



## NEC3 Engineering & Construction Contract

Between **ESKOM HOLDINGS SOC Ltd**  
(Reg No. 2002/015527/30)

and **[Insert at award stage]**  
(Reg No. \_\_\_\_\_ )

for **Refurbishment of Guyed Anchor Links in the  
Western Grid As and When Required**

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**CONTRACT No. [Insert at award stage]**

## 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:

### Refurbishment of Guyed Anchor Links in the Western Grid As and When Required

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	R
	Sub total	R
	Value Added Tax @ 15% is	R
	The offered total of the amount due inclusive of VAT is <sup>1</sup>	R
	(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:**

(Insert name and address of organisation)

Name &  
signature of  
witness

Date

Tenderer's CIDB registration number (if applicable)

<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: Works Information
Part C4	Site 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 signed between them of this document, including the Schedule of Deviations (if any).

Unless the tenderer (now *Contractor*) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the Parties.

Signature(s)

Name(s)

Capacity

**for the  
Employer**

**Eskom Holdings SOC Ltd  
60 VOORTREKKER ROAD,  
BELLVILLE,  
7530**

*(Insert name and address of organisation)*

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:****For the Employer**

Signature

Name

Capacity

On behalf  
of*(Insert name and address of organisation)**(Insert name and address of organisation)*

**Eskom Holdings SOC Ltd  
60 VOORTREKKER ROAD,  
BELLVILLE,  
7530**

Name &  
signature  
of witness

Date

## C1.2 ECC3 Contract Data

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

Completion of the 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	
		<b>A: Priced contract with activity schedule</b>
	dispute resolution Option	<b>W1: Dispute resolution procedure</b>
	and secondary Options	
		<b>X1: Price adjustment for inflation</b>
		<b>X2: Changes in the law</b>
		<b>X7: Delay damages</b>
		<b>X16: Retention</b>
		<b>X17: Low performance damages</b>
		<b>X18: Limitation of liability</b>
		<b>Z: Additional conditions of contract</b>
	of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)	
10.1	The <i>Employer</i> is (Name):	<b>Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa</b>
	Address	<b>Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg</b>
10.1	The <i>Project Manager</i> is: (Name)	<b>TONY BALOKA</b>
	Address	<b>60 VOORTREKKER ROAD, BELLVILLE, 7530</b>
	Tel	<b>021 915 9227</b>
	Fax	<b>086 668 1617</b>
	e-mail	<b>tony.baloka@eskom.co.za</b>
10.1	The <i>Supervisor</i> is: (Name)	<b>Ricardo Dudley – Peninsula CLN Noluvuyo Nsibande – West Coast CLN Berenice Crowe – Outeniqua CLN Zandile Zandamela – Namaqualand CLN Cornelia Mabija – Kimberly CLN</b>

		<b>Henk Wydeman – Karoo CLN</b>	
Address		Ricardo Dudley – Stikland, Cape Town Noluvuyo Nsibande – Stikland, Cape Town Berenice Crowe – Worcester Zandile Zandamela – Uppington Cornelia Mabija – Kimberly Henk Wydeman – De Aar	
Tel No.		Ricardo Dudley – +27 71 873 9883 Noluvuyo Nsibande – +27 73 634 5459 Berenice Crowe – +27 73 496 6097 Zandile Zandamela – +27 82 593 0915 Cornelia Mabija – +27 82 845 3076 Henk Wydeman – +27 82 806 3087	
Fax No.			
e-mail		Ricardo Dudley – dudleyr@eskom.co.za Noluvuyo Nsibande – jjingn@eskom.co.za Berenice Crowe – crowebc@eskom.co.za Zandile Zandamela – zandamzp@eskom.co.za Cornelia Mabija – mabijamc@eskom.co.za Henk Wydeman – + wydemah@eskom.co.za	
11.2(13)	The <i>works</i> are	Refurbishment of Tower Guyed Anchor Links on an as and when basis	
11.2(14)	The following matters will be included in the Risk Register	There are areas that are environmentally sensitive. Keep vehicles and materials contained within the servitude and/or storage areas	
11.2(15)	The <i>boundaries of the site</i> are	Eskom Transmission Western Grid Servitudes	
11.2(16)	The Site Information is in	Part 4: Site Information	
11.2(19)	The Works Information is in	Part 3: Scope of Work and all documents and drawings to which it makes reference.	
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa	
13.1	The <i>language of this contract</i> is	English	
13.3	The <i>period for reply</i> is	2 weeks	
<b>2</b>	<b>The Contractor's main responsibilities</b>	Data required by this section of the core clauses is provided by the <i>Contractor</i> in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.	
<b>3</b>	<b>Time</b>		
11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is	TBC	
11.2(9)	The <i>key dates</i> and the <i>conditions</i> to be met are:	<b>Condition to be met</b>	<b>key date</b>
		1 High Risk towers as identified	1 <sup>st</sup> December 2023

		2	50% of all identified towers	1 <sup>st</sup> December 2024
		3	100% of all identified towers	1 <sup>st</sup> December 2025
30.1	The <i>access dates</i> are:	Part of the Site		Date
		1	Enabling contract for all Transmission lines so access to all servitudes will be given where work will be executed	1 <sup>st</sup> January 2023
31.1	The <i>Contractor</i> is to submit a first programme for acceptance within	2 weeks of the Contract Date.		
31.2	The <i>starting date</i> is	TBC		
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	4 weeks.		
35.1	The <i>Employer</i> is not willing to take over the <i>works</i> before the Completion Date.			
4	Testing and Defects			
42.2	The <i>defects date</i> is	52 weeks after Completion of the whole of the <i>works</i> .		
43.2	The <i>defect correction period</i> is	2 weeks		
	except that the <i>defect correction period</i> for	emergencies are 2 days		
	and the <i>defect correction period</i> for	Issued taskorders are 2 weeks		
5	Payment			
50.1	The <i>assessment interval</i> is	between the 25 <sup>th</sup> day of each successive month.		
51.1	The <i>currency of this contract</i> is the	South African Rand.		
51.2	The period within which payments are made is	31 days after an approved Payment Certificate submitted.		
51.4	The <i>interest rate</i> is	the publicly quoted prime rate of interest (calculated on a 365 day year) charged from time to time by the Standard Bank of South Africa Limited (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  (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 *mutatis mutandis* every 6 months thereafter and as certified, in the event 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.

## 6 Compensation events

60.1(13)	The place where weather is to be recorded is:	Cape Town, Vanrhynsdorp, Worcester, Mosselbay, Laingsburg, Beaufort West, Oudtshoorn, De Aar, Kimberly, Upington, Springbok, Port Nolleth
	The <i>weather measurements</i> to be recorded for each calendar month are,	the cumulative rainfall (mm)  the number of days with rainfall more than 10 mm  the number of days with minimum air temperature less than 0 degrees Celsius  the number of days with snow lying at 09:00 hours South African Time  and these measurements:
	The <i>weather measurements</i> are supplied by	Client Liaison Officer Cape Town Regional Office South African Weather Service P O Box 21 Cape Town International Airport 7525
	The <i>weather data</i> are the records of past <i>weather measurements</i> for each calendar month which were recorded at:	Cape Town, Vanrhynsdorp, Worcester, Mosselbay, Laingsburg, Beaufort West, Oudtshoorn, De Aar, Kimberly, Upington, Springbok, Port Nolleth
	and which are available from:	the South African Weather Bureau and included in Annexure A to this Contract Data provided by the <i>Employer</i>

60.1(13)	Assumed values for the ten year return <i>weather data</i> for each <i>weather measurement</i> for each calendar month are:	As stated in Annexure A to this Contract Data provided by the <i>Employer</i> .  Note: If this arrangement is used, delete the rows above for 60.1(13) and delete this note.
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7	Title	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
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## 8 Risks and insurance

80.1	These are additional <i>Employer's</i> risks	1. [•]  2. [•]
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		3. [•]
9	Termination	<p>There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.</p> <p>Work done by the contractor will be checked by Eskom staff and a non-conformance will be issued if work is not according to the required standard. Where repeated non-conformances are issued to the contractor for the same type of mistake and unwillingness from the contractor to correct are evident, this will be reason for termination of the contract with penalties.</p>
10	Data for main Option clause	
A	Priced contract with activity schedule	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see <a href="http://www.ice-sa.org.za">www.ice-sa.org.za</a> ). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
W1.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See <a href="http://www.ice-sa.org.za">www.ice-sa.org.za</a> ) or its successor body.
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	Bellville, 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(a)	The <i>base date</i> for indices is	[•].
X1.1(c)	The proportions used to calculate the Price Adjustment Factor are:	linked to index for

		proportion		Index prepared by
		0. [•]	[•]	[•]
		0. [•]	[•]	[•]
		0. [•]	[•]	[•]
		0. [•]	[•]	[•]
		0. [•]	[•]	[•]
		[•]	non-adjustable	
	Total	1.00		
X2	Changes in the law	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.		
X3	Multiple currencies	Rands, South Africa ONLY		
X4	Parent company guarantee	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.		
X5	Sectional Completion			
X5.1	The <i>completion date</i> for each <i>section</i> of the <i>works</i> is:	<b>Section</b>	<b>Description</b>	<b>Completion date</b>
		1	High Risk towers as identified	1st December 2023
		2	50% of all identified towers	1st December 2024
		3	100% of all identified towers	1st December 2025
X5 & X7	Sectional Completion and delay damages used together			
X7.1 X5.1	Delay damages for late Completion of the <i>sections</i> of the <i>works</i> are:	<b>section</b>	<b>Description</b>	<b>Amount per day</b>
		1	High Risk Towers as identified	0.5% of total contract value
		2	50% of identified towers	0.5% of total contract value
		3	100% of identified towers	0.5% of total contract value
	Remainder of the <i>works</i>			0.5% of total contract value

	The total delay damages payable by the <i>Contractor</i> does not exceed:		10% of total contract value
X15	Limitation of the <i>Contractor's</i> liability for his design to reasonable skill & care		There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.
X16	Retention (not used with Option F)		
X16.1	The <i>retention percentage</i> is		10%
X17	Low performance damages		
X17.1	The amounts for low performance damages are:	Amount  0.5% of total contract value per day	Performance level  Poor performance is when the Contractor exceeds the completion dates as stipulated on the Taskorder – completion dates are a negotiation between the Project Manager and the Contractor
X18	Limitation of liability		
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to:	R0.0 (zero Rand)	
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:	the amount of the deductibles relevant to the event	
X18.3	The <i>Contractor's</i> liability for Defects due to his design which are not listed on the Defects Certificate is limited to	The greater of <ul style="list-style-type: none"><li>the total of the Prices at the Contract Date and</li><li>the amounts excluded and unrecoverable from the <i>Employer's</i> assets policy for correcting the Defect (other than the resulting physical damage which is not excluded) plus the applicable deductible as at contract date.</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 excluded matters, is limited to:	the total of the Prices other than for the additional excluded matters.  The <i>Contractor's</i> total liability for the additional excluded matters is not limited.  The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for <ul style="list-style-type: none"><li>Defects due to his design which arise before the Defects Certificate is issued,</li><li>Defects due to manufacture and fabrication outside the Site,</li></ul>	

		<ul style="list-style-type: none"> <li>• loss of or damage to property (other than the <i>works</i>, Plant and Materials),</li> <li>• death of or injury to a person and</li> <li>• infringement of an intellectual property right.</li> </ul>
X18.5	The <i>end of liability date</i> is	<p>(i) Seven years after the <i>defects date</i> for latent Defects and</p> <p>(ii) the date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of any replacement legislation) for any other matter.</p> <p>A latent Defect is a Defect which would not have been discovered on reasonable inspection by the <i>Employer</i> or the <i>Supervisor</i> before the <i>defects date</i>, without requiring any inspection not ordinarily carried out by the <i>Employer</i> or the <i>Supervisor</i> during that period. If the <i>Employer</i> or the <i>Supervisor</i> do undertake any inspection over and above the reasonable inspection, this does not place a greater responsibility on the <i>Employer</i> or the <i>Supervisor</i> to have discovered the Defect.</p>
<b>X20</b>	<b>Key Performance Indicators (not used when Option X12 applies)</b>	
X20.1	The <i>incentive schedule</i> for Key Performance Indicators is in	Will be established once the Programme for the works is agreed upon.
X20.2	A report of performance against each Key Performance Indicator is provided at intervals of	1 per month
<b>Z</b>	<b>The <i>Additional conditions of contract</i> are</b>	
		Z1 to Z15 always apply.
<b>Z1</b>	<b>Cession delegation and assignment</b>	
Z1.1	The <i>Contractor</i> does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the <i>Employer</i> .	
Z1.2	Notwithstanding the above, the <i>Employer</i> may on written notice to the <i>Contractor</i> 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.	
<b>Z2</b>	<b>Joint ventures</b>	
Z2.1	If the <i>Contractor</i> 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 <i>Employer</i> for the performance of this contract.	

