



## NEC3 Term Service Contract (TSC3)

Between **ESKOM HOLDINGS SOC LIMITED**  
(Reg No. 2002/015527/06)

and

for **Non-Lethal Electric Fence Repairs, inspection and  
Maintenance**

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**CONTRACT No.**

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## PART C1: AGREEMENTS & CONTRACT DATA

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## C1.1 Form of Offer & Acceptance

### Offer

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

#### Electric Fence Repairs and Maintenance

The tenderer, identified in the Offer signature block, has examined the documents listed in the Tender Data and addenda thereto and by submitting this Offer has accepted the Conditions of Tender.

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.

Options A	The offered total of the Prices exclusive of VAT is	<b>R</b>
	Value Added Tax @ 15% is	<b>R</b>
	The offered total of the amount due inclusive of VAT is <sup>1</sup>	<b>R</b>
	(in words)	

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance 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 CIDB registration number:

<sup>1</sup> This total is required by the *Employer* for budgeting purposes only. Actual amounts due will be assessed in terms of the *conditions of contract*.

## 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 C1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
- Part C2 Pricing Data
- Part C3 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 Returnable 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.

The tenderer shall within two weeks 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 original copy of this document, including the Schedule of Deviations (if any).

Signature(s) .....

Name(s) .....

Capacity .....

**for the  
Employer** **Eskom Holdings SOC Limited**

Name &  
signature of  
witness .....

Date .....

Note: If a tenderer wishes to submit alternative tenders, use another copy of this Form of Offer and Acceptance.

## Schedule of Deviations to be completed by the *Employer* prior to contract award

Note:

1. 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
1	[•]	[•]
2	[•]	[•]
3	[•]	[•]
4	[•]	[•]
5	[•]	[•]
6	[•]	[•]
7	[•]	[•]

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:

Signature \_\_\_\_\_

Name \_\_\_\_\_

Capacity \_\_\_\_\_

On behalf of \_\_\_\_\_  
(Insert name and address of organisation)

### For the Employer

Signature \_\_\_\_\_

Name \_\_\_\_\_

Capacity \_\_\_\_\_

(Insert name and address of organisation)

Name & signature of witness \_\_\_\_\_

Date \_\_\_\_\_

## C1.2 TSC3 Contract Data

### Part one - Data provided by the *Employer*

Completion of this data in full, according to the Options chosen, is essential to create a complete contract.

Clause	Statement	Data
1	<b>General</b>	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option:	
	dispute resolution Option and secondary Options	<b>A:</b> <b>Priced contract with price list</b> <b>W1:</b> <b>Dispute resolution procedure</b>
		<b>X1:</b> <b>Price adjustment for inflation</b> <b>X2:</b> <b>Changes in the law</b> <b>X17:</b> <b>Low service damages</b> <b>X18:</b> <b>Limitation of liability</b> <b>X19:</b> <b>Task Order</b> <b>X20:</b> <b>Key performance indicators</b> <b>Z:</b> <b>Additional conditions of contract</b>
	of the NEC3 Term Service Contract (June 2005) <sup>2</sup>	
10.1	The <i>Employer</i> is (name):  Address  Tel No.  Fax No.	<b>Eskom Holdings SOC Limited (Reg No: 2002/015527/06), a juristic person incorporated in terms of the company laws of the Republic of South Africa</b>  <b>Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg</b>
10.1	The <i>Service Manager</i> is (name):  Address  Tel  Fax  e-mail	<b>Hendrina Power Station Private Bag X 1003 Pullenshope, 1096</b>

<sup>2</sup> Available from Engineering Contract Strategies Tel 011 803 3008 Fax 011 803 3009

11.2(2)	The Affected Property is	<b>Hendrina Power Station</b>
11.2(13)	The service is	<b>Electric fence repairs, inspection and maintenance</b>
11.2(14)	The following matters will be included in the Risk Register	<b>N/A</b>
11.2(15)	The Service Information is in	<b>Part 3: Scope of Work and all documents and drawings to which it makes reference.</b>
12.2	The <i>law of the contract</i> is the law of	<b>the Republic of South Africa</b>
13.1	The <i>language of this contract</i> is	<b>English</b>
13.3	The <i>period for reply</i> is	<b>1 Day</b>
2	<b>The Contractor's main responsibilities</b>	(If the optional statement for this section is not used, no data will be required for this section)
21.1	The Contractor submits a first plan for acceptance within	<b>N/A</b>
3	<b>Time</b>	
30.1	The <i>starting date</i> is.	
30.1	The <i>service period</i> is	<b>36 Months</b>
4	<b>Testing and defects</b>	
5	<b>Payment</b>	
50.1	The <i>assessment interval</i> is	<b>End of each month.</b>
51.1	The <i>currency of this contract</i> is the	<b>South African Rand</b>
51.2	The period within which payments are made is	<b>4 weeks.</b>
51.4	The <i>interest rate</i> is	<p>(i) zero percent above the publicly quoted prime rate of interest (calculated on a 365 day year) charged by from time to time by the Standard Bank of South Africa (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and</p> <p>(ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption "Money Rates" in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted <i>mutatis mutandis</i> every 6 months thereafter (and as certified, in the event</p>

of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited, whose appointment it shall not be necessary to prove.

<b>6</b>	<b>Compensation events</b>	(If the optional statement for this section is not used, no data will be required for this section)
	These are additional compensation events:	1
<b>7</b>	<b>Use of Equipment Plant and Materials</b>	<b>Check spares list under pricing</b>
<b>8</b>	<b>Risks and insurance</b>	
80.1	These are additional <i>Employer's</i> risks	1.
83.1	The <i>Employer</i> provides these insurances from the Insurance Table	as stated for "Format TSC3" available on <a href="http://www.eskom.co.za/live/content.php?Item_ID=9248">http://www.eskom.co.za/live/content.php?Item_ID=9248</a> (See Annexure A for basic guidance).
83.1	The <i>Employer</i> provides these additional insurances	as stated for "Format TSC3" available on <a href="http://www.eskom.co.za/live/content.php?Item_ID=9248">http://www.eskom.co.za/live/content.php?Item_ID=9248</a> (See Annexure A for basic guidance)
83.1	The minimum amount of cover for insurance against loss and damage caused by the <i>Contractor</i> to the <i>Employer's</i> property 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?Item_ID=9248">http://www.eskom.co.za/live/content.php?Item_ID=9248</a>
83.1	The minimum amount of cover for loss of or damage to Plant and Materials provided by the <i>Employer</i> 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?Item_ID=9248">http://www.eskom.co.za/live/content.php?Item_ID=9248</a>
83.1	The minimum amount of cover for insurance in respect of loss of or damage to property (except the <i>Employer's</i> property, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i> ) arising from or in connection with the <i>Contractor's</i> Providing the Service for any one event is:	whatever the <i>Contractor</i> deems necessary in addition to that provided by the <i>Employer</i> .
83.1	The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract for any one event 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)..
<b>9</b>	<b>Termination</b>	<b>There is no Contract Data required for this section of the <i>conditions of contract</i>.</b>

## 10 Data for main Option clause

A	Priced contract with price list
20.5	The <i>Contractor</i> prepares forecasts of the <b>1 weeks</b> . final total of the Prices for the whole of the service at intervals no longer than

## 11 Data for Option W1

W1.1	The <i>Adjudicator</i> 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.
W1.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of the Joint Civils Division of the South African Institution of Civil Engineering. (See <a href="http://www.jointcivils.co.za">www.jointcivils.co.za</a> )
W1.4(2)	The <i>tribunal</i> is:	arbitration
W1.4(5)	The <i>arbitration procedure</i> 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	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.

## 12 Data for secondary Option clauses

X1	Price adjustment for inflation																		
X1.1	The <i>base date</i> for indices is The proportions used to calculate the Price Adjustment Factor are: <table border="1" data-bbox="818 1381 1430 1673"> <tr> <td>proportion</td> <td>linked to index for</td> <td>Index prepared by</td> </tr> <tr> <td>10%</td> <td>non-adjustable</td> <td>SEIFSA Table G</td> </tr> <tr> <td>20%</td> <td>Materials</td> <td>SEIFSA Table G</td> </tr> <tr> <td>70%</td> <td>Labour</td> <td>SEIFSA Table C3</td> </tr> <tr> <td>100%</td> <td></td> <td></td> </tr> </table>				proportion	linked to index for	Index prepared by	10%	non-adjustable	SEIFSA Table G	20%	Materials	SEIFSA Table G	70%	Labour	SEIFSA Table C3	100%		
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20%	Materials	SEIFSA Table G																	
70%	Labour	SEIFSA Table C3																	
100%																			
X2	Changes in the law	No data is required for this Option																	
X17	Low service damages																		
X17.1	The contractor is liable for poor services and an NCR will be issued for non-compliance and poor services. The contractor won't be paid for re-work.																		
X18	Limitation of liability																		
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> <b>R0.0 (zero Rand)</b>																		

