

 Eskom	Scope of Work	Kusile Power Station
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Title: **Kusile Power Station Provision of Yellow Plant Monitoring Contract Scope of Work**

Document Identifier: **KUS-202304116**

Alternative Reference Number:

Area of Applicability: **Kusile Power Station**

Functional Area: **Coal and Ash Management department**

Revision: **1**

Total Pages: **13**

Next Review Date: **September 2027**

Disclosure Classification: **Controlled Disclosure**

Compiled by



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1. Introduction

Effective coal and ash handling operations are essential to the successful operation of Kusile Power Station. In the absence of the completed coal and ash handling infrastructure, Kusile Power Station makes use of various yellow plant to perform the handling of the coal and ash. The handling of coal and Ash includes but not limited to e.g (Mobile feeder operations, building and sealing stock piles, ripping of compacted stockpiles, movement of coal between stockpiles, reclamation of the excess stockpile and strategic stockpiles) on the Ash section (emergency offloading station and also ash management of the ash dump facility as well as assisting in on occasion should a machine be needed in other areas of Kusile Power Station.

The current risk that Kusile Power Station is facing is having inadequate yellow plant monitoring system to manage the machinery of Kusile power station. A suitable contractor is required to provide the necessary yellow plant monitoring system to ensure that the production goals of Kusile Power Station are met by ensuring a continuity of coal and ash handling operations. The main aim of this contract is to improve the utilisation and efficiency of the yellow plant fleet at Kusile Power Station.

2. Supporting Clauses

2.1 Scope

2.1.1 Purpose

To provide clarity, guidelines, specifications limits and information regarding the scope of work required for the contract.

2.1.2 Applicability

This document shall apply to Kusile Power Station

2.1.3 Effective date

From the date of authorisation.

2.2 Normative/Informative References

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.2.1 Normative

- [1] ISO 9001 Quality Management Systems
- [2] Act 107 of 1998: National Environmental management act 1998
- [3] Act 14 of 2009: The national environmental laws amendment act 2009
- [4] Act 102 of 1980 National key points
- [5] Act 73 of 1989 The environmental conservation act 1989

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[6] Act 36 of 1998 National water

[7] Act 85 of 1993 Occupational health and safety & regulations

[8] SANS 10108 The classification of hazardous locations and the selection of apparatus for use in such locations

2.2.2 Informative

[1] 414-32C&IM-SP Kusile Maintenance user requirements specifications

[2] 237-0016 Integrated business improvement strategy

[3] 32-726 S.H.E requirements for the Eskom procurement and supply chain management process

2.3 Definitions

Abbreviation	Explanation
Contractor	Service provider for supplying specific service to Eskom Kusile power station
Employer	Eskom, Kusile power station
Yellow Plant	A term used to collectively describe heavy machinery such as Excavators and Dump trucks

2.4 Abbreviations

Abbreviation	Explanation
ADT	Automatic dump truck
BCM	Mass and volume
CSY	Coal Stock yard
M	meter
mm	Millimetre
OLC	Overland link conveyor

2.5 Roles and Responsibilities

2.5.1 The Employer shall

- Be the representative from the Coal and Ash Management department.
- Manage the contract according to the signed off scope of work, contract clauses and financial aspects of the contract.
- Ensure that the Contractor adheres to the contractual terms and that the scope of work is executed accordingly.

2.5.2 The Contractor shall:

- Oversee the execution of the scope of work in accordance with the signed scope of work, contract clauses, safety, health environment and quality requirements.
- Manage the work teams and reporting to ensure consistent service
- Monitor due date performance

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- d) Maintain adequate financial records.
- e) Ensure accurate reporting of yellow plant parameters

2.6 Process for Monitoring

The performance of the contract shall be monitored using key performance indicators as well as the use of early warnings, non-conformance reports as well as consequence management.

2.7 Related/Supporting Documents

N/A

3. Detailed Scope of work

The contractor will be required to provide the resources necessary to execute the scope of work as detailed in the below sections. Resources will be brought to site as and when required. Contractor is to note that this is a non-exclusive scope of work.