- Z2.2 Unless already notified to the *Employer*, the persons or organisations notify the *Project 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 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 *Project Manager* within thirty days of the notification or as otherwise instructed by the *Project 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 P3 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93.

### **Z4 Confidentiality**

- Z4.1 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*, enters the public domain or to information which was already in the possession of the *Contractor* at the time of disclosure (evidenced by written records in existence at that time). Should the *Contractor* disclose information to Others in terms of clause 25.1, the *Contractor* ensures that the provisions of this clause are complied with by the recipient.
- Z4.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Project Manager*.
- Z4.3 In the event that the *Contractor* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Contractor*, to the extent permitted by law prior to disclosure, notifies the *Employer* so that an appropriate protection order and/or any other action can be taken if possible, prior to any disclosure. In the event that such protective order is not, or cannot, be obtained, then the *Contractor* may disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed.
- Z4.4 The taking of images (whether photographs, video footage or otherwise) of the *works* or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the *Project Manager*. All rights in and to all such images vests exclusively in the *Employer*.
- Z4.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

### **Z5 Waiver and estoppel: Add to core clause 12.3:**

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

**Z6 Health, safety and the environment: Add to core clause 27.4**

- Z6.1 The *Contractor* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the *works*. Without limitation the *Contractor*:
- accepts that the *Employer* may appoint him as the "Principal Contractor" (as defined and provided for under the Construction Regulations 2014 (promulgated under the Occupational Health & Safety Act 85 of 1993) ("the Construction Regulations") for the Site;
  - 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 *works*; and
  - undertakes, in and about the execution of the *works*, to comply with the Construction Regulations and with all applicable health & safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.
- Z6.2 The *Contractor*, in and about the execution of the *works*, complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.

**Z7 Provision of a Tax Invoice and interest. Add to core clause 51**

- Z7.1 Within one week of receiving a payment certificate from the *Project 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 Works Information, showing the amount due for payment equal to that stated in the payment certificate.
- Z7.2 If the *Contractor* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Employer* is to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the *Employer* in terms of core clause 51.2 is then calculated from the delayed date by when payment is to be made.
- Z7.3 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.

**Z8 Notifying compensation events**

- Z8.1 Delete from the last sentence in core clause 61.3, "unless the *Project Manager* should have notified the event to the *Contractor* but did not".

**Z9 Employer's limitation of liability**

- Z9.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00 (zero Rand)
- Z9.2 The *Contractor's* entitlement under the indemnity in 83.1 is provided for in 60.1(14) and the *Employer's* liability under the indemnity is limited.

**Z10 Termination: Add to core clause 91.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":**

Z10.1 or had a business rescue order granted against it.

**Z11 Addition to secondary Option X7 Delay damages (if applicable in this contract)**

Z11.1 If the amount due for the *Contractor's* payment of delay damages reaches the limits stated in this Contract Data for Option X7 or Options X5 and X7 used together, the *Employer* may terminate the *Contractor's* obligation to Provide the Works using the same procedures and payment on termination as those applied for reasons R1 to R15 or R18 stated in the Termination Table.

**Z12 Ethics**

For the purposes of this Z-clause, the following definitions apply:

<b>Affected Party</b>	means, as the context requires, any party, irrespective of whether it is the <i>Contractor</i> or a third party, such party's employees, agents, or Subcontractors or Subcontractor's employees, or any one or more of all of these parties' relatives or friends,
<b>Coercive Action</b>	means to harm or threaten to harm, directly or indirectly, an Affected Party or the property of an Affected Party, or to otherwise influence or attempt to influence an Affected Party to act unlawfully or illegally,
<b>Collusive Action</b>	means where two or more parties co-operate to achieve an unlawful or illegal purpose, including to influence an Affected Party to act unlawfully or illegally,
<b>Committing Party</b>	means, as the context requires, the <i>Contractor</i> , or any member thereof in the case of a joint venture, or its employees, agents, or Subcontractor or the Subcontractor's employees,
<b>Corrupt Action</b>	means the offering, giving, taking, or soliciting, directly or indirectly, of a good or service to unlawfully or illegally influence the actions of an Affected Party,
<b>Fraudulent Action</b>	means any unlawfully or illegally intentional act or omission that misleads, or attempts to mislead, an Affected Party, in order to obtain a financial or other benefit or to avoid an obligation or incurring an obligation,
<b>Obstructive Action</b>	means a Committing Party unlawfully or illegally destroying, falsifying, altering or concealing information or making false statements to materially impede an investigation into allegations of Prohibited Action, and
<b>Prohibited Action</b>	means any one or more of a Coercive Action, Collusive Action Corrupt Action, Fraudulent Action or Obstructive Action.

Z12.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.

Z12.2 The *Employer* may terminate the *Contractor's* obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Contractor* did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or remedies the *Employer* has. It is not required that the Committing Party had to have been found guilty, in court or in any other similar process, of such Prohibited Action before the *Employer* can terminate the *Contractor's* obligation to Provide the Services for this reason.

Z12.3 If the *Employer* terminates the *Contractor's* obligation to Provide the Services for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.



- Z12.4 A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the *Employer* does not have a contractual bond with the Committing Party, the *Contractor* ensures that the Committing Party co-operates fully with an investigation.

## Z13 Insurance

### Z 13.1 Replace core clause 84 with the following:

#### Insurance cover 84

- 84.1** When requested by a Party, the other Party provides certificates from his insurer or broker stating that the insurances required by this contract are in force.
- 84.2** The *Contractor* provides the insurances stated in the Insurance Table A.
- 84.3** The insurances provide cover for events which are at the *Contractor's* risk from the *starting date* until the earlier of Completion and the date of the termination certificate.

#### INSURANCE TABLE A

Insurance against	Minimum amount of cover or minimum limit of indemnity
Loss of or damage to the <i>works</i> , Plant and Materials	The replacement cost where not covered by the <i>Employer's</i> insurance  The <i>Employer's</i> policy deductible, as Contract Date, where covered by the <i>Employer's</i> insurance
Loss of or damage to Equipment	The replacement cost
Liability for loss of or damage to property (except the <i>works</i> , Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i> ) caused by activity in connection with this contract	<b><u>Loss of or damage to property</u></b> <b><u>Employer's property</u></b> The replacement cost where not covered by the <i>Employer's</i> insurance  The <i>Employer's</i> policy deductible, as Contract Date, where covered by the <i>Employer's</i> insurance  <b><u>Other property</u></b> The replacement cost  <b><u>Bodily injury to or death of a person</u></b> The amount required by applicable law
Liability for 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	The amount required by the applicable law

**Z 13.2**

**Replace core clause 87 with the following:**

The *Employer* provides the insurances stated in the Insurance Table B.

**INSURANCE TABLE B**

<b>Insurance against or name of policy</b>	<b>Minimum amount of cover or minimum of indemnity</b>
Assets All Risk	Per the insurance policy document
Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

**Z14 Nuclear Liability**

- Z14.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.
- Z14.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 47 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z14.3 Subject to clause Z14.4 below, the *Employer* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any other person, or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.
- Z14.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 47 of 1999, or any replacement section dealing with the same subject matter.
- Z14.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

**Z15 Asbestos**

For the purposes of this Z-clause, the following definitions apply:

<b>AAIA</b>	means approved asbestos inspection authority.
<b>ACM</b>	means asbestos containing materials.
<b>AL</b>	means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.
<b>Ambient Air</b>	means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.
<b>Compliance Monitoring</b>	means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
<b>OEL</b>	means occupational exposure limit.
<b>Parallel Measurements</b>	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
<b>Safe Levels</b>	means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
<b>Standard</b>	means the <i>Employer's</i> Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.
<b>SANAS</b>	means the South African National Accreditation System.
<b>TWA</b>	means the average exposure, within a given workplace, to airborne asbestos fibres, normalised to the baseline of a 4 hour continuous period, also applicable to short term exposures, i.e. 10-minute TWA.

Z15.1 The *Employer* ensures that the Ambient Air in the area where the *Contractor* will Provide the Services conforms to the acceptable prescribed South African standard for asbestos, as per the regulations published in GNR 155 of 10 February 2002, under the Occupational Health and Safety Act, 1993 (Act 85 of 1993) ("Asbestos Regulations"). The OEL for asbestos is 0.2 regulated asbestos fibres per millilitre of air as a 4-hour TWA, averaged over any continuous period of four hours, and the short term exposure limit of 0.6 regulated asbestos fibres per millilitre of air as a 10-minute TWA, averaged over any 10 minutes, measured in accordance with HSG248 and monitored according to HSG173 and OESSM.

Z15.2 Upon written request by the *Contractor*, the *Employer* certifies that these conditions prevail. All measurements and reporting are effected by an independent, competent, and certified occupational hygiene inspection body, i.e. a SANAS accredited and Department of Employment and Labour approved AAIA. The *Contractor* may perform Parallel Measurements and related control measures at the *Contractor's* expense. For the purposes of compliance the results generated from Parallel Measurements are evaluated only against South African statutory limits as detailed in clause Z15.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.

Z15.3 The *Employer* manages asbestos and ACM according to the Standard.

Z15.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.

- Z15.5 The *Contractor's* personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.
- Z15.6 The *Contractor* continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including the Completion Date, are adjusted accordingly. The contractually agreed dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.
- Z15.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the *Employer* at the *Employer's* expense, and conducted in line with South African legislation.

## **Annexure A: One-in-ten-year-return *weather data* obtained from SA Weather Bureau for [weather station]**

If any one of these *weather measurements* recorded within a calendar month, before the Completion Date for the whole of the *works* and at the place stated in this Contract Data is shown to be more adverse than the amount stated below then the *Contractor* may notify a compensation event.

	<i>Weather measurement</i>				
Month	Cumulative rainfall (mm)	Number of days with rain more than 10mm	Number of days with min air temp < 0 deg.C	Number of days with snow lying at 08:00 CAT	[Other measurements if applicable]
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

Only the difference between the more adverse recorded weather and the equivalent measurement given above is taken into account in assessing a compensation event.

## C1.2 Contract Data

### Part two - Data provided by the Contractor

Whenever a cell is shaded in the left hand column it denotes this data is optional. If not required select and delete the whole row, otherwise insert the required Data.]

#### Notes to a tendering contractor:

1. Please read both the NEC3 Engineering and Construction Contract (April 2013) and the relevant parts of its Guidance Notes (ECC3-GN)<sup>2</sup> in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 156 to 158 of the ECC3 (April 2013) Guidance Notes.
2. The number of the clause which requires the data is shown in the left hand column for each statement however other clauses may also use the same data
3. Where a form field like this [ ] appears, data is required to be inserted relevant to the option selected. Click on the form field **once** and type in the data. Otherwise complete by hand and in ink.

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	% %
11.2(18)	The <i>working areas</i> are the Site and	
24.1	The <i>Contractor's</i> key persons are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job Responsibilities: Qualifications: Experience:	

<sup>2</sup> Available from Engineering Contract Strategies Tel 011 803 3008, Fax 011 803 3009 or see [www.ecs.co.za](http://www.ecs.co.za)

		CV's (and further key persons data including CVs) are appended to Tender Schedule entitled _____.	
11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is		
11.2(14)	The following matters will be included in the Risk Register		
11.2(19)	The Works Information for the <i>Contractor's</i> design is in:		
31.1	The programme identified in the Contract Data is		
<b>A</b>	<b>Priced contract with activity schedule</b>		
11.2(20)	The <i>activity schedule</i> is in		
11.2(30)	The tendered total of the Prices is	(in figures) (in words), excluding VAT	
<b>B</b>	<b>Priced contract with bill of quantities</b>		
11.2(21)	The <i>bill of quantities</i> is in		
11.2(31)	The tendered total of the Prices is	(in figures) (in words), excluding VAT	
<b>C</b>	<b>Target contract with activity schedule</b>		
11.2(20)	The <i>activity schedule</i> is in		
11.2(30)	The tendered total of the Prices is	(in figures) (in words), excluding VAT	
<b>D</b>	<b>Target contract with bill of quantities</b>		
11.2(21)	The <i>bill of quantities</i> is in		
11.2(31)	The tendered total of the Prices is	(in figures) (in words), excluding VAT	
<b>F</b>	<b>Management contract</b>		
20.2	Work which the <i>Contractor's</i> will do himself is	Activity	price (lump sum or rate)
	<b>Data for Schedules of Cost Components</b>	Note "SCC" means Schedule of Cost Components starting on page 60, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC3 (April 2013).	

