Eskom	Scope of Work	Peaking Environmental

Title: **Scope of Work for Supply and Delivery of Ambient Air Quality Monitoring Equipment for the Ambient Air Quality Monitoring Station at Acacia Power Station and Gourikwa Power Station**

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1. Introduction

Eskom Holdings SOC Ltd (Eskom) is required to comply with the conditions of the Atmospheric Emission Licences (AELs) issued for its Acacia and Gourikwa Power Stations. The respective licences require the maintenance of fully functional ambient air quality monitoring stations and the continuous monitoring of key ambient air pollutants and meteorological parameters in support of regulatory compliance, environmental reporting and stakeholder engagement.

The existing ambient air quality monitoring stations are located at the following sites:

- **Acacia Ambient Air Quality Monitoring Station**, Settlers Road, Edgemead, Western Cape.
- **Gourikwa Ambient Air Quality Monitoring Station**, Garden Route District Municipality Offices, c/o Sampson and Marlin Streets, Extension 23, Mossel Bay, 6506.

To ensure the continued operation and long-term sustainability of these monitoring stations, Eskom intends to procure ambient air quality monitoring equipment and associated ancillary systems through a supply and delivery contract. The equipment will support the replacement and renewal of existing monitoring infrastructure and facilitate the transition to Eskom-owned monitoring systems that will be operated and maintained by Eskom Research, Testing and Development (RT&D).

The scope of this contract includes the supply and delivery of ambient air quality monitoring equipment, meteorological instrumentation, calibration and quality assurance equipment, communication equipment, power backup systems and associated accessories required for the operation of the monitoring stations. The equipment will be utilised to monitor ambient concentrations of pollutants including sulphur dioxide (SO_2), oxides of nitrogen (NO_x), ozone (O_3), particulate matter ($PM_{2.5}$ and PM_{10}), as well as relevant meteorological parameters.

This Scope of Work (SOW) sets out the technical, quality, delivery and documentation requirements for the supply of the specified equipment to Eskom. The successful Contractor shall be responsible for the manufacture (where applicable), supply, testing, certification, packaging and delivery of the equipment to the designated Eskom sites. Installation, commissioning and operation of the equipment do not form part of this contract and will be undertaken by Eskom RT&D.

The objective of this procurement is to ensure that Eskom has access to reliable, fit-for-purpose and internationally recognised ambient air quality monitoring equipment that supports regulatory compliance, data integrity, operational reliability and the long-term continuity of ambient air quality monitoring at both Acacia and Gourikwa Power Stations.

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2. Supporting Clauses

2.1 Scope

2.1.1 Purpose

The purpose of this Scope of Work is to define the requirements for the supply and delivery of ambient air quality monitoring equipment and associated support systems for Eskom's Acacia and Gourikwa Ambient Air Quality Monitoring (AQM) Stations.

This procurement is intended to support Eskom's environmental monitoring obligations and ensure the continued operation of fully functional ambient air quality monitoring stations in accordance with the applicable Atmospheric Emission Licence (AEL) requirements. The equipment to be supplied will form part of Eskom-owned monitoring infrastructure that will be operated and maintained by Eskom Research, Testing and Development (RT&D).

The SOW establishes the technical specifications, quality requirements, documentation requirements, delivery obligations and warranty requirements applicable to the equipment to be supplied. The objective is to ensure that all equipment supplied is fit for purpose, complies with applicable international standards and is compatible with Eskom's ambient air quality monitoring programme.

The equipment to be procured under this contract includes, but is not limited to:

- Fine particulate monitors capable of simultaneously measuring $PM_{2.5}$ and PM_{10}.
- Fluorescent sulphur dioxide (SO_2) analysers.
- Chemiluminescence nitrogen oxides (NO_x) analysers.
- Ozone (O_3) analysers.
- Meteorological monitoring equipment and associated sensors.
- Data loggers and communication interfaces.
- Dilution calibrators.
- Zero air generators.
- Backup power systems.
- Signal booster kits.
- Calibration gases and associated accessories.
- Any ancillary equipment required for the effective operation of the monitoring systems.