	for indirect or consequential loss is limited to	
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to	<b>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?Item_ID=9248">http://www.eskom.co.za/live/content.php?Item_ID=9248</a></b>
X18.3	The <i>Contractor's</i> liability for Defects due to his design of an item of Equipment is limited to	<b>The greater of</b> <ul style="list-style-type: none"> <li><b>the total of the Prices at the Contract Date and</b></li> <li><b>the amounts excluded and unrecoverable from the <i>Employer's</i> insurance (other than the resulting physical damage to the <i>Employer's</i> property which is not excluded) plus the applicable deductibles in the <i>Employer's</i> assets and works / maintenance policies available on <a href="http://www.eskom.co.za/live/content.php?Item_ID=9248">http://www.eskom.co.za/live/content.php?Item_ID=9248</a></b></li> </ul>
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> , for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	<b>The total of the Prices other than for the additional excluded matters.</b>  <b>The <i>Contractor's</i> total liability for the additional excluded matters is not limited.</b>  <b>The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for</b> <ul style="list-style-type: none"> <li><b>Defects due to his design, plan and specification,</b></li> <li><b>Defects due to manufacture and fabrication outside the Affected Property,</b></li> <li><b>loss of or damage to property (other than the <i>Employer's</i> property, Plant and Materials),</b></li> <li><b>death of or injury to a person and</b></li> <li><b>infringement of an intellectual property right.</b></li> </ul>
X18.5	The <i>end of liability date</i> is	<b>At the end of the service period.</b>
<b>X19</b>	<b>Task Order</b>	
X19.5	The <i>Contractor</i> submits a Task Order programme to the <i>Service Manager</i> within	<b>3 days of receiving the Task Order</b>
<b>X20</b>	<b>Key Performance Indicators (not used when Option X12 applies)</b>	
X20.2	A report of performance against each Key Performance Indicator is provided at intervals of	<b>1 month</b>

<b>Z</b>	<b>The additional conditions of contract are</b>	<b>Z1 to Z11 always apply.</b>
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**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 Joint ventures**

- Z2.1 If the *Contractor* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations then these persons or organisations are deemed to be jointly and severally liable to the *Employer* for the performance of this contract.
- Z2.2 Unless already notified to the *Employer*, the persons or organisations notify the *Service Manager* within two weeks of the Contract Date of the key person who has the authority to bind the *Contractor* on their behalf.
- Z2.3 The *Contractor* does not substantially alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without the consent of the *Employer* having been given to the *Contractor* in writing.

**Z3 Change of Broad Based Black Economic Empowerment (B-BBEE) status**

- Z3.1 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.
- Z3.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Service Manager* within thirty days of the notification or as otherwise instructed by the *Service Manager*.
- Z3.3 Where, as a result, the *Contractor*'s B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor*'s obligation to Provide the Works.
- Z3.4 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 P1, P2 and P4 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93.

**Z4 Ethics**

- Z4.1 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 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).

- Z4.2 The *Employer* may terminate the *Contractor's* obligation to Provide the Service if the *Contractor* (or any member of the *Contractor* where the *Contractor* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations) 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.

- Z4.3 Notwithstanding the provisions of core clause 90.2, the procedures on termination in terms of this clause are P1, P2 and P4 as stated in the core clause 92 and the amount due is A1 and A3as stated in core clause 93.

## **Z5 Confidentiality**

- Z5.1 The *Contractor* does not disclose or make any information arising from or in connection with this contract available to Others. This undertaking does not, however, apply to information which at the time of disclosure or thereafter, without default on the part of the *Contractor*, entersthe public domain or to information which was already in the possession of the *Contractor* at thetime of disclosure (evidenced by written records in existence at that time). Should the *Contractor* disclose information to Others in terms of clause 25.1, the *Contractor* ensures that the provisions of this clause are complied with by the recipient.
- Z5.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Service Manager*.
- Z5.3 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.
- Z5.4 The taking of images (whether photographs, video footage or otherwise) of the Affected 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 *Service Manager*. All rights in and to all such images vests exclusively in the *Employer*.
- Z5.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

## **Z6 Waiver and estoppel: Add to core clause 12.3:**

- Z6.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties, the *Service Manager* or the *Adjudicator* does not constitute a waiver of rights, and doesnot give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.

## **Z7 Health, safety and the environment: Add to core clause 27.4**

- Z7.1 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*:
- accepts that the *Employer* may appoint him as the "Principal Contractor" (as defined and provided for under the Construction Regulations 2003 (promulgated under the Occupational Health & Safety Act 85 of 1993) ("the Construction Regulations") for the Affected Property;

- 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 the 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.

Z7.2 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.

**Z8 Provision of a Tax Invoice and interest. Add to core clause 51**

- Z8.1 Within one week of receiving a payment certificate from the *Service Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer's* procedures stated in the Service Information, showing the amount due for payment equal to that stated in the payment certificate.
- Z8.2 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 core clause 51.2 is then calculated from the delayed date by when payment is to be made.
- Z8.3 The *Contractor* (if registered in South Africa in terms of the companies Act) 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.

**Z9 Notifying compensation events**

- Z9.1 Delete from the last sentence in core clause 61.3, "unless the *Service Manager* should have notified the event to the *Contractor* but did not".

**Z10 Employer's limitation of liability**

- Z10.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand)
- Z10.2 The *Contractor's* entitlement under the indemnity in 82.1 is provided for in 60.1(12) and the *Employer's* liability under the indemnity is limited to compensation as provided for under the compensation events stated in this contract.

**Z11 Termination: Add to core clause 91.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":**

- Z11.1 or had a judicial management order granted against it.

## 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 TSC3 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" type policy which may be in place for the *Employer's* portion of the Affected Property concerned or against the *Employer's* assets policy which may be in place for the *Employer's* portion of the Affected Property concerned, 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 Affected Property and the nature of the insurable event.
3. The *Contractor* is required in terms of Contract Data for clause 83 to provide cover for the deductibles in the insurance provided by the *Employer*. This can be provided from his 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 TSC3**' 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 or as intended by each of the listed insurances in the left hand column of the Insurance Table in clause 83.2. In terms of clause 83.1 "the *Contractor* provides the insurances stated in the Insurance Table except any insurance which the *Employer* is to provide". 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. If Marine Insurance is required the *Contractor* needs to obtain a copy of the latest edition of Eskom's Marine Policies Procedures found at internet website given below.
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?Item\\_ID=9248](http://www.eskom.co.za/live/content.php?Item_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 <a href="mailto:nigela@quoin.net">nigela@quoin.net</a>
Andrew BAIRD	Gauteng	+27 11 803 3008 <a href="mailto:andrewbaird@ecsconsult.co.za">andrewbaird@ecsconsult.co.za</a>
Christopher BINNINGTON	Gauteng	+27 11 888-6141 <a href="mailto:cdb@bca.co.za">cdb@bca.co.za</a>
Peter HIGGINS	UK	+44 1293 873 868 <a href="mailto:peterhiggins@pdconsult.co.uk">peterhiggins@pdconsult.co.uk</a>
Bruce LEECH	Gauteng	+27 11 290 4000 <a href="mailto:leech@counsel.co.za">leech@counsel.co.za</a>
Nigel NILEN	Gauteng	+27 11 465 3601; <a href="mailto:nilences@global.co.za">nilences@global.co.za</a>
Peter THURLOW	Gauteng	+27 11 787 6226 <a href="mailto:info@thurlowassoc.com">info@thurlowassoc.com</a>

**Information about the Panel and appointment of the selected *Adjudicator* is available from Eskom Supply Chain Operations management, by contacting Leighton Itholeng (Tel.: +27 (0)11 800 4031) (Fax :+27 (0)86 668 0419) E-mail: [Leighton.Itholeng@eskom.co.za](mailto:Leighton.Itholeng@eskom.co.za)**

## C1.2 Contract Data

### Part two - Data provided by the Contractor

Completion of the data in full, according to Options chosen, is essential to create a complete contract.

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name): Address Tel No. Fax No.	
11.2(8)	The <i>direct fee percentage</i> is The <i>subcontracted fee percentage</i> is	<b>N/A</b>
11.2(14)	The following matters will be included in the Risk Register	
11.2(15)	The Service Information for the <i>Contractor's</i> plan is in:	
21.1	The plan identified in the Contract Data is contained in:	
24.1	The key persons are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job Responsibilities: Qualifications: Experience:	

CV's (and further key person's data including CVs) are in .

