

# **NEC3 Term Service Contract (TSC3)**

A contract between Eskom Holdings SOC Ltd (Reg. No.: 2002/015527/30)

and

**Documentation prepared** | Noleen Francis

FOR:The provision of diagnostic testing, strip, supply spares, repairs, calibration and testing of various cable fault locator / test sets for a period of 36 months on "an as when required" basis for GP Cluster

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#### C1 Agreements & Contract Data

#### C1.1 Form of Offer and Acceptance

#### Offer

The Employer, identified in the Acceptance page signature block on the next page, has solicited offers to enter into a contract for the procurement of the:

The provision of diagnostic testing, strip, supply spares, repairs, calibration and testing of various cable fault locator / test sets for a period of 36 months on "an as when required" basis for GP Cluster

The tenderer, identified in the signature block below, having examined the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, and by submitting this Offer has accepted the Conditions of Tender. This contract will be executed on "as and when required basis". Price Schedule forms part of this contract.

By the representative of the tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance the tenderer offers to perform all of the obligations and liabilities of the Contractor under the Contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the Contract Data.

The offered total of the Prices exclusive of VAT is	
Value Added Tax @ 15% is	
The offered total of the Prices inclusive of VAT is	
(in words) Not Applicable	

This Offer may be accepted by the Employer by signing the form of Acceptance overleaf and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the Contractor in the conditions of contract identified in the Contract Data.

Signature(s)			
Name(s)			
Capacity			
For the tenderer:			
Name & signature of witness		Date	
Tenderer's CIE	DB registration number:		

#### **Acceptance**

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the tenderer's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the conditions of contract identified in the Contract Data. Acceptance of the tenderer's Offer shall form an Agreement between the Employer and the tenderer upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement.

The terms of the Contract, are contained in:

- Part 1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
- Part 2 Price Schedule (Where Bill of Quantities is used it shall mean Price Schedule)
- Part 3 Scope of Work: Service Information

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the Employer during this process of Offer and Acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be signed by the duly authorised representative(s) for both parties.

The tenderer shall within one week of receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the Contract Data at, or just after, the date this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the tenderer receives one fully completed copy of this document, including the Schedule of Deviations (if any) together with all the terms of the contract as listed above.

Signature(s)		
Name(s)		
Capacity		
for the Employer	ESKOM HOLDINGS SOC LIMITED MEGAWATT PARK MAXWELL DRIVE SANDTON, JOHANNESBURG, 2000	
Name & signature of witness		Date
	derer wishes to submit alternative tender offers at purpose, duly endorsed, 'Alternative Tender	

#### **Schedule of Deviations**

Note:

- 1. To be completed by the Employer prior to award of contract. This part of the Offer & Acceptance would not be required if the contract has been developed by negotiation between the Parties and is not the result of a process of competitive tendering.
- 2. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
- 3. A tenderer's covering letter must not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid be the subject of agreement reached during the process of Offer and Acceptance, the outcome of such agreement shall be recorded here and the final draft of the contract documents shall be revised to incorporate the effect of it.

No.	Subject	Details

By the duly authorised representatives signing this Schedule of Deviations below, the Employer and the tenderer agree to and accept this Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the Offer agreed by the tenderer and the Employer during this process of Offer and Acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Form shall have any meaning or effect in the contract between the parties arising from this Agreement.

	For the tenderer:	For the Employer
Signature		
Name		
Capacity		
On behalf of		ESKOM HOLDINGS SOC LIMITED MEGAWATT PARK MAXWELL DRIVE SANDTON, JOHANNESBURG 2000
Name & signature of witness		
Date		

# C1.2 Contract Data

# Data provided by the Employer

Clause	Statement	Data	
	General		
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option:		
		В	Priced contract with bill of quantity
	dispute resolution Option	W1:	Dispute resolution procedure
	and secondary Options	<b>X</b> 1	Price adjustment for inflation
		X2	Changes in the law
		X18: X19	Limitation of liability Task Order
		Z:	Additional conditions of contract
	of the NEC3 Term Service Contract April 2013 <sup>1</sup> (TSC3)		
30.1	The service period is.	36 Mo	nths
13.2	The period for reply is	1 (One) week	
50.1	The assessment day is the	As per task order / 25 <sup>th</sup> of each month.	
51.2	The interest rate on late payment is	N/A	
80.1	The Contractor is not liable to the Employer for loss of or damage to the Employer's property in excess of	the amount of the deductibles relevant to the event described in the "Format TSC3" insurance policy available on <a href="http://www.eskom.co.za/live/content.php?ltem_ID=9">http://www.eskom.co.za/live/content.php?ltem_ID=9</a>	
82.1	The Employer provides this insurance	as stated for "Format TSC3" available on <a href="http://www.eskom.co.za/live/content.php?ltem_ID=9">http://www.eskom.co.za/live/content.php?ltem_ID=9</a> <a href="http://www.eskom.co.za/live/content.php?ltem_ID=9">248</a> (See Annexure A for basic guidance)	
82.1	The minimum amount of cover for the first insurance stated in the Insurance Table is:	the amount of the deductibles relevant to the event described in the "Format TSC3" insurance policy available on <a href="http://www.eskom.co.za/live/content.php?ltem_ID=9">http://www.eskom.co.za/live/content.php?ltem_ID=9</a>	
82.1	The minimum amount of cover for the third insurance stated in the Insurance Table is:		ver the <i>Contractor</i> deems necessary in on to that provided by the <i>Employer</i> .
82.1	The minimum amount of cover for the fourth insurance stated in the Insurance Table is:	As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 and the <i>Contractor's</i> common law liability for people falling outside the scope of the Act with a limit of Indemnity of not less than R500 000 (Five hundred thousand Rands)	