The purpose of this procurement is further to ensure the availability of reliable, accurate and quality-assured monitoring equipment that will support continuous ambient air quality monitoring, regulatory reporting, environmental performance assessment and long-term compliance with Eskom's environmental obligations at both Acacia and Gourikwa Power Stations.

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2.1.2 Applicability

This scope of work will apply to Acacia Power Station and Gourikwa Power Station.

2.1.3 Effective date

This document will be effective from date of signature.

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] ISO 14001 – Environmental management Systems – Requirements with guidance for use.

[3] 32-419 Eskom Atmospheric Emission Management Policy

[4] 240-56242363 Eskom Standard for Emissions Monitoring and Reporting

[5] National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)

[6] Minimum Emission Standards (MES) – Government Notice No. 893 of 2013

[7] Acacia Power Station AEL: WCCT 023

[8] Gourikwa Power Station AEL: WCED013

[9] ISO 7996: Ambient Air – Determination of Nitrogen Oxides

[10] ISO 6767: Ambient Air – Determination of Sulphur Dioxide

2.2.2 Informative

[11] The National Department of Forestry, Fisheries and the Environment (DFFE) standards for common pollutants as listed in the Government Gazette No.32816, published 24 August 2009

[12] Notice 893 (Nov 2013): Listed Activities and Associated Minimum Emission Standards identified in terms of Section 21 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004).

[13] National Ambient Air Quality Standards (NAAQS). Government Notice No. 1210, published under the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)

[14] City of Cape Town Air Quality Management Plan. City of Cape Town AQMP, latest revision (typically referenced as AQMP 2015)

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2.3 Definitions

2.3.1 Ambient Air Quality Monitoring (AQM)

The systematic measurement of pollutants presents in the outdoor air environment to assess compliance with air quality standards and evaluate potential impacts on human health and the environment.

2.3.2 Atmospheric Emission Licence (AEL)

A legal document issued by the licensing authority under the National Environmental Management: Air Quality Act (Act No. 39 of 2004), granting permission to operate a listed activity subject to specified emission limits and monitoring requirements.

2.3.3 Minimum Emission Standards (MES)

Regulatory limits for pollutant emissions from listed activities, as prescribed under the Air Quality Act.

2.3.4 National Ambient Air Quality Standards (NAAQS)

Standards that define acceptable concentration levels for specific pollutants in ambient air to protect human health and the environment.

2.3.5 Sulphur Dioxide (SO_2)

A gaseous pollutant produced primarily from the combustion of fossil fuels containing sulphur. It can contribute to respiratory problems and acid rain.

2.3.6 Oxides of Nitrogen (NO_x)

A group of gases, including nitric oxide (NO) and nitrogen dioxide (NO_2), formed during combustion processes. NO_x contributes to smog formation and respiratory issues.

2.3.7 Particulate Matter (PM10 and PM2.5)

Solid or liquid particles suspended in air, classified by size:

- **PM10**: Particles with a diameter of 10 micrometers or less
- **PM2.5**: Particles with a diameter of 2.5 micrometers or less
  These can penetrate the respiratory system and cause health problems.

2.3.8 Licensing Authority

The competent authority responsible for issuing and enforcing Atmospheric Emission Licences and related environmental compliance requirements.

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2.4 Abbreviations

Abbreviation	Explanation
AEL	Atmospheric Emissions Licence
AQM	Air Quality Monitoring
DFFE	Department of Forestry, Fisheries and the Environment
ISO	International Organization for Standardisation
MES	Minimum Emission Standards
NEM:AQA	National Environmental Management: Air Quality Act (Act No. 39 of 2004)
NO_x	Oxides of Nitrogen
PM	Particulate Matter
RT&D	Eskom Research, Testing and Development
SANS	South African National Standard
SO_2	Sulphur Dioxide

2.5 Roles and Responsibilities

Eskom

- Prepare and issue the enquiry documentation and technical requirements.
- Evaluate submitted proposals and appoint a suitable Contractor.
- Facilitate site access, where required, for pre-delivery inspections or clarification purposes.
- Review and approve all documentation submitted by the Contractor in terms of this contract.
- Provide the Contractor with delivery addresses and nominated Eskom representatives for receipt of equipment.
- Inspect delivered equipment to verify compliance with the contractual and technical requirements.
- Coordinate the receipt, storage, installation and commissioning of the equipment.
- Notify the Contractor of any defects, shortages or non-conformances identified upon receipt or during the warranty period.
- Process payments in accordance with the agreed contractual terms and conditions.