3.1 Employer's Yellow Plant fleet

The Employer's site makes use of the following plant;

- a) Bulldozers
- b) Automated Dump Trucks
- c) Front end loaders
- d) TLB's
- e) Water carts
- f) Motorgraders
- g) Bobcats
- h) Vacuum trucks
- i) Excavators

3.2 Scope of work

3.2.1 Monitoring system requirements

The system proposed must have the following attributes:

- 1) Must not require intrusive installation on the machine (installation to be easily deployed and integrated).
- 2) Must not require operator input therefore the system must be fully automatic
- 3) Produce sophisticated and automated events report
- 4) Must make use of the existing 2G,3G,4G,5G or WIFI communication infrastructure

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- 5) Should the system lose internet connection, it must be able to store the data until the connection is restored.
- 6) Be low-cost
- 7) Provide a monthly report per machine. Report data must be Complete, accurate, reliable accessible and timeous.
- 8) Provide live location tracking of vehicles.
- 9) Provide status indicators to indicate whether or not the vehicle is stationary, idling or in motion as well as the last location point received.
- 10) Geo-fencing capabilities of the site to allow for identification of multiple different areas on site.
- 11) Ability to replay vehicle movements
- 12) Provide vehicle idling duration information (differentiate between normal idling and working idle).
- 13) Provide speed information per vehicle
- 14) Provide network latency heat maps
- 15) Employer customisable real-time notifications (in-app and email)
- 16) In-app reports
- 17) Detailed records of all production cycles
- 18) Allow for addition of operator information to events
- 19) Monitor productivity of load and haul vehicles
- 20) Visualisation of all production cycle events
- 21) Cycle events that must be included are:
 - a) Cycle start time
 - b) ADT loaded
 - c) Machine that loaded the ADT
 - d) Material type
 - e) Loading geofence
 - f) Dumping geofence
 - g) Tonnage and BCM
 - h) Fill time
 - i) Queue time
 - j) Loading time
 - k) Cycle delay time
 - l) Full travel data
 - m) Dumping time
 - n) Empty travel data

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22) Sensor damaged notification.

3.2.2 Service requirements

- a) Successful contractor to provide initial training for the Employer's team as well as "as and when required" training.
- b) Perform the set up and maintenance of the user interface.
- c) Provide callout service to diagnose and repair system defects.
- d) Add/ remove new vehicles from the Employers system.
- e) Perform data analytics to fine improvement opportunities on site

3.2.3 Task-orders

- a) This contract shall be managed by use of task orders.
- b) The contractor is only to mobilise once the taskorder issued by the employer has been planed, resourced and ready to execute.
- c) Payment will only be made once the scope has been executed and the system has been proven to fully functional, stable.
- d) Contractor to advise regarding warranty and guaranty for workmanship and spare/device.
Should a failure occur during the warranty or guaranty period, the resolution of the defect shall be deemed re-work and therefore shall be for the contractor's cost.

3.2.4 Home-work-home transport

- a) Contractor to provide own transport.

3.2.5 Call out resolution times:

- a) Application or data inaccessible, no alternative workaround available – first response time shall be within 2 hours
- b) Customisation requests on reports, alternative work around available – first response shall be within 6 hours
- c) Issues on a feature not working, alternative work around available – First response shall be within 1 day
- d) Issues that require a resolution within 7- 10 days if no development is required – first response shall be within 2 days

3.2.6 Site establishment

- a) Will not be applicable as the contractor will be called to site on an as and when required basis.

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3.2.7 Staff availability

- a) The contractor is to maintain 100% availability of staff.
- b) Contractor to manage absenteeism in such a manner as to protect the operations from being adversely affected.

3.3 Communication

3.3.1 Normal working hours

Monday to Thursday (7:00 to 16h15) Friday (07h00 to 12:00)

3.3.1.1 Contractual

- a) Service manager instruction, early warnings, Non-conformance reports as well as financial communication.
- b) Contractual correspondence shall be issued and received by Delegated Service manager
- c) Contractual correspondence from the Employers service manager will be issued to contractor's delegated contract manager.
- d) Service manager instructions will only be issued for works that are outside of the signed scope of work and will follow the contractual processes.

