

C3.1: *PURCHASER'S* GOODS INFORMATION

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1 Overview and purpose of the goods and services

The purpose of this service is to Supply, install and commission the ICP-OES for the determination of elements in water samples, for analysis of raw water, potable water and demineralized water samples, Particle Sizer for determination of size distribution of a suspension in a slurry sample.

Provide all spares and consumables for all instruments, where required, as determined by the employer.

Provide after-sale technical support for these instruments i.e., periodic instrument servicing and technical support and spares as indicated in the scope of work. The contractor shall provide a Quality Assurance plan in accordance with ISO 9001:2015 standards to the employer for approval and this plan shall form part of the contract as a requirement.

Execute all quality related activities including inspections and test & troubleshooting plans and on-job training, provide operating manuals in accordance with the ISO 17025 standards.

The contractor shall be subjected to all Eskom Kusile Power Station Safety, Health and Environmental regulation and rules and adhere to all these when in the premises.

Required works

- Provide proof (in the form of a letter from RT&D) that the equipment proposed has/have been evaluated, recommended and declared suitable for use in Eskom. If this is not available, the supplier may be required to present the equipment for accelerated evaluation by RT&D.
- Industrial references (at least three references in the last three years), preferably where the equipment is been used in similar application to that intended by Eskom. This should include equipment installation and after-sales technical support.
- Provide the equipment installation and commissioning method statement of the proposed analytical chemistry equipment.
- Analytical chemistry equipment technical data sheets, operation, maintenance and troubleshooting manuals.
- Proof of competency and training records of service technicians/ engineers from the original equipment manufacturer (OEM).
- Estimated lead-time for the supply and delivery of chemistry equipment to be included in the tender returnable.
- The supplier should indicate all site services/utilities that are required to be provided by the Employer.
- Provide a separate analytical chemistry equipment life cycle cost budget for evaluation by Commercial/ Finance department to indicate if operation and yearly maintenance of the chemical equipment is cost effective
- Indication of all exclusions and deviations from the Works Technical Acceptance and Deviation Schedule (WTADS).
- Proof of OEM's certification in accordance with ISO 9001 standard.
- The Supplier is required to obtain relevant samples from Eskom Kusile Power Station for performance testing of their instruments to give assurance of functionality of their instruments. This should indicate the standards used, test method, sample handling, accuracy, reproducibility, sensitivity, stability, life cycle of the instrument, internal data logger availability, reagent consumption.
- After installation and commissioning, the contractor to provide training on the equipment and systems included as part of the works to various departments of the Employer's technical staff.
- Training provided by the Supplier should be directly applicable to the actual equipment supplied for the works. Generalised training based on similar equipment is not acceptable.
- All training should consist of both theoretical and practical training sessions.
- The training should be structured such that competency test is done at the end of each training session for all the participants.
- The Supplier should provide all course materials including materials. All training should be in English and inclusive of all third-party documentation.
- A copy of training documentation should be supplied to each trainee with additional master sets for the Employer's library and training department. All training materials should also be supplied in an electronic format for easy reference.
- The Supplier to indicate after-sale services offered through a 10 years commitment letter of after-sales support (spares availability, maintenance, and preventive maintenance).

2 Specification and description of the goods

2.1 The Particle Size Analyser

- a) Provide a Particle size analyser and install all hardware components, electric cables, and updated software.
- b) Set up the software to employer desired requirements (must be set up to meet employer requirements).
- c) Calibrate the instrument and provide calibration certificate.
- d) Test-run the instrument.
- e) Provide on-job training.
- f) Indicate next service date for instrument.
- g) Be able to handle semi-solid samples.
- h) Sensitivity for size <0.45 micron.
- g) Provide spares and /consumables, and calibration standards.

