PART 3: SCOPE OF WORK

Document reference	Title	
	This cover page	1
C3.1	*Employer*'s Service Information	39
C3.2	*Contractor*'s Service Information	N/A

C3.1: EMPLOYER'S SERVICE INFORMATION

Contents

1 Description of the *service*

1.1 Executive overview

The objective of this contract is for the *Contractor* to provide a Comprehensive All-inclusive Control and Instrumentation Maintenance Service including quality control for Majuba Power Station at **Units1 to unit 6 (Boiler plant, Turbine plant,) and Common plant (Water treatment plant, Coal plant, Ash plant, H2 plant)** The period of 5 years, starting from 1st October 2022 and ending 30th September 2027.

The Contractor will perform Planned, Corrective, Preventative and Opportunity Maintenance.

The *Contractor* is required to have an effective quality management system in place and be ISO 9001 approved. Furthermore, all activities will be done as per to the level of quality management stipulated therein and also according to the Eskom procedures Majuba Engineering Section, Risk assurance department and Management.

The *Contractor* is to perform planning and scheduling associated with the Boiler, Turbine, H2, Water treatment, Ash and Coal Area in line with the Eskom Works Management Process and Maintenance strategy.

Eskom is implementing a workflow management system and the *Contractor* will be expected to attend Daily meetings and provide maintenance plans and feedback as required.

All plant require a permit to work , Maintenance personnel responsible for that particular plant will be responsible for taking the permit, as per the Plant **Safety Regulations. All personnel will be required to be Authorised on the Plant Safety Regulations.**

Payment will be done on monthly basis, after assessment of completed scope of work. Plant condition will be assessed as per the provided assessment spread sheet. It must always be done on the 25th or before the 25th of each month.
NB: Station is currently busy with the preparation for the upgrade on all station lifts and it will take a period of 3 years to do all the repairs. Some lifts are not working. The supplier normally tries to repair where they can. It is a challenge to walk to upper levels, especially on the boilers 16m level.

1.2 Scope of work

The scope of work is for the supply of C&I maintenance (planned, preventive, corrective, and opportunity) service on the plant including quality control at Majuba Power station as well as spares stock control and Spares QC. The Units 1 to 6 (Boiler Plant, Draught Plant, Fabric Filter Plant, Turbine Plant, including all associated auxiliary plant), and the Common plant

(Ash, Coal and Water treatment). If the Plant has been upgraded and newly installed plant will be added to the scope of work without compensation.

1.2.1 Quality Control requirements

Ensure compliance to the employer's Quality requirements

Develop and review QCPs. Develop and maintain the upkeep of updated QC files for audit purposes

Preform quality control on daily maintenance activities and planned work as and when required by the employer.

Preform quality control during the scheduled outages. Quality Control Functions will be provided for C&I modifications and projects.

1.2.2 Boiler Plant, Turbine Plant and Hydrogen Plant

The sections of the plant that will be covered by the contractor during the term of the contract are as follows:

1. Filter Fabric Plant
2. Draught Group
3. Steam Generation Plant
4. Condensate System
5. LP Bypass
6. Lube Oil
7. Actuators
8. Auxiliary cooling
9. Generator
10. H2 plant
11. Water Treatment Plant
12. Condensate Polishing Plant
13. Ash Plant
14. Station Services
15. Low Pressure Services
16. Auxilliary Cooling Plant
17. Coal Plant [all plant at Majuba Power Station].

a) The contractor will be expected to conduct work on the loop instruments and associated equipment. The instruments on the field linked to the DCS
b) Do fault finding, conduct repairs and maintain all actuators, stroking actuators, pressure,

temperature, flow and control loops as outlined in the detailed scope of work (a loop is defined as from the plant instrument equipment till the termination on the DCS, SAE including cabling and junction/splitter/local control boxes, excludes DCS modules, module wiring and software and software modifications and SIEMENS DCS hardware)

c) Conduct Plant walk downs, do inspections, raise notifications as and when required

d) Execute maintenance SOW (defects awaiting plant/spares before outage) for outage on units declared on outage

e) Provide standby duties as per Majuba, C&I maintenance requirements

f) Work overtime if required during opportunity maintenance (planned overtime)

g) Work unplanned overtime (emergent work) as and when required

- The contractor must calibrate and issue calibration certificates for all instrumentations and field equipment that exist in the plant, where the contractor will be assigned to do work
- The contractor shall be responsible for fault finding, replacement of damaged instrumentations, replacement or repair of damaged impulse lines, replacement of cables (pulling new cables or using spare cores) and any other works related to instrumentations and control equipment.

h) The contractor shall assist with all functional testing including but not limited to boiler protection function test, turbine protection function test, pyrometer trip test, black furnace test and any other testes requested by the Eskom supervisor or manager.

- Core services consist of preventative as well as corrective maintenance, and shall be relevant to maintaining plant availability and reliability in a cost effective way according to maintenance strategy.
- The contractor ensures that his/her personnel are authorised to take out permits to work in accordance with Plant Safety Regulations within the three months' time from the date the contractor started with the work
- The contractor provides standby service on daily basis and for any call-out for breakdown at any given time.
- The contractor compiles bills of materials for all spares and consumables before commencement of work
- The contractor will be able to draw spares from stores via planners (works management) for stock items (available from Majuba's stores)
- The contractor will inform the supervisor of any spare that is unavailable / has low stock level available.

- A request for non-stock items may be communicated to planning (works management) and stores at least weekly before commencement of works for non-stock items (items that are not in Majuba Power Station's stores).
- The bills of materials must be submitted to the maintenance supervisor of the specific plant area.
- The contractor attends to all defects associated with the plant instrumentations, field equipment and control equipment.
- The contractor shall re-commission the plant when requested by supervisor or C&I engineer of the plant.
- Clearing of channel faults on the DCS.
- Implementing of simulations and the removal of simulations on the Control System
- The contractor shall implement engineering changes/modifications when requested Supervisor/Engineer
- Conduct walk-down on all Control Air Plant to minimise air leaks and conduct repairs where necessary.

1.2.3 Common Plant (Water treatment, Coal and Ash Plants)

The scope for the Common (outside) Interface to the ABB DCS Control Systems will include the following:

1. Water Treatment Plant
2. Condensate Polishing Plant
3. Main Cooling System
4. Cooling Water Treatment Plant
5. Low Pressure Services
6. Dirty Drains Treatment Plant
7. Coal Plant
8. Ash Plant
9. General Requirements
    - PPE
    - Radiation Training
    - Tools, Fluke Test Equipment and leads

The scope for the Common plant will INCLUDE the following:

1. UVG Cables Pulling
2. Termination on Plant and DCS Panel

1.3 Detailed Scope of work

1.3.1 Boiler Plant, Turbine Plant and Hydrogen Plant

The boundaries of the plant where maintenance is to be performed will cover the following systems:

Note: The sections of the plant that will be covered by the contractor during the term of the contract are as follows:

The following scope is common for the following plants (1.3.1.1 to 1.3.1.11).

a) The contractor will be expected to do work on the loop from the instrument on the field all the way to the DCS.

b) Do fault finding, repairs and maintain all pressure, temperature, flow and control loops as outlined in the detailed scope of work (a loop is defined as from the plant instrument equipment till the termination on the DCS SAE including cabling and junction/splitter/local control boxes, excludes DCS modules, module wiring and software and software modifications and SIEMENS DCS hardware)
c) Conduct Plant walk downs and inspections and raise notifications as necessary
d) Execute maintenance SOW (defects awaiting plant/spares before outage) for outage on units declared on outage
e) Provide standby duties as per Majuba Requirement
f) Work overtime if required during opportunity maintenance (planned overtime)
g) Work unplanned overtime (emergent work) as and when required

- The contractor must calibrate and issue calibration certificates for all instrumentations and field equipment that exist in the plant, where the contractor will be assigned to do work
- The contractor shall be responsible for fault finding, replacement of damaged instrumentations, replacement or repair of damaged impulse lines, replacement of cables (pulling new cables or using spare cores) and any other works related to instrumentations and control equipment.

i) The contractor shall assist with all functional testing including but not limited to boiler protection function test, turbine protection function test, pyrometer trip test, black furnace test and any other testes requested by the Eskom supervisor or manager.