<b>A</b>	<b>Priced contract with price list</b>	
11.2(12)	The <i>price list</i> is in	<b>Section C2.2</b>
11.2(19)	The tendered total of the Prices is	

## PART 2: PRICING DATA

### TSC3 Option A

Document reference	Title	Page No.
C2.1	Pricing assumptions: Option A	18
C2.2	The <i>price list</i>	20

## C2.1 Pricing assumptions: Option A

### The *conditions of contract*

#### How work is priced and assessed for payment

Clause 11 in NEC3 Term Service Contract, June 2005 (TSC3) core clauses and Option A states:

Identified and defined terms	11	
	11.2	(12) The Price List is the <i>price list</i> unless later changed in accordance with this contract.
		(17) The Price for Services Provided to Date is the total of
		<ul style="list-style-type: none"><li>the Price for each lump sum item in the Price List which the <i>Contractor</i> has completed and</li><li>where a quantity is stated for an item in the Price List, an amount calculated by multiplying the quantity which the <i>Contractor</i> has completed by the rate.</li></ul>
		(19) The Prices are the amounts stated in the Price column of the Price List. Where a quantity is stated for an item in the Price List, the Price is calculated by multiplying the quantity by the rate.

This confirms that Option A is a priced contract where the Prices are derived from a list of items of service which can be priced as lump sums or as expected quantities of service multiplied by a rate or a mix of both.

#### Function of the Price List

Clause 54.1 in Option A states: "Information in the Price List is not Service Information". This confirms that instructions to do work or how it is to be done are not included in the Price List but in the Service Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Service in accordance with the Service Information". Hence the *Contractor* does **not** Provide the Service in accordance with the Price List. The Price List is only a pricing document.

#### Link to the *Contractor's* plan

Clause 21.4 states "The *Contractor* provides information which shows how each item description on the Price List relates to the operations on each plan which he submits for acceptance". Hence when compiling the *price list*, the tendering contractor needs to develop his first clause 21.2 plan in such a way that operations shown on it can be priced in the *price list* and result in a satisfactory cash flow in terms of clause 11.2(17).

#### Preparing the *price list*

It will be assumed that the tendering contractor has read Pages 14, 15 and 73 of the TSC3 Guidance Notes before preparing the *price list*. Items in the *price list* may have been inserted by the *Employer* and the tendering contractor should insert any additional items which he considers necessary. Whichever party provides the items in the *price list* the total of the Prices is assumed to be fully inclusive of everything necessary to Provide the Service as described at the time of entering into this contract.

1 As the *Contractor* has an obligation to correct Defects (core clause 42.1) and there is no compensation event for this unless the Defect was due to an *Employer's* risk, the lump sum Prices and rates must also include for the correction of Defects.

2 If the *Contractor* has decided not to identify a particular item in the *price list* at the time of tender the cost to the *Contractor* of doing the work must be included in, or spread across, the other Prices and rates in the *price list* in order to fulfil the obligation to complete the service for the tendered total of the Prices.

3 There is no adjustment to lump sum prices in the *price list* if the amount, or quantity, of work within that lump sum item of service later turns out to be different to that which the *Contractor* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event. See Clause 60.1.

4 Hence the Prices and rates tendered by the *Contractor* in the *price list* are inclusive of everything necessary and incidental to Providing the Service in accordance with the Service Information, as it was at the time of tender, as well as correct any Defects not caused by an *Employer*'s risk.

5 The Contractor does not have to allow in his Prices and rates for matters that may arise as a result of a compensation event. It should be noted that the list of compensation events includes those arising as a result of an *Employer*'s risk event listed in core clause 80.1.

### **Format of the *price list***

(From page 73 of the TSC3 Guidance Notes)

Entries in the first four columns in the *price list* in section C2.2 are made either by the *Employer* or the tendering contractor.

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 tendering contractor 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 an item of work which is the rate for the work multiplied by the quantity completed, the tendering contractor enters the rate which is then multiplied by the Expected Quantity to produce the Price, which is also entered.

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.

## C2.2 the price list

Item nr	Description	Unit	Quantity	Rate	Price
1	<b>Service Electric Fence Electrician</b>	Hour	<b>5760</b>		
2	<b>Semi-skilled Assistant</b>	Hour	<b>5760</b>		

The total of the Prices

Item nr	Description	Unit	Quantity	Rate	Price
	<b>Overtime Sundays</b>				
1	<b>Service Electric Fence Electrician</b>	Hour	<b>864</b>		
2	<b>Semi-skilled Assistant</b>	Hour	<b>864</b>		

The total of the Prices

Item nr	Description	Unit	Quantity	Rate	Price
	<b>Overtime Saturdays</b>				
1	<b>Service Electric Fence Electrician</b>	Hour	<b>864</b>		
2	<b>Semi-skilled Assistant</b>	Hour	<b>864</b>		

Material

Item nr	Description	Unit	Quantity	Price Each	Total Price
1	<b>Energizers</b>	EACH	30		
2	<b>Energizer boards</b>	EACH	30		
3	<b>CT units</b>	EACH	30		
4	<b>Charger units</b>	EACH	30		
5	<b>HT transformers</b>	EACH	20		
6	<b>Monitor board</b>	EACH	30		
7	<b>Synchronous units</b>	EACH	30		
8	<b>Intermediate isolators</b>	EACH	30000		
9	<b>Strain isolators and studs</b>	EACH	30000		
10	<b>Tensioners and studs</b>	EACH	30000		
11	<b>Energy/joule meter</b>	EACH	30		
12	<b>Battery 12V 7.5 A/H</b>	EACH	120		
14	<b>2.0 mm Aluminium wire</b>	Metre	20000 m		
15	<b>Combi tensioners heavy duty</b>	EACH	5000		
16	<b>Intermediate insulators</b>	EACH	80000		
17	<b>Safety and warning signs</b>	EACH	500		
18	<b>4mm/6mm aluminium ferrules</b>	EACH	5000		
19	<b>RS485 to RS232 converter module</b>	EACH	20		
20	<b>FIBRE CABLE - LSPD SM EHD DUCT 24</b>	Metre	5000m		
21	<b>Controller Cabinet</b>	EACH	10		
22	<b>AMBER STROBE BEACOM 3W - 6-12VDC</b>	EACH	30		
23	<b>STROBE MINI 12V - RED</b>	EACH	30		
24	<b>LINE CLAMP U CLAMP HOT DIPPED GALVANISED</b>	EACH	100		
25	<b>SECURITY POST 3.0M 33 WIRE 2MM HD GLAV</b>	EACH	150		
26	<b>Galvanised Earth Rods</b>	EACH	100		
27	<b>EARTH SPIKE 1.5m M16 B GRADE THREADED</b>	EACH	50		
				<b>TOTAL</b>	

## PART 3: SCOPE OF WORK

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## C3.1: EMPLOYER'S SERVICE INFORMATION

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## 1. Description of the service

### Works Information

This maintenance scope is for all the necessary operations that the contractor needs to do in making sure that lifts are safe, reliable and they operate in their intended function and the associated components are well maintained in order to last throughout its life cycle.

There is a need for person(s) maintaining the lifts in the station to be authorized by the Employer in PSR so that they can take out permits and be responsible for that plant area. They also need to be authorized to rescue trapped passengers. Certification of this training must be supplied to the Employer.

#### **Maintenance, inspection and repairs of the entire electric fence for 36 months.**

##### **1. INTRODUCTION**

###### **1.1 EMPLOYER'S OBJECTIVES AND PURPOSE OF THE SERVICE**

The contract is for the provision of maintenance and repair services at Hendrina Power Station for Electrical non-lethal Fence.

- Repairs - electrical, mechanical, and civil structures of electrical fence.
- Refurbishment.
- Installation, interchanging and removal of equipment related to the security fence.
- Electrical supply and commissioning of Energizers.
- Repair/Commissioning of human machine interface (HMI) or computer system and communication.
- Spares holding

It is the service provider's responsibility to ensure that the electrical fence stays in full functionality. The services are applicable to Hendrina Power Station electrical fence in its totality.

###### **1.2 OPERATING PHILOSOPHY**

Hendrina power station operates on 24-hours, 7 days a week continuously. Thus, the electric fence as a security measure is expected to operate as such – 24 hours, 365 days non-stop.

###### **1.3 MAINTENANCE PHILOSOPHY**

The contractor provides all services, specialized tools and equipment, specialist personnel and all associated workshop repair services to accomplish and execute the requirements of the service information. The services will support the continuous operation of the electric fence.

The works shall be performed on existing and/or new installations and shall comply with excellent engineering and maintenance practices and standards, and conforms to the legal, environmental, and other Eskom specifications, procedures, standards and conditions prevailing at the site.

Services shall/will be carried out in the following categories

###### **1.3.1 Corrective maintenance**

This is the maintenance carried out after a failure has occurred and intended to restore the system and/or component(s) of the electric fence to its original design base and optimum functionality.

###### **1.3.2 Preventive Maintenance**

This is maintenance carried out at pre-determined intervals or corresponding to prescribed criteria and intended to reduce the probability of failure or the performance degradation of system and/or component.

###### **1.3.3 Routine Maintenance**

This is time-based maintenance work that is performed with the Fence either on or off load.

###### **1.4 LEGISLATION AND SITE REGULATIONS**

The contractor conforms to all prevailing legal requirements of the Republic of South Africa, Eskom SOC Limited and Hendrina Power Station site legal requirements with special references but not limited to the following:

- Occupational health and safety act 85 of 1993 as amended and its regulations.
- ISO 45001:2018, ISO 90001:2015, ISO 140001
- Compensation for occupational injuries and diseases Act 130 of 1993 as amended.
- National environmental Act 107 of 1998 as amended.
- National water Act 36 of 1998 as amended.
- Eskom procedures and safety requirements set out in safety, health and environmental specifications, revisions of Document 004 4830.