<sup>&</sup>lt;sup>1</sup> Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 539 1902 www.ecs.co.za

93.1	The Adjudicator is (Name)	The person selected from the Eskom Panel of Adjudicators listed in Annexure B to this Contract Data by the Party intending to refer a dispute to him.
93.2(2)	The Adjudicator nominating body is:	The Chairman of the Joint Civils Division of the South African Institution of Civil Engineering. (See <a href="https://www.jointcivils.co.za">www.jointcivils.co.za</a> )
93.4	The tribunal is:	Arbitration.
	The arbitration procedure is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.
	The place where arbitration is to be held is	Gauteng Province in South Africa
	The person or organisation who will choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.

The *conditions of contract* are the NEC3 Term Service Contract (September 2008)<sup>2</sup> and the following additional conditions Z1 to Z11 which always apply:

#### Z1 Cession delegation and assignment

- Z1.1 The *Contractor* does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Employer*.
- Z1.2 Notwithstanding the above, the *Employer* may on written notice to the *Contractor* cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry and the Electricity Distribution Industry.

#### Z2 Change of Broad Based Black Economic Empowerment (B-BBEE) status

- Z2.1 Where a change in the *Contractor's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Contractor's* B-BBEE status, the *Contractor* notifies the *Employer* within seven days of the change.
- Z2.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Employer* within thirty days of the notification or as otherwise instructed by the *Employer*.
- Z2.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the *starting date* the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor's* obligation to Provide the Service.
- Z2.4 Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the *Employer* of completing the *service*.

#### Z3 Ethics

Z3.1 Any offer, payment, consideration, or benefit of any kind made by the *Contractor*, which constitutes or could be construed either directly or indirectly as an illegal or corrupt practice, as

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<sup>&</sup>lt;sup>2</sup> To be obtained from SAICE.

- an inducement or reward for the award or in execution of this contract constitutes grounds for terminating the *Contractor*'s obligation to Provide the Service or taking any other action as appropriate against the *Contractor* (including civil or criminal action).
- Z3.2 The *Employer* may terminate the *Contractor*'s obligation to Provide the Service if the *Contractor* is found guilty by a competent court, administrative or regulatory body of participating in illegal or corrupt practices.
  - Such practices include making of offers, payments, considerations, or benefits of any kind or otherwise, whether in connection with any procurement process or contract with the *Employer* or other people or organisations and including in circumstances where the *Contractor* or any such member is removed from the an approved vendor data base of the *Employer* as a consequence of such practice.
- Z3.3 If the *Employer* terminates in terms of this clause, the procedures on termination are those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the *Employer* of completing the *service*.

# Z4 Confidentiality

- Z4.1 The Contractor does not disclose or make any information arising from or in connection with this contract available to others except where required by this contract. This undertaking does not, however, apply to information which at the time of disclosure or thereafter, without default on the part of the Contractor, enters the public domain or to information which was already in the possession of the Contractor at the time of disclosure (evidenced by written records in existence at that time). Should the Contractor disclose information to others where required by this contract the Contractor ensures that the provisions of this clause are complied with by the recipient.
- Z4.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Employer*.
- Z4.3 In the event that the Contractor is, at any time, required by law to disclose any such information which is required to be kept confidential, the Contractor, to the extent permitted by law prior to disclosure, notifies the Employer so that an appropriate protection order and/or any other action can be taken if possible, prior to any disclosure. In the event that such protective order is not, or cannot, be obtained, then the Contractor may disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed.
- Z4.4 The taking of images (whether photographs, video footage or otherwise) of the *Employer*'s property or any portion thereof, in the course of Providing the Service and after the end of the *service period*, requires the prior written consent of the *Employer*. All rights in and to all such images vests exclusively in the *Employer*.
- Z4.5 The Contractor ensures that all his subcontractors abide by the undertakings in this clause.