- Core services consist of preventative as well as corrective maintenance, and shall be relevant to maintaining plant availability and reliability in a cost effective way according to maintenance strategy.
- The contractor ensures that his/her personnel are authorised to take out permits to work in accordance with Plant Safety Regulations in three months' time from the date the contractor started work

- The contractor provides standby service on daily basis and for any call-out for breakdown at any given time.
- The contractor compiles bills of materials for all spares and consumables before commencement of work
- The contractor will be able to draw spares from stores via planners (works management) for stock items (available from Majuba's stores)
- A request for non-stock items may be communicated to planning (works management) and stores at least 3 months before commencement of works for non-stock items (items that are not in Majuba Power Station's stores).
- The bills of materials must be submitted to the maintenance supervisor of the specific plant area.
- The contractor attends to all defects associated with the plant instrumentations, field equipment and control equipment.
- The contractor shall plant re-commissioning the plant when requested supervisor or engineer
- The contractor shall execute implementation of engineering changes/modifications when requested Supervisor/Engineer

1.3.1.1 Filter Fabric Plant

1.3.1.2 Draught Group

1.3.1.3 Steam Gen

1.3.1.4 Condensate

The Contractor must provide skills to maintain the Condensate System. This will entail the stroking of:-

- Maintain and stroke - Hopkinson actuators / Siemens actuators / Rotork actuators
- Calibrate Pressure / level and Flow transmitters
- Calibrate Pressure switches / Flow switches / Temperature Switches / Level switches
- Install proximity switches and test proximity switches
- Conduct maintenance on temperature and RTD circuits

1.3.1.5 LP Bypass

- Stroke LP Bypass valves
- Set feedback on the actuators
- Calibrate transmitters [Pressure / Dp / Flow & Level
- Set stroke times on LP Bypass valves
- Calibrate pressure switches and level switches on power packs
- Conduct fault finding on the LP Bypass stand – alone control system
- Stroke warming valves on the LP Bypass system

1.3.1.6 Lube Oil

- Calibrate pressure switches
- Set level switches
-

1.3.1.7 Actuators

- Set limits on actuators
- Set feedback on actuator's
- Conduct fault finding on wiring of actuators
-

1.3.1.8 Auxiliary cooling

1.3.1.9 Generator

- Calibrate Pressure / level and Flow transmitters
- Calibrate Pressure switches / Flow switches / Temperature Switches / Level switches
- Conduct maintenance on temperature and RTD circuits
- Calibrate Hydrogen analysers / CO2 analysers & associated equipment

Turbine Plant

- Maintain and stroke - Hopkinson actuators / Siemens actuators / Rotork actuators
- Calibrate Pressure / level and Flow transmitters
- Calibrate Pressure switches / Flow switches / Temperature Switches / Level switches
- Install proximity switches and test proximity switches
- Conduct maintenance on temperature and RTD circuits
- Removal of Centre- line equipment prior to Outages.
- Installation of Centre line Equipment after an outage
- Calibration of Centre Line Equipment after an Outage and when deemed necessary by supervisor or the Engineer.
- Stroking of the Governor valves
- Conducting of fault finding on Governor Valves
- Removal & installing of Governor valves Modules in the micro-governor system.
- Conduct fault – finding on the stress circuits the micro-governor
- Ability to navigate and work on the Bently Nevada System [TSE]

1.3.1.10 H2 plant

- Calibration of Analysers
- Calibration of all transmitters
- Conduct repairs to solenoid valves

1.3.2 Common Plant

1.3.2.1 Water Treatment

Contractor must be able to do fault finding, install, remove, stroke and calibrate the following equipment used on the Water Treatment Plant. Please note where ever 4-20mA, digital or 24Vdc signals are been transmitted, the contractor will be responsible for the instrument as well as the signal cabling right up to and including the fuse on the connection unit inside the DCS. No further maintenance will be required beyond this point

a) Install, remove, stroke check, calibrate, Set open and close limits, program
   - ABB TZIDC pneumatic positioners
   - Max Air Technologies pneumatic actuators and indication boxes.
   - Rotork pneumatic actuators
   - Mitech acid/caustic dosing supply valves

b) Install, remove, set-up, program and calibrate of
   - Thornton M300 conductivity analyzers
   - ABB conductivity analyzers
   - conductivity probes
   - All dos chlorine dosing equipment.
   - chlorine detector system

c) Install, remove, calibrate or bench calibration, program and do fault finding on
   - RTD temperature probes.
   - Electronics temperature convertors.
   - Flex Temp Iso temperature convertors.
   - VEGA Puls 68 level transmitters.
   - VEGA Puls 61 level transmitters.
   - Multiflex level transmitters.
   - ABB Hart transmitter for level, flow and pressure.
   - Endress & Hauser Hart transmitters for level, flow and pressure.
   - Wika differential pressure gauges with switch contacts
   - ABB magnetic flowmeters

d) Do fault finding on local/remote stop start stations. Telemaganique switches.

e) Install, remove, fault finding and testing on Burkett two way and three way solenoid valves.

1.3.2.2 Condensate Polishing Plant (CPP)

Contractor must be able to do fault finding, install, remove, stroke and calibrate the following equipment used on the Condensate Polishing Plant. Please note where ever 4-20mA, digital or 24Vdc signals are been transmitted, the contractor will be responsible for the instrument as well as the signal cabling right up to and including the fuse on the connection unit inside the DCS. No further maintenance will be required beyond this point.

a) Install, remove, stroke check, calibrate, Set open and close limits, program

- Max Air Technologies pneumatic actuators and indication boxes.
- Bernard electric actuators on (unit 1-3 CPP)
- Rotork IQ electric actuators on (unit 4-6 CPP)
- Rotork pneumatic actuators

b) Install, remove, set-up, program and calibrate of
- Thornton M300 conductivity analyzers (Units 1-3)
- ABB conductivity analyzers
- conductivity probes
- Alldos chlorine dosing equipment.
- chlorine detector system
- Thornton CR200 conductivity analyzers (units 4-6)

c) Install, remove, calibrate or bench calibration, programme and do fault finding on:
- RTD temperature probes
- ABB Hart transmitter for level, flow and pressure. (Unit 1-3)
- Endress & Hauser Hart transmitters for level, flow and pressure. (Unit 4-6)
- PR electronics temperature convertors.

d) Do fault finding on local/remote stop start stations. Telemaganique switched.

e) Install, remove, test and stroke checking of Install, remove, test and stroke checking of.

f) Maintaining of variable area flowmeters on George Louw panels as well as Wika Pressure gauges and flow switches.

g) Do fault finding and maintain sample cooling system on CPP plant.

h) Install, remove and maintaining ASCO solenoid valves.