- Eskom procedure 32-95 Occupational, health and safety incident management procedure, revision 08.
- Any other act or procedure deemed necessary or applicable if the work includes some toxic and/or hazardous substances or activities stipulated in this document. In this case the contractor handles hazardous substances in accordance with applicable regulations and procedures and it is disposed of by the contractor in accordance with the applicable laws.

#### 1.5 REFERENCES

The contractor will inform and adhere to all relevant Eskom and SAABS/SANS standards and procedures which are relevant to the works. If there is any ambiguity between the Employer's procedures the following shall be adopted instead.

#### Standards and Regulations

- 240-78980848 Specification for non-lethal energized perimeter detection system (NLEPDS) for protection of ESKOM installations and its subsidiaries
  - ISO 9001 Quality Management Systems
  - ISO 14001 Safety Management Systems
- 240-56227443 Requirements for Control and Power Cables for Power Station Standard
- 240-56355815 Field Instrument Installation Standard: Junction Boxes and Cable Termination
- 85-A-001 Functional Location KKS Coding and Labelling Standard
- SANS 1091 National Colours Standard
- SANS 10142-1: The wiring of premises, Part 1: Low-voltage installations
- 240-86973501 Engineering drawing Standard
- 240-60725641 Eskom Specification of Standard for Equipment Cabinets
- 36-681 Generation Plant Safety Regulations
- ISO 10007 Guidelines for Configuration Management
- Occupational Health and Safety Act, 1993
- Environmental Regulations for Workplaces, 1987
- 240-64636794 Standard for Wiring and Cable Marking in Substations
- 240-56356396 Earthing and Lightning Protection Standard
- SANS 10222-3:201 Electrical security installations. Part 3: Electric fences (non-lethal)

#### 1.6 PLANT SAFETY REGULATION (PSR) AND OPERATING REGULATIONS FOR HIGH VOLTAGE SYSTEMS (ORHVS)

- The supplier will be required to be trained and authorised in terms of the regulations stipulated above to enable him/her to take permit to work (PTW) for the electric fence to execute the works.
- The contractor supervises and manages the health and safety of his/her own employees.
- A high voltage permit-to-work is necessary in terms of ORHVS when work on fence energizers is performed or when working of HV fence conductors.
- When carrying out tests which require the electric fence to be live, regulation 5.09 of ORHVS must be adhered to.
- Low voltage PSR permit to work is required when work is to be carried out on the low voltage side of the fence installation for example on the 380/220 V supply or equipment control and circuitry or if work is to be carried out on the electronics of the energizer.
- Within three months from the contract start date the contractor will be required to have his own employees who are authorised to take permits on the HV and LV plants.
- The Employer shall on request from the Contractor isolate the required plant from all sources of danger as described in the PSR or ORHVS.
- The Employer shall on request make available a copy of the latest revision of the PSR and ORHVS regulations to the Contractor.
- The Contractor shall conform to all rules and regulations applicable to PSR and ORHVS regulations and shall complete the workers register prior to working on the plant.
- The Contractor shall always provide at least two people for the execution of this task as per the eleven-point plan.

#### 1.7 PLANT EQUIPMENT AND OVERVIEW

At Hendrina Powe Station, the electric fence is installed between the inner and outer perimeter fence. Hendrina Electrical security fence is approximately 5.8 km long. We have a total of 10 energizers per 20 zones. The energizers are situated at the fence and spaced accordingly per zones. However, there's an empty room that was identified for the installation of energizers at the main security builder. This will ensure that vandalism against the energizers is minimized.

The energizers supply current to the electric fence aluminium conductors of 2mm thickness.

## 2. SUPPORTING CLAUSES

### 2.1 SCOPE

The NLEPDS (Non-lethal energized perimeter detection system) has a three-fold function which is firstly to deter any unauthorized intruders from entering a protected site, secondly to detect and alarm any unauthorised attempt to enter a protected site and lastly to delay the adversary from illegally entering a protected site.

The maintenance of the NLEPDS shall include but not limited to the following components/ sub-components:

- Electric fence conductors
- Energizers
- Configuration PC/ Controller
- Power supply
- Communication infrastructure
- Anti-tunnelling structure
- Posts (Stain, intermediate and corner)
- Vegetation control slab
- Synchronizing equipment and/or mechanism
- Communication and cabling
- HT wire and aluminium wire
- Insulators and strainers
- Batteries
- Earthing
- Isolating boxes
- User interface or display unit

#### 2.1.1 Energizer input/ output requirements

The specification of the energizer will be in accordance with IEC 60335-2-76 and Eskom document 240-78980848

- The peak value of voltage must be above 7.5kV, but not exceeding 10kV with the energizer not connected to the load (fence)
- The maximum energy delivered to a load of 500 ohm must be less than 7.5 J, but not exceeding 8J with the energizer not connected to the load.
- The required energy on each live conductor wire on the structure must not be less than 5J with a minimum difference potential of 7 kV.
- The minimum interval between pulses should not be less than 1 Hz.
- Pulses duration shall not exceed 10ms.

These values will be used to assess the performance of the fence and to determine the effectiveness of the maintenance being conducted by the contractor.

#### 2.1.2 Types of faults on the electric fence

Short circuit – the system has detected that a live-wires are touching or grounded.

- This can also be due to any other object touching a live wire.
- Intruder tries to gain access and two consecutive conductor's touch.
- Conductor is broken and touches another
- Spider, snake or lizard climbing onto electric fence insulator
- Weeds growing into fence to such an extent that a short circuit alarm occurs.
- Electric fence bobbin or insulator is cracked and leaking to the steel bracket.

The system should be able to indicate in what zone is the fault occurring.

Open circuit – the system has detected that a live wire has been cut, resulting in an open circuit.

- An intruder is trying to gain access to the premises by cutting the conductors
- The conductor breaks due to high tensioning or sudden drop in temperature.
- Looping breaks loose due to heavy winds

The system should be able to indicate in what zone is the fault occurring.

No communication – the system has detected that there is no communication from the communication infrastructure.

- This can be because of an energizer being switched off or a malfunction as well as damage on the communication systems.
- The mains failure and battery failure may result in communication failure.
- HT voltage low alarm – this indicates that one or more of the energizers are faulty as the HT voltage low.

#### 2.1.3 Compliance of the electrical fence

The scope covers the required repairs to restore the electric fence back to full operating condition and to ensure compliance to Eskom standard 240 – 78980848. To achieve this requirement the following key areas shall be met.

- The NLEPDS shall comprise of sectors and zones
- The electric fence conductors shall be in an overlapping format to ensure effective functionality in the case where one or more energizers fail.
- The maximum distance between electric fence conductors shall be 100mm in compliance to SANS 10222-2.
- All NLEPDS electronic components shall be housed in the security equipment room and within associated cabinets of the protected sites unless stated otherwise.
- The minimum life of an energizer shall be used to house NLEPDS equipment and shall comply with 240-60725641 Eskom specific standard for equipment cabinets.

#### 2.1.4 Maintenance

To successfully maintain the fence in a satisfactory condition, the following tasks shall be completed on the fence.

##### Visual inspections

It is the Contractors responsibility to ensure that the electric fence is in 100% working order. The Contractor must plan and schedule the inspections accordingly. The visual inspections must be carried bi-weekly, and a report/inspection plan must be completed and send to the system engineer.

The following must not be the only observations:

- Walk the perimeter of the electric fence and inspect all components of the fence for faults. (i.e., a clicking sound is audible where arcing occurs).
- Fix all faults reported prior to inspection, tighten all loose wires, replace and repair all faulty fence components.
- Inspect the electric fence energizer installation and ensure compliance.
- Inspect the energizer and electric fence earthing system. Tighten loose connection wires, replace worn-out clamps and corroded components.
- Inspect fence insulators and ensure that they are in working condition. Broken and deformed fence insulators shall be replaced.
- Observe for electric fence wires touching any other component not forming part of the electric fence installation and rectify to ensure compliance herewith.
- Check the fence for tightness and tighten loose wires
- Inspect all joints and replace broken or rusted clamps (or both).
- Ensure that joints are still electrically sound.
- Perform visual inspections and routine inspections and identify obvious faults / defects and risks.
- Observe for signs of corrosion on all metal structures and conductors, particularly on ground level
- Observe for faulty or cracked insulators
- Check if fence conductors are covered by wind-blown sand
- Check for broken conductors
- Check for weeds and plastic bags and remove where necessary.
- All crimp connection on the fence looping must be checked for corrosion and tightness, especially where HT terminals connect to the electric fence structure
- All strain and intermediate posts must be checked for corrosion at ground level
- Vegetation growing towards the electric fence must be removed.