3.3.2 Contractor's structure

The Contractor is to provide the Employer with their structure including site manager for decision making after hours. The Contractor must also ensure that the site manager's contact details are available on the employer's FLIP system for call out purposes and issuing of instruction to their teams.

3.4 Financial requirements

Procedures for invoice submission and payment (e. g. electronic payment instructions)

- a) Assessment interval is between the 25th day of each successive month.
- b) Payment will be made four weeks after invoice has been submitted and processed. Therefore, delays in submission of the invoice package for assessment will lead to delays in payment.
- c) Contractor to submit invoice with proof that indicates how the values claimed for were obtained. Proof such as (but not limited to):
 - i. Timesheets for each employee.
 - ii. Delivery notes for the hard ware brought to site.
 - iii. Service reports for defects attended and resolved as well as installations.
 - iv. The Employer reserves the right to request evidence for any and all amounts claimed by the Contractor Should the invoice be submitted with out the required evidence, nor provided

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- once requested in the assessment interval then the amount will be disallowed from the invoice until such a time as the Contractor can provide the evidence to support the claim.
- d) The invoice and its supporting documents are to be submitted to the Employer via email.
- e) Once the invoice has been assessed, the Contractor will receive an assessment document that includes the service entry number.
- f) The Contractor is to submit the assessment package to invoiceseskomlocal@eskom.co.za.
Assessment package to consist of
- i. Order.
 - ii. Invoice and supporting documents.
 - iii. Fully signed assessment document.

The Contractor attaches the detail assessment of all work done for each item in the Price List to each tax invoice showing

- a) the Price for each lump sum item in the Price List or Task Order which the Contractor has completed and
- b) where a quantity is stated for an item in the Price List or Task Order, an amount calculated by multiplying the quantity which the Contractor has completed by the rate.

Note:

- The Employer utilises a strict “No work No pay” Policy.
- The employer will not make any upfront payments.

3.5 Performance Management

3.5.1 Key performance indicators

The contractor's performance will be managed by means of the basket of KPI's as described below:

- a) Non-conformance report (NCR)

		Floor	Kick in	Norm	Stretch	Ceiling
		1	2	3	4	5
NCR	Response time (working days)	9	7	5	3	1
	NCR Close out (Due date performance)	2	1	0	-1	-2
		Closed later		on time	Closed earlier	

Where:

- If no NCR for the month, then a Norm value (3) will be awarded
- days to respond with action plan and close out date
- where T is the due date for the NCR to be closed out
- Source of evidence email response.

- b) Invoice submission

	Floor	Kick in	Norm	Stretch	Ceiling
	1	2	3	4	5
Date difference	2	1	0	-1	-2

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Where:

- Contract term for assessment interval is 25th day of each successive month
- KPI Is calculated based off the number of days submitted earlier or later than contract date

c) Customer satisfaction

	Floor	Kick-in	Norm	Stretch	Ceiling
	1	2	3	4	5
Customer satisfaction combined score	20	17	15	10	5

Contractor to supply customer satisfaction surveys

d) SHE Requirements:

	Floor	Kick in	Norm	Stretch	Ceiling
	1	2	3	4	5
Safety file audit actions close out	2	1	0	-1	-2
	Closed later		on time		Closed earlier

Based on periodic safety file audits

Should no audit have been performed during the quarter then a Norm (0) will be awarded.

e) Plant report availability

	Floor	Kick in	Norm	Stretch	Ceiling
	1	2	3	4	5
Plant report availability	96	97	98	99	100

This KPI shall measure to ensure that all plants identified have accurate reports

Source of evidence shall be the plant reports.

The score will be calculated on the average plant availability for the calendar month.

Should the contractor score lower than a 3 for the calendar moth the contractor shall provide a mitigation plan to ensure this does not re-occur.