1.3.2.3 Main Cooling System

Contractor must be able to install, remove, set-up, stroke and calibrate the following equipment with regards to the Main Cooling Plant. Please note where ever 4-20mA, digital or 24Vdc signals are been transmitted, the contractor will be responsible for the instrument as well as the signal cabling right up to and including the fuse on the connection unit inside the DCS. No further maintenance will be required beyond this point.

a) Install, remove, stroke check, calibrate, Set open and close limits, program
- Rotork IQ electric actuators on

b) Install, remove and set-up of position encoders on main cooling auto closing valves.

c) Install, remove, set-up, calibrate and fault find on:
- VEGA Puls 61 level transmitters on main cooling center well.

- Flex Temp Iso temperature convertors.
- RTD temperature probes.
- Sulzer oil level switches on main cooling pump and motor.

d) Do fault finding on local/remote stop start stations. Telemaganique switches.

1.3.2.4 Cooling Water Treatment Plant

Contractor must be able to install, remove, set-up, stroke and calibrate the following equipment with regards to the Cooling Water Treatment Plant. Please note where ever 4-20mA, digital or 24Vdc signals are been transmitted, the contractor will be responsible for the instrument as well as the signal cabling right up to and including the fuse on the connection unit inside the DCS. No further maintenance will be required beyond this point.

a) Install, remove, set-up, program and do fault finding on
   - Endress & Hauser Promag 53 flowmeters
   - Promag 33 flowmeters.
   - Endress & Hauser vibrating fork level switches.
   - Milltronics Multiranger Plus level transmitter
   - Thornton M300 pH analysers as well as correct installation of pH probes
   - lime silo strain gauges

b) Install, remove, test and stroke checking of
   - Rotork IQ electric actuators.
   - Drehmo electric actuators.
   - Rotork AQ electric actuators

c) Install, remove and testing of Telemaganique torque limit switches,

d) Do fault finding on local/remote stop start stations. Telemaganique switches.

1.3.2.5 Low Pressure Services

Contractor must be able to install, remove, set-up, stroke and calibrate the following equipment with regards to the Main Cooling Plant. Please note where ever 4-20mA, digital or 24Vdc signals are been transmitted, the contractor will be responsible for the instrument as well as the signal cabling right up to and including the fuse on the connection unit inside the DCS. No further maintenance will be required beyond this point

a) Install, remove test and calibrate or bench calibrate of
   - Wika pressure gauges.
   - ABB Hart transmitter for pressure

- ABB magnetic flowmeters
- Multiflex level transmitters
- VEGA Puls 61 level transmitters]
- Fan Vibration Monitoring equipment

b) Install, remove, test and stroke checking of
- Rotork IQ electric actuators.
- Drehmo electric actuators.
- Rotork AQ electric actuators

c) Do fault finding on local/remote stop start stations. Telemaganique switches.

1.3.2.6 Dirty Drains Treatment Plant

Contractor must be able to install, remove, set-up, stroke and calibrate the following equipment with regards to the DIRTY DRAINS TREATMENT PLANT

Please note where ever 4-20mA, digital or 24Vdc signals are been transmitted, the contractor will be responsible for the instrument as well as the signal cabling right up to and including the fuse on the connection unit inside the DCS. No further maintenance will be required beyond this point

a) Install, remove calibrate or bench calibration and testing of
- Wika pressure gauges.
- Endress & Hauser Prosonic M level transmitters
- Multiranger 200 level transmitter for open channel measurement (V-notch)
- ABB conductivity analysers as well as correct installation of conductivity probes

b) Do fault finding on local/remote stop start stations. Telemaganique switches.

c) Install, remove, test and stroke checking of Rotork IQ electric actuators

1.3.2.7 Coal Plant

a) Tippler Positioner

Please note wherever 4-20mA, digital or 24Vdc signals are been transmitted, the contractor will be responsible for the instrument as well as the signal cabling right up to and including the fuse on the connection unit inside the DCS. No further maintenance will be required beyond this point

- Install, remove, Calibrate test and fault find of:
  - hydraulic power Pack Modules
  - Field Instruments
  - Switches,

- Solenoid valves,
- Valves,
- Encoders
- Spider stand-alone controller

b) Weigh bridge (Coal Stack yard and security)

To maintain and clean all weigh bridge field instruments, junction box, cables and scale integrators

- Load cells fault finding and replacement.
- Load cells cables fault finding and replacement
- Load cells junction boxes fault finding and replacement
- Weigh bridge scale integrator fault finding.
- Scale integrator 24 volts supply fault finding and replacement.

c) General

To be involve to every modification taking place at any weigh bridge on site. **Four on** coal stack yard and **one** at the security gate.

NB:

Computer section and Eskom will attend to:

- The weigh bridge computers and software fault finding.
- The weigh bridge network systems
- General all computer peripherals.
- **NOTE:** weigh bridge scale integrators belong to the contractor.

d) TIPPLER DAMPERS:

Please note where ever 4-20mA, digital or 24Vdc signals are been transmitted, the contractor will be responsible for the instrument as well as the signal cabling right up to and including the fuse on the connection unit inside the DCS. No further maintenance will be required beyond this point

- Install, remove, Calibrate test and fault find of:
  - hydraulic power Pack Modules
  - Field Instruments
  - Switches,
  - Solenoid valves,
  - Valves,
  - Encoders

- Test Local Control Stations (LCS)

e) COAL PLANT CONVEYORS

Please note where ever 4-20mA, digital or 24Vdc signals are been transmitted, the contractor will be responsible for the instrument as well as the signal cabling right up to and including the fuse on the connection unit inside the DCS. No further maintenance will be required beyond this point

- Install, remove, Calibrate test and fault find and maintain of all Long Line Protection including the following:
  - Field Instruments,
  - Field Devices,
  - Long line Cable,
  - Head End Control Units,
  - Magnetic Separators
  - Massmeters
  - Metal Detectors
  - Blocked Chute Detectors
  - Local Control Stations (LCS)
  - Cables to the Junction Boxes
  - Pull Keys
  - Primary Devices
  - Belt Misalignment and tear devices
  - End Units

f) DC, BUFFALO AND HYDRAULIC DRIVE FEEDER CONVEYORS

Please note where ever 4-20mA, digital or 24Vdc signals are been transmitted, the contractor will be responsible for the instrument as well as the signal cabling right up to and including the fuse on the connection unit inside the DCS. No further maintenance will be required beyond this point

- Install, remove, test calibrate and maintain coal plant DC, Buffalo and Hydraulic drive feeder conveyors long line protection:
  - Field Instruments
  - Field Devices
  - Long Line cable
  - Head End Control Unit
  - Local Control Stations
  - Cables to Junction Boxes

- Install, remove and testing maintain all Hydraulic Power Pack field instruments,
  - Control Modules,
  - Valves,
  - solenoid valves,
  - switches
  - Transmitters

- Ensure that the DC Drives input and output signals from the Junction Boxes to the DCS are monitored and maintained.

g) COAL PLANT MOVING HEADS

Please note where ever 4-20mA, digital or 24Vdc signals are been transmitted, the contractor will be responsible for the instrument as well as the signal cabling right up to and including the fuse on the connection unit inside the DCS. No further maintenance will be required beyond this point

- Install, remove testing and maintain all moving head long line field instruments,
  - Field devices,
  - Long line cable,
  - Head End Control unit,
  - Local Control Station (LCS)
  - Limit switches,
  - Ultimate switches,
  - Cables to junction box,
  - Cables to the DCS connection units up to the fuse

h) HYDRAULIC PROPORTIONAL GATE

Please note where ever 4-20mA, digital or 24Vdc signals are been transmitted, the contractor will be responsible for the instrument as well as the signal cabling right up to and including the fuse on the connection unit inside the DCS. No further maintenance will be required beyond this point

- Install, remove testing**,** calibrate and maintain all hydraulic power pack field instruments,
  - Control modules,
  - Valves,
  - Solenoids valves,
  - Switches
  - Transmitters

i) SILO'S BINS AND BUNKERS

Please note where ever 4-20mA, digital or 24Vdc signals are been transmitted, the contractor will be responsible for the instrument as well as the signal cabling right up to and including the fuse on the connection unit inside the DCS. No further maintenance will be required beyond this point

- Install, remove testing calibrate and maintain all coal silos, bins and bunker field instruments.
  - All Local Control Station (LCS),
  - Limits or level switches,
  - Level transmitters,
  - Cables to junction box,
  - Cables to DCS connection units up to the fuses

1.3.2.8 Ash Plant

1. Phasing

Phasing of Ash Plant C&I.

