1. TENDER TECHNICAL EVALUATION STRATEGY

1.1 TECHNICAL EVALUATION THRESHOLD

Mandatory Technical Evaluation Criteria (gatekeepers) are 'must meet' criteria. These criteria shall not be weighted or point scored, but shall be assessed on a Yes/No basis 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.

Qualitative Technical Evaluation Criteria are weighted evaluation criteria used to identify the highest technically ranked tenderer after determining that all the Mandatory Evaluation Criteria have been met. The Qualitative Evaluation Criteria are weighted to reflect the relevant importance of each criterion.

The minimum weighted final score (threshold) required for a tender to be considered from a technical perspective is 85%. The following scoring method will be used:

Table 1: Technical Scoring Methodology

SCORE	PERCENTAGE (%)	DESCRIPTION
5	100	**COMPLIANT** • Meet the technical requirement(s) AND, • No foreseen technical risk(s) in meeting technical requirements
4	80	**COMPLIANT WITH ASSOCIATED QUALIFICATIONS** • Meet the technical requirement(s) with, • Acceptable technical risks AND/OR; • Acceptable exceptions AND/OR; • Acceptable conditions
2	40	**NON-COMPLIANT** • Does not meet the technical requirement(s) AND/OR Unacceptable technical risk(s) AND/OR; • Unacceptable exceptions AND/OR; • Unacceptable conditions
0	0	**TOTALLY DEFICIENT/NON-RESPONSIVE**

1.2 MANDATORY TECHNICAL EVALUATION CRITERIA

Table 2: Mandatory Technical Evaluation Criteria

	Mandatory Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Motivation for use of Criteria
1.	Has the Tenderer confirmed that the SF 6 Gas detect camera that they offer on this tender, complie to the set minimuim technical and functional specification as listed in the technical specification document. The machine must be serviced locally, (Calibration and minor repairs as per OEM directive) and not by a third party.	Tender Returnables – Does the equipment being offered compare to the technical specification and the required functionality.	The SF 6 SF 6 gas detecting camera being offered must match or better the minimuim set technical specification. This will ensure that the machine can match the current requirements of test apparatus currently being used, both technically and in functionality. Local support will ensure quick turn around time.

1.3 QUALITATIVE TECHNICAL EVALUATION CRITERIA

The weight for the technical review will be 100 % with a minimum threshold of 85% and will be based on the following:

Table 3: Qualitative Technical Evaluation Criteria

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
1.	**SUPPLY MULTI-FUNCTION TEST EQUIPMENT FOR HV EQUIPMENT**			**5**	
	1.1	Regstered Company with a track record of 5 completed projects as a minimum; for supply, calibration and repair of SF6 gas detecting cameras as used in HV Switchgear.	Tender returnable – Company Profile and proof to be submitted with reference to 5 completed projects sales of HV test equipment.		100
2.	**SUPPLY MULTI-FUNCTION TEST EQUIPMENT FOR HV EQUIPMENT**			**5**	
	2.1	Technical sales personel/ Engineer with a track record of 5 completed projects as a minimum; for sales, repair and calibration of SF 6 Gas detecting cameras.	Tender returnable – Company Profile and proof to be submitted with reference to 5 completed repair/projects sales of SF 6 Gas detecting cameras.		100
3.	**Design of Multi Test equipment**			**10**	
	3.1	Certificates for: Shock:IEC60068-2-27 CMC-Emissions:IEC 61326CLASS A Safety:IEC61010-1	Tender returnable – Copies of test certificates from independent laboratories proving compliance with the above standards		100
4.	**Application or measurements**			**35**	

	4.1	The SF 6 gas detection camera should be able to perform as described in the technical specification documentation	Tender returnable – Tenderers will score points if the tester can perofrm listed tests		**100**
5.	**Completed technical schedule of the multi-function HV test equipment as listed under the technical data sheets of annexure 1**			**15**	
	5.1	The Tenderer is to provide a complete sertifiable technical data sheet of the SF 6 Gas find camera.	Tender returnable - The technical data sheets are to be supplemented by additional descriptions, explanations, ratings,measurements and all other information necessary for a clear understanding of equipment application.		**100**
6.	**General**			**30**	**100**
	6.1	Technical proposal, meeting scope requirement	Technical proposal to include the following as a minimum: 1. Technical Specification to be matched or improved. 2. Functionality to be matched or improved. 3. SF 6 Gas detecting cameras components and accessories supplied must meet the requierments to carry out required tests.	20 2.5 2.5	
	6.2	Proposed work plan -indicating intent to undertake delivery and support -Training activities -calibration intervals	(Preliminary schedule showing lead times ,delivery dates and training.)	2.5	

	6.3	Lead time to mobilise technical/sales team to execute after contract award.	Lead time in accordance with Eskom directive.	2.5	
				TOTAL: 100	

Technical Specifications required for SF 6 Gas Find Camera required in NEG.