<b>A</b>	<b>Priced contract with activity schedule</b>	<b>Data for the Shorter Schedule of Cost Components</b>		
<b>B</b>	<b>Priced contract with bill of quantities</b>	<b>Data for the Shorter Schedule of Cost Components</b>		
41 in SSCC	The percentage for people overheads is:	%		
21 in SSCC	The published list of Equipment is the last edition of the list published by  The percentage for adjustment for Equipment in the published list is	Minus %		
22 in SSCC	The rates of other Equipment are:	<b>Equipment</b>	<b>Size or capacity</b>	<b>Rate</b>
61 in SSCC	The hourly rates for Defined Cost of design outside the Working Areas are  <b>Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates.</b>  <b>Please insert another schedule if foreign resources may also be used</b>	<b>Category of employee</b>		<b>Hourly rate</b>
62 in SSCC	The percentage for design overheads is	%		
63 in SSCC	The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are:			
	<b>If Option C, D or E is used</b>	<b>Data for Schedule of Cost Components</b>		
23 in SCC	The listed items of Equipment purchased for work on this contract, with an on cost charge, are:	<b>Equipment</b>	<b>Time related charge</b>	<b>Per (time period)</b>
24 in SCC	The rates of special Equipment are:	<b>Equipment</b>	<b>Size or capacity</b>	<b>Rate</b>



44 in SCC	The percentage for Working Areas overheads is:	: %	
51 in SCC	The hourly rates for Defined Cost of manufacture or fabrication outside the Working Areas are  <b>Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates</b>  <b>Please insert another schedule if foreign resources may also be used</b>	Category of employee	Hourly rate
52 in SCC	The percentage for manufacture and fabrication overheads is	%	
	<b>If Option C, D, or E is used</b>	<b>Data for both schedules of cost components</b>	
61 in SCC & SSCC	The hourly rates for Defined Cost of design outside the Working Areas are  <b>Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates.</b>  <b>Please insert another schedule if foreign resources may also be used</b>	Category of employee	Hourly rate
62 in SCC & SSCC	The percentage for design overheads is	%	
63 in SCC & SSCC	The categories of design employees whose travelling expenses to and from the Working Areas are included as a cost of design of the <i>works</i> and Equipment done outside the Working Areas are:		
	<b>If Option C, D or E is used</b>	<b>Data for the Shorter Schedule of Cost Components</b>	
41 in SSCC	The percentage for people overheads is:	%	
21 in SSCC	The published list of Equipment is the last edition of the list published by  The percentage for adjustment for Equipment in the published list is	%	

22 in SSCC	The rates of other Equipment are:	Equipment	Size or capacity	Rate

## C1.3 Forms of Securities

### Pro formas for Bonds & Guarantees

For use with the NEC3 Engineering & Construction Contract

**[Note to contract compiler:**

***Once it has been decided which securities are required for this contract delete from this file the ones not required, revise the notes below accordingly and delete this note.]***

The *conditions of contract* stated in the Contract Data Part 1 include the following Secondary Options:

Option X4: Parent company guarantee

Option X13: Performance Bond

Option X14: Advanced payment to the *Contractor*

Each of these secondary Options requires a bond or guarantee “in the form set out in the Works Information”. Pro forma documents for these bonds and guarantees are provided here for convenience but are to be treated as part of the Works Information.

Option X16: Retention (not used with Option F)

The *Contractor* may provide a Retention Money Guarantee in the form stated here. When the *Employer* receives and accepts a Retention Money Guarantee exactly in the form stated he will instruct the *Project Manager* not to assess any amount be retained in terms of secondary Option X16.

The *Contractor* shall guarantee his ASGI-SA Obligations by providing the *Employer* with an ASGI-SA Guarantee in the form provided here.

**[Note to contract compiler: If there are no ASGI-SA Obligations in this contract, delete the above statement]**

The organisation providing the bond / guarantee does so by copying the pro forma document onto his letterhead without any change to the text or format and completing the required details. The completed document is then given to the *Employer* within the time stated in the contract.

## Pro forma Parent Company Guarantee (for use with Option X4)

(to be reproduced exactly as shown below on the letterhead of the Contractor's Parent Company)

**Eskom Holdings SOC Ltd**  
**Megawatt Park**  
**Maxwell Drive**  
**Sandton**  
**Johannesburg**

Date:

Dear Sirs,

### Parent Company Guarantee for Contract No

With reference to the above numbered contract made or to be made between

**Eskom Holdings SOC Ltd**

(the *Employer*) and

**{Insert registered name and address of the Contractor}**

(the *Contractor*), for

**{Insert details of the works from the Contract Data}**

(the *works*).

I/We the undersigned

on behalf of the *Contractor's*  
parent company

of physical address

and duly authorised thereto do hereby unconditionally guarantee to the *Employer* that the *Contractor* shall Provide the Works in accordance with the above numbered Contract.

1. If for any reason the *Contractor* fails to Provide the Works, we hereby agree to cause to Provide the Works at no additional cost to the *Employer*.
2. If we fail to comply with the terms of this Deed of Guarantee, the *Employer* may itself procure such performance (whether or not the Agreement be formally determined). The *Employer* is to notify us and we shall indemnify the *Employer* for any additional cost or expense it incurs.
3. Our liability shall be as primary obligor and not merely as surety and shall not be impaired or discharged by reason of any arrangement or change in relationship made between the *Contractor* and the *Employer* and/or between us and *Contractor*; nor any alteration in the obligations undertaken by the *Contractor* or in the terms of the Agreement; nor any indulgence, failure, delay by you as to any matter; nor any dissolution or liquidation or such other analogous event of the *Contractor*.
4. The *Employer* shall not be obliged before taking steps to enforce the terms of this Deed of Guarantee to obtain judgement against the *Contractor* in any court or other tribunal, to make or file any claim in liquidation (or analogous proceedings) or to seek any remedy or proceed first against the *Contractor*.
5. This Deed of Guarantee shall be governed by and construed in accordance with the laws of the Republic of South Africa and we hereby submit to the non-exclusive jurisdiction of the High Court of South Africa.

Signed at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_ 200\_

Signature(s)	
Name(s) (printed)	
Position in parent company	
Signature of Witness(s)	
Name(s) (printed)	

## Pro forma Performance Bond – Demand Guarantee (for use with Option X13)

(to be reproduced exactly as shown below on the letterhead of the Contractor's Parent Company)

**Eskom Holdings SOC Ltd**  
**Megawatt Park**  
**Maxwell Drive**  
**Sandton**  
**Johannesburg**

Date:

Dear Sirs

Reference No. [●] [Drafting Note: Bank reference number to be inserted]

**Performance Bond – Demand Guarantee:** [Drafting Note: Name of Contractor to be inserted]

Project [ ] Contract Reference: ..... [Drafting Note: Contractor contract reference number to be inserted]

---

1. In this Guarantee the following words and expressions shall have the following meanings:-
  - 1.1 “Bank” - means [●], [●] Branch, (Registration No. [●]); [Drafting Note: Name of Bank to be inserted]
  - 1.2 “Bank’s Address” - means [●]; [Drafting Note: Bank’s physical address to be inserted]
  - 1.3 “Contract” – means the written agreement relating to the Project, entered into between Eskom and the Contractor, on or about the [●] day of [●] 200[●] (Contract Reference No. [.]as amended, varied, restated, novated or substituted from time to time; [Drafting Note: Signature Date and Contract reference number to be inserted])
  - 1.4 “Contractor” – means [●] a company registered in accordance with the laws of [●] under Registration Number [●]. [Drafting Note: Name and details of Contractor to be inserted]
  - 1.5 “Eskom” - means Eskom Holdings SOC Ltd, a company registered in accordance with the laws of the Republic of South Africa under Registration Number 2002/015527/30].
  - 1.6 “Expiry Date” - means the date on which the Defects Certificate is issued in terms of the Contract.
  - 1.7 “Guaranteed Sum” - means the sum of R [●] ([●] Rand);
  - 1.8 “Project” - means [insert if applicable.].
2. At the instance of the Contractor, we the undersigned \_\_\_\_\_ and \_\_\_\_\_, in our respective capacities as \_\_\_\_\_ and \_\_\_\_\_ of the Bank, and duly authorized thereto, confirm that we hold the Guaranteed Sum at the disposal of Eskom, as security for the proper performance by the Contractor of all of its obligations in terms of and arising from the Contract and hereby undertake to pay to Eskom, on written demand from Eskom received prior to the Expiry Date, any sum or sums not exceeding in total the Guaranteed Sum.
3. A demand for payment under this guarantee shall be made in writing at the Bank’s address and shall:
  - 3.1 be signed on behalf of Eskom by a Group Executive, Divisional Executive, Senior General Manager, General Manager or its delegate;
  - 3.2 state the amount claimed (“the Demand Amount”);
  - 3.3 state that the Demand Amount is payable to Eskom in the circumstances contemplated in the Contract.
4. Notwithstanding the reference herein to the Contract the liability of the Bank in terms hereof is as

principal and not as surety and the Bank's obligation/s to make payment:

- 4.1 is and shall be absolute provided demand is made in terms of this bond in all circumstances; and
- 4.2 is not, and shall not be construed to be, accessory or collateral on any basis whatsoever.
5. The Bank's obligations in terms of this Guarantee:
  - 5.1 shall be restricted to the payment of money only and shall be limited to the maximum of the Guaranteed Sum; and
  - 5.2 shall not be discharged and compliance with any demand for payment received by the Bank in terms hereof shall not be delayed, by the fact that a dispute may exist between Eskom and the Contractor.
6. Eskom shall be entitled to arrange its affairs with the Contractor in any manner which it sees fit, without advising us and without affecting our liability under this Guarantee. This includes, without limitation, any extensions, indulgences, release or compromise granted to the Contractor or any variation under or to the Contract.
7. Should Eskom cede its rights against the Contractor to a third party where such cession is permitted under the Contract, then Eskom shall be entitled to cede to such third party the rights of Eskom under this Guarantee on written notification to the Bank of such cession.
8. This Guarantee:
  - 8.1 shall expire on the Expiry Date until which time it is irrevocable;
  - 8.2 is, save as provided for in 7 above, personal to Eskom and is neither negotiable nor transferable;
  - 8.3 shall be returned to the Bank upon the earlier of payment of the full Guaranteed Sum or expiry hereof;
  - 8.4 shall be regarded as a liquid document for the purpose of obtaining a court order; and
  - 8.5 shall be governed by and construed in accordance with the law of the Republic of South Africa and shall be subject to the jurisdiction of the Courts of the Republic of South Africa.
  - 8.6 Any claim which arises or demand for payment received after expiry date will be invalid and unenforceable.
9. The Bank chooses domicilium citandi et executandi for all purposes in connection with this Guarantee at the Bank's Address.

Signed at \_\_\_\_\_

Date \_\_\_\_\_

For and behalf of the Bank

Bank Signatory: \_\_\_\_\_

Bank Signatory: \_\_\_\_\_

Witness: \_\_\_\_\_

Witness: \_\_\_\_\_

Bank's seal or stamp

## Pro forma Advanced Payment Bond (for use with Option X14)

(to be reproduced exactly as shown below on the letterhead of the Bank providing the Bond)

**Eskom Holdings Limited**  
**Megawatt Park**  
**Maxwell Drive**  
**Sandton**  
**Johannesburg**

Date:

Dear Sirs,

### Advanced Payment Bond for Contract No.

With reference to the above numbered contract made or to be made between

**Eskom Holdings SOC Limited**

(the *Employer*) and

**{Insert registered name and address of the Contractor}**

(the *Contractor*), for

**{Insert details of the works from the Contract Data}**

(the *works*).

I/We the undersigned

on behalf of the Surety

of physical address

and duly authorised thereto do hereby bind ourselves as Surety and co-principal debtors in solidum for the due and proper repayment by the *Contractor* to the *Employer* of the advanced payment made by the *Employer* to the *Contractor* under the Contract, and for all losses and expenses that may be suffered or incurred by the *Employer* as a result of non-payment by the *Contractor*, subject to the following conditions

1. The terms *Employer*, *Contractor*, and the *works* have the meaning as assigned to them by the *conditions of contract* listed in the Contract Data for the aforesaid Contract.
2. We renounce all benefits from the legal exceptions "Benefit of Excussion and Division", "No value received" "Revision of Accounts", "Cession of Action" and any other exceptions which might or could be pleaded against the validity of this bond, with the meaning and effect of which exceptions we declare ourselves to be fully acquainted.
3. The *Employer* has the absolute right to arrange his affairs with the *Contractor* in any manner which the *Employer* deems fit and without being advised thereof the Surety shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the Surety. Without derogating from the foregoing compromise, extension of the construction period, indulgence, release or variation of the *Contractor's* obligation shall not affect the validity of this Advance Payment bond.
4. This bond expires on the date when the Surety receives a notice from the *Project Manager* stating that the advanced payment has been repaid to the *Employer* in terms of the Contract, or liquidated by deductions from other payments due to the *Contractor*.
5. The amount of the bond shall be payable to the *Employer* upon the *Employer's* demand and no later than 7 days following the submission to the Surety of a certificate signed by the *Project Manager* stating the amount of the *Employer's* losses, damages and expenses incurred as a result of the non-performance aforesaid. The signed certificate shall be deemed to be conclusive proof of the extent of the *Employer's* loss, damage and expense.