#### Z5 Waiver and estoppel: Add to clause 12.2:

Z5.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties or their delegates or the *Adjudicator* does not constitute a waiver of rights, and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.

#### Z6 Health, safety and the environment

- Z6.1 The *Contractor* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the *service*. Without limitation the *Contractor*.
  - warrants that the total of the Prices as at the Contract Date includes a sufficient amount for proper compliance with the Construction Regulations, all applicable health & safety laws and regulations and the health and safety rules, guidelines and procedures provided for in this contract and generally for the proper maintenance of health & safety in and about the

- execution of service; and
- undertakes, in and about the execution of the service, to comply with the Construction Regulations and with all applicable health & safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the Contractor's direction and control, likewise observe and comply with the foregoing.
- Z6.2 The *Contractor*, in and about the execution of the *service*, complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his subcontractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.

#### Z7 Provision of a Tax Invoice and interest. Add to clause 50

- Z7.1 The *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer*'s procedures stated in the Service Information, showing the correctly assessed amount due for payment.
- Z7.2 If the *Contractor* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Employer* is to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the *Employer* in terms of clause 51.2 is then calculated from the delayed date by when payment is to be made.
- Z7.3 The *Contractor* is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Employer*'s VAT number 4740101508 on each invoice he submits for payment.

#### Z8 Notifying compensation events

Z8.1 Delete from the last sentence in clause 61.1, "unless the event arises from an instruction of the *Employer*."

#### Z9 Employer's limitation of liability; Add to clause 80.2

Z9.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand).

#### Z10 Termination: Add to clause 90.2, after the words "or its equivalent":

Z10.1 or had a judicial management order granted against it.

#### Z11 Addition to Clause 50.4

- Z11.1 If the amount due for the *Contractor*'s payment of *delay damages* reaches the limits stated in a Task Order (if any), the *Employer* may terminate the *Contractor*'s obligation to Provide the Service.
- If the *Employer* terminates in terms of this clause, the procedures on termination are those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the *Employer* of completing the *service*.

# **Z12 Additional Z Clauses**

#### **Eskom Cardinal Rules**



# **Eskom's Standard Conditions of Tendering**



#### Annexure A: Insurance provided by the Employer

These notes are provided as guidance to tendering contractors and the Contractor about the insurance provided by the Employer. Details of the insurance itself are available from the internet web link given below.

- 1. Services provided in a TSSC3 contract could include some element of construction or refurbishment as well as a continuous maintenance or operational service activity. If an event occurs which causes loss or damage, a claim could be made either against the *Employer*'s "works" policy which may be in place for the *Employer*'s portion of the property affected by the *service* or against the *Employer*'s "assets" policy which may be in place for the *Employer*'s portion of the property affected by the *service*, or both.
- 2. The cover provided and the deductibles under the works policy are different to those under the assets policy. Each policy has a range of applicable deductibles depending on the location of the property affected by the *service* and the nature of the insurable event.
- 3. The Contractor is required in terms of Contract Data for clause 82 to provide cover for the deductibles in the insurance provided by the Employer. This can be provided from the Contractor's own resources on a 'self insured' basis or obtained by him from his own insurers. In order to assess the extent of this cover, tendering contractors and their brokers should consult the internet web link given below and scroll to 'Format TSSC3' to establish both the cover and the deductibles in relation to the service provided in terms of this contract.
- 4. Tendering contractors should note that cover provided by the *Employer* is only per the policies available on the internet web link listed below and may not be the cover required by the tendering contractor to cover his risks as intended by each of the listed insurances in the left hand column of the Insurance Table in clause 82.1. In terms of clause 82.1 "the *Contractor* provides the insurances stated in the Insurance Table. The *Contractor* does not provide an insurance which the *Employer* is to provide as stated in the Contract Data". Hence the *Contractor* provides insurance which the *Employer* does not provide and in cases where the *Employer* does provide insurance the *Contractor* insures for the difference between what the Insurance Table requires and what the *Employer* provides.
- 5. Part 2 of the contract will include a requirement for the tendering contractor to identify the cost of insurance which he has allowed for in his Prices, given the foregoing guidance, either as a separate priced item or
- 6. Further information and full details of all Eskom provided policies and procedures may be obtained from: http://www.eskom.co.za/live/content.php?ltem ID=9248

# Annexure B: The Employer's Panel of Adjudicators

The following persons listed in alphabetical order of their surname have indicated their willingness to be included in the Eskom Panel of Adjudicators. Their CV's may be obtained by using the contact details provided.