3.5.2 Plant damage consequences

- The Contractor is liable for any costs associated to the repair of plant damaged in the execution of the Contractor's scope of work. In this instance the Contractor cannot claim for re-imbursement from the Employer for costs associated to repairs made on damaged plant
- Repairs shall be performed within the timeframe as stipulated by the Employer
- Repair shall only be deemed complete upon acceptance by the Employer.
- All scope executed by the Contractor will be subjected to a Quality control inspection and shall only be deemed completed once the Employer has approved. If the work is found to be unsatisfactory it shall be deemed re-work and shall be corrected at the Contractor's expense.
- The Employer reserves the right to have the damaged plant repaired and cost of the repair deducted from the contractor's invoice for the month.

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- f) The contractor shall perform an investigation into the plant damage incident and perform adequate consequence management. Should the employee be a repeat offender, he/she shall be removed from site and replaced with a qualified replacement.

3.5.3 Poor performance consequences

3.5.3.1 De-scoping

De-scoping refers to a scope reduction from the original signed scope of work. This will be done as a result of:

- a) Contractor's inability to execute the scope.
- b) Contractor's poor performance in executing the scope.

3.5.3.1.1 Contractor's inability to execute the scope

Should the contractor conclude that they will not be able to execute a portion of the scope, the contractor must send a memo by email stating the portion of works that will not be executed and the reason for why it will not be executed.

The scope will be removed from the contractor's contractual responsibilities. The contractor will not be paid for this portion of scope (including projected profit losses)

3.5.3.1.2 Contractor's poor performance in executing the scope

Should the performance of the contractor in executing the scope be deemed poor (Evidence will be monthly KPI report), the following process will be followed:

- a) The Employer will inform the contractor of the poor performance by means of an early warning.
- b) The contractor will have a 24hour period within which the contractor is to reply with a mitigation plan that will remedy the poor performance and prevent a re-occurrence.
- c) The contractor will be placed on a probationary period and performance will be monitored for three months. If at the end of the three months performance does not improve, the Employer will issue the contractor with a Non-conformance report indicating non-performance and the notice of de-scoping.
- d) The scope of work related to the Non-conformance will then be removed from the contractors contractual responsibilities.
- e) The Employer will not be liable to pay for any expenses incurred by the contractor from date of issue of the notice of de-scope as well as any projected profit losses related to scope of work that is de-scoped.

3.5.3.2 Termination

The contract will be terminated under the following conditions:

- a) Termination due to poor of performance

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Should the contractor fail to establish the system and have it fully functional within three months of the signing of the contract, the Employer reserves the right to terminate this contract. The Employer shall not be liable for any costs beyond that of the issued task order. Where spares or devices have been purchased, the contractor shall not remove them.

b) Termination due to impossibility of performance

This shall be enforced should the contractor declare that circumstances have made it impossible for the contractor to execute the scope of work.

c) Termination due to fraud

This will be enforced when there is evidence of intentional deception or misrepresentation for the purpose of monetary or personal gain.

d) Termination due to breach

This shall be enforced should the contractor fail to perform the specific tenets of the contract

e) Termination by mutual agreement

This shall be enforced when both the Employer and Contractor agree that the contract is no longer beneficial to either party and agree to terminate.

f) Termination as a result of completion

This will be enforced when the contract term has expired or the funds have been depleted.

4. Tender evaluation requirements

- a) Contractor to own the system proposed and not be a third party
- b) Contractor to prove industry experience minimum of three years.
- c) Must be able to provide evidence of a minimum of three successful contracts where this particular service has been provided as well as have traceable and contactable references.
- d) Must be able to demonstrate the software in realtime.

5. Acceptance

This document has been seen and accepted by:

Name	Designation
Khehla Shandu	Coal and Ash department Manager
Luvuyo Feni	Technical Plant Manager
Webster Makwakwa	Manager IM Operations

6. Revisions

Date	Rev.	Compiler	Remarks
April 2023	1	A Mahadeo	Document creation

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7. Development Team

The following people were involved in the development of this document:

8. Acknowledgements

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