6. Our total liability hereunder shall not exceed the sum of ..... (R .....) which is equal to the advance payment.
7. This Advanced Payment Bond is neither negotiable nor transferable and is governed by the laws of the Republic of South Africa.

Signed at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_ 200\_

Signature(s)	
Name(s) (printed)	
Position in Surety company	
Signature of Witness(s)	
Name(s) (printed)	

## Pro forma Retention Money Guarantee (may be used when Option X16 applies)

(to be reproduced exactly as shown below on the letterhead of the Bank providing the Guarantee)

**Eskom Holdings SOC Limited**  
**Megawatt Park**  
**Maxwell Drive**  
**Sandton**  
**Johannesburg**

Date:

Dear Sirs

Reference No. [●] [Drafting Note: Bank reference number to be inserted]

**Retention Money Guarantee:** [Drafting Note: Name of Contractor to be inserted]

Project [ ] : Contract Reference: [Drafting Note: Contractor contract reference number to be inserted]

---

1. In this Guarantee the following words and expressions shall have the following meanings:-
  - 1.1 "Bank" - means [●], [●] Branch, (Registration No. [●]); [Drafting Note: Name of Bank to be inserted]
  - 1.2 "Bank's Address" - means [●]; [Drafting Note: Bank's physical address to be inserted]
  - 1.3 "Contract" – means the written agreement relating to the Project, entered into between Eskom and the Contractor, on or about the [●] day of [●] 200[●] (Contract Reference No. .... as amended, varied, restated, novated or substituted from time to time; [Drafting Note: Signature Date and Contract reference number to be inserted])
  - 1.4 "Contractor" – means [●] a company registered in accordance with the laws of [●] under Registration Number [●]. [Drafting Note: Name and details of Contractor to be inserted]
  - 1.5 "Eskom" - means Eskom Holdings SOC Limited, a company registered in accordance with the laws of the Republic of South Africa under Registration Number 2002/015527/30
  - 1.6 "Expiry Date" - means the date on which the Defects Certificate is issued in terms of the Contract.
  - 1.7 "Guaranteed Sum" - means the sum of R [●] ([●] Rand); [Drafting Note: Insert amount of Retention Money Guarantee].
  - 1.8 "Project" - means the.....
2. At the instance of the Contractor, we the undersigned \_\_\_\_\_ and \_\_\_\_\_, in our respective capacities as \_\_\_\_\_ and \_\_\_\_\_ of the Bank, and duly authorized thereto, confirm that we hold the Guaranteed Sum at the disposal of Eskom, as security for the proper performance by the Contractor of all of its obligations in terms of and arising from the Contract and hereby undertake to pay to Eskom, on written demand from Eskom received prior to the Expiry Date, any sum or sums not exceeding in total the Guaranteed Sum.
3. A demand for payment under this guarantee shall be made in writing at the Bank's address and shall:
  - 3.1 be signed on behalf of Eskom by a director of Eskom or his authorised delegate.
  - 3.2 state the amount claimed ("the Demand Amount");
  - 3.3 state that the Contractor has failed to carry out his obligation(s) to rectify certain defect(s) for which he is responsible under the Contract (and the nature of such defect(s)) alternatively that the Demand Amount is payable to Eskom in the circumstances contemplated in the Contract.

4. Notwithstanding the reference herein to the Contract the liability of the Bank in terms hereof is as principal and not as surety and the Bank's obligation/s to make payment:

4.1 is and shall be absolute provided demand is made in terms of this bond in all circumstances; and

4.2 is not, and shall not be construed to be, accessory or collateral on any basis whatsoever.

5. The Bank's obligations in terms of this Guarantee:

5.1 shall be restricted to the payment of money only and shall be limited to the maximum of the Guaranteed Sum; and

5.2 shall not be discharged and compliance with any demand for payment received by the Bank in terms hereof shall not be delayed by the fact that a dispute may exist between Eskom and the Contractor.

6. Eskom shall be entitled to arrange its affairs with the Contractor in any manner which it sees fit, without advising us and without affecting our liability under this Guarantee. This includes, without limitation, any extensions, indulgences, release or compromise granted to the Contractor or any variation under or to the Contract.

7. Should Eskom cede its rights against the Contractor to a third party where such cession is permitted under the Contract, then Eskom shall be entitled to cede to such third party the rights of Eskom under this Guarantee on written notification to the Bank of such cession.

8. This Guarantee:

8.1 shall expire on the Expiry Date until which time it is irrevocable;

8.2 is, save as provided for in 7 above, personal to Eskom and is neither negotiable nor transferable;

8.3 shall be returned to the Bank upon the earlier of payment of the full Guaranteed Sum or expiry hereof;

8.4 shall be regarded as a liquid document for the purpose of obtaining a court order; and

8.5 shall be governed by and construed in accordance with the law of the Republic of South Africa and shall be subject to the jurisdiction of the Courts of the Republic of South Africa.

8.6 Any claim which arises or demand for payment received after expiry date will be invalid and unenforceable.

9. The Bank chooses domicilium citandi et executandi for all purposes in connection with this Guarantee at the Bank's Address.

Signed at \_\_\_\_\_

Date \_\_\_\_\_ Bank's seal or stamp

For and behalf of the Bank

Bank Signatory: \_\_\_\_\_

Bank Signatory: \_\_\_\_\_

Witness: \_\_\_\_\_

Witness: \_\_\_\_\_

## Pro forma ASGI-SA Guarantee

(to be reproduced exactly as shown below on the letterhead of the Bank providing the Guarantee)

**Eskom Holdings Limited**  
**Megawatt Park**  
**Maxwell Drive**  
**Sandton**  
**Johannesburg**

Date:

Dear Sirs

Reference No. [●] [Drafting Note: Bank reference number to be inserted]

**Pro-Forma ASGI-SA Guarantee:** [Drafting Note: Name of Contractor to be inserted]

Project [ ] Contract Reference: [●] [Drafting Note: Contractor contract reference number to be inserted]

---

1. In this Guarantee the following words and expressions shall have the following meanings:-

- 1.1 "Bank" - means [●], [●] Branch, (Registration No. [●]); [Drafting Note: Name of Bank to be inserted]
- 1.2 "Bank's Address" - means [●]; [Drafting Note: Bank's physical address to be inserted]
- 1.3 "Contract" – means the written agreement relating to the Project, entered into between the *Employer* and the *Contractor*, on or about the [●] day of [●] 200[●] (Contract Reference No. [●] as amended, varied, restated, novated or substituted from time to time; [Drafting Note: Signature Date and Contract reference number to be inserted])
- 1.4 "*Contractor*" – means [●] a company registered in accordance with the laws of [●] under Registration Number [●]. [Drafting Note: Name and details of Contractor to be inserted]
- 1.5 "*Contractor's ASGI-SA Obligations*" – means the *Contractor's ASGI-SA Obligations* under and as defined in the Contract.
- 1.6 "*Employer*" - means Eskom Holdings Limited, a company registered in accordance with the laws of the Republic of South Africa under Registration Number 2002/015527/06.
- 1.7 "Expiry Date" - means the [●] day of [●] 200[●]; [Drafting Note: anticipated date of issue of ASGI-SA Performance Certificate to be inserted.]
- 1.8 "Guaranteed Sum" - means the sum of R [●] ([●] Rand);
- 1.9 "Project" – means the .....

2. At the instance of the *Contractor*, we the undersigned \_\_\_\_\_ and \_\_\_\_\_, in our respective capacities as \_\_\_\_\_ and \_\_\_\_\_ of the Bank, and duly authorized thereto, confirm that we hold the Guaranteed Sum at the disposal of the *Employer*, as security for the proper performance by the *Contractor* of the *Contractor's ASGI-SA Obligations* and hereby undertake to pay to the *Employer*, on written demand from the *Employer* received prior to the Expiry Date, any sum or sums not exceeding in total the Guaranteed Sum.

3. A demand for payment under this guarantee shall be made in writing at the Bank's address and shall:

3.1 state the amount claimed ("the Demand Amount");

3.2 state that the Demand Amount is payable to the *Employer* in the circumstances contemplated in the Contract.

4. Notwithstanding the reference herein to the Contract the liability of the Bank in terms hereof is as

principal and not as surety and the Bank's obligation/s to make payment:

4.1 is and shall be absolute provided demand is made in terms of this bond in all circumstances; and

4.2 is not, and shall not be construed to be, accessory or collateral on any basis whatsoever.

5. The Bank's obligations in terms of this Guarantee:

5.1 shall be restricted to the payment of money only and shall be limited to the maximum of the Guaranteed Sum; and

5.2 shall not be discharged and compliance with any demand for payment received by the Bank in terms hereof shall not be delayed, by the fact that a dispute may exist between the *Employer* and the *Contractor*.

6. The *Employer* shall be entitled to arrange its affairs with the *Contractor* in any manner which it sees fit, without advising us and without affecting our liability under this Guarantee. This includes, without limitation, any extensions, indulgences, release or compromise granted to the *Contractor* or any variation under or to the Contract.

7. Should the *Employer* cede its rights against the *Contractor* to a third party where such cession is permitted under the Contract, then the *Employer* shall be entitled to cede to such third party the rights of the *Employer* under this Guarantee on written notification to the Bank of such cession.

8. This Guarantee:

8.1 shall expire on the Expiry Date until which time it is irrevocable;

8.2 is, save as provided for in 7 above, personal to the *Employer* and is neither negotiable nor transferable;

8.3 shall be returned to the Bank upon the earlier of payment of the full Guaranteed Sum or expiry hereof;

8.4 shall be regarded as a liquid document for the purpose of obtaining a court order; and

8.5 shall be governed by and construed in accordance with the law of the Republic of South Africa and shall be subject to the jurisdiction of the courts of the Republic of South Africa.

8.6 Any claim which arises or demand for payment received after expiry date will be invalid and unenforceable.

9. The Bank chooses domicilium citandi et executandi for all purposes in connection with this Guarantee at the Bank's Address.

Signed at \_\_\_\_\_

Date \_\_\_\_\_

For and behalf of the Bank

Bank Signatory: \_\_\_\_\_

Bank Signatory: \_\_\_\_\_

Witness: \_\_\_\_\_

Witness: \_\_\_\_\_

Bank's seal or stamp

## PART 2: PRICING DATA

### ECC3 Option A

Document reference	Title	No of pages
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C2.2	The <i>activity schedule</i>	7

## C2.1 Pricing assumptions: Option A

## How work is priced and assessed for payment

Clause 11 in NEC3 Engineering and Construction Contract, (ECC3) Option A states:

**Identified and defined terms** 11  
11.2 (20) The Activity Schedule is the *activity schedule* unless later changed in accordance with this contract.

(27) The Price for Work Done to Date is the total of the Prices for

- each group of completed activities and
- each completed activity which is not in a group.

A completed activity is one which is without Defects which would either delay or be covered by immediately following work.

(30) The Prices are the lump sum prices for each of the activities on the Activity Schedule unless later changed in accordance with this contract.

This confirms that Option A is a lump sum form of contract where the work is broken down into activities, each of which is priced by the tendering contractor as a lump sum. Only completed activities are assessed for payment at each assessment date; no part payment is made if the activity is not completed by the assessment date.

### Function of the Activity Schedule

Clause 54.1 in Option A states: "Information in the Activity Schedule is not Works Information or Site Information". This confirms that specifications and descriptions of the work or any constraints on how it is to be done are not included in the Activity Schedule but in the Works Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Works in accordance with the Works Information". Hence the *Contractor* does **not** Provide the Works in accordance with the Activity Schedule. The Activity Schedule is only a pricing document.

### Link to the programme

Clause 31.4 states that "The *Contractor* provides information which shows how each activity on the Activity Schedule relates to the operations on each programme which he submits for acceptance". Ideally the tendering contractor will develop a high level programme first then resource each activity and thus arrive at the lump sum price for that activity both of which can be entered into the *activity schedule*.

### Preparing the *activity schedule*

Generally it is the tendering contractor who prepares the *activity schedule* by breaking down the work described within the Works Information into suitable activities which can be well defined, shown on a programme and priced as a lump sum.

