


	<p style="text-align: center;">SCOPE OF WORK</p> <p style="text-align: center;">Qemscan laboratory sample preparation, DTF and PSCT tests as and when required.</p>	<p style="text-align: center;">Eskom Research and Innovation Centre</p>
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Title: Qemscan laboratory sample preparation, DTF and PSCT tests as and when required for a period of four (4) years.

Compiled by	Functional Responsibility	Authorized by
		
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Date: 26 August 2022	Date: 26 August 2022	Date: 26 August 2022

Description of the service

1.1 Executive overview

Eskom Research and Innovation Centre (ERIC) consists of specialised research and testing facilities. These include Qemscan/Tescan Laboratory, Drop Tube Furnace (DTF) Testing Facility and Pilot Scale Combustion Test (PSCT) Facility for characterisation of coal. The scope is for Qemscan laboratory sample preparation, DTF and PSCTF tests as and when required for a period of four (4) years.

The scope excludes any testing consumables that is required in the laboratory and testing facilities as these are already covered by the Fuels and Combustion CoE.

The management of this scope shall be on task order basis and works order management system.

1.2 Employer's requirements for the service

Qemscan laboratory sample preparation, DTF and PSCTF tests as and when required for a period of four (4) years.

1.2.1 The scope includes the following:

Service	Anticipated Sample Quantity	Laboratory/Facility
As and when required prepare Mineralogical and metallurgical samples for Qemscan/Tescan analysis of raw coal, pulverized fuel (coal), fly ash, ash and other boiler residues, material related to boiler or plant failures.	60 per month	Qemscan/Tescan Lab
As and when required conduct charring and Combustion tests for DTF on coals submitted.	30 per year	DTF
As and when required mill coal samples and conduct combustion tests for PSCT on coals submitted. .	30 per year	PSCTF

*detailed sample number per year associated with the preparation and testing are detailed in the price list

1.2.2 The employer will provide the samples to be prepared for Mineralogical analysis, DTF and PSCT facility samples to be prepared and tested.

1.2.3 The employer will provide wax, riffler, ovens and prep equipment for the Qemscan/Tescan laboratory.

1.2.4 The employer will provide pulverised samples, nitrogen, medical oxygen, sample bottles, vials for Drop tube furnace tests.

1.2.5 The employer will provide a skid steer, coals, crusher and loesche mill for milling of coals in the PSCT facility. Suction pyro tubes will also be provided during testing and ash samples bottles to collect ash residue.

1.2.6 The laboratory supervisor will provide the testing plans and the contracts manager will issue task orders to the contractor on as and when required basis.

1.3 Roles and responsibilities

- a. The *Contractor* is required to execute scope as laid out within this document to fulfil the testing requirements identified within Qemscan/Tescan Lab, DTF and PSCT facilities.
- b. The Eskom Contract Manger is responsible for the management of the scope and the contractor is responsible for reporting any deviations to the Eskom Contract Manger.
- c. The lab/facility supervisor performs the following duties:
 - Work/task planning and co-ordination.
 - Report on progress of testing
 - Liaise with other line supervisors, engineers, etc
 - Responsible for enforcing the compliance requirements of Plant Safety Regulations (PSR) and Occupational Health and Safety Act. (OHS Act)

2.1 Shift and Standby

This Contract makes allowance for Standby:

- a) The Contractor may be required to have a number of persons on stand-by after hours when required to execute the services required.
- b) In the event of a call-out, the person on stand-by should be on site within an agreed time that will be specified on task order.

2.2 Working Hours

Working hours for the Qemscan/Tescan lab is from 8am to 4:45pm

Working hours for the DTF during testing is from 6am to 6pm

Working hours for the PSCTF during testing is from 6am to 6pm

2.3 House Keeping

The *Contractor* is to ensure that the laboratory and testing facilities area where work is to be performed is clean before and during the preparation and testing of samples. Possible sources of contamination are to be addressed by the contractor before work commences.

All materials, consumables and spares (used or damages) etc. are to be removed from the lab and testing facility and deposited in the appropriate areas.