Contractor

- Supply and deliver all equipment specified in this Scope of Work.
- Ensure that all supplied equipment is new, unused, fit for purpose and free from defects.
- Ensure that the equipment complies with the technical specifications, applicable international standards and manufacturer requirements.
- Provide all supporting documentation, including technical datasheets, calibration certificates, operating manuals, maintenance manuals, test certificates and warranty documentation.

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- Supply all ancillary components, accessories, fittings, connectors and consumables required for the intended operation of the equipment.
- Package and transport the equipment in a manner that prevents damage during handling and transit.
- Deliver the equipment to the locations specified by Eskom within the agreed delivery periods.
- Immediately notify Eskom of any factors that may affect delivery schedules or contractual obligations.
- Replace any damaged, defective or non-compliant equipment at no additional cost to Eskom.
- Honour all warranty obligations for the duration of the warranty period.
- Provide technical support and clarification related to the supplied equipment when requested by Eskom.

Eskom Research, Testing and Development (RT&D)

Eskom RT&D shall:

- Provide technical input into the equipment specifications and evaluation process, where required.
- Verify that the supplied equipment meets the operational and technical requirements of Eskom's ambient air quality monitoring programme.
- Receive and inspect equipment together with Eskom's appointed representatives.
- Undertake the installation, configuration, commissioning and integration of the supplied equipment.
- Operate and maintain the ambient air quality monitoring stations following installation and commissioning.
- Manage calibration, quality assurance and performance verification activities associated with the monitoring equipment.
- Maintain records relating to equipment performance, maintenance and regulatory compliance.

2.6 Process for Monitoring

The purpose of the monitoring process is to ensure that the Contractor meets all contractual requirements relating to the supply and delivery of the specified ambient air quality monitoring equipment and associated accessories. Eskom will monitor the Contractor's performance throughout the duration of the contract to ensure compliance with the agreed scope, technical specifications, quality requirements and delivery milestones.

2.6.1 Contract Monitoring

The Contractor shall be monitored against the following key performance criteria:

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- Compliance with the approved technical specifications.
- Submission of required documentation and certification.
- Adherence to agreed delivery schedules.
- Quality and condition of equipment delivered.
- Completeness of deliveries, including all accessories and ancillary equipment.
- Compliance with warranty obligations.
- Responsiveness to technical queries and non-conformance issues.

2.6.2 Quality Assurance and Verification

Prior to delivery, the Contractor shall verify that all equipment complies with the specified technical requirements and manufacturer standards.

The Contractor shall provide the following documentation, where applicable:

- Factory test certificates.
- Calibration certificates.
- Certificates of conformity.
- Equipment datasheets.
- Warranty certificates.
- Operating and maintenance manuals.
- Safety Data Sheets (SDSs) for hazardous materials and calibration gases.

Eskom reserves the right to review and verify all documentation submitted by the Contractor before acceptance of the equipment.

2.6.3 Delivery Inspection and Acceptance

Upon delivery, Eskom and Eskom Research, Testing and Development (RT&D) shall inspect the equipment to verify:

- Compliance with the purchase specifications.
- Quantity and completeness of delivered items.
- Physical condition of equipment.
- Availability of all required documentation.
- Availability of accessories, spare parts and consumables specified in the contract.

Equipment will only be accepted once all supplied items have been inspected and confirmed to be compliant with the contractual requirements.

2.6.4 Non-Conformance Management

Any equipment found to be damaged, defective, incomplete or non-compliant with the specification shall be recorded as a non-conformance.

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The Contractor shall:

- Investigate the cause of the non-conformance.
- Provide Eskom with a corrective action plan.
- Replace or rectify defective equipment at no additional cost to Eskom.
- Implement corrective actions within agreed timeframes.

3. Scope of Work

Due to the availability of Capital Expenditure (CAPEX) funding across different financial years, the procurement of equipment under this contract will be implemented in a phased approach.

Phase 1: Procurement and delivery of equipment for the **Acacia Ambient Air Quality Monitoring (AQM) Station**, located at Settlers Road, Edgemead, Western Cape, shall be undertaken during the current financial year.