The *Employer*, in his Instructions to Tenderers or in a Tender Schedule, may have listed some items that he requires the *Contractor* to include in his *activity schedule* and be priced accordingly.

It is assumed that in preparing his *activity schedule* the *Contractor*:

- Has taken account of the guidance given in the ECC3 Guidance Notes pages 19 and 20;
- Understands the function of the Activity Schedule and how work is priced and paid for;
- Is aware of the need to link the Activity Schedule to activities shown on his programme;
- Has listed and priced activities in the *activity schedule* which are inclusive of everything necessary and incidental to Providing the Works in accordance with the Works Information, as it was at the time of tender, as well as correct any Defects not caused by an *Employer's* risk;
- Has priced work he decides not to show as a separate activity within the Prices of other listed activities in order to fulfil the obligation to complete the *works* for the tendered total of the Prices.
- Understands there is no adjustment to the lump sum Activity Schedule price if the amount, or quantity, of work within that activity 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.

## C2.2 the *activity schedule*

The Price List is as follows

<u>FINAL SUMMARY</u>		
SCHEDULE	DESCRIPTIONS	AMOUNT
1	PRELIMINARY & GENERAL (P&G)	
2	FOUNDATION QUANTITIES	
3	PROVISIONAL FOUNDATION QUANTITIES	
	SUBTOTAL	
	15% VAT	
	TOTAL	



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SCHEDULE 1</b> <b>PRELIMINARY &amp; GENERAL (P&amp;G)</b>					
1.1	Site Establishment (for works >50km from base camp)	Each			
1.2	Removal of Site Establishment	Each			
1.3	Ablution and latrine facilities	Per day			
1.4	Dealing with water	Per month			
1.5	Company and Head Office Overhead Costs for the Duration of Construction (Once off).	Sum	1		
1.6	Hand Tools (Once off)	Sum	1		

1.7	Health and Safety, Environmental and Quality (SHEQ) Plan (Once Off)	Sum	1		
1.8	<u>Safety</u> Complying with Health and Safety Specifications (% per invoice)	%	1		
1.9	<u>PPE</u> Complying with PPE requirements (% per invoice)	%	1		
1.10	<u>Environmental</u> Complying with Environmental  Legislation and all other statutory environmental requirements including rehabilitation (% per invoice)	%	1		

1.11	<p><b><u>Providing of Report per Powerline with photographs, hardcopy and softcopy of anchors:</u></b></p> <p>(1) After exposing and assessment but before cleaning.</p> <p>(2) After cleaning but before painting</p> <p>(3) After painting but before concrete encasement</p> <p>(4) After concrete encasement but before backfilling</p> <p>(5) After backfilling</p> <p>The Report will become part of as-built records</p> <p>5 photos per anchor</p> <p>20 photos per tower</p>	Report per Powerline	1		
<b>SUBTOTAL</b> <b>PRELIMINARY &amp; GENERAL ITEMS (P&amp;G)</b>					

ITEM	DESCRIPTION	UNIT	RATE	AMOUNT
<b>SCHEDULE 2 : FOUNDATION QUANTITIES</b>				
<b>2.1</b>	<b>Exposure, categorisation and refurbishment of corrosion condition on DEAD MAN anchor links</b>			
<b>a</b>	Category 2 – 3 Links Hand clean, paint with Zinc rich, encase in concrete	Per Anchor		
<b>b</b>	Category 4 - 5 Links Sand blast, clean, re-coat link with zinc or elastomeric paint and encase in concrete	Per Anchor		
<b>c</b>	Category 6	Per Anchor		
<b>d</b>	Category 7	Per Anchor		
<b>2.2</b>	<b>DEAD MAN anchors couplings below natural ground</b>			
	<b>Exposure, categorisation and refurbishment of corrosion condition, extend anchor plate on DEAD MAN anchor links</b>			
<b>a</b>	Anchor plates should be extended above the natural ground level extending the existing anchor plate to a height of 1m – 1,5m above the natural ground level and encased in a 200mm PVC pipe filled with concrete.	Per Anchor		

<b>2.3</b>	<b>Exposure, categorisation and refurbishment of corrosion condition on INCLINE PILE anchors. Anchor concrete above natural ground level</b>			
<b>a</b>	Category 2 – 3 Links  Clean anchor plate; recoat link with zinc rich or elastomeric paint and bitumen; extend concrete pile to minimum of 150mm above natural ground level; scabbing of existing concrete and use wet / dry epoxy to bond old and new concrete	Per Anchor		
<b>b</b>	Category 4 – 5 Links  Remove signs of corrosion by sand blasting of anchor plate; ; recoat link with zinc rich and bitumen; extend concrete pile to minimum of 150mm above natural ground level; scabbing of existing concrete and use wet / dry epoxy to bond old and new concrete	Per Anchor		
<b>c</b>	Category 6	Per Anchor		
<b>d</b>	Category 7	Per Anchor		
<b>2.4</b>	<b>INCLINE PILE anchors couplings below natural ground</b>  <b>Exposure, categorisation of corrosion condition, extend anchor plate on INCLINE PILE anchor links and refurbishment</b>			
<b>a</b>	Anchor plates should be extended above the natural ground level extending the existing anchor plate to a height of 1m – 1,5m above the natural ground level and encased in a 200mm PVC pipe filled with concrete.	Per Anchor		
<b>SUBTOTAL</b>				
<b>FOUNDATION QUANTITIES</b>				

ITEM	DESCRIPTION	UNIT	RATE	AMOUNT
<b>SCHEDULE 3 : ADDITIONAL WORKS</b>				
3.1	Supply and install 100KN temporary anchor (refer to specification P1338-1865-5001, point 6.4.3)	Per Anchor		
3.2	Design of new foundation and anchor extensions for refurbishment as per specifications	Per Anchor		
3.3	Rate for access of Inaccessible towers (where vehicular access is impossible)	Per Tower		
3.4	<b>Quality Assurance</b>			
a	Open and expose concrete encased foundations Anchors for Quality Inspection.	Per Anchor		
	<b>Note:</b> Restoration of opened-up Anchors to be done as per specification and quantities to be claimed under Schedule 2.1 or 2.2 or 2.3			
<b>SUBTOTAL</b>				
<b>PROVISIONAL FOUNDATION QUANTITIES</b>				

# PART 3: SCOPE OF WORK

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## C3.1: EMPLOYER'S WORKS INFORMATION

### Contents

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## 1 Description of the works

### 2 Executive overview

The purpose of this scope of work is to set out the remedial measures needed to increase the life expectancy of guyed towers in Transmission Western Grid, and to minimize the risk of a possible tower and line failure. This will be done through the exposure, categorisation, restoration and treatment of the guy anchor links for various states of corrosion.

There are two types of foundations that were used on guyed-rope structures on this line: Inclined pile anchor foundations and Deadman anchor foundations.

The contractor must expose all the guy-anchor links that do not have adequate concrete protrusion out of the NGL. Once the type of the foundation has been determined, the detailed scope of work and restoration will be found in the following documents

Refer to Reports:

Title: **Guy anchor link restoration Specification – Western Grid**

Unique Identifier: **240-86978162**

Alternativer Reference Number: **LES-GP-176**

Title: **Guy anchor link restoration Scope of Work – Western Grid**

Unique Identifier: **240-98155775**

Alternativer Reference Number: **LES1651**

For severe corrosion on anchor links provision is made for the refurbishment thereof in the specification document **Bacchus / Palmiet / Muldersvlei 400kV network: Guy Anchor Link Restoration and Re-tensioning - ReferenceP1338-1865-5-001**

All activities that are performed by the contractor should be recorded and assist the engineer in evaluating the method statements prescribed by the contractor. The use of cameras to record the activities should be promoted during the Guy anchor restoration and contractors should price for such activities

The works covered in this contract comprises of the assessment, labelling, categorising, design and execution of refurbishment works on towers that have guyed-anchor links. The works will be issued in the form of Taskorders on an as and when required basis.

A summary of the works to be performed by the Contractor are the following:

- The Contractor shall provide a design, method statement and safe work procedure for the identified tower link.
- The Contractor shall have the design, method statement and safe work procedures signed off by a Professional Engineer/Technologist registered with the Engineering Council of South Africa.
- The design, method statement and safe work procedure must then be approved by Eskom Technology Line Engineering Services (LES) department before any works can begin. **It is the accountability of the Contractor to ensure that the design and safe work procedures are submitted to LES for approval.**
- An approved copy of the design will be given to the Eskom Representative and Project Manager for record keeping purposes.
- After approval is obtained from LES the tower guyed-anchor link will be labelled and photographed as described in the Scope of Works doc LES1651. Work will commence once a Taskorder and Purchase Order is issued to the contractor.
- The **Holding Point** for the works, an Eskom representative must be present before work can continue, will be:
  - after the link is sandblasted/wirebrushed but before paint application
  - after paint application and before and during concrete casting.
- If the **Holding Point** is bypassed then the strict quality assurance process (<1% defects error accepted) will be followed as described in the below section of the Detailed Scope of Works.

## 3 Employer's objectives and purpose of the works

Refer to Reports:

Title: **Guy anchor link restoration Specification – Western Grid**

Unique Identifier: **240-86978162**

Alternativer Reference Number: **LES-GP-176**

Title: **Guy anchor link restoration Scope of Work – Western Grid**

Unique Identifier: **240-98155775**

Alternativer Reference Number: **LES1651**

For severe corrosion on anchor links provision is made for the refurbishment thereof in the specification document **Bacchus / Palmiet / Muldersvlei 400kV network: Guy Anchor Link Restoration and Retensioning - ReferenceP1338-1865-5-001**

- The Contractor will receive a list of the towers where the work is to be performed from the Eskom Representative.
- The Contractor will do a site visit prior to any works on towers on a line to determine which design will be implemented.
- After the site inspection the Contractor will then issue a quote as per Price List for each link that needs replacement/refurbishment per tower to the Eskom representative.
- The Eskom representative will then request a Purchase Order Number from the Project Manager for issue.
- **Only when the Purchase Order is issued to the contractor will the work on the design, method statement and safe work procedure begin.**
- On receiving of the Purchase Order the Contractor will then submit a design, method statement and safe work procedure to LES for approval. If additional documentation or inspections or other requirements are needed by LES to approve the works then the Contractor will comply with the requests.
- After the design, method statement and safe work procedures are approved, the Contractor will submit a revised quote, if applicable. The revised quote must be approved by the Project Manager.
- The Project Manager will then issue a Taskorder for the *Works* based on the revised quote which the Contractor must sign.
- **Work on the tower/s can only begin once a Taskorder is issued, the design, method statement and safe work procedures are signed off by the Contractor, LES and the Eskom Representative.**
- Landowners shall be consulted before entering private property even though the site might be within the borders of the Eskom servitude. A landowner consent form will be given to the Contractor for the Landowner and Eskom Representative to sign. **Work cannot begin unless the landowner consent form is signed by all stakeholders.**
- The Contractor shall take full responsibility for storage of material, and acquire necessary permission from landowners/stakeholders where required.
- Any damage to Eskom's assets or the landowner's equipment and property is for the Contractor's account.
- Before the next Taskorder is issued, all defects, damages, rehabilitation works etc from the previous Taskorder must be addressed first. If these are not addressed timeously then Delay Damages as per contract will be effected.
- Excavations are for the contractors risk and the Contractor shall be fully aware of the soil conditions prior to refurbishing any foundation. Should any excavations be done prior to the start of construction

all reasonable steps will be undertaken to ensure no dangerous situations exist (as required by the Constructions Regulations).