Name	Location	Contact details (phone & e mail)
Nigel ANDREWS	Gauteng	+27 11 836-6760 nigela@quoin.net
Andrew BAIRD	Gauteng	+27 11 803 3008 andrewbaird@ecsconsult.co.za
Christopher BINNINGTON	Gauteng	+27 11 888-6141 cdb@bca.co.za
Bruce LEECH	Gauteng	+27 11 290 4000 leech@counsel.co.za
Nigel NILEN	Gauteng	+27 11 465 3601; nilences@global.co.za
Robert St. LEGER	Cape Town	+27 21 794 7488 bobst@iafrica.com
Peter THURLOW	Gauteng	+27 11 787 6226 info@thurlowassoc.com

Information about the Panel and appointment of the selected *Adjudicator* is available from Eskom Supply Chain Operations Management.

# Data provided by the Contractor (the Contractor's Offer)

The tendering contractor is advised to read both the NEC3 Term Services Contract (September 2008) and relevant parts of its Guidance Notes (TSC3-GN)2 in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided of the TSC3 Guidance Notes.

Completion of the data in full is essential to create a complete contract.

10.1	The Contractor is (Name):	
	Address	
	Tel No.	
	Fax No.	
	E-mail address	
	The percentage for everybonds and profit	
63.2	The percentage for overheads and profit added to the Defined Cost for people is	%
63.2	The percentage for overheads and profit added to other Defined Cost is	%
11.2(4)	The Price List is in	The document called 'Gauteng Zone Price Schedule' of this contract.
11.2(4)	The offered total of the Prices for part of the service in Part 1 of the Price List is	Rate based p14 Excluding VAT
11.2(4)	The offered total of the Prices for part of the service in Part 2 of the Price List is	Not applicable

C2 Pricing Data (Price Schedule)

#### **C2.1 Pricing assumptions**

The Price List is in two parts. Part 1 is for work described in the Service Information not requiring the *Employer* to issue a Task Order. Part 2 is for work to be carried out within a stated period of time on a task by Task basis and instructed by Task Order. The *service* may comprise work under Part 1 only or Part 2 only or a mix of both.

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tenderer enters the amount in the Price column only, the Unit, Expected quantity and Rate columns being left blank.

If the *Contractor* is to be paid an amount for the item of work which is the rate for the work multiplied by the quantity completed, the tenderer enters a rate for each item and multiplies it by the Expected quantity to produce the Price, to be entered in the final column.

If the *Contractor* is to be paid a Price for an item proportional to the length of time for which a service is provided, a unit of time is stated in the Unit column and the expected length of time (as a quantity of the stated units of time) is stated in the Expected quantity column.

The rates and Prices entered for each item includes for all work and other things necessary to complete the item.

The *Contractor* is to price the Price Schedule in its entirety based on the scope of services being tendered for, for all the Functional Groupings per specific site being tendered for.

The Price Schedule has a quantity of one and quantities will be adjusted once each task order is complete.

The Contractor will be paid using Price Schedule as a basis.

The contract is based on "as and when required basis"

The rates and Prices entered for each item includes for all work/services and other things necessary to complete the item.

The structure of the Price Schedule is as follows (See below table and details on the Price Schedule itself):

# C2.2 Price List (Price Schedule)

Refer to Price Schedule (Part 2) for detailed specification and quantities.

The rates and Prices entered for each item includes for all works / services and other things necessary to complete the item.

For more information on the rates refer to the attached document called Gauteng Zones – Price Schedule.

# **PRICING SCHEDULE**.

# **Complete 32kV Test System Trailer**

Complete 32kV Test system installed in a Trailer. The system must be self-contained and must meet all the requirements below. All items below must be delivered as one unit and be located or installed in the trailer.

No.	Item	Estimated Quantity	Unit price
1	32kV Surge Generator	1	
2	Time Domain Reflectometer	1	
3	Ground Microphone	1	
4	Trailer	1	
5	Inverter System	1	
6	HT Rack 25m	1	
7	Full Installation	1	
8	Striping cost	1	
9	Diagnostic testing	1	
10	Labour cost per machine	1	

CONTRACTOR:		
PRINT NAME	SIGNATURE	DATE

C3: Scope of Services

#### **C3.1 The Service Information**

#### **Description of Services**

All stripping of faulty equipment and assessment should be witnessed by an Eskom Representative.

#### **Complete 32kV Test System Trailer**

Complete 32kV Test system installed in a Trailer. The system must be self-contained and must meet all the requirements below. All items below must be delivered as one unit and be located or installed in the trailer.

No.	Item	Quantity
1	32kV Surge Generator	1
2	Time Domain Reflectometer	1
3	Ground Microphone	1
4	Trailer	1
5	Inverter System	1
6	HT Rack 25m	1
7	Full Installation	1

#### 1. 32kV Surge Generator (SPG32)

Complete 32kV surge unit for fault location on low and medium voltage cable. The unit has built in Arc reflection, DC Testing and Sheath Fault Location. The unit has 1750 Joules energy.