Spare/Consumables	Quantity
PSA Software Package Professional	1 package
Particle Size Standard PS415 (10-100 µm)	2 packages
Workstation with monitor	1
PSA Cleaning Strips for measurement Cell Liquid (1 pack = 50 Pcs.)	5 packs
PSA Vacuum Cleaner 230 V	1
Air Drier IDG30 (MCR XX2) with Filter Unit	1 package
Water Filter Kit for PSA Supply	1 package

Technical Specification:

Number of lasers	2
Liquid dispersion technique	2 peristaltic pumps, ultrasound generator & stirrer.
Warm up time	1 minute
Measuring range in liquid mode	0.04 – 500 µm
Measuring principle	Laser diffraction
Repeatability	better than ± 1 % based on certified reference material
Accuracy	better than ± 3 % based on certified reference material
Measurement duration	< 1 min
Ambient temperature range	15-30 °C
Humidity	35-80 non-condensing

2.2 ICP OES

- a) Provide a ICP OES instrument and install all hardware components including tubing, electric cables, and software
- b) Set up to software to employer desired requirements (must be set up to employer requirements)
- c) Connect all gas lines as per the instrument requirements.
- d) Calibrate the instrument, provide calibration certificate and calibration standards.
- e) Test-run the instrument.
- f) Provide on-job training for operating and troubleshooting.
- g) Able to add methods on future required parameters.
- h) Be able to measure multiple elements of samples at low ppb and high ppm range.
- i) Provide applicable spares and consumables

Item	Quantity
Torch	2
Spray Chamber	1
Injector	2
Nebulizer	2
Peristaltic pump tubes	10

Technical Specifications:

ICP-OES	Wavelength range	Full wavelength range with Charge Coupled Device detector
	Argon consumption	9 L/min
	Start up	10 min from power on
	Plasma	Dual view
	Monochromator	Double monochromator optical system
	Detector	Charge Coupled Device photon detector
	RF Generator	40MHz, free-running solid-state adjustable from 1000-1500 watts.
	Safety Interlocks	Automated
	Plasma ignition and extinction	Computer-controlled and automatic.
	Peristaltic pump	4-channelled, computer-controlled pump
ICP Chiller	Pump pressure	3.8-6.9 bar
	Pump Flow	13.2 litres per minute
	Cooling capacity @20 °C	2650 watts on 50Hz ;2900 watts on 60Hz
	Temperature controller	Microprocessor-based
	Sound measurements @ 1 meter away	65 dBA (full load),62 dBA (No load)
	Electrical requirements	50Hz :240 Volts ,60Hz :230Volts
Computer	Computer Monitor	LCD monitor 24 inches, 16:9 aspect ratio
	Computer tower	32 GB memory, with 3.0 USB hub and network card
Autosampler	Autosampler	3 rack, dual rinse, 60 position rack

Commissioning

a) Test all pipelines and connections and software systems on completion for functionality and provide commissioning reports.

Transportation

Appropriate container and transportation equipment must be utilised for this purpose to ensure proper care and safety.

2.3 Purchaser's design

Not Applicable.

2.4 Procedure for submission and acceptance of Supplier's design

Not Applicable

2.5 Other requirements of the Supplier's design

Not applicable

2.6 Use of *Supplier's* design

As per core clause 22.1

2.7 Manufacture & fabrication

The *Purchaser* will not prescribe how the *goods* are to be manufactured and fabricated.

2.8 Factory acceptance testing (FAT)

The *Purchaser* is to witness the goods being tested prior 2 days prior to delivery. The *Supplier* may not restrict *Supply Manager's* right to witness tests.

2.9 Other tests and inspections and commissioning in place of use

The *Supplier* is to commission the goods in the place of use after installation.

2.10 Operating manuals and maintenance schedules

The *Supplier* to submit Operating and Maintenance procedures (including schedules) 5 days prior to equipment delivery for acceptance by the *Purchaser*.

3 Supply Requirements

The Supply Requirements for this contract are in an Annexure A to the Contract Data provided by the *Purchaser*.

4 Specification of the *services* to be provided.

The following services are required together with the supply of the equipment:

1. Supply and delivery of all equipment
2. Supply of all operating and maintenance procedures
3. Any onsite commissioning
4. Training of *Purchaser* personnel for use of the equipment.
5. The *Supplier* to indicate after-sale services offered through a 10 year commitment letter of after-sales support (spares availability, maintenance, and preventive maintenance)
6. Provide spares as listed in the scope of work.

5 Constraints on how the *Supplier* Provides the Goods

5.1 Programming constraints

A programme for delivery to be provided as per Contract data (5 days after contract award).

Delivery to be expedited and maximum lead time of 8 weeks after Contract Award is required.

Weekly progress updates to be communicated timeously.