- Check if the electric fence warning and zones signs are in place and not damaged.
- Check for washed out wires & cablings and report.
- Check and clean any water and mud build up.
- Repairs must be carried out according to the contract terms.

#### 2.1.5 Routine maintenance

The monthly routine maintenance shall entail the following.

- All faults found during maintenance shall be corrected immediately.
- The Contractor shall conduct fault finding utilizing test equipment, drawings / diagrams and manufacturer's specifications. Any problematic / faulty components / equipment shall be identified and repaired/replaced immediately.
  - The Contractor shall verify and correct any mal operation of the communication system.
  - The Contractor shall repair/ replace any faulty equipment as per task order.
  - The Contractor shall report to supervisor any recurring defects.
  - The Contractor shall Initiate any appropriate actions to rectify any unsafe activities / or plant conditions.
  - The Contractor shall record full details, technical and cost related history of work carried out on notifications / defects and scheduled work / planned maintenance documents prior to submission to the supervisor with special reference to material used, repairs carried out and equipment used.
  - The Contractor shall conduct job observations and peer checks according to procedure.
  - The Contractor shall verify correct operating voltages of electrical fence wires at beginning, middle and end of the fence.
  - The Contractor shall check the fence structure and report any abnormalities.
  - The Contractor shall verify correct operation and maintenance on the energizers
- The Contractor shall tension electrical conductors according to standard.
- The Contractor shall conduct on job training for trainees/artisans.
- The Contractor shall Inspect the electric fence installation for faults at gates etc.
- The Contractor shall conduct risk assessments on live plant and mitigate risks.
- The Contractor shall attend AD hoc meetings.
- The contractor will provide a 24h standby on the above-mentioned scope.
- Any other defects found to be non-compliant is addressed as part of this contract.

#### 2.1.6 Test and measurements

Calibration of each zone for correct fault indication shall be done bi-annually. The tests and measurements shall be done and shall be in accordance with the IEC 60335-2-76. The results shall be documented and made available to the head of security and the System Engineer.

The following test shall be conducted.

- One monthly measurements of the integrity of the electric fence system must be recorded in a log sheet or book to allow the recognition of changes and for counter measures if values deteriorate.
  - o Measurements must be taken on the electric fence and compared to previous measurements to see if the fence integrity is still intact.
- The output of the energizers is tested off-line and on-line every second month and the results recorded.
- Fence energy and voltage readings will give an indication what the integrity of the fence is.
- It is important that the original level is maintained and should not deviate more than 10 % of the original readings after installation.
- High levels of energy and voltage should be maintained on the electric fence as this provides the deterrence effect of the perimeter security fence system.

- Energy readings should be taken by using the BS017 Energy/HT meter. This instrument will measure the energy reading in Joules and the voltage level in kV across a load of  $500 \Omega$ .
- A minimum of seven joules and 7,5 kV must be maintained on the electric fence.
- The type of conductors used on the perimeter electric fence is aluminium with 2,0 mm in diameter. This type of conductor may contract and expand during different seasons. The tension on the electric fence conductors is checked and maintained properly to ensure proper working of the system.
- The perimeter electric fence zones must be tested regularly to ensure accuracy which will assist in fault finding and proper response from security personnel. This is an essential test and needs to be documented properly.
  - The fence zones must be checked at least every month.
  - Power supply batteries must be checked and/or replaced every six months.
  - Perform spot checks monthly by applying a short to the fence (functional zoning checks) to confirm system zoning and fault identification.
  - Use an energy/HT meter to test the performance of the fence at various points.

### **Energizers and equipment room**

The following tasks shall be carried out

- Take measurements once a month on the electrifier battery terminals with the charging circuit On. ( $\pm 13V$  should be measured).
- Disconnect batteries from the charging circuit and measure the voltage on the battery. This reading should not be less than 11.5V, should it be, the battery must be changed.
- Switch off the power supply once every 6 months and confirm that the system does operate with battery power for 1 hour (Actual backup time is 5 hours).
- Do tightness checks on all electrical connections on the electrifier boxes and line taps on the fence.
- All measurements taken shall be documented and compared to previous measurements to see if the fence integrity is still intact

### **Maintenance frequency**

The above-mentioned maintenance programs and tests shall be conducted as follows

- Inspections shall be conducted every second week.
- Tests and measurements shall be conducted once every four weeks.

### **Spares**

The recommended spares shall be kept with the *Employer*. A quotation shall be handed to the contract-supervisor who shall issue a task order for the spares to be purchased by the *Contractor* to keep the fence in optimal operation.

The required spares should include but not limited to the following:

- Energizers
- Energizer boards
- CT units
- charger units
- HT transformers
- monitor board
- Synchronous units
- Intermediate isolators
- Strain isolators and studs
- Tensioners and studs
- Battery charger
- Energy/joule meter
- Battery 12V 7.5 A/H
- 2.0 mm Aluminium wire
- Combi tensioners heavy duty
- Intermediate insulators
- Safety and warning signs
- 4mm/6mm aluminium ferrules
- RS485 to RS232 converter module
- Or equivalent spares

The *Contractor* will inform the *Employer* of any critical spares that have long lead times or are not available off the shelf that needs to be purchased by the *Contractor* upfront when they receive a task order. These spares should be kept at the *Employer's* facilities. This shall eliminate any downtime caused by unavailability of spares.

#### **1.1.20 Experience and staff**

- All staff shall be qualified and competent of performing all work within safe and correct technical specifications.
- Qualifications shall be necessary for an installer or maintainer of electric fence.

#### **1.1.21 Civil and structural works**

- All concrete works shall adhere to SANS 2001-CC1 and SANS 10100-2 standards unless otherwise stated.
- All broken and damaged concrete underneath the electrical fence must be replaced as per SANS standards above.

#### **1.1.22 Safety signs and/or labelling**

- Safety /danger signs shall be mounted on the inner and outer fence, 50 meters apart, signs face outwards.
- Signs shall be made of durable, rigid, and UV protected material
- Danger/Safety signs shall be installed at a height of 1,5 meter, and secured on Electrical fence, 50 meters apart.
- Signage shall comply with the requirements of SANS 10222-3

- Labels shall be affixed in such a way that removal thereof is done in a forcibly manner
- Labels shall be visible and not obstructed by components
- Labels shall be in accordance with NWS 1582

#### 2.1.23 Documentation

- A full-service report shall be compiled and provided to Hendrina Power Station.
- The report shall contain a high-level description of the work done.
- The report shall contain the approved QCPs of work on site and all related check sheets and reports.
- All technical notifications shall be shown as well. It will contain a section on spares used report.

#### 2.1.24 Included in a Contract

- The Contractor shall be always on standby, in case of a failure on the fence the Contractor shall be called out to come to site and rectify the issue within 24hours.
- The repair of the fence: The contractor shall execute the repair of the fence scope as soon as possible to get the fence in a working condition

#### 2.1.25 Excluded from a contract

- Horticulture: The contractor shall not be responsible for Vegetation removal in and around the fence, and the control of soil erosion shall also be excluded from this contract.
- Force majeure: The contractor shall not be responsible for any natural disasters like flooding, falling of trees over the fence or any other accidents which is not maintenance related like vehicles driving through the fence etc.
- Barrier/Perimeter fences: The contractor shall not be responsible for any maintenance works on the inner- and outer barrier fences.
- Vandalism: The contractor is not responsible if the fence is vandalized, damaged by intruders. The contractor needs to submit a quotation for the repairs if the fence was vandalized.

#### 2.1.26 Engineering services as required by Eskom Generation

The contractor is responsible for engineering services, material and labour as follows:

- Verify the performance matching requirements of replacement equipment and parts.
- Inspection and testing prior to and after repairs, recording, reporting, and making recommendations and providing the necessary information where applicable.
- The contractor must provide detailed breakdown reports clearly stating the contributing factors and root causes of the failure.
- The contractor must ensure that the employer and others required are present during dismantling, testing and assessment to inspect any evidence of failure or aspects of defective design or workmanship uncovered. And furthermore, ensure that correct photographic records are kept.

#### 2.1.27 House keeping

- All workplaces must be always kept clean, Interface with other contractors to ensure compliance.
- Discard waste in correctly allocated coloured waste bins.
- Ensure that plant worked on is cleaned before clearance of any permit or leaving the work area.

#### 2.1.28 Training

The Contractor shall provide training for his/her personnel in the execution of this Service Information as required by Hendrina Power Station.

- Attends mandatory courses provided by the Employer.
- The Contractor shall be trained in terms of the Permit to Work System, and shall be authorised on the following
  - o ORHVS- Operating regulations for High Voltage systems

### 3. SAFETY RISK MANAGEMENT

The Contractor shall conform to the following management requirements:

- The Quality requirements as per ISO 9001:2015 and the Employer's Standard QM 58.
- The ISO 14001, Environmental management system.
- The ISO 45001:2018, Health and Safety management system.

#### 4. COMPLETION COMMUNICATION

- Completed tasks shall be communicated to the supervisor.
- The Contractor shall inform the supervisor and give progress feedback.
- The Contractor shall submit detailed reports on all tasks executed.