Phase 2: Procurement and delivery of equipment for the **Gourikwa Ambient Air Quality Monitoring (AQM) Station**, located at the Garden Route District Municipality Offices, corner Sampson and Marlin Streets, Extension 23, Mossel Bay, Western Cape, shall be undertaken during the subsequent financial year, subject to the availability and approval of CAPEX funding.

The successful Contractor shall therefore note that the quantities and delivery schedules associated with the Gourikwa AQM Station may only be released for execution once the required funding has been approved and made available by Eskom. Eskom reserves the right to place orders separately for each phase of the project and to issue delivery instructions accordingly.

Notwithstanding the phased implementation approach, this Scope of Work is intended to establish a single contract that will enable Eskom to procure identical or equivalent ambient air quality monitoring equipment and associated support systems for both the Acacia and Gourikwa AQM Stations. This approach is intended to standardise monitoring infrastructure across the two stations, improve operational efficiency, simplify maintenance requirements and support Eskom Research, Testing and Development (RT&D) in the long-term management of the monitoring programme.

3.1 Supply and Delivery of Signal Booster Kit

Acacia Power Station Asset nr: 950002678254

Gourikwa Power Station Asset nr: TBC

Line item	Product	Material nr	Quantity	Delivery point
1	Signal booster kit	0770049	1	Acacia Power Station
2	Signal booster kit	0770049	1	Gourikwa Power Station

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3.1.1 Specification of Product or Goods

Signal booster kit:

- ICASA approved
- 4g LTE
- Booster to work for all networks
- Complete kit

3.1.2 Qualitative Technical Evaluation Criteria

Technical Criteria	Rating	
Specifications of equipment as per procurement request Meet the full specification- 40% Not meeting the specification- 0%	40%	
Guarantee/Warranty Documented proof of guarantee provided - 3-4 years = 15% - 1-2 years = 10% - 0-1 years = 5% <1 year = 0%	15%	
Submission of brochure for the signal booster to be supplied. Full- Submission of the brochure – 20% Non submission of the brochure – 0%	20%	
References of previous work/ supplies to this request >3 references = 25% 1 to 2 references = 15% 0 to 1 references = 10% 0 references= 0%	25%	
TOTAL Score	100%	

3.2 Supply and Delivery of Dilution Calibrator for Air Quality Monitoring Stations

Acacia Power Station Asset Nr: 950002678265

Gourikwa Power Station Asset Nr: TB

Line item	Product	Material Nr	Quantity	Delivery point
1	Dilution calibrator	0728475	1	Acacia Power Station
2	Dilution calibrator	0728475	1	Gourikwa Power Station

3.2.1 Specification of Product or Goods

Description of the goods or service needed

May also be used to expand and explain on the quality of the product or service required.

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Flow Measurement Accuracy ± 1% of full scale

Repeatability of Flow Control ± 0.2% of full scale

Linearity of Flow Measurements ± 0.5% of full scale

Flow Range of Dilution Air 0 - 10 SLPM

Optional Ranges 0 - 20 SLPM, 0 - 5 SLPM

Flow Range of Cylinder Gases* 0 - 100 cc/min

Optional Ranges 0 - 50 cc/min, 0 - 200 cc/min (others available)

Zero Air Requirements 10 SLPM @ 30 psi

Optional Ranges 20 SLPM @ 30 psi Input Pressure 20 - 40 psig Calibration Gas Input Port 1 Diluent Gas Input Port

Electrical Power Requirements 85V-264V, 47Hz-63Hz Specifications Analog Output Ranges 10V, 5V, 1V, 0.1V (selectable

UV photometer: Range 0 - 100 ppb to 0 - 10 ppm (selectable

Ozone generator: Maximum Output 5.5 ppm LPM Module Option Minimum Output 100 ppb LPM Response Time 180 seconds to 98