Requirements	Comply Yes	Comply No	
DC Testing: 0 to 32kV DC			
Test Current: 0 to 2 mA 1000Ws			
Surge: 0 to 8kV 1750 J			
0 to 16kV 1750 J			
0 to 32kV 1750 J			
Surge Rate: 3 to 10 seconds, Single Pulse			
Burning: 0 to 32kV, 160mA			
MFO - Sheath Fault Locating: 0 to 5kV power regulated			
MFO – 0 to 160mA			
Pulsed Output: 2 to 6 sec			
Weight: 135kg			
Protection Type: IP21			
Capacitor: Metal Casing with Porcelain Insulators			
HV Transformer must have temperature cut-out with thermal			
fuse.			

# 2. <u>Time Domain Reflectometer (Teleflex SX)</u>

Requirements	Comply Yes	Comply No	Variation
Operation: Touch Screen & Control Knob			
Range: 20 m to 160 km @ $v/2 = 80 \text{ m/}\mu\text{s}$			
Resolution: 0.1 m @ v/2 80 m/μs,			
1.0 cm @ v/2 < 40 m/μs			
Sample Rate: Up to 400 MHz			
Gain: - 37 + 37 dB			
De-Attenuation: 0 + 22 dB for Pro Range			

(Adjustable 0 100 %)		
Propagation Velocity: V/2 10 149.9 m/μs, ft/μs or nvp		
Dynamic Range: > 80 dB		
Compensation: 8 Ω 500 Ω, adjustable		
Arm slide: 15 measurements in one ARM shot		
Voltage Proof Input: > 400 V		
Display: 10.4"color TFT XGA 1024x768,		
600 cd/m2, CCFL-Backlight		
Data Storage: 4 GB mSATA for program and data		
Connectors: Ethernet, USB, BNC, CAN		
(LON optional)		
Protection: Class IP 65 closed, IP 54 open lid		
Supply: 110 240 V, 50/60 Hz,		
30 VA, 12 V ext.		
Dimensions (w x h x d): 362 x 195 x 306 mm		
(Option 19", 6 HU)		
Weight: 10 kg		
Prelocating Modes: Reflection Measurement (TDR)		
ARM Measurements up to 32kV		
Decay up to 32kV		
ICE Impulse Current Method up to 32kV		
Operation: Touch Screen & Control Knob		
Range: 20 m to 160 km @ v/2 = 80 m/μs		
Resolution: 0.1 m @ v/2 80 m/μs,		
1.0 cm @ v/2 < 40 m/μs		

3. <u>Ground Microphone</u>
Surge wave receiver for acoustic and electromagnetic cable fault pinpointing.

Requirements	Comply Yes	Comply	Variation
Carrying bag with Foam Inserts for unit plus accessories			
Bluetooth Interphase for pairing with headphones			
Receiver			
Display: TFT Colour Display, 320x240 pixels			
Safety: Volume limitation to 84dB			
Gain: >120dB Automatic			
Supply: 6 x R6 Alkaline Batteries			
Operating Time: >10 hours			
Protection Rating: IP 54			
Dimensions (H x W x D): 65 x 225 x 100mm			
Weight: 900g (Incl Batteries)			
Fully automatic trigger level adjustment for acoustic as well as for magnetic channel			
Intelligent noise suppression (Background Noise Reduction)			
Distance measurement in milliseconds or meter/feet			
Easy tracing with left-right indicator			
"Compass" for fault direction indication			
Sensor			
Height: 140mm			

Outer Rim Diameter: 230mm		
Handle Length: 450 – 750mm Adjustable		
Weight: 2.2kG (incl batteries and handle)		
Dynamic Range: Magnetic Chanel > 110dB Acoustic Chanel > 110dB		
Frequency Range: 100 – 1500Hz		
Filter Stages: Off – 100 to 1500Hz  Low Pass – 100 to 400Hz  Band Pass – 150 to 600Hz  High Pass – 200 to 1500Hz		
Protection Rating: IP 65		
High ground stability of the sensor up to 45°		
Automatic headset mute function during the handling of the sensor (Automatic Proximity Mute)		
Optional Accessories		
Vehicle Installation Kit		
Bluetooth Headset		

#### 4. Sputnik 10 Trailer

This trailer is designed as a fully closed unit with a large door to facilitate easy loading and unloading. The "Rigidised Steel" panel design creates an extremely sturdy and light container box and has a "Wind deflecting" nosecone that reduces wind drag and lowers fuel consumption of the towing vehicle. The Container trailer can accommodate a low, high bulk load configuration.