IR Resolution	320 × 240 pixels
Thermal Sensitivity/NETD	15 mK at 30°C (86°F)
Detector Type	Focal plane array (FPA), cooled QWIP
Spectral Range	10.3 µm to 10.7 µm
Detector Pitch	30 µm
Sensor Cooling	Stirling Microcooler (FLIR MC-3)
Gas Sensitivity	SF_6: <0.3 ppm x m (ΔT = 10°C, Distance = 1 m)
Digital Image Enhancement	High sensitivity mode (HSM), noise reduction filter
Available Lenses	24° × 18° (23 mm); 14.5° × 10.8° (38 mm); 6° × 4.5° (92 mm)
F-Number	1.59
Focus	Autofocus, Manual focus

Display	4", 640 × 480 pixel rotatable, touchscreen LCD
Viewfinder	Built-in, tiltable OLED, 800 × 480 pixels
Image Presentation Modes	IR image, visual image, high sensitivity mode (HSM)
Color Palettes	Arctic, White hot, Black hot, Iron, Lava, Rainbow, Rainbow HC
Zoom	1–8× continuous, digital zoom
Laser Pointer	Class 2

Measurement Temperature Range	-40°C to 500°C (-40°F to 932°F)
Accuracy	±1°C (±1.8°F) for temperature range (0°C, to 100°C, 32°F to 212°F) or ±2% of reading for temperature range (>100°C, >212°F)
Image Analysis	10 spots, 5 boxes with max/min/average, 1 line (horizontal or vertical), measurement corrections
Voice	60 seconds with Bluetooth on still images and video
Text	Text from predefined list or soft keyboard on touchscreen
Image Sketch	Yes: on infrared only
FLIR Inspection Route	Enabled in the camera
MultiREC Recording	Record multiple files automatically in customizable order
GPS	Location data automatically added to every still image; first frame in video from built-in GPS; data logging feature
Compass	Yes
Cloud Services (via Wi-fi)	FLIR Ignite for direct, secure image uploading, organizing, storage, and sharing (required firmware available)
Storage Media	Removable SD card
Image File Formats	Standard JPEG, measurement data included. Infrared-only mode.
Communication Interfaces	USB 2.0, Bluetooth via headset, Wi-Fi, HDMI
Video Out	HDMI; DVI
Radiometric IR Video Recording	RTRR (.csq)

Non-Radiometric IR or Visual Video	H.264 to memory card
Radiometric IR Video Streaming	Over UVC
Non-Radiometric IR Video Streaming	H.264 (AVC) or MPEG4 over RTSP (Wi-Fi); MJPEG over UVC and RTSP (Wi-Fi)
Visual Recording	H.264 to memory card

Operating Temperature Range	-20°C to 50°C (-4°F to 122°F)
Storage Temperature Range	-30°C to 60°C (-22°F to 140°F)
Encapsulation	IP54 (IEC 60529)
Shock	25 g (IEC 60068-2-27)
Vibration	2 g (IEC 60068-2-6)

Battery Type	Rechargeable Li-ion battery; 7.4 V, charged in camera or separate 2-bay charger
Battery Operating Time	>2.5 hours at 25°C (68°F) and typical use
Battery Charging Time	2.5 hours to 95% capacity, charging status indicated by LEDs
Camera Size	251.6 mm × 164.5 mm × 170.9 mm (9.9 in × 6.48 in × 6.73 in)
Camera Weight	3 kg (6.18 lb)
Mounting Interfaces	UNC ¼"-20

Box Contents

Packaging	Infrared camera with lens, battery: 2 pcs., battery charger, power supply including multi-plugs, hand strap, neck strap, lens cap, lens cap strap, memory card, HDMI-HDMI cable, USB cable, screwdriver TX20, printed documentation, and hard transport case