#### 5. MEETINGS

The contractor shall adhere to the requirements as stipulated and ensure that:

- All relevant meetings must be attended.
- The Contractor shall attend other meetings as required and directed by the Contract Manager.
- The Contractor shall attend monthly scheduled contract meetings.

#### 6. INTEGRATION WITH THE EMPLOYER'S ORGANIZATION

The Contractor shall provide the Services in an integrated manner with the Employer's organization at Hendrina Power Station until the end of the Contractor. The Contractor shall:

- Attend to breakdowns, until completed, unless otherwise agreed with the Contract Manager.
- Provide personnel, in accordance with his conditions of service.
- The Contractor shall conform to the following management requirements:
  - o The Quality requirements are as per ISO 9001:2015 and the Employer's Standard QM 58.
  - o requirements of ISO 14001, Environmental management system.
  - o The requirements of ISO 45001:2018, Health and Safety management system.
  - o The Contractor utilizes the Employer's quality documentation forms.
- Apart from any statutory data packages required, the Contractor shall compile a data package of the relevant drawings, and test certificates for the works which must be reviewed and signed off by the Supervisor.
- The Contractor shall be responsible for defining the level of QA/QC or inspection to be imposed on his Subcontractors and suppliers of material. This level is based on criticality of equipment and is submitted to the Contract Manager for acceptance.
- The Contractor shall submit the following, as directed by the Contract Manager: QA plan/manual, (I&TP's) Inspection and Test Plan.

#### 7. PROVIDING ACCESS TO AND INTERFACE WITH OTHERS

Other Contractors are working in the same area as the work of this contract. In this regard, the Contractor co-ordinates his work with the Contract Manager to maintain harmonious working conditions on Site.

#### 8. MANAGEMENT MEETINGS

Regular meetings of a general nature may be convened and chaired by the Contract Manager as and when required. Meetings of a specialist nature may be convened as specified elsewhere in this Service Information or if not so specified by persons and at times and locations to suit the Parties, the nature, and the progress of the services.

Records of these meetings shall be submitted to the Contract Manager by the person convening the meeting within five days of the meeting.

All meetings must 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.

#### 9. DOCUMENTATION CONTROL

All contractual communications will be in the form of properly compiled letters or forms attached to e mails and not as a message in the e mail itself unless stated otherwise.

#### 10. INVOICING AND PAYMENT

Within one week of receiving a payment certificate from the Contract Manager in terms of core clause 51.1 of the NEC document, the Contractor shall provide the Employer with a tax invoice showing the amount due for payment equal to that stated in the Contract Manager's payment certificate.

The Contractor shall address the tax invoice to:

Invoiceseskocomlocal@eskom.co.

And include on each invoice the following information:

- Name and address of the Contractor and the Contract Manager.
- The contract number and title.
- Contractor's VAT registration number.
- The Employer's VAT registration number 4740101508.
- Description of service provided for each item invoiced based on the Price List.
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT.

#### 11. SUB-CONTRACTING

Contract with subcontractors is back-to-back with the main contract, using the NEC conditions of the contract and are subject to acceptance by the Contract Manager prior to such contracts being entered into by the contractor.

##### 11.1 SUBCONTRACTING DOCUMENTATION AND ASSESSMENT OF SUBCONTRACTOR TENDERS

Copies of every order issued by the contractor to his Subcontractor or by his Subcontractor to his suppliers are submitted to the Contract Manager for his assessment of the amount due, within the assessment interval. Prices must be shown on such orders and in all respects the copies are true copies of the original order to the subcontractors.

##### 11.2 LIMITATIONS ON SUBCONTRACTING

The Employer may require that the Contractor must subcontract certain unspecialised work, or that the Contractor shall not subcontract more than a specified proportion of the whole of the contract, as per 32-1034 procurement Directive.

#### 12. PLANT AND MATERIALS

The Contract Manager shall direct the contractor to procure materials where the Contractor shall submit qualified quotations for approval. The Contractor shall supply all spares and consumables.

#### 13. EMPLOYER SITE ENTRY AND SECURITY CONTROL, PERMITS AND SITE REGULATIONS

The Contractor applies for access permits (Contractor's permit) at the Security gate on the Contract Award date of the contract. The Contractor personnel shall be required to be always in possession of an access permit.

To assist Protection Services with the issuing of permits and the identification of personnel on site the contractor shall provide a list of all personnel that he/she shall have on site, at least 72 hours prior to entry into the power station. This list must be delivered to Protection Services. The list, identified with the Contractor's name, shall contain the following information:

- Employee name
- Employee ID Number
- The Employer's Safety Coordinator's signature
- Electrical Maintenance Manager signature
- Copy of the ID book for every employee of the Contractor.

Access permits must be returned to protective services when the worker/s leave site, either after completion of the services, or upon early termination of service of a worker during the contract period.

To speed up the process of gaining access to the site, the Contractor must compile detailed lists of all tools and equipment (including serial numbers where applicable) to be taken on site before arriving at the Power Station Security gate.

An authorised copy of this list must be retained by the contractor - to be used again when the tools and equipment are removed from site after the completion of the services. Any additional tools or equipment brought to site, or any tools or equipment removed during the contract period must be reported to protection services and all lists amended likewise.

Gate release permits will not be issued for the removal of any tools or equipment not specified on the tool list. The Contractor's visitors and all personnel shall always conform to the security arrangements in force at the site. Application forms for visitors must be filled in by the Contractor's Site Manager and approved by the *Contract Manager*, one day before the visit and submitted to the *Employer's Protection Services office*.

Visitors will not be allowed on site if the necessary forms are not in the possession of the security staff.

The Chief of Protection Services may, with valid cause, remove any, of the *Contractor's* personnel from the site, either temporarily, or permanently. He may deny access to the site to any person whom, in the opinion of the said Chief of Protection Services, constitutes a security risk.

No unauthorised vehicles will be allowed on site. Only *Contractor's* Vehicles with displayed Contract Vehicle Permits disks will be allowed on site. Contract Vehicle Applications should be directed to the *Service Manager*.

The *Contractor* will be restricted to the *working areas* associated with his place of work. The *Contractor* is forbidden to enter any other areas and must ensure that his employees abide by these regulations.

## **Restrictions to access on site, roads, walkways and barricades**

Contractors shall adhere to all the rules and site regulations

## **People restrictions on site, hours of work, conduct and records**

Restrictions and hours of work may apply on Site. It is very important that the *Contractor* keeps records of his people on Site, including those of his which the Contract Manager or Supervisor have access to at any time. These records may be needed when assessing compensation events.

Lunch time is between 12:00 until 12:30. Site working hours is from 07H00 to 16H15 from Monday to Thursday and till 12:00 on Friday. The Service Provider work to complete the tasks, to ensure the Return of Supply.

## **15. AMENITIES**

The following amenities shall be provided by the Employer to the Contractor

- Portable water shall be provided to the Contractor.
- Electrical power supply either 380 and/or 220 V as per the Contractor's needs
- Sanitary facilities
- Waste removal bins
- Telecommunication infrastructure e.g., landlines etc.

The following amenities and/or equipment shall be provided by the Contractor

- The Contractor is to provide all facilities in connection with this Service Information, including but not limited to the following.
  - o Workshop equipment and tools for the service
  - o Mobile workshop, tools, equipment,
  - o Pressure washers, cleaning chemicals and materials (Environmentally friendly approved only by Eskom)
  - o Test equipment to execute electrical testing as deemed necessary by the Electrical Engineer.
  - o Own electrical generating units/generators for executing the services (Eskom do not guarantee supply of electricity once transformer units are switched out for Service execution.)
  - Transportation, heavy haulage, rigging and lifting equipment.

- All vehicles shall comply with roadworthy requirements, and Eskom conditions prevailing at the site as minimum, the Employer reserves the right of refusal to site any non-compliant or non-roadworthy vehicles.
- All documentation in connection with the Service.

## **Excavations and associated water control**

Whenever it is required to do excavation, an excavation permit will be required. Ensure the correct routing of cables is identified prior to starting excavation. Ensure authorisation for any excavation is obtained from the Employer.

## **Commissioning**

It is the responsibility of the Service provider to safely commission, test and put in operation. It is the responsibility of the Service provider to arrange, for such work.

It is the responsibility of the Service provider to submit on completion of every task, a detailed data pack with all information, pictures, ITP's, test results drawings, and documentation related to the executed service to the Employer, and the Plant custodian (Electrical Engineering department).

## **Start-up procedures required to put the works into operation**

All procedures, processes, and arrangements to put in service, or to remove from service, for maintenance, will be the responsibility of the Service provider.

### **17.2 TAKE OVER PROCEDURES**

All documentation, procedures, reports, drawings, designs, and any other related documentation in connection with this Service information is the property of the Employer (Eskom) and is transferred to the Employer on request or during termination, or at contract expiry date.