Requirements	Comply Yes	Comply No	Variation
2500kg Braked Axle			
Gas Lift Supported Side and Rear Door			
205 x 14" Tyres 4 X 4			
5 Hole x 114.3 14" Rims			
1100 – 2000kg Braked Coupler			
Jockey Wheel: Heavy Duty			
Chassis: Rectangular Tube and Chanel Sections			
Length Overall: 3683mm			
Length Body: 3090mm			
Width Inside: 1525mm			
Width Overall: 2000mm			
Ground Clearance: 500mm			
Height Inside: 1637mm			
Height Overall: 2190mm			
Tare Mass: 560kg			
GVM: 1525kg			
Pay Load: 965kg			
Brakes: Yes			
Axle Length: 1830mm			
Axle Capacity: 2500kg			
Customized Suspension for Equipment Weight Rubber Axle			

#### 5. <u>Inverter System</u>

3000W Self-contained inverter system for power supply to test equipment.

Requirements	Comply Yes	Comply No	Variation
Inverter			
Output AC Voltage: 220 / 230 / 240 VAC			
Output Rated Power: 3000W			
Output Surge Power: 6000W			
Output Waveform: True sine wave (THD < 3%)			
Output Frequency: 50 / 60 Hz selectable by DIP switch			
Output AC Regulation: +-3%			
Output Power Factor Allowed: COS -900~ COS +900			
Input No Load Current Draw: 2.80A			
Input Stand-By Current Draw: 0.50A			
Input DC Voltage: 12VDC			
Input Voltage Range:			
Input Efficiency: 90.0%			
Input Fuse: 40A x 10			
Protection Bat. Low Alarm: 11VDC			
Protection Bat. Low Shutdown: 10.5VDC			
Protection Over Voltage: 15.3VDC			
Dimensions L x W x H: 452x208x166mm			
Cooling: Loading Controlled Fan			
Charger			
Output Boost Charge Voltage: 14.4V			
Output Float Charge Voltage: 13.8V			
Output Recommended Battery Capacity (AMP Hours):135 –			
400AH			
Output Current: 40A			
Input Voltage Range: 90 ~ 264VAC 127 ~ 370VDC			
Input Frequency Range: 47 – 63Hz			
Input Power factor: 0.95/230VAC 0.98/115VAC at full load			
Efficiency: 86%			
Input AC Current: 6.8A/115VAC 3.4A/230VAC			
Inrush Current: 25A/115VAC 50A/230VAC			
Leakage Current: <3.5mA / 240VAC			
Protection Over Voltage: 16-18V			
Over Temperature: Protection type: Shut down o/p voltage,			
recovers automatically after temperature goes down			
Fast Charge: 2 / 3 / 8 stage selectable			
Charger OK: Relay contact (RY15)			
Output OK: Relay contact (RY13)			
Safety Standards: UL1012, TUV EN60335-1, EN60335-2-29			
(except for 48V), EN60950-1(48V only) approved			
Dimensions: 230*158*67mm(L*W*H)			
Batteries & Housing			
Number of Batteries: 4			
Batteries must be mounted in steel housing			
Batteries: 102Ah or 105Ah			
Cable from Batteries to Inverter: 1000V 70mm² (SABS 1507)			
Cable from Charger to Batteries: 1000V 16mm² (SANS 1574)			
Battery level indicator			

# 6. 25m HT Rack

25m HT Rack for extending the High voltage extension cable for installed equipment.

Requirements	Comply Yes	Comply No	Variation

Metal frame with base plate		
3 Reels with internal braking		
25m 16mm Single Core Earth Cable		
25m 2.5mm 3 Core Mains Cable		
25m 6mm Silicon Insulated High Voltage Cable		
Earth Cable must have ferules for central earth point		
Industrial clamp on earth lead		
Swivel handle on reels for hand cranked operation		
Clamp Organizing attachments		

# 7. Complete Installation

Complete Installation of test equipment in vehicle or trailer.

Requirements	Comply Yes	Comply No	Variation
19mm Plywood floor			
Industrial interlocking floor tiles			
Steel Mounting Brackets for test equipment			
DB Board with earth leakage			
Separation transformer			
Change over switch for power supply			
Internal light			
Rotating Low back chair			
300mm Earth Spike			
Hammer			
Measuring Wheel			
Central Earth point with micro switch			

# 8. IRG 2000 and IRG 3000

Spare parts for IRG 2000	Comply Yes	Comply No	Variation
560 400 - Display Board IRG 2000			
560-399 - Acquisition Board IRG 2000			
578-518 - Flat cable IRG 2000			
560-414 -Metal shield acquisition board IRG 2000			
Spare parts for IRG 3000			
460-536 - Board B In- Out IRG 3000			
460-534 - Print C Inpuls generator IRG 3000			
462-603 - Card A DSP IRG 3000			
460-527 - Board D (Powerlo) IRG 3000		-	