3.2.2 Qualitative Technical Evaluation Criteria

Specifications of equipment as per procurement request Meet the full specification- 40% Not meeting the specification- 0%	40%	
Guarantee/Warranty Documented proof of guarantee provided - 3-4 years = 15% - 1-2 years = 10% - 0-1 years = 5% <1 year = 0%	15%	
Submission of brochure for the dilution calibrator monitor to be supplied. Full- Submission of the brochure – 20% Non submission of the brochure – 0%	20%	
References of previous work/ supplies to this request >3 references = 25% 1 to 2 references = 15% 0 to 1 references = 10% 0 references= 0%	25%	
TOTAL Score	100%	

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3.3 Supply and Delivery of Particulate dust samplers/monitor for the Air Quality Monitoring

Acacia Power Station Asset Nr: 950002678250

3.3.1 Specification of Product or Goods

Line item	Product	Material Nr	Quantity	Delivery point
1	Fine Particulate Monitors capable of measuring PM2.5 and PM10 simultaneously	0687991	1	Acacia Power Station

Supply and delivery of 7x Fine Particulate dust samplers/monitor capable of measuring both $PM_{2.5}$ and PM_{10} simultaneously.

- Must be USEPA approved for both $PM_{2.5}$ and PM_{10}.
- Must be able to record analogue outputs for both parameters. (0 – 1V range)
- Suitable for continuous ambient monitoring.
- Be able to measure from a range of at least 0 -1000 µg/m^3

3.3.2 Qualitative Technical Evaluation Criteria

Technical Criteria	Rating
Specifications of equipment as per procurement request Meet the full specification- 20% Not meeting the specification- 0%	20%
Letter of support from the OEM	25%
Guarantee/Warranty Documented proof of guarantee provided - 5 years = 15% - 3-4 years = 10% - 1-2 years = 5% <1 year = 0%	15%
Submission of datasheet / brochure for the instrument to be supplied. Full- Submission of the data sheet and brochure – 15% Submission of the data sheet alone without the brochure- 10% Non submission of the data sheet and brochure – 0%	15%
References of previous work/ supplies related to this request >6 references = 25% 3 to 5 references = 15% 1 to 2 references = 10% 0 references= 0%	25%
TOTAL Score	100%

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3.4 Supply and Delivery of Air Quality Monitoring Meteorological Equipment and Data Loggers

Acacia Power Station Asset Nr:

Item Description	Quantity	Asset Nr	Material Nr
KIT:DEVICE DATA LOGGER;DATA AQCUISATION	1	950002678255	0770050
ANTENNA:GAIN DUAL BAND MAGNETIC;50 HZ	1	950002678256	0770046
GA PRECPTTN:RAIN;DIA 18 X HT 30 CM;200	1	950002678257	0770058
DETECTOR:RADIATION SENSOR	1	950002678258	0770047
ALTIMETER, SURVEYING:HPA;PRESSURE RANGE	1	950002678259	0770048
HYGROTHERMOMETER, DIGITAL: TYPE: SENSOR; TEMPERATURE RANGE: -50 TO 50 DEG C	1	950002678260	0770056
ANEMOMETER: TYPE: WIND DIRECTION SENSOR; RANGE: 0-100 SQM 224 MPH 0-360 DEG C; POWER SOURCE: 8-24 VDC; 5 MA AT 12 VDC; WIND SPEED: MAGNETICALLY INDUCED AC VOLTAGE; 3 PULSES PER REVOLUTION; 1800 RPM; 90 HZ; 8.8 M/S;	1	950002678261	0770977
MAST:INSTRUMENT;SELF-STANDING ON 3 LEGS	1	950002678262	0770873

3.4.1 Specification of Product or Goods

Line item	Product	Material Nr	Quantity	Delivery point
1	KIT:DEVICE DATA LOGGER;DATA AQCUISATION	0770050	1	Acacia Power Station
2	ANTENNA:GAIN DUAL BAND MAGNETIC;50 HZ	0770046	1	Acacia Power Station
3	GA PRECPTTN:RAIN;DIA 18 X HT 30 CM;200	0770058	1	Acacia Power Station
4	DETECTOR:RADIATION SENSOR	0770047	1	Acacia Power Station
5	ALTIMETER, SURVEYING:HPA;PRESSURE RANGE	0770048	1	Acacia Power Station
6	HYGROTHERMOMETER, DIGITAL: TYPE: SENSOR; TEMPERATURE RANGE: -50 TO 50 DEG C	0770056	1	Acacia Power Station
7	ANEMOMETER: TYPE: WIND DIRECTION SENSOR; RANGE: 0-100 SQM 224 MPH 0-360 DEG C; POWER SOURCE: 8-24 VDC; 5 MA AT 12 VDC; WIND SPEED: MAGNETICALLY INDUCED AC VOLTAGE; 3 PULSES PER REVOLUTION; 1800 RPM; 90 HZ; 8.8 M/S;	0770977	1	Acacia Power Station
8	MAST:INSTRUMENT;SELF-STANDING ON 3 LEGS	0770873	1	Acacia Power Station