- The Contractor shall confirm material availability before any work commences.
- An Eskom Representative will be on site on the day of construction or as soon as possible thereafter to check the quality of work and record work done.
- All work (including preparatory work) will be done under the supervision of a Responsible Person in terms of the Eskom ORHVS and a competent person as required by the OHSACT Construction Regulations.
- The Contractor is to supply its employees with all relevant PPE, inspect them as and when required as well as offer replacements when needed.
- All work will be completed under live conditions unless otherwise indicated, such as in the approved safe work procedure and/or method statement.
- No machinery shall encroach any safe working electrical clearances.
- The refurbished link shall be connected to the existing guyed-anchor.
- The refurbished link shall be done in accordance with the Specification and Scope of Work documents.
- The corroded portions of the old links shall be removed once the structure is secured to the new foundations.
- All waste material must be removed, loaded, transported and disposed of by the Contractor according to Eskom Environmental specifications and will be for the Contractor's account.
- A report shall be written by the Contractor stating the line that was worked on, the tower number(s) and what design was used to complete the repair. Photos shall be taken before and after the job was completed showing the refurbished link attached to the existing guyed-anchor and the concrete foundation/plinth (if design allowed for it) – see **Information Sheet** below for minimum information requirements.
- The Eskom Representative will ensure that the Contractor receives a Handover certificate stating the amount of towers that was repaired on a specific line and signed off upon completion; it will be signed by the Contractor, Eskom representative and Contracts Manager. Eskom quality standards shall apply.
- The **Holding Point** for the works (an Eskom representative must be present before work can continue) will be after the link is sandblasted/wirebrushed but before paint application and concrete casting. This is so that the Eskom representative can satisfy him/herself that the proper quality preparation work was done (all corrosion removed) before the link is painted and/or encased in concrete.
  - If the Holding Point is bypassed (where an Eskom representative is NOT available for the Holding Point inspection) then the strict quality assurance process will be followed
  - Quality Assurance Process:
    - **The Eskom Representative or Project Manager may request the contractor to break open refurbished concreted links to expose the links to inspect for quality. If no defect is found then the contractor will be compensated for the opening of the refurbished link.**
    - **However if defects are found then all the works to re-open the refurbished link and the restoration thereof will be for the Contractor's account with NO compensation.**
    - **A quality inspection of <1% defects error will be accepted, which means that if 100 links are refurbished and 1 link is found defective then all 100 tower links will be opened for inspection and restored at the contractor's cost.**

▪ **It is therefore recommended that the Holding Point is not bypassed**

- The Contractor shall comply with Eskom, National, Provincial and Local Council Environmental policies and legislation.
- The Contractor shall take note of any environmental issues that may be pointed out additionally by either the landowner or Eskom.
- The relevant safety procedures must be followed regarding staff/personnel, animals and environment.
- The Contractor shall clear and make good (rehabilitate) the total site on completion of the works which will include roads and tracks made. No metal or foreign objects must be left on site after completion of the works.
- The Contractor must not damage the surrounding environment and vegetation and rehabilitation will be for the Contractor's account.

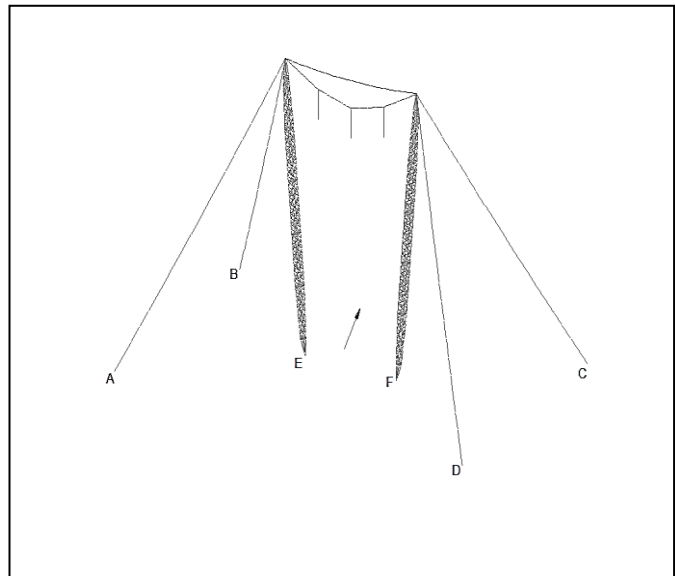
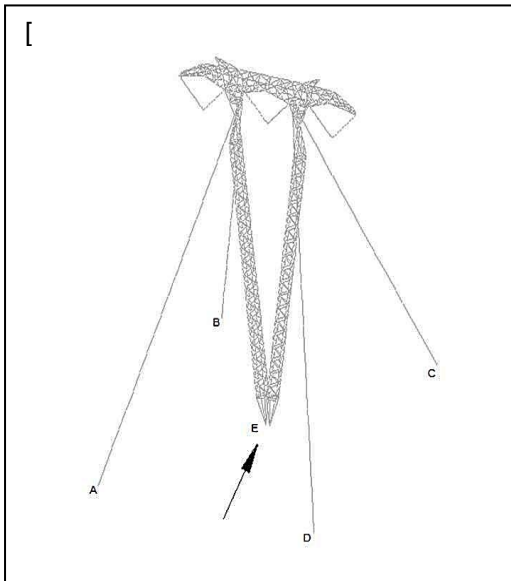
1. All welding and welding symbols shall conform to SANS 10044 part 1 to 5.
2. All structural use of steel to conform to SANS 10162.
3. All steel to be grade S355JR/350WA (Except angles  $\leq 45\text{mm}$  to be mild steel).
4. All welds to be sealed welded.
5. Steelwork to be Hot Dipped galvanised to SANS 121.
6. Steelwork to be checked and straightened after galvanising.
7. Bolts, nuts and washers to be in accordance with SANS 1700.
8. All markings to be stamped onto steelwork and shall be clearly legible after galvanising.

Line labelling will be done as follows on the Information Sheet (see next page):

- Powerstation to Powerstation - alphabetically, eg Acacia-Koeberg No1 400kV Line
- Powerstation to Substation – Powerstation name first, eg Palmiet-Bacchus No1 400kV Line
- Substation to Substation – alphabetical, eg Muldersvlei-Stikland No1 400kV Line

Labelling of each tower link on the Information Sheet will be as per picture below and with ones back facing the first name of the line for eg, Acacia-Koeberg No1 400kV line, ones back must be facing Acacia. For Palmiet-Bacchus No1 400kV Line, ones back must be facing Palmiet. **A demonstration to clarify will be done on Day 1 of the Project.**

Figure 1: Labelling Tower Guyed-Anchor Links



- Tower number increases in the direction of the arrow.
- ABCD is labeled in clockwise direction starting from the left
- Source is on the side of the decreasing tower number
- Load is on the side of the increasing tower number

## Information Sheet

TOWER LINK ASSESSMENT OF GUYED ANCHOR TOWERS					
Assessment Date			Site Leader Name		
Line Name					
TOWER DETAILS					
Tower #			Tower Series		
Circuit Type	Tower Type		Foundation Type		Soil Type
Single		Strain		Concrete	Rock
Double		Suspension		Grillage	Clay
				Other	Hard
					Soft
GUYED-ANCHOR DETAILS					
Link A			Link B		
Holding Point sign-off Eskom Representative			Holding Point sign-off Eskom Representative		
Corrosion Category			Corrosion Category		
Link C			Link D		
Holding Point sign-off Eskom Representative			Holding Point sign-off Eskom Representative		
Corrosion Category			Corrosion Category		

Pictures of work done indicating each tower and labelling of each link are to be taken as follows:

- 1) Picture of the tower label
- 2) **Picture of each link in the order of A, B, C and D:**
- 3) In the case of soil covered links
  - a. Pic before removal of soil
  - b. Pic after removal of soil
  - c. Where applicable, pic of retaining wall
- 4) Link and cap interface so as to indicate the corrosion category
- 5) After cap break up
- 6) After sandblasting or wirebrush clean-up of link
- 7) Applied primer
- 8) 2 coats 99% zinc rich paint
- 9) Splicing or replacement of link (where applicable)
- 10) After link refurbishment/restoration – link encased in concrete
- 11) Site rehabilitated

**A demonstration to clarify will be done on Day 1 of the Project.**

## 4 Interpretation and terminology

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation
EMP	Environmental Management Plan
L&S	Lines and Servitudes Department, West Grid
LES	Line Engineering Services

## 5 Management and start up.

### 6 Management meetings

Regular meetings of a general nature may be convened and chaired by the *Project Manager* as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
<b>Inaugural meeting.</b> To ensure that all Eskom Standards and Procedures are met such as Safety and Environmental requirements. A detailed work program with all the relevant Completion or Sectional Completion dates will be discussed and approved between Eskom and the Contractor at the Inaugural Meeting. An inaugural meeting will be arranged in agreement with all affected parties. All <b>Material Safety Data Sheets</b> for all the chemicals used on site shall be provided by the Contractor and accepted by Eskom.	Within 1 week after contract awarded.	Eskom Bellville building	Project Manager, L&S Manager, Safety and Risk Manager, Environmental Advisor, LES Representative, Contractor and/or his delegates
<b>Meeting 1.</b> To close off all outstanding issues identified from the Inaugural meeting.	Within 3 weeks after contract awarded.	Eskom Bellville building	Project Manager, L&S Manager, Safety and Risk Manager, Environmental Advisor, LES Representative, Contractor and/or his delegates
Risk register and compensation events	Monthly, in the last week of the month.	Eskom Bellville building	Project Manager, Site Supervisor and Contractor and/or his delegates
Overall contract progress and feedback	Monthly, in the last week of the month.	Eskom Bellville building	Project Manager, Safety and Risk Manager, Environmental Advisor, LES Representative, Site Supervisor, Contractor and/or his delegates
SHEQ meetings to ensure compliance to Monthly reporting requirements	Monthly, in the last week of the month.	Eskom Bellville building	
Meetings of a specialist nature may be convened by the Contractor, Project Manager or Eskom Representative at times and locations to suit the all Parties. Records of these meetings shall be submitted to the	As and when required	TBA	Related stakeholders



<i>Project Manager</i> by the person convening the meeting within five days of the meeting.			
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Meetings of a specialist nature may be convened as specified elsewhere in this Works Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the works. Records of these meetings shall be submitted to the *Project 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.

## 7 Documentation control

The use of standard NEC forms, letters, templates must be used when issuing official communication

## 8 Health and safety risk management

The *Contractor* maintains an active accident prevention programme, and appoints a Responsible Person as required by the Occupational Health and Safety Act. The *Contractor* complies with the Construction Regulations specified under this act. The *Contractor* holds safety meetings as required by the Occupational Health and Safety Act and submits minutes to the *Project Manager* within seven days of such meetings.

The Contractor is to submit a risk assessment of procedures followed during all stages of construction. This is to be submitted to the Employer for assessment prior to construction. NO WORK SHALL PROCEED UNTIL THE EMPLOYER HAS REVIEWED AND ACCEPTED THE SAFETY PLAN.

Tenderers are reminded that the works run underneath live conductors and that safe clearance must always apply. Allowance has been made in the *bill of quantities* to cost a Health and Safety Plan for the project, as no additional costs will be considered.

The *Contractor* shall comply with the health and safety requirements contained in the SHE Specification document.

The Western Grid Safety and Risk Advisor:  
 Brandon Cupido  
 Eskom Bellville Building, 2<sup>nd</sup> Floor, 60 Voortrekker Road, Bellville  
 Tel: 021 915-9240  
 Fax: 021 915-9264  
 Cell: 082 555 4409

## 9 Environmental constraints and management

- The Contractor shall receive an Environmental Management Programme which the Contractor must manage and implement during the scope of works.
- Contractor to provide temporary toilet facilities during construction.
- The Contractor shall have an understanding of Eskom's basic environmental principles and commitments.
- *Contractor* will be legally liable for any contraventions of Environmental Laws and claims arising from the activities of the *Contractor* shall be for the *Contractors* expense.
- The *Contractor* shall be responsible for all expenses incurred to ensure adherence to the Eskom Environmental requirements as stipulated in the Environmental documentation, EMP and method statements as stipulated above which includes but is not restricted to Environmental Law training courses, Hazardous Substance Management training courses, etc.
- The *Contractor* shall be responsible for all expenses incurred to ensure adherence to National Environmental legislation, Environmental Management Plans, licenses and permits.

- All temporary offices, storage and laydown areas to be adequately demarcated to ensure the safety of people and animals.
- The *Contractor* shall ensure all employees are trained in accordance with the Eskom training requirements as per document 240-83895653 Environmental Training, Awareness and Competence.
- In compliance to Eskom's SHEQ Policy (32-727), the Contractor to ensure;
  - Commitment to safety, health and environmental excellence
  - Conduct business with respect and care for people and minimise or avoid impact on the environment
  - Compliance to environmental legislation, conditions of Environmental Authorisations and requirements set out in environmental management plans
  - Acceptance that all injuries and occupational illnesses, as well as safety and environmental incidents are preventable
  - Report, respond to, investigate, close-out, and share learning from safety and environmental incidents
  - That SHEQ is an integral part of your operations and that:
  - no operating condition, or urgency of service, can justify endangering the life of anyone or cause injury or damage to the environment
  - The Contractor shall receive an Environmental Management Plan (EMP) and the Contractor must implement and manage the document – the Contractor must then use the EMP to develop his own site specific EMP.
- Eskom may, at any stage during the currency of this agreement, be entitled to;
  - do environmental audits at the *Contractor's* premises, its work-places and on its employees;
  - refuse any employee, sub-contractor or agent of the *Contractor* access to its premises if such person has been found to commit any unlawful act or any unsafe working practice or is found to be not authorized or qualified in terms of Environmental legislation or Eskom requirements;
  - issue the *Contractor* with a work stop order or a non-compliance should Eskom become aware of any non-compliance to working procedures or conditions with Environmental legislation and requirements.
  - No extension of time will be allowed as a result of any action taken by Eskom in terms of the above and the *Contractor shall* have no claim against Eskom as a result thereof. Furthermore, no amendments to the Act or the Regulations or reasonable amendment to Eskom's Safety and Operating Procedures will entitle the *Contractor* to claim any additional costs incurred in complying therewith from Eskom.
- The Contractor shall appoint a permanent site Environmental Officer from within the site team that will fulfil requirements as stipulated in 240-83791543. The Contractor site Environmental Officer shall be trained as per 240-83791543 and have an alternate in case he/she is off site.