# 9. <u>SA 32</u>

Spare parts for SA 32	Comply Yes	Comply No	Variation
470-889 - mA meter assembly SA 32			
523-753 - Resistor 2.2 kOhm, 200 W			
523-763 - Resistor 15 kOhm, 200 W			
461-704 - Board A for SA 32			
560-268 - Board B for SA 32			
566-923 - Solenoid 180 VDC			

# 10. <u>SSG 2100</u>

Spare Parts for SSG 2100	Comply Yes	Comply No	Variation
472-652 - Set replacement PCB A, PCB B, SSG 32 kV			

461-097 - PCB-CA lifting magnet control SSG 32		
538-043 - HV Capacitor bank 4x16 uF SSG 2100DUAL-		
USE goods according ECCN 3A201		
650-688 - Temperature indicator 40-71 degrees		
432-756 - Sticker "Danger HV-capacitor" for SSG		
470-489 - HV-Transformer SSG 1500;2100		
561-140 - kV Meter, without scale		
561-149 - kV scale for SSG 1100/ 1500/ 2100		

# 11. <u>SSG 1500</u>

Spare Parts for SSG 1500	Comply Yes	Comply No	Variation
472-652 - Set replacement PCB A, PCB B, SSG 32kV			
461-097 - PCB-CA lifting magnet control SSG 32 DUAL-			
USE goods according ECCN 3A201			
432-756 - Sticker: Danger HV-capacitor" for SSG			
470-489 - HV-transformer SSG 1500; 2100			
461-140 - kV Meter, without scale			
561-149 - kV scale for SSG 1100/ 1500/ 2100			

# 12. Protrac

Spare Parts for Protrac	Comply Yes	Comply No	Variation
463-270 - PCB-Distribution assembled AGP			
472-665 - PCB-Sensor Mikrofen prog AGP			
472-645 - PCB-User Interface programmed CU			
472-644 - PCB-Proz Colibri VF61 prog CU			

<u>No</u>	UNIQUE IDENTIFIER	REVISIO	DOCUMENT TITLE
1	32 - 727	0	SAFETY, HEALTH, ENVIRONMENT AND QUALITY (SHEQ) POLICY 32-727  32-727 Feb 2014.pdf
2	32 - 136	0	CONSTRUCTION SAFETY HEALTH AND ENVIRONMENTAL MANAGEMENT  2_Construction Safety Health and En
3	32-524	0	DEVELOPING A SAFETY, HEALTH AND ENVIRONMENTAL SPECIFICATION  3_Developing a Safety, Health and E
4	34 - 333	1	HEALTH AND SAFETY REQUIREMENTS TO BE MET BY PRINCIPAL CONTRACTORS EMPLOYED BY ESKOM DISTRIBUTION 34-333  4_Health and Safety Requirements to be n
5	32 - 421	1	ESKOM CARDINAL RULES 32-421

		1	
			5_Eskom Cardinal Rules (32-421).pdf
6	CONSTRUCTION REG 3		NOTIFICATION OF CONSTRUCTION WORK TO DEPARTMENT OF LABOUR  6_Notification of Construction Work to
7	CONSTRUCTION REG 4 & 5		APPOINTMENT LETTERS FOR CLIENT REPRESENTATIVE, PRINCIPAL CONTRACTOR & CONTRACTOR  7_Appointment letters for Client reprincipal contractor.
8 & 9	OHS ACT	1	WRITTEN AGREEMENT ON OHS ACT SECTION 37(2) & STANDARD CLAUSE  37 2 Jan 2014.doc
10, 11 & 12	34 - 1063	0	EXPANDED PUBLIC WORKS REPORT 34-1063.  10_34-1063 EPWP 11_EPWP Guidelines Eskom EPWP report Works Instruction.pdi Second edition 2005.
13	DST 34-961	0	LEGAL APPOINTMENTS AND AUTHORIZATIONS  13_Legal Appointments and Au
14	TPC 41-55		TRANSPORTING PERSONS ON BACK OF VEHICLES  14_Transporting of Passengers on the ba
15	LTIR	MASTE R	LTIR Master.xls
16	Contractor Performance Evaluation	MASTE R	Single Evaluator Template for Contrac
17	Supplier Contract Quality Requirements	MASTE R	QM-58 Supplier Contract Quality Req

18	Hard Hat Specifications OHS 01/12/	MASTE R	OHS 01 12 Hard Hat Specifications.pdf
19	Identifying, Analysing, Documenting and Observing Tasks according to Criticality.	REV 1	DPC_34-380.pdf
20	Health & Safety Representatives inspection reports and guidelines	REV 1	DPC_34-228Health_ Safety_REp.pdf
21	Work at Heights Procedure	REV 1	32-418 Work at Height Procedure.pdf
22	SHE Requirements for the Eskom Commercial Process	REV 1	32-726 SHE Requirements for the

# **Acknowledgement by Contractor**

I/WE,				READ AN	D UNDERSTOOD	THE
I/WE UNDERTAKE TO STUDY AND ABIDE BY THE	SE REQUIREM	IENTS AT ALL TIM	IE.			
SIGNED AT:	ON THE	DA	Y OF		20	

The payment of monthly invoice will be in line with the approval of monthly reports by Eskom Properties.