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- **Wind Speed / Wind direction sensor**

  Range:
  0-100 m/s (224 mph), 0- 360°

  Power Requirement**:** 8-24 VDC (5 mA @ 12 VDC)
  Output Signals: 0-5.00 VDC full scale

  Signal Output:
  Wind speed: magnetically induced AC voltage, 3 pulses per revolution.
  1800 rpm (90 Hz) = 8.8 m/s (19.7 mph)

- **Barometric pressure sensor**

Pressure Range:	500-1100 hPa
Digital Accuracy*:	0.2hPa (25°C) 0.3 hPa (-40 to +60°C)
Analog Accuracy**:	0.05% of analog pressure range

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Analog Output:	0 to 5000 mV (Model 61302V) 4 to 20 mA (Model 61302L)

- **Radiation sensor**

  Measurement range: 400-1100 nanometers

  Sensitivity: Typically 80 µA per 1000 W m-2

  Linearity: 1% max up to 3000 W m-2

  Signal: 70092 0-8 mV =0-1000 Wm-2

  typical across 100 W load.

  70201 0-1000 mV = 0-1000 Wm-2

- **Rain gauge sensor**

  Size: 18 cm dia. x 30 cm high, (39 cm high with mounting base)

  Catchment Area: 200 cm2

  Resolution: 0.1 mm per tip,0.2 mm per tip (optional)

  Accuracy: 2% up to 25 mm/hr 3% up to 50 mm/hr

- **Temperature/Humidity sensor**

  RELATIVE HUMIDITY:

  Measuring range:

  0-100% RH

  Accuracy at 23°C:

  ±1%

  Stability:

  Better than ±1%RH per year

  Response Time:

  10 seconds (Without Filter)

  Sensor type:

  Rotronic Hygromer

  TEMPERATURE:

  Measuring Range:

  -50 to +50°C

  Accuracy at 23°C:

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±0.3°C

Response Time:

10 seconds (Without Filter)

Sensor type:

Platinum RTD W

Output signal:

0-1 or 0-5 VDC (jumper option)

Power Required:

8-30 VDC at 7 Ma

- - Collapsible 10m Masts (Photos of the mast must be included)
- - CR1000 Data loggers
- - Communicator modems

LANTRONIX M113 GSM MODEM

ANT 7DB Antenna - 7 dB Gain Dual Band Magnetic Base (3.5 metre cable)

SC9CNULL Null Modem RS232 Cable DB9

Hardware:

Dual mode LTE-M1/ NB-IoT M113; via an SMA antenna connector

LTE Cat 1bis M114; via an SMA antenna connector

I/Os

Two 2-way versatile I/Os, i.e. user-configurable, each one independently from the other, as either (i) analogue input or (ii) digital output; via the lower row of the same header

• ANALOGUE INPUT: 0 V dc ~ 48 V dc range; 12-bit resolution

• DIGITAL OUTPUT: open collector; 200 mA max.; 50 V dc max

Serial communication

RS232 Full implementation; via a 9-pin sub-D header

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Physical description

Brushed aluminium alloy

• Size: (mm) 60 x 66 x 21.7 without connectors

• Weight: Approx. 95 grams

• Operating Status LEDs: Two as Power/ Cellular Signal

• Reset Button: Short / Long press for Reset / Reset to factory settings

Power

8 V dc ~ 32 V dc with SLOW START; via the upper row of a dual row, 4-pin, Micro-Fit™ 3.0 Header

Software suite

Connectivity: Dial-up, TCP / UDP permanent client / server or on-demand client with two TCP / UDP sockets for failover, Network connectivity watchdog

• Miscellaneous Features: Support for concatenated SMS, TCP

• DOTA: via user's HTTP server

• Percepxion client integration: remote configuration, console, telemetry, and tunnelling support.