Ash plant areas of responsibility as per Maintenance Philosophies

1) Unit 1 to 6 SSC Unitised Siemens Control
2) Two Ash Stackers and One Emergency Ash Stacker
3) Outside Plant Ash Conveyors and Moving Heads and Chutes :

a. Transverse
b. Coarse Ash Conveyors, Flopper Chutes
c. Overland
d. Cross
e. Extendable
f. Shift able
g. Link
h. Boom
i. Install, Remove, Calibrate, Test, Clean and fault find of:
   - Hydraulic power Pack Modules
   - Field Instruments
   - Switches,
   - Solenoid valves,
   - Valves,
   - Encoders
   - Local Control Stations (LCS)
   - Junction Boxes
   - Field and Trunk Cables

j. Install, remove, Calibrate, Test, Clean and fault find and maintaining of all CT Systems Long Line Protection including the following:
   - Field Instruments,
   - Field Devices,
   - Long line Cable,
   - Head End Control Units,
   - Magnetic Separators
   - Mass meters
   - Metal Detectors
   - Blocked Chute Detectors
   - Cables to the Junction Boxes
   - Pull Keys
   - Primary Devices
   - Belt Misalignment and tear devices
   - End Units

2. **Generic To Coal & Ash C&I**
   - Conveyor Long Line Protection CT Systems HECU and Field Devices from the Device to the HECU and to the Control Room/Engineering Room

3. **Generic To Coal, Ash, Water Treatment Plant, Condensate Polishing Plant, Main Cooling System Cooling Water Treatment Plant Low Pressure Services, Dirty Drains Treatment Plant C&I**
   a) All C&I equipment to be maintained according to the Majuba Power station maintenance philosophy.
   b) Modifications**:**
      - Contractor responsible for all installation and commissioning of hardware
        - Pulling of cable and termination until the DCS RV8 terminals
        - Installation of junction boxes
        - Installation of field equipment

1.4 *Employer*'s requirements for the *service*

1.4.1 Extent of the Scope

The scope of the Contract is to perform C&I Maintenance on the Boiler, Turbine, Hydrogen, Water treatment, Coal and Ash plants in a safe, efficient and effective manner, to meet the demands of Majuba Power Station.

NOTE: It is expected from the *Contractor* to ensure that the Boiler, Turbine, Water treatment, Ash, Coal and Hydrogen plants instrumentation are available and reliable to such an extent that ZERO load losses have to be taken on the Units due to the Control and Instrumentation issues.

KPI's like plant Availability, Reliability, Outstanding Work orders, Rework, Plant Trips, Load losses, will be measured to determine the successful performance of the plant areas.

1.5 Interpretation and terminology

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
BCEA	Basic Conditions of Employment Act
C&I	Control and Instrumentation
CPP	Condensate Polishing Plant
DCS	Digital Control System

DCP	Digital Control Panel
FPG	Functional Plant Group
FFFR	Fuel Fire Fossil Pulverised
H2	Hydrogen
HV1	High Voltage 1
INO	Initial Notice of Occurrence
LCM	Local Control Monitor
PM	Plant Maintenance
LCS	Local Control System
PPE	Personnel Protective Equipment
QCP	Quality Control Plan
SAE	SAE
SD&L	Supplier Development and Localisation
SMP	Standard Maintenance Package
SOW	Scope of Work
UCLF	Unplanned Capability Loss Factor

2 Management strategy and start up.

2.1 Maintenance Philosophy

2.1.1 Running/ Routine Maintenance

Running maintenance inspections is seen as the Daily walk downs that will be done by the Contractor. During these walk downs technician/ artisans will do inspections while the plant is in operation. All defects or potential failures will be recorded in SAP as a base for recording. The Inspections will be documented by the Contractor.

The defects will be listed and corrective actions will be planned according to the priority of the defects. The detailed planning of critical/ major activities, together with, Standard Maintenance Package (SMP) including QCP's and risk assessments will be done by the Contractor and approved by the Employer's representative (Eskom Plant Supervisor). Where Permits to Work are required, the work will be planned with the Production Manager of Majuba P/S via the Employer (Eskom Plant Supervisor).

2.1.2 Planned Maintenance

Planned maintenance schedules initiated by Employer will be followed to prevent any potential breakdowns or failures of equipment.

Planned outages are provided on the Units, Tippler and Ash stacker and ash belts on a 3 yearly interval for 14 days and 6 yearly intervals for 90 days. It is expected that the contractor will execute defects in the units and common plant that are on outage and also executes planned work for outage on the units and common plant provided by the system engineer

Outage Scope of work:

The contractor is expected to provide additional resources including one QC inspector to execute the C&I outage scope of work for GOs/IN/IR.

- The IR's which are normally 28 days, additional of 8 artisans will be required.
- The MGO/GO 's which is normally 49-63 days additional of 10 artisans will be required
- IN's which is normally from 7-14 days additional of 4 artisans will be required

The required employees to meet the minimum requirements in terms of experience and qualifications: N4 plus trade and 2 years' experience in Control and instrumentation

NOTE: The employer will not be liable to pay or compensate the contractor on reworks, the contractor to ensure that the quality of the executed scope meet the business expectation, and that everything is done correct the first time.

The table below is an indication of the Outage Schedules:

Outage ID	Outage Code	Unit	Planned/Actual Start Time	Planned/Revised End Time	Outage Description	Planned Duration
19084	MJ03UIR-29-07-2022	3	2022/07/29 00:00:00	2022/08/25 23:59:00	IR	28,00
19094	MJ04UIN-02-12-2022	4	2022/12/02 00:00:00	2023/01/06 23:59:00	HSSD	36,00
19091	MJ01UIR-07-02-2023	1	2023/02/07 00:00:00	2023/03/06 23:59:00	IR	28,00
19087	MJ02UIR-01-04-2024	2	2024/04/01 00:00:00	2024/04/28 23:59:00	Interim repairs	28,00
36581	MJ06UIN-20-08-2021	6	2021/08/20 00:00:00	2021/08/30 23:59:00	HSSD	11,00
38881	MJ05UUP-20-08-2021	5	2021/08/20 00:00:00	2021/08/29 23:59:00	HSSD	10,00
19093	MJ06UMO-22-11-2022	6	2022/11/22 00:00:00	2023/01/29 23:59:00	Mini GO	69,00
37203	MJ05UIR-02-12-2022	5	2022/12/02 00:00:00	2023/01/05 23:59:00	HSSD	35,00
19095	MJ05UIN-13-10-2023	5	2023/10/13 00:00:00	2023/10/26 23:59:00	BTI	14,00
19097	MJ03UGO-09-05-2024	3	2024/05/09 00:00:00	2024/07/18 23:59:00	GO	71,00
19098	MJ06UIN-20-05-2024	6	2024/05/20 00:00:00	2024/06/02 23:59:00	BTI	14,00
19096	MJ04UMO-23-05-2024	4	2024/05/23 00:00:00	2024/06/20 23:59:00	Interim Repairs	29,00
21919	MJ01UIN-21-08-2024	1	2024/08/21 00:00:00	2024/09/03 23:59:00	Boiler inspection	14,00
21920	MJ05UIR-27-04-2025	5	2025/04/27 00:00:00	2025/05/24 23:59:00	IR	28,00