The Western Grid Environmental Advisor:

Adrian Francis

Eskom Bellville Building, 2<sup>nd</sup> Floor, 60 Voortrekker Road, Bellville

Tel: 021 915-9279

Fax to e-mail: 08666 40 872

Cell: 084 250 2225

## 10 Quality assurance requirements

The *Contractor* implements a quality assurance system in order to ensure compliance with the specifications. In this regard the *Supervisor* may instruct the *Contractor* to perform quality inspections prior to his own inspections, or to assist in inspections.

The *Contractor* complies in full with the requirements of the supporting specifications to this document.

Should the services of Line Engineering Service (LES) be used in a site supervision capacity, a Quality Assurance document will be compiled for each link on each tower where work are to be executed. This document will become part of the as-build documentation of the project.

- The **Holding Point** for the works (an Eskom representative must be present before work can continue) will be after the link is sandblasted/wirebrushed but before paint application and concrete casting. This

is so that the Eskom representative can satisfy him/herself that the proper quality preparation work was done (all corrosion removed) before the link is painted and/or encased in concrete.

- If the Holding Point is bypassed (where an Eskom representative is NOT available for the Holding Point inspection) then the strict quality assurance process will be followed
- Quality Assurance Process:
  - **The Eskom Representative or Project Manager may request the contractor to break open refurbished concrete links to expose refurbished links to inspect for quality. If no defect is found then the contractor will be compensated for the opening of the refurbished link and cap and for the restoration of the link and cap.**
  - **However if defects are found then all the works to re-open the refurbished link and cap and the restoration thereof will be for the Contractor's account with NO compensation.**
  - **A quality inspection of <1% defects error will be accepted, which means that if 100 links are refurbished and 1 link is found defective then all 100 tower links will be opened for inspection and restored at the contractor's cost.**
  - **It is therefore recommended that the Holding Point is not bypassed**

## 11 Programming constraints

Contractor must indicate how soon he can be on site after receiving an official Taskorder.

Supervision of work will be by done by an Eskom Representative from Lines and Servitudes or a delegate. The various steps in the Programme must be approved by the Eskom Representative before the next step is to be followed.

- The successful tenderer shall submit a detailed construction programme to the Project Manager for acceptance within two (2) weeks of the starting date. The programme is to conform strictly to the requirements of Conditions of the Contract.
- The Contractor provides a Forecast Rate of Payment with his tender, which accurately reflects the construction processes of the programme.
- The Contractor revises the programme as required in accordance with Conditions of Contract. Each time the programme is revised, the Contractor is to submit a revised Forecast Rate of Payment.

## Production Rates

The Contractor's programme is to make allowance for adverse weather in accordance with the contract. Weather data is available from the South African Weather Bureau.

The Contractor is to ensure that sufficient resources are allocated to meet the completion dates. Tenders will be evaluated with specific attention to the latter.

## Completion

- The Contractor advises the Eskom Representative as sections of the line become available for final inspection, and provides assistance if required.
- By the Completion Date in the Contract Data, the Contractor shall complete all work. All other work (rehabilitation of damaged site, road, etc, installation of retaining walls where required, groundwork, removal of temporary works, removal of construction camps, batching plants etc.) shall be completed within 2 months of take over and shall be approved by the Eskom Representative prior to the release of any retention moneys held against this contract.
- The Contractor maintains the works until the defects date and if no defects are found only then will retention money's be released.
- Notwithstanding the specifications quoted in this document, the requirements of the product for the refurbishment work shall be an accepted product of the Lines and Servitude Department – Western Grid.

## 12 Contractor's management, supervision and key people

To be finalised on contract award stage.

## 13 Invoicing and payment

The Contractor shall address the tax invoice to:

Eskom Holdings SOC Ltd  
*The Project Manager: Mr AF Baloka; and*

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

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

- Name and address of the *Contractor*
- The contract number and title;
- The Purchase Order Number
- The Taskorder Number
- *Contractor's* VAT registration number;
- The *Employer's* VAT registration number 4740101508;
- The total Price for Work Done to Date which the *Contractor* has completed;
- Other amounts to be paid to the *Contractor*;
- Less amounts to be paid by or retained from the *Contractor*;
- The change in the amount due since the previous payment being the invoiced amount - excluding VAT, the VAT and including VAT;
- (add other as required)

The *Contractor* attaches the detail assessment of the amount due to each tax invoice showing the Price for Work Done to Date for each item in the Bill of Quantities for work which he was completed.

- Invoices must be signed by the Eskom Representative and Project Manager
- The Eskom Representative requires 2 weeks' notice to respond to the invoice.
- **No invoices will be accepted that differ from the Taskorder values.**

Original Invoices are to be submitted to the Project Manager personally by hand or by courier to Eskom Bellville Building, 2<sup>nd</sup> Floor, 60 Voortrekker Road, Bellville.

The Contractor may apply for payment of work done, in the format of the Bill of Quantities, by the first day of each month after the work is completed.

The Eskom Representative shall submit to the Project Manager a schedule of completed work done on the last week day of every month. The Project Manager will determine the value of work done in accordance with the Taskorder.

Payment for the refurbishment of links will be due upon completion of all the works as stated in the Taskorder

Preliminaries & General Claims: In proportion to work completed.

## **14 Insurance provided by the *Employer***

Insurance related queries may be addressed with the Project Manager.

## **15 Contract change management**

Instructions for additional work and changes to the original scope of work will only be valid if given in writing by the Project Manager to the Contractor. On-site changes made on instruction from the Supervisor or anybody else without reference to the Project Manager will be for the account of the Contractor.

## **16 Provision of bonds and guarantees**

The form in which a bond or guarantee required by the *conditions of contract* (if any) is to be provided by the *Contractor* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.

The *Employer* may withhold payment of amounts due to the *Contractor* until the bond or guarantee required in terms of this contract has been received and accepted by the person notified to the *Contractor* by the

*Project Manager* to receive and accept such bond or guarantee. Such withholding of payment due to the *Contractor* does not affect the *Employer's* right to termination stated in this contract.

### **17 Records of Defined Cost, payments & assessments of compensation events to be kept by the *Contractor***

The Contractor is expected to keep Production Sheets for inspection and auditing purposes.

### **18 Training workshops and technology transfer**

The Employer will provide training in the assessment of corrosion conditions, and the categorisation of restoration methods.

## 19 Engineering and the *Contractor's* design

### 20 *Employer's* design

The Employer is not expected to compile detailed designs. The designs will be for the Contractor to compile and submit to the Employer i.e. LES for approval – LES will therefore only review and approve detailed designs.

If detailed designs are to be compiled on behalf of the Contractor by the Employer / LES then the Contractor will be invoiced according to Eskom's contractual labour rates, however the responsibility for the timeous submission of approved designs will still remain the accountability of the Contractor and delay damages will still be applicable for late work completion – it is therefore recommended that the Contractor always employs he's own Designer.

### 21 Parts of the *works* which the *Contractor* is to design

The Contractor is expected to submit designs for:

- Link corrosion Categories 1, 2, 3, 4, 5, 6, 7
- Damaged concrete caps and plinths
- Soil Treatment as per SOW doc

If one design can be used for multiple refurbishment jobs then only one designed must be billed for those jobs.

### 22 Procedure for submission and acceptance of *Contractor's* design

In Summary

- All designs submitted by the contractor must be approved by LES (Line Engineering Services) before any work can begin.
- It is the responsibility of the contractor to ensure that the designs are submitted to LES.
- The design must include safe work procedures and method statements.
- An approved copy of the design will be given to the Eskom Representative and Project Manager for record keeping purposes.

Detailed Process

- The Contractor will receive a list of the towers where the work is to be performed from the Eskom Representative.
- The Contractor will provide a quote according to the Price List for inspection of the site, whereby which the Project manager will issue a Taskorder and Purchase Order for the site inspection.
- The Contractor will do a site visit prior to any works on towers on a line to determine which design will be implemented.
- After the site inspection the Contractor will then issue a quote as per Price List for each link that needs replacement/refurbishment per tower to the Eskom representative.
- The Eskom representative will then request a Purchase Order Number from the Project Manager for issue.
- **Only when the Purchase Order is issued to the contractor will the work on the design, method statement and safe work procedure begin.**
- On receiving of the Purchase Order the Contractor will then submit a design, method statement and safe work procedure to LES for review and/or approval. If additional documentation or inspections or other requirements are needed by LES to approve the works then the Contractor will comply with the requests.
- After the design, method statement and safe work procedures are approved, the Contractor will submit a quote for the execution of the Works.
- The Project Manager will then issue a Taskorder for the *Works* based on the quote which the Contractor must sign.
- **Work on the tower/s can only begin once a Taskorder and Purchase Order are issued, the design, method statement and safe work procedures are signed off by the Contractor, LES and the Eskom Representative.**

LES Contact Person:

Molefe Moroke

Tel: +27 67 024 0420

Email: molefe@lyon.co.za

### **23 Other requirements of the *Contractor's* design**

As requested by LES

### **24 Use of *Contractor's* design**

Refer to core clause 22.1

### **25 Design of Equipment**

Refer to clause 23.1

### **26 Equipment required to be included in the *works***

Most equipment is catered for in the Bill of Quantities however if specialised equipment is required that is not part of the Bill of Quantities then a rate may be quoted by the Contractor, which must be according to market related rates and approved by an Eskom Quantity Surveyor (Seelane Motsomi)

## 27 As-built drawings, operating manuals and maintenance schedules

The below Information Sheet and required photographs must be submitted per tower refurbished and must accompanied with the invoice. **This information is mandatory before Invoice Payment is made.**

TOWER LINK ASSESSMENT OF GUYED ANCHOR TOWERS					
Assessment Date			Site Leader Name		
Line Name					
TOWER DETAILS					
Tower #			Tower Series		
Circuit Type	Tower Type		Foundation Type		Soil Type
Single		Strain		Concrete	Rock
Double		Suspension		Grillage	Clay
				Other	Hard
					Soft
GUYED-ANCHOR DETAILS					
Link A			Link B		
Holding Point sign-off Eskom Representative			Holding Point sign-off Eskom Representative		
Corrosion Category			Corrosion Category		
Link C			Link D		
Holding Point sign-off Eskom Representative			Holding Point sign-off Eskom Representative		
Corrosion Category			Corrosion Category		

Pictures of work done indicating each tower and labelling of each link are to be taken as follows:

- 1) Picture of the tower label
- 2) **Picture of each link in the order of A, B, C and D:**
- 3) In the case of soil covered links
  - a. Pic before removal of soil
  - b. Pic after removal of soil
  - c. Where applicable, pic of retaining wall
- 4) Link and cap interface so as to indicate the corrosion category
- 5) After cap break up
- 6) After sandblasting or wirebrush clean-up of link
- 7) Applied primer
- 8) 2 coats 99% zinc rich paint
- 9) Splicing or replacement of link (where applicable)
- 10) After link refurbishment/restoration – link encased in concrete
- 11) Site rehabilitated

**A demonstration to clarify will be done on Day 1 of the Project.**



## **28 Procurement**

## **29 People**

### **30 Minimum requirements of people employed on the Site**

In accordance with Eskom's policies.

### **31 BBBEE and preferencing scheme**

In accordance with Eskom's policies.

### **32 Accelerated Shared Growth Initiative – South Africa (ASGI-SA)**

The *Contractor* complies with and fulfils the *Contractor's* obligations in respect of the Accelerated and Shared Growth Initiative - South Africa in accordance with and as provided for in the *Contractor's* ASGI-SA Compliance Schedule. Details of the schedule will be clarified during tender clarification by Supplier Development and Localisation (SD&L)

The *Contractor* shall keep accurate records and provide the *Employer* with reports on the *Contractor's* actual delivery against the above stated ASGI-SA criteria. The records will be kept as hardcopy and on file for inspection. Monthly reporting on compliance to the criteria is expected in the last week of every month until contract completion.

The *Contractor's* failure to comply with his ASGI-SA obligations constitutes substantial failure on the part of the *Contractor* to comply with his obligations under this contract.