3.4.2 Qualitative Technical Evaluation Criteria

Technical Criteria	Rating
Specification of equipment as per procurement request Meet the full specification- 20% Not meeting the specification- 0%	20%
Submission of datasheet / brochure for the met equipment to be supplied. Full- Submission of the data sheet and brochure – 20% Submission of the data sheet alone without the brochure- 10% Non submission of the data sheet and brochure – 0%	20%
Letter of support from the OEM- 30%	30
Experience of the supplier on equipment or instrumentation (Provide References or a letter) - 6 years = 30% - 5 years = 25 - 3-4 years = 15% - 1-2 years = 10% - <1 year = 0%	30%
TOTAL Score	100%

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3.5 Supply and Delivery of Fluorescent Sulphur Dioxide, Chemiluminescence Nitrogen Oxide (Nox) and Ozone (O3) Analyser

Acacia Power Station Asset Nr:

Item Description	Quantity	Asset Nr	Material Nr
GAS ANALYSER: SO2 T1002	1	950002678251	0728681
GAS ANALYSER: CHEMILUMINESCENSE DISPLAY: ADVANCED COLOUR DISPLAY 220-240	1	950002678252	0713067
ANALYSER OZONE: 0-100PPB	1	950002678253	0700870

Gourikwa Power Station Asset Nr: TB

3.5.1 Specification of Product or Goods

Line item	Product	Material Nr	Quantity	Delivery point
1	Fluorescent sulphur dioxide analyser	0728681	1	Acacia Power Station
2	chemiluminescence nitrogen oxide (NOx) analyser	0713067	1	Acacia Power Station
3	Ozone (O_3) analyser	0700870	1	Acacia Power Station

Line item	Product	Material Nr	Quantity	Delivery point
1	Fluorescent sulphur dioxide analyser	0728681	1	Gourikwa Power Station
2	chemiluminescence nitrogen oxide (NOx) analyser	0713067	1	Gourikwa Power Station
3	Ozone (O_3) analyser	0700870	1	Gourikwa Power Station

Fluorescent sulphur dioxide (SO_2) analyser

Fluorescent SO_2 analysers (220 – 240VAC) complete with the following:

- Operating and maintenance manuals
- 220 – 240VAC pump
- Teflon inlet sample filter holder
- Analyser operating ranges 0 -0.5ppm and 0 – 1.0ppm
- US EPA or TUV approved
- One consumable kit for one year's operation
- Continuous analogue output (0 – 1VDC) of SO2

Chemiluminescence nitrogen oxide (Nox) analyser

Chemiluminescence NOx analyser (220 – 240VAC) complete with the following-

- Operating and maintenance manuals

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- 220 – 240VAC pump
- Teflon inlet sample filter holder
- Analyser operating ranges 0 -0.5ppm and 0 – 1.0ppm
- US EPA or TUV approved
- One consumable kit for one year's operation
- Continuous analogue output (0 – 1VDC)

Ozone (O_3) analyser

Ozone analyser (220 – 240VAC):

- Operating and maintenance manuals
- 220 – 240VAC pump
- Teflon inlet sample filter holder
- Analyser operating ranges 0 -0.5ppm and 0 – 1.0ppm
- US EPA or TUV approved
- One consumable kit for one year's operation
- Continuous analogue output (0 – 1VDC)

3.5.2 Qualitative Technical Evaluation Criteria

Technical Criteria	Rating
Specifications of equipment as per procurement request Meet the full specification- 40% Not meeting the specification- 0%	40%
Guarantee/Warranty Documented proof of guarantee provided - 3-4 years = 15% - 1-2 years = 10% - 0-1 years = 5% <1 year = 0%	15%
Submission of brochure for the signal booster to be supplied. Full- Submission of the brochure – 20% Non submission of the brochure – 0%	20%
References of previous work/ supplies to this request >3 references = 25% 1 to 2 references = 15% 0 to 1 references = 10% 0 references= 0%	25%
TOTAL Score	100%

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3.6 Supply and delivery of 1 Power Backup Systems