21924	MJ06UIR-31-07-2025	6	2025/07/31 00:00:00	2025/08/27 23:59:00	IR	28,00
19092	MJ02UIN-01-08-2025	2	2025/08/01 00:00:00	2025/08/14 23:59:00	BTI	14,00
21925	MJ01UGO-05-09-2025	1	2025/09/05 00:00:00	2025/11/06 23:59:00	GO	63,00
21927	MJ03UIR-16-01-2026	3	2026/01/16 00:00:00	2026/02/19 23:59:00	IR	35,00
21922	MJ04UIN-10-02-2026	4	2026/02/10 00:00:00	2026/02/23 23:59:00	Boiler inspection	14,00
21930	MJ02UIR-13-04-2026	2	2026/04/13 00:00:00	2026/05/17 23:59:00	IR & Hydro	35,00
21931	MJ01UIN-25-05-2026	1	2026/05/25 00:00:00	2026/06/07 23:59:00	BTI	14,00

2.1.3 Corrective and Breakdown Maintenance

All unpreventable and unforeseen plant failure occurrences, replacement of damaged plant and equipment are included.

It is the Philosophy of the Eskom works Management process that Planned Maintenance takes precedence over Breakdown Maintenance.

The Contractor is to ensure that there is sufficient manpower available to perform breakdown work without interrupting planned Maintenance activities.

The Authority for determining the criticality of Work rests with the Production Managers , repairs to plant on breakdown are to start as soon as possible and continue until the plant is back in operation. Except for safety reasons the Production manager's permission is required to postpone breakdown work.

2.1.4 Unplanned/ Opportunity Maintenance

Units 1-6 and common plant maintenance

Maintenance Opportunities are sometimes provided on short notice when a Unit comes down for repairs it is expected that all outstanding work on the units is planned in readiness for execution on short notice and that when the Unit returns to service that there are no outstanding Work orders Planned or Corrective. It is expected that there will be no Faults on the plant when it returns to service.

2.1.5 Repair Times

Eskom's policy regarding priority of work is as follows:

Priority 1	24 hours to effect the repair
Priority 2	72 hours to effect the repair

Priority 3	Planned and completed within 3 weeks
Priority 4	Execute all defect during outage opportunity

2.2 Management meetings

Regular meetings of a general nature may be convened and chaired by the *Supply Manager* as follows:

Title and purpose	**Approximate time & interval**	**Location**	**Attendance by:**
Overall contract progress and feedback	Monthly	Majuba Power Station	*Contractor*, Supervisors ,*Contractor's* Manager
Pre-job briefs	Daily(Monday – Friday)	Majuba Power Station	*Contractor and his subordinates*
Contractor Safety meeting	Monthly	Majuba Power Station	*Contractor and his subordinates*
Assessment meeting	Monthly	Majuba Power Station	*Employer*, *Contractor* Manager
Prioritization meetings	Daily (Monday – Friday)	Majuba Power Station	*Production managers ,Contractors , Supervisors ,Technicians*

The *Contractor* will attend the monthly safety meetings and any other daily meeting required by the *Employer*. (Venue, time and date will be confirmed). Service providers will attend daily toolbox/feedback meetings with the respective supervisors and any other legitimate meeting as stipulated by the employer, e.g. Statutory safety meetings, Work team sessions, Work stoppages.

Meetings of a specialist nature may be convened as specified elsewhere in this Service Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the *service*. Records of these meetings shall be submitted to the *Service Manager* by the person convening the meeting within five days of the meeting.

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall not be used for the purpose of confirming actions or instructions under the contract as these shall be done separately by the person identified in the *conditions of contract* to carry out such actions or instructions.

2.3 *Contractor*'s management, supervision and key people

SKILL	GRADE AND RELATED EXPERIENCE	MINIMUM QUALIFICATION
• 5x Technicians	T11 and minimum of 3 years of relevant experience	National Diploma in Electrical Engineering
• 18 x Artisans	T09 and minimum of 2 years of relevant experience	N4 and Trade test certificates
• Site Supervisor	T13 and minimum of 3 years of relevant experience	N6 Technical Diploma/S4
• Safety officer	2 years related experience	SAMTRAC
• 3 x QC Inspector	T11 and minimum of 3 years of relevant experience	National Diploma in Electrical Engineering (L/C) / N4 and Trade test certificates. Quality certificate (advantage)

The Contractor and Employer ensures that only competent persons be allowed to work on plant. The Employer's Service Manager is entitled to verify the qualifications of the Contractor.

The Contractor must be knowledgeable about the conditions and scope of work contained in the contract and capable of executing the scope of work.
The Employer may, having stated reasons, instruct the Contractor to remove a key person. The Contractor then arranges that, after one day, the key person has no further connection with the work included in this contract. The Contractor may not replace any of the key persons, without prior written request and approval thereof from the Employer.

2.4 Technical Service/ Outputs required Unit 1 to 6 and the Common Plants

2.4.1 C & I Maintenance Services to be performed by the Contractor

The following is a summary of the tasks expected from the contracted C & I Maintenance services:

a) Calibrate field instrumentation / valve actuators during normal operation, as well as outages.
b) Advance Fault finding on malfunctioning plant and Equipment.
c) Assist operations during unit light ups.
d) Development to training material.
e) Development and Updating of Procedures and QCP's.
f) On job training and Coaching/Mentoring of work Colleagues (C&I).
g) Incident Investigations and root cause analyses.
h) Report Writing.
i) Development of work Packages.

j) Planning of work schedules (outages, opportunity Maintenance, planned overtime, etc.)
k) Outage Representation and Co-ordination of FPG Scope of Works.
l) Stand by duties on Associated Plant.
m) Remove, replace, calibrate and re-commission instrumentation during outages.
n) New installations for minor modifications.
o) Replacement of faulty cabling.
p) No re-work after planned, routine and breakdown repairs allowed.
q) No UCLF caused due to poor workmanship.
r) Ageing works orders, work orders outstanding less than 3 days.
s) Work order turnaround time less than 2 days.
t) Contractor will be expected to know his plant at all times.
u) Contractor must adhere to working times as stipulated in the contract.

2.4.2 Technical service/ output expected from a Technician.

Note: working plant area can change pending the requirement of skills in specific areas. No change allowed without the written approval of the *Employer's Representative.*

Duties

Maintenance responsibilities on above plants include:

a) Planned Maintenance (PM) according to PM Schedules (C&I)
b) Daily Plant Inspections
c) Updating of Records / Registers and Calibration Certificates.
d) Assisting in compilation of Written Safe Work Procedures
e) Breakdowns
f) Minor / Major outages
g) Provide technical assistance during re – commissioning during outages
h) Preservation Maintenance on extended cold reserve Units
i) Assisting in modifications to be done on the plant.
j) Personnel to be authorized as per FPG requirements i.e. Plant Safety Regulations (GGR-0992), HV1, and H2 Plant etc.
k) Assist in Station Audits
l) Assist with implementation and investigation of INO Actions, Major Actions, Audit Actions and Trip Actions.
m) Provide training to trainees or newly appointed persons.
n) If the need arises to have work completed during hours after normal working hours and on weekends, including emergencies.

o) The contractor shall abide to any lawful legal instruction issued by the Employer as needed to maintain a sustainable Maintenance department.