These are unless otherwise directed by the Employer:

- Scrap steel is to be deposited in the allocated metals Bins.
- Domestic waste is to be deposited in rubbish bins or a domestic waste skip.
- Used oil is disposed in the dedicated area.
- Hazardous and contaminated material or waste is to be deposited in the skips provided for this purpose.

2.4 Meetings

Meetings of a specialist nature may be convened 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 *Contract Manager* by the person convening the meeting within five days of the meeting.

The contractor shall comply with the OHSAct. requirements.

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.

Meetings will be convened and chaired by the *Contract Manager* as and when required

3.1 Safety, health, quality and environmental requirements

3.1.1 Legislative Compliance

The contractor will comply with all the legislation pertaining to this project being:

- a) The Constitution of the Republic of South Africa (particularly Section 24 of the Bill of Rights).
- b) Occupational Health and Safety Act 1993 (Act 85 of 1993) and its Regulations.
- c) National Environmental Management Act 1998 (Act 107 of 1998).
- d) National Road Traffic Act 93 of 1996.
- e) Compensation for Occupational Injuries and Diseases Act.
- f) Eskom Plant Safety Regulations (PSR)

3.1.2 SHE Requirements

- Submit Letter of Good Standing (valid and the nature of business should be aligned with the scope of work)
- Submit signed SHE Policy
- Submit Baseline Risk Assessment (As per scope of work)
- Acknowledgement of Life Saving Rules
- Acknowledge of Eskom 37(2) Agreement
- SHE File will be required before the project starts.
- Signed Environmental policy
- Method statement
- Environmental Aspects and Impacts register as per scope of work

3.1.3 Quality Requirements

- 1) A.2 - Quality Policy Approved by top management.
- 2) B.1 - Documented information for defined roles, responsibilities and authorities (An organogram depicting individuals names and roles)
- 3) B.2 - Documented information for Control of Externally Provided Processes, Products and Services. (A procedure / process indicating how suppliers / subcontractors are managed)

The contractor must comply to Eskom Supplier Quality Requirement as per QM58 Specification

4.1 Technical Evaluation Criteria

A minimum weighted final score of 90% is required for the tender to be considered from a technical perspective, any service provider receiving a score less than 90% will be considered technically unacceptable.

4.1.1 Mandatory technical evaluation Criteria

Mandatory criteria (gatekeepers) are a 'must meet' criteria. These criteria is weighted or point scored, as to whether or not the criteria are met. An assessment of 'No' against any criterion shall technically disqualify the tenderer and shall not be further evaluated against Qualitative Criteria.

The Service Provider must provide the required documentation for technical evaluation.

4.1.2 Technical Evaluation Criteria

The technical evaluation team will assess each tender according to the criteria below: Qualitative Evaluation Criteria.

RESEARCH, TESTING & DEVELOPMENT (R,T&D) SCOPE OF WORK	R,T&D WEIGHTING CRITERIA %
DESCRIPTION	
Adherence to scope of work:	
Qemscan laboratory sample preparation, DTF and PSCT tests as and when required.: <ul style="list-style-type: none"> Quoted for all requirements – Score 60% Quoted for only DTF and PSCTF requirements as per the specification – Score 50% Quoted only for the DTF requirements as per the specification – Score 20% 	60%
Documented Proof of Capability to provide the required service as per the specification <ul style="list-style-type: none"> Reference letters that the supplier can meet the required specification for all the works– Score 30% Reference letters that the supplier can meet only the PSCTF specification for the works– Score 25% 	30%
Lead time for provision of service – 15 days turnaround time for the works – score 10% 30 days turnaround time for the works – score 8% 45 days turnaround time for the works – score 5%	10%
Total Score	100 %

5. Price List

Table 1: Proposed Bill of Quantities

Service	Estimated Quantity/P A	Unit Price for 1 year	Total price
Qemscan/Tescan sample preparation	720		
DTF Sample Charring	30		
DTF Sample splitting after charring to <38micron and 38-75 micron	30		
DTF particle size determination	30		
DTF density determination	30		
DTF combustion test	30		
PSCTF coal milling using Loesche mill	30		
PSCTF pulverised sampling during testing	60		
PSCTF suction pyrometer ash sampling during testing	240		
Subtotal excluding VAT per year			
Total Contract amount excluding VAT and CPI for a period of 4 years			