3.6.1 Specification of Product or Goods

Acacia Power Station Asset Nr: 950002678264

Gourikwa Power Station Asset Nr: TB

Line item	Product	Material Nr	Quantity	Delivery point
1	Power backup systems	0720806	1	Acacia Power Station
2	Power backup systems	0720806	1	Gourikwa Power Station

The power backup system must consist of the following:

- One (1) x 48V 5KW Inverter
- Two (2) x 48V 4.8KWh Battery pack (Lithium Ion)
- All cables necessary for connection between inverter and battery pack
- Fuses for positive and negative terminal
- A steel rack to enclose the battery and the inverter.
- All cables necessary for connection between batteries (parallel connection)
- Inverter communication modem

In total there must be one (1) inverters and two (2) lithium-ion batteries.

3.6.2 Qualitative Technical Evaluation Criteria

Process applied for conducting a technical evaluating on supply and delivery of 1 x power extended 5000/48v VA Uninterruptible power supply (UPS)/Invertor with lithium-ion battery kit and cabling for the air quality monitoring sites network.

Technical Criteria	Rating
Company experience -Resources and competencies: Organogram indicating key personnel. 3 CVs and Qualification. Project Supervisor, UPS installer and Quality Controller. Company experience 4 years- 3 CVs and Qualification. Project Supervisor, UPS installer and Quality Controller -50% 3 years - 2 CVs and Qualification. Project Supervisor and UPS installer – 30% 2 years- 1 CV and Qualification. Project Supervisor- 20% 1 year- no cv and qualification provided - 0%	50%
Availability of ups from suppliers within 3 weeks of order if not in stock – Documented proof/letter from the OEM provided - 3 weeks = 20% - 4 weeks = 15% - 5 weeks = 10% - > 5 weeks = 5%	20%
Guarantee/Warranty Documented proof of guarantee provided - 5 years = 15% - 3-4 years = 10% - 1-2 years = 5% - <1 year = 0%	15%
Experience on ups installation (Provide References) - 5 years = 15%	

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- 3-4 years = 10% - 1-2 years = 5% - <1 year = 0%	15%
TOTAL Score	100%

3.7 Supply and Delivery of Zero Air Generator

3.7.1 Specification of Product or Goods

Acacia Power Station Asset Nr: 950002678263

Gourikwa Power Station Asset Nr: TB

Line item	Product	Material Nr	Quantity	Delivery point
1	Zero air generator	0770108	1	Acacia Power Station
2	Zero air generator	0770108	1	Gourikwa Power Station

Zero air flow: 0-9l/min at 200KPA (std for 8301 P) 8301

Zero air pressure: 200KPA (nominal for portable version)
H2O: Dew-Point -15°C (nominal)*
Power: 220V AC 50Hz
Air scrubbers: Air Clean-Up Canister for removal of: NOx , NO, NO2, O3, SO2, H2S.

3.7.2 Qualitative Technical Evaluation Criteria

The process applied for conducting technical evaluation for the supply and delivery zero air generator (Technical Score 100%). The qualifying threshold for all the suppliers is 80%.

Technical Criteria	Rating	
Specifications of equipment as per procurement request Meet the full specification- 40% Not meeting the specification- 0%	40%	
Guarantee/Warranty Documented proof of guarantee provided - 3-4 years = 15% - 1-2 years = 10% - 0-1 years = 5% <1 year = 0%	15%	
Submission of brochure for the zero air generator to be supplied. Full- Submission of the brochure – 20% Non submission of the brochure – 0%	20%	
References of previous work/ supplies to this request >3 references = 25% 1 to 2 references = 15% 0 to 1 references = 10% 0 references= 0%	25%	
TOTAL Score	100%	

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4. Acceptance

This document has been seen and accepted by:

Name	Designation
Riaan De Goede	Snr Advisor Ankerlig
Hilton Westman	Environmental Officer
Maureen Dlulisa	Environmental Officer
Jurina Le Roux	Environmental Manager
Zukile Tshisa	O&M Manager
Shaun Moodley	O&M Manager
Pamela Mrubata	Plant Manager

5. Revisions

Date	Rev.	Compiler	Remarks
September 2026	1	Jurina le Roux	New contract establishment

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