5.2 Work to be done by the Delivery Date

The Supplier provides all the work which the Goods Information states he is to do by the Delivery Date.

5.3 Marking the goods

All goods to be marked as per the manufacturer recommendations.

5.4 Constraints at the delivery place and place of use

The Supplier is to communicate delivery 5 days prior to delivery to site in order for the Purchaser to issue details of the delivery site/place at Kusile Power Station.

5.5 Cooperating with Others

The Supplier to cooperate with Others who are identified by the Purchaser only.

5.6 Services & other things to be provided by the Purchaser or Supplier

The Supplier to provide equipment to offload the equipment where required

5.7 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:
Project Kick-off Meeting	2 days Contract Award	Kusile Power Station	Employer, Contractor and Others
SHEQ Requirements Clarification Meeting	Project Kick-off Meeting	Kusile Power Station	Employer, Contractor and Others
Delivery Progress Meeting	Weekly on Thursdays	Kusile Power Station/online	Employer, Contractor and Others
Risk register and compensation events	as and when required	Kusile Power Station	Employer, Contractor and Others

Meetings of a specialist nature may be convened as specified elsewhere in this Goods Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the manufacture of the *goods*. Records of these meetings shall be submitted to the *Supply 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.

5.8 Documentation control

The Supplier is to submit the 2 hard copies of all procedures and manual and drawings as well as 1 soft copy of all documents per equipment

5.9 Health and safety risk management

The *Supplier* shall comply with the health and safety requirements [stated here or contained in Annexure ____B____ to this Goods Information].

5.10 Environmental constraints and management

The *Supplier* shall comply with the environmental criteria and constraints [stated here or contained in Annexure ____B____ to this Goods Information].

5.11 Quality

The Supplier shall comply with the quality criteria and constraints contained in Annexure B to this Goods Information.

5.12 Invoicing and payment

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

The *Supplier* shall address the tax invoice to *Purchaser* and include on each invoice the following information:

- Name and address of the *Supplier* and the *Supply Manager*;
- The contract number and title;
- *Supplier's* VAT registration number;
- The *Purchaser's* VAT registration number.
- Description of *goods* and *services* provided for each item invoiced based on the Price Schedule;
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;

The invoice is to be submitted to **invoiceseskomlocal@eskom.co.za** once confirmed with the payment certificate.

5.13 Insurance provided by the *Purchaser*

As stated in the Contract Data

5.14 Contract change management

All changes to the Contract, such as Contractor management changes or Compensation events shall be communicated through standard NEC SC 3 forms.

5.15 Provision of bonds and guarantees

Not applicable

5.16 Records of Defined Cost, payments & assessments of compensation events to be kept by the *Supplier*

The Supplier is required to keep any records of Defined Cost.

6 Procurement

6.1 Subcontracting

6.1.1 Preferred subcontractors

Not applicable

6.1.2 Limitations on subcontracting

Not applicable

6.1.3 Spares and consumables

The Supplier to provide consumable of the equipment required for onsite commissioning and training such as but not limited to fuel, oil or other consumables which may be needed at or just after delivery or commissioning of the goods and that it is best the Supplier provide these initially as part of his Providing the Goods and Services

The Supplier to supply spare as indicated in Section 2.2

6.1.4 Other requirements related to procurement

Other requirements such as ASGISA or socio political enhancements the *Supplier* is to provide as part of Providing the Goods and Services (if any) could be included here.

6.1.5 Cataloguing requirements by the *Supplier*

The Supplier is to provide technical specification for cataloguing of components identified in the operating and maintenance manuals. The Purchaser will issue the forms required to be completed to the Supplier on the date of the Kick-off meeting.

7 List of drawings

7.1 Drawings issued by the *Purchaser*

This is the list of drawings issued by the *Purchaser* at or before the Contract Date and which apply to this contract.

Drawing number	Revision	Title
Not applicable		

C3.2 SUPPLIER'S GOODS INFORMATION

This section of the Goods Information will always be contract specific depending on the nature of the *goods* and *services*.

It is most likely to be required for supply contracts where the tendering supplier will have proposed specifications and schedules for the *goods* and *services*, which once accepted by the *Purchaser* prior to award of contract now become obligations of the *Supplier* per core clause 20.1.

This section could also be compiled as a separate file.