Where Client signature is required, the contractor must receive permission to approach any Senior Supervisor / Manager other than the relevant Eskom Properties representative to approve quality of works undertaken.

#### **C3.2 AREA OF SERVICE**

**Gauteng Cluster** 

#### C3.2.4 Use of standard forms

Installation/Replacement record forms.
Service records forms to be sent to responsible persons.

#### C3.2.5 Invoicing and payment

In terms of core clause 50 the *Contractor* assesses the amount due and applies to the *Employer* for payment. The *Contractor* applies for payment with a valid tax invoice addressed to the *Employer* as follows:

The *Contractor* includes the following information on each tax invoice:

- Name and address of the Contractor
- The contract number and title:
- Task Order number (45.....number). A Task Order shall be issued by the Employer to the Contractor prior to the commencement of any work.
- Contractor's VAT registration number;
- The Employer's VAT registration number 4740101508;
- The total of the Price for each lump sum item in the Price List or Task Order which the *Contractor* has completed;
- Where a quantity is stated for an item in the Price List or Task Order, an amount calculated by multiplying the quantity which the Contractor has completed by the rate,
- Other amounts to be paid to the *Contractor*,
- Less amounts to be paid by or retained from the Contractor,
- The change in the amount due since the previous payment being the invoiced amount excluding VAT, the VAT and including VAT;

The Contractor attaches the detail assessment of all work done for each item in the Price List to each tax invoice showing

- the Price for each lump sum item in the Price List or Task Order which the Contractor has completed and
- where a quantity is stated for an item in the Price List or Task Order, an amount calculated by multiplying the quantity which the *Contractor* has completed by the rate.

Invoices to be addressed as follows: (Other areas may have different address – to be detailed at contract award)

Eskom Holdings SOC Limited. Megawatt Park Maxwell drive Sunninghill

Attention: Eskom Properties

# C3.2.6 Records of Defined Cost

In order to substantiate the Defined Cost of compensation events, the *Employer* may require the *Contractor* to keep records of amounts paid by him for people employed by the *Contractor*, plant and materials, work subcontracted by the *Contractor* and equipment. State in what form these records are to be kept and how accessed by the *Employer*.

#### C3.3 Supplier Development and Localisation (SDL&I)

#### **C3.3.1 Skills Development**

Eskom intends to improve Skills Development by ensuring that technical support is directed towards enhancing supply capacity and capability within the industry or sector of operation. By doing this the capacity and competitiveness of the local supply base will be increased and the goals of shared growth, employment creation, poverty reduction and skills development will be achieved.

Tenderers are encouraged to propose Skills Development initiatives in terms of the Skills required for this project as indicated in the table (matrix) below. These will form part of the contractual obligation with the successful contractor. Retention of 2% will apply and will be released on submission of proof of compliance by the contractor on completion of the projects.

#### C3.3.1.1 Skills development matrix per contract

Skills Type	Recommended	Supplier Proposal
Artisan / Technician (Related repair	1	
of cable fault locator)		

# C3.4 Requirements for the plan

Contractor to provide a plan in PDF Format, of how each discipline machine will be repaired All stripping of equipment must be witnessed by Eskom Representative.

#### C3.5 Services and other things provided by the Employer

Item	Date by which it will be provided

# **C3.6 PROFORMA AND TASK ORDERS**

No work that will be undertaken without a Task Order.

Task Order				
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Task Order form for use when work within the <i>service</i> is instructed to be carried out within a stated period of time on a Task by Task basis				
Task Order No.	[•]	service	.[•]	
To: [•]				
				(Contractor)
I propose to instruc	t you to carry out the following task:			
Description	[•]			
Starting date	[•]			
Completion Date	[•]			
Delay damages per	rweek [●]			
Please submit your price and programme proposals below.				
Signed:		Date		
(for <i>Employer</i> )				
Total of Prices for items of work on the Price List (details attached)		R		
Total of Prices for items of work not on the Price List (details attached).		R		
Tota	al of the Prices for this Task Order	R		<del></del>
The programme for the Task is				[ref] (attached)
Signed:		Date		
(	(for Contractor)			
I accept the above	price and programme and instruct y	ou to carrv	out the T	ask
Signed:	1 13 1 110 1110 1110 1110 1110	Date:		
, C				
	(for Employer)			