### **17.3 ACCESS GIVEN BY THE EMPLOYER FOR CORRECTION OF DEFECTS**

Defects shall be attended to as per works management guidelines.

All notifications against this Service are the responsibility of the Service provider.

## **18. FIRE PRECAUTIONS**

Any tampering with the Employer's fire equipment is strictly forbidden and is a criminal offence.

All exit doors, fire escape routes, walkways, stairways, stair landings and access to electrical distribution boards must be kept free of obstruction, and not be used for work or storage at any time. Firefighting equipment must always remain accessible.

In case of a fire, report the location and extent of the fire to the Electrical Operating Desk at extension 3471. Take the necessary action to safeguard the area to prevent injury and spreading of the fire.

### **19. REPORTING OF ACCIDENTS**

The Employer follows an accident prevention policy that includes the investigation of all accidents involving personnel and property. This is done with the intention of introducing control measures to prevent a RE-OCCURRANCE of the same incidents. The Contractor is expected to fully co-operate to achieve this objective. The Contract Manager must be informed immediately of any incidents and any damage to property or equipment must be reported within the same shift.

NOTE! This report does not relieve the Contractor of his legal obligation to report certain incidents to the Department of Labour, or to keep records in terms of the Occupational Health and Safety Act, and Compensation for Occupational Injuries and Diseases Act.

### **20. ACCOMODATION AND CATERING**

The Contractor will be responsibility for the provision of accommodation to his personnel – the Employer does not provide accommodation.

The Contractor or any of his employees or subcontractors will be allowed to use the Employer's dining facilities.

The Contractor or any of his employees or subcontractors may also buy take away meals from the fast-food outlet on Site. Lunch time is from 12:00 to 12:30.

The contractor shall provide own accommodation, vehicles, equipment, and all required measures to execute the given services.

## 21. APPLICABILITY

This document shall apply throughout Hendrina Power Station Non-lethal energized perimeter detection system.

### 21.1 NORMATIVE/INFORMATIVE REFERENCES

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

#### 21.1.1 Normative

- [1] ISO 9001 Quality Management Systems.
- [2] Occupational Health and Safety Act 85 of 1993.
- [3] National Environmental Management Act 107 of 1998.
- [4] Mine Health and Safety Act 29 of 1996 (Where applicable).
- [5] ISO 45001:2018
- [6] Eskom Policies and Procedures.
- [7] Compensation for Occupational Injuries and Diseases Act of 1993 (COID).

#### 21.1.2 Informative

- [8] All staff will undergo Safety Induction training before site occupation.
- [9] Eskom and Hendrina Power Station's zero tolerance for non-compliance.
- [10] Eskom's and/or Hendrina Power Station's safety rules and regulations.

## Abbreviations

Abbreviation	Description
<b>CDSS</b>	Contractor Document Submission Schedule (CDSS)
<b>COMS</b>	Communication
<b>ENG</b>	Engineering
<b>EMS</b>	Environmental Management System
<b>GEN</b>	Generation
<b>GSR</b>	General Safety Regulations
<b>HT</b>	High Tension
<b>IEC</b>	International Electro technical Commission
<b>LV</b>	Low Voltage
<b>OHRVS</b>	Operating Regulations for High Voltage Systems
<b>ISO</b>	International Standard Organisation
<b>KPIs</b>	Key Performance Indicators
<b>KV</b>	Kilovolts
<b>MS</b>	Microsoft
<b>MV</b>	Medium Voltage
<b>NLEPDS</b>	Non-Lethal Energised Perimeter Detection System
<b>NEC</b>	New Engineering Contract
<b>NKP</b>	National Key Point
<b>OHS</b>	Occupational Health and Safety
<b>O&amp;M</b>	Operating and Maintenance
<b>OEM</b>	Original Equipment Manufacturer

**Alarm response:** Delineates the response or actions to be taken in response to an alarm received in the unit control room.

**Functional location:** Numbering according to function performed by equipment and KKS numbering system

The attached Eskom (Hendrina power station) drawings are the drawings for the electric fence and an Eskom standard for an Electric fence:

25.15/308856 ELECTRIC FENCE ZONE WIRING

25.15/308855 ELECTRICAL FENCE LAYOUT

25.15/308854 ELECTRICAL FENCE FIELD ENCLOSURE WIRING

25.15/308853 ELECTRICAL FENCE FIBRE OPTIC DIAGRAM

25.15/308852 ELECTRICAL FENCE CONTROL ROOM SCHEMATIC

25.15/308851 EARTHING AND SIGNAGE SCHEMATIC

240-78980848: SPECIFICATION FOR NON-LETHAL ENERGISED PERIMETER DETECTION SYSTEM (NLEPDS) OF ESKOM INSTALLATIONS AND ITS SUBSIDIARIES

240-56227443: REQUIREMENTS FOR CONTROL AND POWER CABLES FOR POWER STATIONS STANDARD

After all the checks, a detailed report should be captured on the records books and any defects reported to the responsible Maintenance department. Urgent safety related items to be fast tracked.

## 1.1. Interpretation and terminology

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
OBL	Outside battery limits

## 2. Management strategy and start up.

### 2.1. The Contractor's plan for the service

In the TSC3 the *Contractor's plan* is his "design" for performing the *service* throughout the *service period*. Section 2 of the *conditions of contract* describes what the *Contractor* is to show in his plan both in the core clauses and some additional requirements in each of the main Options.

The extent of the *Contractor's plan* will depend on whether the *Contractor* is required to develop a plan in accordance with the *Employer's* broad outline of the *service* or whether the *Employer* has provided a plan for the *Contractor* to follow. Read the TSC3 Guidance Notes pages 21 and 22 for more information on the *Contractor's plan*.

Use this section to describe any particulars which must be taken into account by the *Contractor* in developing his plan as required by clause 21.2. For example information about the order and timing or method of carrying out particular items of work.

List technical reporting and scheduling requirements which are to be incorporated into the *Contractor's plan*.

### 2.2. 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:
Risk register and compensation events	Weekly on _____ at _____		
Overall contract progress and feedback	Monthly on _____ at _____		<i>Employer, Contractor and _____</i>

Meetings of a specialist nature may be convened as specified elsewhere in this Service Information or if not so specified by persons and 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 *Service 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.

## 2.3. Contractor's management, supervision and key people

Manager, supervisor and technician.

## 2.4. Documentation control

Specify how documentation will be identified with an alpha numeric which indicates source, recipient, communication number etc. Provide details of any particular format or other constraints; for example that all contractual communications will be in the form of properly compiled letters or forms attached to e mails and not as a message in the e mail itself. State any particular routing requirements but note from TSC3 who issues what to whom.

## 2.5. Invoicing and payment

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

The *Contractor* shall address the tax invoice to

and include on each invoice the following information:

- Name and address of the *Contractor* and the *Service Manager*;
- The contract number and title;
- *Contractor*'s VAT registration number;
- The *Employer*'s VAT registration number 4740101508;
- Description of service provided for each item invoiced based on the Price List;
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
- (add other as required)

Add procedures for invoice submission and payment (e. g. electronic payment instructions)

## 2.6. Records of Defined Cost to be kept by the Contractor

If Option C or E applies first read clause 52.2 and then state whether the *Contractor* is required to keep any other records. Include any other constraint which may be required in regard to format and filing of the records, and whether access for the *Service Manager* shall be provided in hard copy or electronically.

Could delete if Option A applies unless the *Employer* requires some form of control over the *Contractor*'s record keeping for the purpose of compensation event management.

## 2.7. Insurance provided by the Employer

First read TSC3 Core Clause 86.1 and then add anything necessary for the management of insurance related issues such as a cross reference to where procedures for making claims can be found. Also provide contact details for persons capable of being able to answer any insurance related queries the *Contractor* may have, as well as to whom the information required by Marine Insurance (if any) may be addressed.

## 2.8. Design and supply of Equipment

Not Applicable.

## 2.9. Things provided at the end of the service period for the Employer's use

### 2.9.1. Equipment

The *Employer* may wish to use some of the Equipment used by the *Contractor* after the end of the *service period*. Clause 70.2 requires that details of such requirement be stated in the Service Information. Complete here or if not applicable retain the heading and state 'None'.

### 2.9.2. Information and other things

Clause 70.2 requires that information and other things which the *Contractor* is to provide at the end of the *service period* be stated in the Service Information.

## 2.10. Management of work done by Task Order

Only use this heading if Option X19 applies to this contract.

In some cases all work may be done in terms of Task Orders in which case it may be logical to move this section closer to the start of this part 2 of the Service Information. In some cases only parts of the *service* may require to be handled by Task Order, for example a major repair which has become necessary during a continuous maintenance service contract.

Please read Option X19 before drafting requirements here as much of the procedure for the administration of Task Orders is already provided in X19, for example X19.2 specifies what a task Order should include

A Task Order format could be provided in an Annexure to this Service Information.

Many considerations can apply to Task Orders, such as availability of resources, arrangements for emergency work, Task Order reporting (work carried out and service results), assessment of additional Prices for service not included in the Price List etc.

