

Title: **SOW – Purchase of New Yellow Plant – Front End Loader** Document Identifier:

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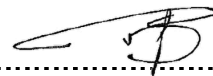


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BMS Mobile Plant - HOD

Date: 27/09/2023

## 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/in 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 plant 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 Front End Loader 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	<ul style="list-style-type: none"><li>• EU Stage 3 emissions equivalent</li><li>• Four-stroke cycle turbocharged and after cooled diesel</li><li>• Gross Engine power SAE J1995:2004 – 236 to 242 Kw range @1600rpm</li><li>• ISO 9249:2007 – 223 to 226 Kw range</li><li>• Gross Torque range – 1680 to 1850 N.m @1200rpm or 1100 to 1299 N.m @1600rpm</li><li>• Displacement range 11,3 to 13.3 L</li></ul>

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No.	Boundary/Equipment	Specification
4.2	Bucket	<ul style="list-style-type: none"> <li>Coal Bucket SAE Capacity - 5,8 to 6,8 m3</li> </ul>
4.3	Transmission	<ul style="list-style-type: none"> <li>1 Forward 6,5 km/h – 6,8 km/h</li> <li>2 Forward 13,4 km/h – 13,8 km/h</li> <li>3 Forward 23,0 km/h – 24,5 km/h</li> <li>4 Forward 38,3 km/h – 41,0 km/h</li> <li>1 Reverse 7,0 km/h – 7,6 km/h</li> <li>2 Reverse 14,4 km/h – 15,0 km/h</li> <li>3 Reverse 25,2 km/h – 27,0 km/h</li> <li>4 Reverse 38,3 km/h – 41,0 km/h</li> <li>With free wheel stator torque convertor</li> </ul>
4.4	Fuel Tank Refill Capacity and system	<ul style="list-style-type: none"> <li>Fuel Tank Range – 290 to 380 Litres</li> <li>Fill system, fuel, fast fill</li> <li>Cooling system range – 50 to 69 Litres</li> <li>Hydraulic tank range – 115 to 160 Litres</li> <li>Transmission tank range – 45 to 60 Litres</li> </ul>
4.5	Weights	<ul style="list-style-type: none"> <li>Operating weight range – 20 350 to 26 800 kg</li> </ul>
4.6	Power Train	<ul style="list-style-type: none"> <li>Pre-Cleaner, air – turbine</li> <li>High debris, radiator</li> <li>Reversible, cooling fan</li> <li>Front and rear auto differential locks Axles</li> </ul>
4.7	Hydraulic system	<ul style="list-style-type: none"> <li>Pump type – Piston-type; variable displacement</li> <li>Load sensing steering system</li> <li>Dual accumulator ride control, with 3<sup>th</sup> and 4<sup>th</sup> aux functions</li> </ul>
4.8	Linkage	<ul style="list-style-type: none"> <li>Z-bar, standard lift</li> <li>Electronic Turbocharger</li> </ul>
4.9	Axle	<ul style="list-style-type: none"> <li>Brakes, full hydraulic enclosed wet-disc</li> <li>With integrated Braking System (IBS) and brake wear indicator</li> <li>Fixed front axle</li> <li>Oscillated rear axle; as per ISO 3450 standards</li> </ul>

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No.	Boundary/Equipment	Specification
4.10	Steering System	<ul style="list-style-type: none"><li>• Load-sensing hydrostatic articulated steering.</li></ul>
4.11	Electrical	<ul style="list-style-type: none"><li>• Alarm, back-up</li><li>• Batteries – 2 x 12 V; (170-180 Ah capacity per battery)</li><li>• Cold start, 120 or 240 V</li><li>• Alternator output range 70 to 80A</li><li>• LED lights (front and rear)</li><li>• Reversing strobe light</li></ul>
4.12	Operator Environment	<ul style="list-style-type: none"><li>• ROPS cab:</li><li>• All-weather, enclosed pressurized, Sound suppressed panel glass, Meets ISO 3471 standards</li><li>• ROPS mounted air conditioner</li><li>• Advisor operator interface; Electronic monitoring system; Diagnostic service information</li><li>• Full colour LCD monitor with analogue gauge</li><li>• Seat – Air-suspension</li><li>• Heater, defroster and ventilation</li><li>• Visibility – Rear vision camera, rear view mirrors</li><li>• Lighting – LED lights package</li><li>• Interior LED courtesy lights</li><li>• Radio ready</li><li>• Power supply – 24V</li><li>• Sun visor – front/rear</li><li>• Steering, electronically controlled, power differential, joystick</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 loan bucket 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 bucket to ensure a machine uptime of at least 90%
- Product delivery time line to not exceed 8 months

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

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

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Description	Technical Criterion	Scoring Criteria	Weight (%)
<b>Aftersales support confirmation</b>			
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 bucket to ensure a machine uptime of at least 90%	Documentation confirming that the supplier will supply a loan bucket to ensure a machine uptime of at least 90%	3 = Compliant 0 = Non-compliant or non - submission	3
Supplier to provide free technical training for Artisans	Documentation confirming that the supplier will provide free technical training for Artisans	3 = Compliant 0 = Non-compliant or non - submission	3

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

**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

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