## **33 Subcontracting -Not applicable**

### **34 Preferred subcontractors**

Approved coating suppliers as per Eskom document doc 240-100029246

### **35 Subcontract documentation, and assessment of subcontract tenders**

The Contractor may only subcontract work strictly in accordance with Conditions of Contract.

Details of all Subcontractors and Suppliers to be employed are submitted with the Tender.

The Contractor imposes the relevant quality assurance requirements on his Subcontractors and Suppliers.

### **36 Limitations on subcontracting**

The design of the Works may be subcontracted for. The remainder of the Works must be In accordance with Eskom's policies.

## **37 Plant and Materials**

### **38 Quality**

- See also SANS 1200A, sub-paragraph 3.1
- All welding and welding symbols shall conform to SANS 10044 part 1 to 5.
- All structural use of steel to conform to SANS 10162.
- All steel to be grade S355JR/350WA (Except angles  $\leq 45\text{mm}$  to be mild steel).
- All welds to be sealed welded.
- Steelwork to be Hot Dipped galvanised to SANS 121.
- Steelwork to be checked and straightened after galvanising.
- Bolts, nuts and washers to be in accordance with SANS 1700.
- All markings to be stamped onto steelwork and shall be clearly legible after galvanising.

### **39 Plant & Materials provided "free issue" by the Employer**

Contractor to provide all material.

#### **40 Contractor's procurement of Plant and Materials**

Materials procured must meet SABS and SANS quality standards and tracing and auditing proof must be provided.

#### **41 Spares and consumables**

Contractor to provide the required spares and consumables for the Works.

#### **42 Tests and inspections before delivery**

Refer to Quality Assurance inspections and Holding Points mentioned above.

#### **43 Marking Plant and Materials outside the Working Areas**

Steel will be marked/labelled as per Eskom policies/standards.

#### **44 Contractor's Equipment (including temporary works).**

All works will be billed as per Taskorder and approved by the Project Manager

#### **45 Cataloguing requirements by the Contractor**

When quoting and invoicing, the contractor should always reference the NEC Price List, Taskorder and Purchase Order taking note of the Catalogue numbers.

## 46 Construction

### 47 Temporary works, Site services & construction constraints

#### 48 *Employer's* Site entry and security control, permits, and Site regulations

Landowners shall be consulted before entering private property even though the site might be within the borders of the Eskom servitude. A landowner consent form will be given to the Contractor for the Landowner and Eskom Representative to sign. **Work cannot begin unless the landowner consent form is signed by all stakeholders.**

Guyed-anchor links requiring work are also contained in the Koeberg Nature Reserve and compliance with Koeberg's restricted access need to be taken into account when tendering.

#### 49 Restrictions to access on Site, roads, walkways and barricades

Refer to the above mentioned Environmental requirements and compliance to the relevant EMPs

Since the Works are not regarded as major construction works, significant damage to existing access roads are not envisaged. However, to limit construction damage, the following limitations will apply during construction:

- No large construction vehicles (exceeding 5 tons) will be allowed to operate in wet conditions, or where access roads show significant signs of distress. No concrete delivery trucks with a load capacity of more than 2m<sup>3</sup> will be allowed to operate on the site. In general, the use of LDV's to execute works should be sufficient, and is encouraged. Mixing of concrete with the correct MPa strength will be done on site by means of a wheelbarrow mixing process
- The Contractor shall photograph or video the condition of privately owned access roads, with particular attention to roads in sensitive areas, or roads showing signs of distress. These records are to be kept to assist in the prevention of frivolous claims from landowners.

Access will not necessarily be continuous along the servitude.

Existing servitude gates are to be used at all times. Gates requiring repair or replacement may be addressed as compensation events. Repair or replacement of servitude gates will be as required by the *Supervisor* where needed and will be upon instruction by the project manager. This will be handled as a compensation event.

#### 50 People restrictions on Site; hours of work, conduct and records

Hours of work are between 08:00 and 16:30 and excludes weekend work and public holidays, however in the event of an emergency declared by the Project Manager then working times will be re-negotiated.

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

#### 51 Health and safety facilities on Site

A site for the Contractor's yard will be discussed and agreed upon between the Contractor, landowner and Eskom representative. The purpose of the site will be for storage, mixing of materials, areas for storing tools, machinery and apparatus. The Contractor shall not occupy any site area other than that allocated to him. The Contractor shall do their own negotiations for the erection of any construction camp(s) and accommodation for his personnel required to provide the works, and ensure compliance with all by-laws and requirements of the relevant authorities.

The Contractor provides the necessary services - water, electricity, sewerage, toilet facilities etc. The Contractor arranges for a communication network, including telephones, to suit his needs. Note must be taken that cell phone reception is not available on certain sections along the lines. Water will have to be transported to site where various construction teams are utilised. Water is not available along the line route.

**NOTE: The Western Grid is experiencing a drought so the Contractor should take all measures of saving water and complying with laws governing the use and supply of water. The supply and use of water will be for the Contractor's account.**

The Contractor removes all evidence of construction camp(s) on completion, and rehabilitates the area to the satisfaction of the landowner and the Supervisor.

The Contractor shall provide sanitary amenities, first aid and fire fighting facilities as required by the Occupational Health and Safety Act.

The Contractor supplies all plant and materials required for completing the works.

The Contractor shall provide all connections, extensions and additional supply points necessary for the works. Any measures which the Contractor may require to maintain continuity and quality of supply shall be arranged by him at his own expense.

## **52 Title to materials from demolition and excavation**

Refer to NEC clause 70.2.

All materials that are to be removed from site must be approved by the Landowner and Eskom Representative.

## **53 Cooperating with and obtaining acceptance of Others**

Refer to Access to Farms document and above mentioned Landowner consent form that requires compliance to.

## **54 Publicity and progress photographs**

Photographs to be taken as detailed in the Works Information

## **55 Contractor's Equipment**

The Contractor is responsible for his own insurance of his equipment. The Contractor to take stock of his material and equipment on a regular basis and any shortage to be reported to the Project Manager immediately.

## **56 Equipment provided by the Employer**

None. All equipment to be provided the Contractor.

## **57 Site services and facilities**

As mentioned in 5.1.4

## **58 Facilities provided by the Contractor**

As mentioned in 5.1.4

## **59 Survey control and setting out of the works**

Landowner and Eskom Representative approval will be required prior to surveying.

## **60 Excavations and associated water control**

As per approved designs, safe work procedures and method statements.

## **61 Underground services, other existing services, cable and pipe trenches and covers**

Underground in the servitudes may be obtained from Eskom Transmission Lands and Right department. Damage to underground and other services will be for the Contractor's account.

## 62 Control of noise, dust, water and waste

As per approved Landowner consent form

## 63 Sequences of construction or installation

Construction sequence will be as according to approved Taskorder.

## 64 Giving notice of work to be covered up

The Supervisor can be contacted telephonically or via email.

## 65 Completion, testing, commissioning and correction of Defects

### 66 Work to be done by the Completion Date

On or before the Completion Date the *Contractor* shall have done everything required to Provide the Works except for the work listed below which may be done after the Completion Date but in any case before the dates stated. The *Project Manager* cannot certify Completion until all the work except that listed below has been done and is also free of Defects which would have, in his opinion, prevented the *Employer* from using the *works* and Others from doing their work.

	Item of work	To be completed by
	As built drawings of the towers worked on	Within 14 days after Completion
	Performance testing of the <i>works</i> in use as specified in this Works Information.	See performance testing requirements.

### 67 Use of the *works* before Completion has been certified

Clause 35.2 in ECC3 provides that the *Employer* may use any part of the *works* before Completion has been certified but if he does so he takes over the part of the *works* except if the use is for a reason stated in the Works Information. State the reason here if this applies.

The towers to be worked will be mainly refurbished under live conditions (no outages required) so the mechanical integrity of the tower should never be compromised because the works will always be con

### 68 Materials facilities and samples for tests and inspections

Concrete MPA tests will be required for 7, 14 and 28 day curing periods. The contractor will cast 3 concrete cubes of about 150mm x 150mm thick and perform crusher tests in the presence of an Eskom Representative. The mixing ratio document must also be kept on file.

### 69 Take over procedures

The contractor will provide assistance to Eskom during the take over.

### 70 Performance tests after Completion

Poor performance is when the Contractor exceeds the completion dates as stipulated on the Taskorder – completion dates are a negotiation between the Project Manager and the Contractor. The Contractor should ensure that all completed works are inspected and tested according to the design documents and according to the requirements as stipulated in 5.2.3 above. These should all be done prior to final inspection with the Project Manager / Employer's Representative.

## **71 Training and technology transfer**

As per Eskom's policies, especially SD&L requirements.

**72 Plant and Materials standards and workmanship**

Refer to point 1.2 above.

**73 List of drawings****74 Drawings issued by the *Employer***

In the case where designs are required by the Contractor, applicable Drawings of each tower to be worked on will be submitted to the Contractor before the works begin.

## C3.2 ***CONTRACTOR'S WORKS INFORMATION***

This section of the Works Information will always be contract specific depending on the nature of the *works*.

It is most likely to be required for design and construct contracts where the tendering contractor will have proposed specifications and schedules for items of Plant and Materials and workmanship, which once accepted by the *Employer* prior to award of contract now become obligations of the *Contractor* per core clause 20.1.

Typical sub headings could be

- a) *Contractor's* design
- b) Plant and Materials specifications and schedules
- c) Other

This section could also be compiled as a separate file.

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PART 4: SITE INFORMATION

Document reference	Title	No of pages
C4	This cover page	1
	Site Information	2
	Total number of pages	3

## PART 4: SITE INFORMATION

Core clause 11.2(16) states

“Site Information is information which

- describes the Site and its surroundings and
- is in the documents which the Contract Data states it is in.”

In Contract Data, reference has been made to this Part 4 of the contract for the location of Site Information.

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### General description

Due to the nature of the Works being on an as-and-when-required basis the exact locations cannot be stipulated however the Works will be within the Western Grid which covers the geographical area of the Western Cape and Northern Cape provinces.

The Works will be in the Western Grid Lines and Servitudes areas:

**CAPE PENINSULA – estimated 5% of work**

- Greater Cape Town, including Athlone Industria, Somerset West, Paarl up the west coast to Koeberg and Atlantis.

**WEST COAST – estimated 5% of work**

- From Atlantis to Vredenburg, Vanrhynsdorp and in land to Calvinia and Loeriesfontein – about 10% of the work in these areas

**SOUTHERN CAPE – estimated 30% of work**

- From Somerset West to Botrivier, Worcester, Caledon, Swellendam, Mosselbay, George and up to Beaufort West - about 10% of the work in these areas

**KAROO – estimated 30% of work**

- From Worcester to Laingsburg, Beaufort West, Victoria West, De Aar - about 5% of the work in these areas

**KIMBERLY – estimated 10% of work**

- From Kimberly to Upington Areas

**NORTHERN CAPE – estimated 10% of work**

- Upington, Kenhardt and down to Loeriesfontein, Keimoes, Pofadder

**NAMAQUALAND – estimated 10% of work**

- From Aggeneys to Springbok, Port Nolloth, Alexander Bay

The use of 4x4 vehicles will be required and where applicable 6x6 trucks and cranes.

An Eskom Representative will provide the contractor a Landowner consent form and before any work is carried out the Landowner will need to sign the form in agreement that the contractor may come and work on their land. This form will need to be signed by the Landowner, the Contractor and the Eskom Representative.

- A detailed list of landowner contact details will be provided to the contractor before the works will begin. Landowners require typically 2 weeks notification prior to accessing their property and the Contractor will adhere to this requirement.
- Where difficult (access refused) landowners are encountered Eskom will be contacted to handle negotiations.
- The Contractor will be held liable for delays caused where negotiated conditions with the landowner are not met.
- The contractor will need to attend induction with respect to Landowners and access.

The following is an indication of accessibility:

<b>Servitude accessible by 4 X 2 wheel vehicles</b>	10%
<b>Servitude accessible by 4 X 4 wheel vehicles</b>	75%

<b>Inaccessible by vehicle</b>	15%
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Condition of servitude roads:

<b>Servitude roads in good condition</b>	20%
<b>Servitude roads in fair condition</b>	40%
<b>Servitude roads in poor condition</b>	40%

## **Existing buildings, structures, and plant & machinery on the Site**

Various lattice steel structures in the Western Grid

## **Subsoil information**

Due to the wide geographical areas affected by this contract, the contractor should cater for all types of soil conditions

## **Hidden services**

None. However Drawings will be provided for the sites where the work will be done.

## **Other reports and publicly available information**

Refer to Google Maps to obtain an idea of the geographical area as mentioned above in point 1.