

Annex A – Schedules A and B

THIS SCHEDULE FORMS PART OF TRANSFORMER TEST EQUIPMENT SPECIFICATION

SCHEDULE A: PARTICULARS OF ESKOM'S REQUIREMENTS AND

SCHEDULE B: SUPPLIER'S GUARANTEES OF TECHNICAL PARTICULARS OF EQUIPMENT OFFERED.

THIS SCHEDULE SHALL BE USED IN CONJUNCTION WITH ESKOM SPECIFICATION FOR TRANSFORMER TEST EQUIPMENT. IN CASE OF CONFLICT, THE TENDERER SHALL REQUEST CLARITY IN A FORM OF AN EMAIL OR LETTER TO ESKOM AND SHALL COMPLY WITH THE LATEST REVISION OF ALL RELEVANT IEC STANDARDS.

WHERE XXXXX IS INDICATED, THE SUPPLIER MUST COMPLETE IN SCHEDULE B.

Technical specifications				
Item	Description	Units	Schedule A	Schedule B
1	Marking and packaging			
	Manufacture name or trademark	Text	XXXXX	
	Equipment type reference /Model number	Text	XXXXX	
	Units of measure quantity	Number	XXXXX	
	Ranges of measurements	Number	XXXXX	
	Serial number	Text	XXXXX	
	Manual containing Instruction of handling and use in English	Text	XXXXX	
2	Documentation			
	Fully filled clause guaranteed technical particulars signed by OEM	Text	XXXXX	
	Manufactures letter of authorization ISO9001 certificate	Text	XXXXX	
	Valid ISO 9001 & ISO 14001 certification	Certificate	XXXXX	
	Accreditation or Authorisation letter from OEM	Certificate	XXXXX	
	Sales records of five years and four customer refence numbers	Text	XXXXX	
	Copies of type test by third party testing laboratory	Certificate	XXXXX	
	Operational manual and service manual	Text	XXXXX	
	Calibration certificate	Certificate	XXXXX	
	Manufactures warranty and guarantee	Text	XXXXX	
	Fully equipped technical support office / laboratory for facilities of testing, calibration, adjustment, diagnosis, and repair of equipment's in South Africa itself	Text	XXXXX	

6	Construction and General Technical requirements			
6.1- 6.41	As per specified from 6.1-6.41 conditions	Text	XXXXXX	
7	TECHNICAL SPECIFICATIONS			
7.1	Transformer DC resistance tester			
7.1.1	Application		XXXXXX	
	The test equipment shall have the ability to cover most important diagnostics area: a) Measure transformer winding and DC resistance b) Perform three phase test on a transformer without the need to switch cables c) Provide individual Delta winding resistance values d) Demagnetize transformer after test	Text	XXXXXX	
7.1.2	Physical specification			
	Dimensions: (53 cm x 43 cm x 24 cm) Weight: (16 Kg)	CM kg	XXXXXX	
7.1.3	Display			
	5" back-lit LCD screen (240 x 128 pixels) viewable in bright sunlight and low-light levels	Text	XXXXXX	
7.1.4	Operating conditions			
	Temperature: -10° to + 55°C operating -10° to + 85°C storage Relative Humidity: 0% to 95% non-condensing	°C	XXXXXX XXXXXX	
7.1.5	Guarantee and training			
	The supplier shall guarantee the product for minimum of 12month from the date of delivery Cost of training shall be included in the tendered price Training will be at the end user's premisses	Text	XXXXXX	
7.2	Three phase Sweep Frequency Response analyser testing kit			