2.4.3 Technical service/ output expected from an Artisan.

Note: working plant area can change pending the requirement of skills in specific areas. No change allowed without the written approval of the *Employer's Representative.*

2.4.3.1 Duties of Artisans/Technicians

Maintenance responsibilities on above plants include:

a) Planned Maintenance (PM) according to PM Schedules (C&I)
b) Daily Plant Inspections
c) Updating of Records / Registers and Calibration Certificates.
d) Assisting in compilation of Written Safe Work Procedures
e) Plant Breakdowns
f) Minor / Major outages
g) Provide technical assistance during re – commissioning during outages
h) Preservation Maintenance on extended cold reserve Units
i) Assisting in modifications to be done on the plant.
j) Personnel to be authorized as per FPG requirements i.e. Plant Safety Regulations (GGR-0992), HV1, and H2 Plant etc.
k) Assist in Station Audits
l) Completion of DCF's for spares
m) Assist with implementation and investigation of INO Actions, Major Actions, Audit Actions and Trip Actions.
n) Provide training to trainees or newly appointed persons.
o) If the need arises to have work completed during hours after normal working hours and on weekends, including emergencies.
p) The contractor shall abide to any lawful legal instruction issued by the Employer as needed to maintain a sustainable Maintenance department.

2.4.4 General

a) Perform standby duties and overtime as per the standby roster for a period of 7 days per standby period to assist during breakdowns after hours as well as during unit return to service after two shifting/outages (included in monthly fee).
b) The standby roster will be used to regulate standby periods.
c) Personal protective equipment to be supplied by the Contractor.

d) All site regulations to be adhered to with regards to safety and environmental.(Cardinal Rules)
e) The maintenance supervisor will do task scheduling for planned maintenance, outage and urgent work.
f) The *Contractor* remains the employer of his employees as defined in the OHS Act and are fully responsible for the well-being and actions of the C&I personnel. This includes the performance of the individuals.
g) Due to the criticality of the work the individuals are subject to the *Employers Representative* approval.
h) The *Contractor* and his employees are required to conduct themselves at all times in a proper and orderly manner whilst on the *Employer's* premises.
i) All planned overtime must be pre-approved by Employer in writing prior to work being executed.
j) Contractors must have a code 08 driver's license.

2.5 Police Clearance

All Contractor personnel are to undertake police clearance. The Contractor provides certificates to the Service Manager at least 2 weeks before commencement of work. The Service Manager reserves the right to refuse entry to all persons whose criminal records indicate that their presence on the site might create an unsafe and insecure environment to Majuba Power Station. The following website can be used to guide the process, http://www.saps.gov.za/services/applying_clearence_certificate.php

2.6 Supplier Development and Localisation Requirements (SD&L)

2.6.1 Recruitment of General Labour

The Contractor recruits 100% of all new recruits, of general labour from Dr. Pixley Ka Seme local municipality, using the recruitment form provided by the department of labour. Contact details and application forms will be provided by the Service Manager on request.

In an event that new recruits are not from the defined Dr. Pixley Ka Seme municipality, the Contractor needs to provide proof that the local municipality could not provide proof of such individual.

The Contractor needs to update the Employer as well as the Department of Labour, in the event that there is a staff compliment, e.g. Dismissal, resignation, etc.

The Contractor submits an updated monthly statistics on the 1st day of each month, using the reporting template that is provided by the Services Manager.

2.7 Transporting of staff

Contractor to transport the employees to work as well as on call out, stay over and emergency calls.

2.8 Small, Micro, and Medium Enterprises

The Contractor supports Small, Micro, and Medium enterprises by purchasing your material locally where such material is available.

2.9 Documentation control

All communication will be in writing.

2.3.1 Procedures, Records and Reports

The *Contractor* implements the following procedures or paperwork over the first month of this Contract:

- Business Organisation Chart
- Safety procedures

The following policies, procedures and specifications will be complied by at all times

- Site Regulations – Majuba site Regulations
- BIA/RM/STD/01 – Safety, health and environmental requirements to be met by *Contractor*s (available on request)
- Eskom Majuba Site transport requirements

2.10 Construction Regulations Documentation control

-
- Majuba Maintenance Quality Manual
- Occupational, health and Safety Act
- Eskom Cardinal Rules
- BIA/QA/STD/01 – Quality requirements for engineering and construction works (available on request)
- All Relevant Majuba Power Station standards, policies and procedures

All quality, health, environmental and safety costs are to be included in the tendered price.

2.11 Invoicing and payment

Within one week of receiving a payment certificate from the *Service Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice showing the amount due for payment equal to that stated in the *Service Manager*'s payment certificate.

The *Contractor* shall address the tax invoice to

Accounts Payable Services
Eskom Holdings Ltd

Majuba Power Station
Private Bag 9001
Volksrust
2470
and include on each invoice the following information:

Name and address of the *Contractor* and the *Service Manager;*
The contract number and title;
Contractor's VAT registration number;
The *Employer*'s VAT registration number 4740101508;
Description of service provided for each item invoiced based on the Price List;
Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;

All invoices are to be submitted to the Majuba Accounts Payable Services Department.

Payment will be made electronically 30 days after assessment and receipt of a valid invoice. Payment are made on Friday's only.

2.12 Contract change management

Any work not covered in the Scope of Work will be managed as a compensation event; the Employer's Supervisor will issue a task order.

2.13 Training workshops and technology transfer

Contractors may attend training provided by the Employer e.g. PSR, first aid, etc. Any other external training for the development of their employees will be the responsibility of the contractor, and for the cost of the contractor.

3 Health and safety, the environment and quality assurance

3.1 Health and Safety Arrangements

3.1.1 General

The *Contractor* must ensure that all his personnel attend a Health and Safety Induction Course prior to starting with their work. The Induction Course can, on request, be provided by the *Employer* and will be valid for the duration of the *services*.

Safety Risk Management has the right and authority to visit and inspect the *Contractor's* workplace or site establishment to ensure that tools, machinery and equipment comply with the minimum safety requirements.

The *Service Manager* shall be entitled to instruct the *Contractor* to stop work, without penalty to the *Employer*, where the *Contractor's* personnel fail to conform to safety standards or contravene health and safety regulations. The *Service Manager* is entitled to cause the *Contractor* to discipline his employees and to submit disciplinary action, and submit a report to *the Service Manager.* The *Contractor* shall implement additional health and safety precautions where necessary.

The *Contractor* will provide all his personnel with the required personal protective equipment.

Risk Assessments, Pre-Job Briefs, Post – Job Briefs & Job Observations will be conducted for all jobs.

All Construction Regulation - safety requirements should also be adhered to.

- Safety Plan
- Fall Protection Plan (repairing / replacing of conveying lines using scaffolding)
- 16.1 and 16.2 appointments

3.1.2 Fire Precautions

Any tampering with the *Employer*'s fire equipment is strictly forbidden.

All exit doors, fire escape routes, walkways, stairways, stair landings and access to electrical distribution boards must be kept free of obstruction, and not be used for work or storage at any time. Fire-fighting equipment must remain accessible at all times.

In case of a fire, report the location and extent of the fire to the Electrical Operating Desk at extension 3803.

Take the necessary action to safe guard the area to prevent injury and spreading of the fire.

3.1.3 Reporting of accidents

The *Employer* follows an accident prevention policy that includes the investigation of all accidents involving personnel and property. This is done with the intention of introducing control measures to prevent a recurrence of the same incidents. The *Contractor* is expected to fully co-operate to achieve this objective. The Service Manager must be informed immediately of any incidents and any damage to property or equipment must be reported to the Service Manager within 24 hours.