Clause X19.6 requires information which should be included on a Task Order programme.

Further requirements for Task Orders include things to be provided by the *Employer* under a Task Order and the conditions under which the *Employer* or Others are to work.

## 3. Health and safety, the environment and quality assurance

### 3.1. Health and safety risk management

In addition to the requirements of the laws governing health and safety, Eskom may have some additional requirements particular to the *service* and the Affected Property for this contract. The text below provides for these being attached as an Annexure to this Service Information. PLEASE ALSO READ CORE CLAUSE 27.4 TOGETHER WITH Z7 IN THE ADDITIONAL CONDITIONS OF CONTRACT TO MAKE SURE THAT WHATEVER IS INCLUDED IN THE ANNEXURE FOLLOWS ON FROM THOSE CLAUSES.

The Divisional/Regional Safety Risk Manager or his representative having jurisdiction over the *service* must provide the relevant safety, health and environmental (SHE) criteria for incorporation into this Service Information. The SHE specification / scope must be signed off by the Divisional/Regional Safety Risk Manager or his representative confirming that the applicable safety criteria have been taken into account.

The Commodity Manager / Buyer must refer the tender to the Divisional/Regional Safety Risk Manager or his representative in order to evaluate against enquiry-specific safety criteria.

The Divisional Safety Risk Managers who will be responsible for the allocation of resources to assist P&SCM with the above processes are as follows:

- Generation: Roley McIntyre
- Transmission: Tony Patterson
- Distribution: Alex Stramrood
- Enterprises: Jace Naidoo
- Corporate: Kerseri Pather

The *Contractor* shall comply with the health and safety requirements contained in Annexure \_\_\_\_\_ to this Service Information.

### **3.2. Environmental constraints and management**

Describe or cross refer to environmental constraints applicable to the *Contractor*'s plan and his activities on the Affected Property and how they should be managed. Include here or cross refer to an Annexure to the Service Information.

The *Contractor* shall comply with the environmental criteria and constraints stated in Annexure \_\_\_\_\_

### **3.3. Quality assurance requirements**

Specify minimum requirements for the *Contractor*'s Quality Plan and Work Procedures or provide the *Employer*'s Quality Plan if that is to be used. Make sure witness and hold points are identified generally and describe any particular requirements for QA outside the Affected Property. Indicate how the *Contractor*'s QA documentation is to be submitted for acceptance and any conditions that need to be imposed relating to acceptance. State whether ISO compliance is a condition and if so which ISO standard shall apply.

## 4. Procurement

There is a cross reference from the core clause 11.2(6) definition of Disallowed Cost to the Service Information regarding procurement procedures. This part of the Service Information MUST includes any such procedures to be able to administer Disallowed Cost.

### 4.1. People

#### 4.1.1. Minimum requirements of people employed

The service provider shall provide service technician permanently to do maintenance and repairs.

#### 4.1.2. Supplier Development and Localization

Specify constraints which *Contractor* must comply with after contract award in regard to any Broad Based Black Economic Empowerment (B-BBEE) or preferencing scheme measures.

### 4.2. Subcontracting

#### 4.2.1. Preferred subcontractors

TSC3 does not make use of nominated subcontracting, but the *Employer* may list which subcontractors or suppliers the *Contractor* is required to enter into subcontracts with. This is usually only required where specialist services need to be obtained from a particular supplier or group of suppliers in order to comply with operational standards.

#### 4.2.2. Subcontract documentation, and assessment of subcontract tenders

Specify any constraints on how the *Contractor* is to prepare subcontract documentation, whether use of the NEC system is compulsory or not (compulsory is recommended) and how subcontract tenders are to be issued, received, assessed (using a joint report?) and awarded.

#### 4.2.3. Limitations on subcontracting

The *Employer* may require that the *Contractor* must subcontract certain specialised work, or that the *Contractor* shall not subcontract more than a specified proportion of the whole of the contract.

#### 4.2.4. Attendance on subcontractors

State requirements for attendance on Subcontractors, if any

### 4.3. Plant and Materials

#### 4.3.1. Specifications

Plant and Materials are defined as items intended to be included in the Affected Property. This will refer to replacement of worn or defective parts, routine replacement as part of regular preventative maintenance and supply of spare parts. Quality is usually designed in or specified in the technical specifications. However to cover circumstances where quality may not be prescribed, this sub-paragraph could also be used to state an overarching default requirement – fitness for purpose etc.

Either specify here or provide a list of the applicable specifications and attach them as Annexure or state where they can be obtained from.

#### 4.3.2. Correction of defects

State any constraints when dealing with defective Plant and Materials such as how repairs are carried out - can the item be fixed up or must it be replaced by a new one.

#### 4.3.3. Contractor's procurement of Plant and Materials

Specify any constraints on how the *Contractor* is to order, codify, expedite, freight, import, transport to the Affected Property and any other requirements for delivery and storage before installation. The *Employer* may require warranties from suppliers to be in favour of the *Employer* and not just to the *Contractor*. The *Employer* may also need schedules of vendor data for his own use after the end of the service period.

#### 4.3.4. Tests and inspections before delivery

Core Clause 41.1 makes reference to the Service Information stating which Plant and Materials are to be inspected and tested before delivery. Specify any requirements particularly if such tests and inspections are to be carried out by agents of the *Employer* overseas.

#### 4.3.5. Plant & Materials provided “free issue” by the Employer

List any Plant and Materials which are to be provided by the *Employer*.

State arrangements for collection by *Contractor* or delivery by others on behalf of the *Employer*, off loading, inspection, storage, care custody and control, return of unused Plant and Materials, etc. Always include a statement to the effect that 'all other Plant and Materials are to be provided by the *Contractor*'.

## 5. Working on the Affected Property

This part of the Service Information addresses constraints, facilities, services and rules applicable to the *Contractor* whilst he is doing work on the Affected Property.

### 5.1. Employer's site entry and security control, permits, and site regulations

Sites such as Koeberg Nuclear Power Station have very strict entrance requirements which tendering contractors need to allow for in their prices, and the *Contractor* has to comply with. State these or similar requirements here.

In addition to the above there may be other restrictions once on the site, plus rules relating to roads, walkways and the provision of barricades

### 5.2. People restrictions, hours of work, conduct and records

Restrictions and hours of work may apply on some sites. It is very important that the *Contractor* keeps records of his people working on the Affected Property, including those of his Subcontractors. State that the *Service Manager* shall have access to them at any time. These records may be needed when assessing compensation events.

### 5.3. Health and safety facilities on the Affected Property

Section 3 deals with contractual H & S requirements in addition to those of the OHSA Act. This section allows the *Employer* to state what measures are to be taken on the Affected Property by describing where First Aid facilities provided by the *Employer* are located and any other emergency arrangements. Do not use if already addressed in 2.3.

### 5.4. Environmental controls, fauna & flora

This sub-paragraph may not be required in a service contract or if these matters are dealt with in the general environmental requirements referred to in section 3 above.

### 5.5. Cooperating with and obtaining acceptance of Others

This sub-paragraph could be used to deal with two issues.

- 1) The cross reference from core clause 25.1 about cooperation generally as well as details about Others with whom the *Contractor* may be required to share the Affected Property. See clause 11.2(9) for the definition of Others.
- 2) Requirements for liaison with and acceptance from statutory authorities or inspection agencies.

### 5.6. Records of Contractor's Equipment

This sub-paragraph is intended to address how records are to be kept of Equipment on Site including whether it is owned or hired. Include any constraints about scaffolding, rigs, heavy lifts and cranes, including removal from the Affected Property.

## 5.7. Equipment provided by the Employer

Provide details of equipment (e.g. overhead cranes) made available for use by the employer and set out conditions relating thereto.

## 5.8. Site services and facilities

### 5.8.1. Provided by the Employer

This is a mandatory cross reference form clause 25.2 in TSC3. State what the *Employer* will provide in the way of power, water, waste disposal, telecomms, ablutions, fire protection and lighting (etc) on the Affected Property. Give hook up locations and any constraints on how the hook up is to be done. Always conclude by stating that the *Contractor* shall provide everything else necessary for Providing the Service.

### 5.8.2. Provided by the Contractor

Describe what the *Contractor* is to provide in the way of accommodation, laboratories, storage, vehicles and office equipment for the *Service Manager* and any restrictions or minimum requirements concerning the *Contractor*'s own facilities. Also state what happens to these facilities upon completion of the contract.

## 5.9. Control of noise, dust, water and waste

State requirements, if any.

## 5.10. Hook ups to existing works

State any constraints

## 5.11. Tests and inspections

### 5.11.1. Description of tests and inspections

Describe the tests and inspections to be carried out by the *Contractor* and the *Service Manager* and others [40.1].

### 5.11.2. Materials facilities and samples for tests and inspections

State what materials facilities and samples for tests and inspections the *Contractor* and the *Employer* are to provide, per core clause 40.2.

## 6. List of drawings

## 6.1. Drawings issued by the Employer

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