7.2.1	Application			
	<p>The test equipment shall have the ability to cover most important diagnostics area:</p> <ul style="list-style-type: none"> e) Core and magnetic properties f) Winding movement and deformation g) Interconnections (leads and tap-changers) 	<p>Text</p> <p>Text</p> <p>Text</p>	<p>XXXXXX</p> <p>XXXXXX</p> <p>XXXXXX</p>	
7.2.2	Accessories			
	<p>SFRA testing kit shall be supplied with the following:</p> <p>02 Active probes with 15 m double shielded cables,</p> <p>02 ground tape/leads 10 m,</p> <p>02 Ground tape/lead clamp,</p> <p>Storage case and bag for cables</p> <p>User/Maintenance Manual 02 set</p> <p>Calibration/Test certificates 02 set</p> <p>Main cable CDs with external PC analysis software</p>	<p>Text</p>	<p>XXXXXX</p>	
7.2.3	Measurements			
	<p>Frequency: 10 Hz to 10 MHz Max,</p> <p>Voltage output: Max 12Vpeak-peak at 50 Q and Max 24Vpeak-peak at IMQ,</p> <p>Input Impedance: 50 ohms</p>	<p>Hertz</p> <p>Volts</p> <p>ohm</p>	<p>XXXXXX</p> <p>XXXXXX</p> <p>XXXXXX</p>	
7.2.4	Physical specification			
	<p>Dimensions :35 x 25 x 10 cm</p> <p>Weight: (4 kg)</p>	<p>CM</p> <p>Kg</p>	<p>XXXXXX</p> <p>XXXXXX</p>	
7.2.5	Operating conditions			
	<p>Temperature: -10° to + 55°C operating</p> <p>-10° to + 85°C storage</p> <p>Relative Humidity: 0% to 95% non-condensing</p>	<p>°C</p> <p>%</p>	<p>XXXXXX</p> <p>XXXXXX</p>	
7.2.6	Guarantee and training			
	<p>The supplier shall guarantee the product for minimum of 12month from the date of delivery</p> <p>Cost of training shall be included in the tendered price</p> <p>Training will be at the end user's premisses</p>	<p>Text</p> <p>Text</p> <p>Text</p>	<p>XXXXXX</p> <p>XXXXXX</p> <p>XXXXXX</p>	

7.3	Three phase turns ratio test equipment			
7.3.1	Application			
	Transformer turns ration test equipment shall have the ability to cover most important diagnostics area: a) Should be able to measure and display actual turn's ratio of Three phase transformer having different vector groups b) Automatic measurement of Ratio and phase angle deviation c) Automatic measurement of Ratio and phase angle deviation	Text Text Text	XXXXXX XXXXXX XXXXXX	
7.3.2	Accessories			
	Transformer turns ration test equipment shall be supplied with the following: <ul style="list-style-type: none"> Power supply cord. Storage case and bag for cables 15 meter single phase set with alligator clip termination 15 meter three phase set with alligator clip termination Safety ground lead 10meter (min) with clamp 	Text	XXXXXX	
7.3.3	Accuracy			
	±0.2%(turns ratio<1000), ±0.3%(turns ratio 1000~10000)	Text Text	XXXXXX XXXXXX	
7.3.4	Physical specification			
	Dimensions: 53 cm x 43 cm x 24 cm Weight: 20 Kg	CM Kg	XXXXXX XXXXXX	
7.3.5	Operating conditions			
	Temperature: -10° to + 55°C operating -10° to + 85°C storage Relative Humidity: 0% to 95% non-condensing	°C %	XXXXXX XXXXXX	
7.3.6	Guarantee and training			
	The supplier shall guarantee the product for minimum of 12month from the date of delivery Cost of training shall be included in the tendered price	Text Text Text	XXXXXX XXXXXX XXXXXX	

	Training will be at the end user's premisses			
7.3.7	Display			
	5" back-lit LCD screen (240 x 128 pixels) viewable in bright sunlight and low-light levels	Text	XXXXXX	
7.3.8	Test Voltages			
	4 Vac @ 120 mA, 40 Vac @ 50 mA, 100 Vac @ 20 mA, 250 Vac @ 10 mA	Text Text Text Text	XXXXXX XXXXXX XXXXXX XXXXXX	