NOTE! This report does not relieve the *Contractor* of his legal obligation to report certain incidents to the Department of Labour, or to keep records in terms of the Occupational Health and Safety Act, and Compensation for Occupational Injuries and Diseases Act.

3.1.4 Barricading and screens

The *Contractor* will provide and install barricades and warning devices to ensure that equipment and persons are not exposed to danger or to prevent access to dangerous areas.

All welding, flame cutting and grinding work shall be properly screened to protect persons from any injury.

All gratings shall be covered with adequate protective screening when welding or flame cutting in the vicinity.

3.1.5 Speed Limit

All vehicles must be driven with due consideration for personnel and property. A maximum speed limit of 40 kilometres per hour will be adhered to on the premises at all times.

3.1.6 Safety

The *Contractor* complies with the Occupational Health and Safety Act, 1993, (the Act) and all Safety procedures issued by the *Employer*. The *Contractor* must furthermore comply with the *Employer*'s Safety, health and Environmental requirements for *Contractor*s, BIA/RM/STD/01, which is available from the Majuba Documentation Centre.

The *Contractor* will carry out work according to Procedure GGR 0992 (Plant Safety Regulations). The *Contractor* will qualify his supervisors to take out permits on the *Employer*'s permit to work system in order to always have one authorised person available to take out permits per shift.

The *Contractor* will conform to all rules and regulations applicable to Plant Safety and shall complete a proper risk assessment and Worker's Register prior to working on the plant.

The *Contractor* will ensure that his representatives are duly authorised in terms of the Plant Safety Regulations as a responsible person upon commencement of work.

The *Employer* shall on request from the *Contractor* isolate required plant from all sources of danger as described in the Plant Safety Regulations.

The *Employer* will provide the Plant Safety Regulation training to the *Contractor*.

The *Employer* shall make a copy of the Plant Safety Regulations available to the *Contractor*.

The *Contractor* will attend monthly safety meetings, and conduct monthly safety meetings with staff.

The *Contractor* provides all personal safety equipment, including safety belts and harnesses

The *Contractor* will appoint a full time safety officer for the entire duration of the contract.

The *Contractor* will adhere to the Eskom cardinal rules.

The *Contractor* will not be allowed to transport any of it's workers in open vehicles to and from site as prescribed in the Eskom safety policy.

3.2 Environmental constraints and management

Environmental Management

The *Contractor* should adhere to the Majuba Power Station Environmental Management System that must meet the requirements of ISO 14001:2004.

The EMS requirements are detailed in the latest revision of the following documents, which are available from the Majuba Power Station Documentation Centre or Internal Web site, and include:

Environmental Management Policy **BIA/ENV/04**

Environmental Management System Manual **BIA/ENV/03**

Waste Management at Majuba **BIA/ENV/01**

Oil Spill Management at Majuba **BIA/ENV/02**

Environmental Legal Register (List of Environmental Legislation applicable to Majuba) **ENG/ENV/01**

The *Contractor* will be responsible for complying to any new environmental requirements, relevant to the Works Information, that may come into effect as part of Majuba Power Station's EMS for the duration of this contract.

If there is uncertainty around any environmental issues, the Environmental Department at Majuba Power Station may be contacted.

All work complies with the relevant environmental regulations. The works may include the use of some toxic or hazardous substances during normal and routine maintenance activities. In this case the *Contractor* uses such hazardous substances in accordance with the applicable regulations and procedures and is disposed of by the *Contractor* in accordance with the applicable law.

3.3 Quality assurance requirements

3.3.1 Quality Requirements

The *Contractor* will comply with the *Employer*'s Quality Requirements.

Quality requirements include visual inspection by the *Employer*, who will be entitled to witness progress of work at any time.

The *Employer* may, by arrangement, inspect completed work. If, in opinion of the *Employer*, the work does not comply with the quality requirements expected from the *Contractor*, the *Employer* shall instruct the *Contractor* to rectify the faults. The *Contractor* will comply with the instructions.

The Contractor will additionally comply with the Employer's Quality Requirements as specified in Standard **BIA/QA/STD/01**. This includes the *Contractor*'s ISO 9001 Registration Certification of Compliance

The Contractor must possess an accredited Quality Management System. A pre-approved Quality Control Plan (QCP) is to be used for the tasks at hand.

3.3.2 Quality Control Documents

All quality control documentation must be submitted to the Project Manager/ Employer's Representative/ *Employer*'s Agent within two weeks after contract award for written approval.

3.3.3 Personal Competency

Proof of the Contractor's personnel competency in terms of Regulation 18 (5 and 6) of the OHS Act is required by the *Employer*.

4 Procurement

4.1 Subcontracting

4.1.1 SUPPLIER DEVELOPMENT AND LOCALISATION (SD&L)

Recruitment of General Labour

The Contractor recruits 100% of all new recruits, of general labour from Dr Pixley Ka Seme local Municipality, using the recruitment form provided by the department of labour. Contact details and application forms will be provided by the Service Manager on request

In an event that new recruits are not from the defined Dr Pixley Ka Seme municipality, the contractor needs to provide proof that the local municipality could not provide such individual.

The contractor needs to update the employer as well as the department of labour, in the event that there is a change in the staff compliment e.g. dismissal, resignation, etc

The contractor submits an updated monthly job statistics on the 1st day of each month, using the reporting template that is provided by the Service Manager.

Transporting of Staff

The Contractor must use transportation sourced from the Dr Pixley Ka Seme local taxi association.

SMMEs

The Contractor supports local Small, Micro and Medium Enterprises by purchasing your material locally where such material is available.

4.1.2 Supplier Development and Localisation (SD&L) Initiative

Localization

Criteria	Weight	Target	Proposed Target	Weighted Score
Procurement from Local Content to SA	**50.0%**	**100%**	**100%**	**50.0%**

Enterprise Development (Subcontracting portion will be used to ensure that smaller companies gain experience in the C&I Industry)	**50.0%**	**30.0%**	**30%**	**50.0%**
TOTAL	**100%**			**100%**

Job Creation

Number of Jobs to be created	**22**
Number of Jobs to be retained	**7**

The *Contractor* shall keep accurate records and provide the *Service Manager* with reports on the *Contractor*'s actual delivery against the above stated SD&L criteria. The *Contractor*'s failure to comply with his SD&L obligations constitutes substantial failure on the part of the *Contractor* to comply with his obligations under this contract.

In the event that the contractor fails to achieve his/her SD&L committed targets a penalty clause of 2% Retention shall apply.

4.2 Subcontracting

The *Contractor* may not use a Subcontractor unless a written request is made to the *Employer* and approval is given. All terms and conditions applicable to the *Contractor*, will also apply to the approved Subcontractors e.g. legal requirements, appointments, authorisations, safety, quality and therefore all relevant documentation must be submitted in order for the *Employer* to consider the Subcontractor for approval.

Additionally, the prices listed in the price list will remain unchanged if any Subcontractors are used

4.3 Plant and Materials

4.3.1 Correction of defects

Priority 1	24 hours to effect the repair
Priority 2	72 hours to effect the repair
Priority 3	planned and completed within 3 weeks
Priority 4	Execute all defect during outage opportunity

If the inspections reveal that there is a requirement to replace the defective components. Eskom Majuba will provide such components to the contractor/ client e.g. Thermocouples, switches, analysers, cabling etc.

