant or non - submission	3
Average response time of 9 to 24 hours on warranty breakdowns and warranty services and confirmation of aftermarket support for next 6 years minimum	Documentation confirming an average response time of 9 to 24 hours on warranty breakdowns and warranty services which include aftermarket support for next 6 years minimum.	3 = Compliant 0 = Non-compliant or non - submission	3
95% OEM Parts availability in stock	Documentation confirming 95% average parts availability (Submit signed letter from OEM). To be verified by ERI through a site visit	11 = Compliant 0 = Non-compliant or non - submission	11
Seven (7) days turn-around time to import spares if not available locally	Documentation confirming a seven day turn-around time to import spares if not available locally	3 = Compliant 0 = Not compliant	3
Supplier must be in a position to assist with a loan equipment to ensure a machine uptime of at least 90%	Documentation confirming that the supplier will supply a same specification loan equipment to ensure a machine uptime of at least 90%	3 = Compliant 0 = Non-compliant or non - submission	3

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Supplier to provide free technical	Documentation confirming that the supplier will provide free	3 = Compliant	3
training for Artisans	technical training for Artisans	0 = Non-compliant or non - submission	

Description	Technical Criterion	Scoring Criteria	Weight (%)
Aftersales support confirmation	Continues		
Provide free operator and	Documentation confirming free operator training within 30	3 = Compliant	3
Supervisor training within 30 days of delivery	days of delivery	0 = Non-compliant or non - submission	
Technical training on specific	Documentation confirming that technical training can	3 = Compliant	3
equipment to Eskom mechanical technician	be conducted on specific equipment to Eskom mechanical technician	0 = Non-compliant or non - submission	
Supplier to conduct quarterly	Documentation confirming that quarterly machine health	3 = Compliant	3
machine health monitoring inspections and submit reports to Plant Management	monitoring inspections will be conducted and reports to plant management will be submitted	0 = Non-compliant or non - submission	
Total Weighted Score		1	100

Supplier that does not meet the gatekeepers or obtain a score above 75% will be deemed unacceptable

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# 11. Supporting documents

NB: Adherence to the following documentation must be proven accordingly during the evaluation process:

- ISO 9001 Quality Management Systems
- OSHAS 1800 Safety Management Systems
- Occupational Health and Safety Act and Regulations (85 of 1993)
- 240-62196227\_Eskom Life Saving Rules
- Criminal Procedures Act 51 of 1977
- National Road Traffic Act 93 of 1996
- Labour Relations Act 66 of 1995
- Basic Conditions of Employment Act 75 of 1997