4.3.2 Plant & Materials provided "free issue" by the *Employer*

Scaffolding, forklifts and/or cranes will be provided without cost to the *Contractor* upon the *Contractor*'s request, if available at the time. These may only be installed/ operated by persons who have authorisation to do so.

If the inspections reveal that there is a requirement to replace the defective components. Eskom Majuba will provide such components to the contractor/ client e.g. Thermocouples, switches, analysers, cabling etc.

5 Working on the Affected Property

Whilst working on site the Contractor will adhere to all Eskom and Majuba Power Station site regulations.

5.1 Employer's site entry and security control, permits, and site regulations

The entry to site is only approved once the following are adhered to:

a) The Contractor's safety file is to be approved by the Employer's Safety department
b) The Contractor's works information requirements including quality requirements are verified and approved by the Quality Department before commencement of the work
c) All personnel must undergo screening for criminal records and outstanding warrants
d) Site-specific induction is to be done by all personnel
e) Refer to the General Works Information

5.2 People restrictions, hours of work, conduct and records

5.2.1 C&I plant areas:

The Contractor is to ensure that provision is made for a standby crew in the event that there is more work than can be reasonably managed by one Team.

It will be expected that the Contractor also work 12 hour shifts if there is a need such as return to service of the units from outage, or on plant recoveries that needs C&I personnel 24 hours on site

5.2.2 Normal working hours

Monday – Thursday : 07h30 – 16h45
Friday : 07h30 – 12h30
Lunch Times : 12H30 – 13H00

5.2.3 Overtime

Contractor will be expected to work overtime if needed to complete required work on any

kind of opportunity.

a) Overtime rules should be adhered to as determined by the Department of Manpower
b) Overtime should be pre-approved by the Employer

c) All time-sheets are to be kept for records purposes

5.2.4 General

a) The Basic Conditions of Employment (BCEA) will apply.
b) Annual Leave will be a maximum of 21 consecutive Days per Calendar Year as and when agreed on by the Employer.
c) Sick Leave is a maximum of 14 days per Calendar Year and contractor must report sick leave to the relevant FPG supervisor personally.
d) Overtime will be managed by the Contracts supervisor and approved by the Contracts Manager. Leave forms must be completed for all leave granted.
e) Overtime remunerations will be as per eskom condition of service.
f) A maximum of 40 hours will be paid for during any month. Overtime will be remunerated, hour worked for will be hour paid. Overtime will be dealt with as a compensation event. The key persons will be required to be on standby for a one week period per month (included in monthly fee).
g) This includes a standby period of 1 week.
h) Termination of Contract by Employer due to lack of performance by the contractor will be a Maximum Notification period of 30 Days.
i) Criminal acts by the Contractor or staff is grounds for termination.
j) If the Contractor does not correct a defect in a manner which minimizes the adverse effect on the Employer or others, the Employer may, after first notifying the Contractor, have the defect corrected by other people and the Contractor pays the Employer's costs of the correction.
k) All transport will be the responsibility of the Contractor.

All faults on Plant under "Description of Services" are attended to as soon as faults are reported.

- The defects will be listed and corrective actions will be planned according to the priority of the defects.
- Where permits are required the work will be planned with the production manager.
- Where history needs to be captured, Works Orders will be generated on the Sap system and history will be captured on the works orders.
- The *Contractor* shall comply with all local and statutory labour laws (LRA, BCEA, UIF etc.) and agreements and shall promptly attend to any labour grievances that may arise. The *Contractor* shall not remunerate his employees at less than the proclaimed

statutory wage (Minimum Wages Act). Failure in this regard will result in non-performance and therefore immediate termination of the contract.

- The Employer will have the right to conduct audits on remuneration packages paid out to the respective Majuba Maintenance contractors.

5.3 Site services and facilities

5.3.1 Accommodation

The Employer does not supply accommodation. The Contractor must provide accommodation for his employees and costs for this must be included in the contract prices.

5.3.2 Messing Facilities

The Employer does not provide meals.

5.3.3 Medical Facilities

a) Employer's Medical Centre and facilities will be available for use at any time in case of injury.
b) All injuries must be reported to the service manager as soon as possible
c) The Employer shall be entitled however to recover the costs incurred in respect thereof from the Contractor/Subcontractor.

5.4 Cooperating with and obtaining acceptance of others

The cross reference from core clause 25.1 about cooperation generally as well as details about others with whom the *Contractor* may be required to share the Affected Property. See clause 11.2(9) for the definition of others.

5.5 Records of Contractor's Equipment

The **tools, transport and consumables for performing the services** are to be supplied by the Contractor. All the Contractor's power tools and equipment must be on a planned maintenance schedule and must be inspected before dispatched to Majuba Power Station.

The Employer shall provide for all measuring equipment used on the plant, maintain the calibration schedules.

Access to site with equipment and tools will only be granted upon the submission of a printed tool/equipment list to the security department. Any items not on the list and brought onto site, may not be removed from site thereafter.

Contractor to provide general tools as per the C&I artisan/technician tool list, including multi-meters with valid calibration certificates. All special tools such as calibration equipment, test gauges and test equipment will be provided by Majuba Maintenance department. These test equipment provide by the Employer to the service provider, remains the Employer's assets, and shall be replaced by the service provider in case of a loss.

Any other resources to execute the job example scaffolding/welding will be arranged by Majuba service providers, the employee will remain the Responsible Person to request such services via the approved Majuba processes.

5.6 Equipment provided by the Employer

All special tools such as calibration equipment, test gauges and test equipment will be provided by Majuba Maintenance department.

Contractor to supply employees with PPE such as is Overall suite, socks, hard hat, safety shoes and warm jackets.

Special PPE such as ear plugs, goggles, dust masks, breathing apparatus and gloves will be supplied by the Employer **(Service provider not to quote on these)**

6 Low Performance Damages

The *Contractor* will be Subject to low Performance Penalties as indicated in The Service Level Table below: Such incidents to be confirmed in writing by both parties (Employer and service provider's representative), prior the monthly assessment/deduction.

No.	**Description**	***Employer*'s Requirement**	**Damages payable by *Contractor***
1	Approval of safety file	Approved before contractor starts to work	
2	Approval of Quality Management System	Approved before contractor starts to work	R500.00 per day without approved quality file.
3	Artisan & Technician	Within 3 months of contract start date.	R750.00 per day without an Authorised Artisan.
5	Arrival on site for call-out	Within 1,5 hours of call-out.	R1000.00 per hour of delay or part thereof.
6	Non Attendance of meetings	Every listed meeting to be attended	R500.00 per incident.
7	Excessive Task Duration	Within the time specified by Contractor's plan as approved By the Employers Representative.	R500.00 per hour of extended Duration or 10% of the monthly contract value whichever value is lower
8	Scheduled Compliance	More than 95%	1% of monthly contract value
9	PM compliance	More than 98%	1% of monthly contract value
10	Statutory work order violation	No violations	5% of monthly contract value
11	P1 work order not closed within 24 hours	Less than 1 outstanding	R1000 for each one per month
12	P2 work order not closed within 48 hours	Less than 3 outstanding	R1000 for each one per month
13	Work order back log	No more than 60 outstanding	R100 for each outstanding
14	Artisan & Technician	All artisans must be Authorised	R2500 per RP per month
15	Major break downs not identified and actioned	All failure that put the plant or redundant plant at risk must be prevented	1% of monthly contract value
16	Planning information not submitted as required	Planning requirements to be met.	1% of monthly contract value

Majuba Power Station is a National Key point and as such strike action and the associated intimidation and other activities associated with industrial action place the power station at risk. The *Contractor* is to ensure that the contracted service is performed regardless of strike and industrial action.