

THE CENTRAL GRID REFURBISHMENT HV YARD FENCE FOR THE TSHWANE CLN AT THE FOLOWING SUBSTATIONS:
LOMOND, KWAGGA, PELLY, AND NJALA SUBSTATIONS.



NEC3 Engineering & Construction Contract

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

and [Insert at award stage]
(Reg No. _____)

for **THE CENTRAL GRID REFURBISHMENT HV YARD FENCE
FOR THE TSHWANE CLN AT THE FOLOWING
SUBSTATIONS: LOMOND, KWAGGA, PELLY, AND NJALA
SUBSTATIONS.**

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CONTRACT No. [Insert at award stage]

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Part C1: Agreements & Contract Data

Contents:	No of pages
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C1.1 Form of Offer & Acceptance

Offer

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

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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 B	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 ¹	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)

Acceptance

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

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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**

.....
(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.

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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) _____

Name & signature of witness _____

Date _____

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C1.2 ECC3 Contract Data by Employer

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	General	
	<p>The <i>conditions of contract</i> are the core clauses and the clauses for main Option</p> <div style="background-color: #cccccc; height: 100px; width: 100%; margin-top: 10px;"></div> <p>dispute resolution Option and secondary Options</p> <div style="background-color: #cccccc; height: 100px; width: 100%; margin-top: 10px;"></div> <div style="background-color: #cccccc; height: 20px; width: 100%; margin-top: 10px;"></div> <p>of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)</p>	<p>B: Priced contract with bill of quantities</p> <p>W1: Dispute resolution procedure</p> <p>X2 Changes in the law</p> <p>X7: Delay damages</p> <p>X15: Limitation of <i>Contractor's</i> liability for design to reasonable skill and care</p> <p>X16: Retention</p> <p>X18: Limitation of liability</p> <p>Z: <i>Additional conditions of contract</i></p>
10.1	The <i>Employer</i> is (Name):	NTCSA SOC Ltd (reg no: 2021/539129/30), a state-owned company incorporated in terms of the company laws of the Republic of South Africa
	Address	Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg
10.1	The <i>Project Manager</i> is: (Name)	

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Address

Tel

Fax

e-mail

10.1 The *Supervisor* is: (Name)

Address

Tel No.

Fax No.

N/A

e-mail

11.2(13) **The works are**

The scope of works is described in the Works Information document, and it covers:

- **Dismantling, removal and adequate disposal of the old fencing and gates**
- **Replace all rusted and damaged fence posts.**
- **Replace all rusted and damaged HV yard access gates.**
- **Replace all wire mesh on fence.**
- **Earth straps required on all gates.**
- **Use only galvanized bolts.**
- **Keep the 45-degree fence overhang as per existing fence.**
- **Additional pedestrian gates where needed**
- **Additional access gate with ramp where needed**

11.2(14) The following matters will be included in the Risk Register

1. **Weather. Abnormally rainy, hot and humid weather. The contractor needs to take precautions when planning the sequence and resources for the works.**
2. **Existing equipment. Damage to all existing equipment and foundations should be avoided. Movement of vehicles and pedestrians should be managed and highlighted in a traffic management plan.**
3. **Health care facilities. The contractor is**

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to note where the nearest health care facilities are and the response time of emergency medical rescue service providers in case of an emergency.

- 4. Theft.** The site and working areas are to be guarded to ensure that no theft can take place that will affect the continuity of supply or loss to the employer’s existing assets.
- 5. Material suppliers.** The contractor needs to ensure that suppliers are identified and no delays are experienced as a result of distances to be covered by suppliers.
- 6. Labour issues.** These issues are to be properly managed in the event that local labour is to be hired to limit any disruptions of the work by local residents.
- 7. Time.** This contract has to be completed within the contract period. Any delays will have a negative impact on subsequent activities as well as to the stability of the grid.
- 8. Snakes.** Care should be taken during excavations and throughout the duration of the whole project. A snake-handling procedure should be in place.

11.2(15)	The <i>boundaries of the site</i> are	Central Grid - Tshwane CLN: Pelly, Kwagga, Njala and Lomond Substations.	
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	1 weeks	
2	The Contractor’s main responsibilities	Data required by this section of the core clauses is provided by the Contractor in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.	
3	Time		
11.2(3)	The <i>completion date</i> for the whole of the works is	31 August 2026.	
11.2(9)	The <i>key dates</i> and the <i>conditions</i> to be met are:	Condition to be met	key date

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	1	Site Establishment	TO BE CONFIRMED
	2	Dismantling, removal and adequate disposal of the old fencing and gates	TO BE CONFIRMED
	3	Replace all rusted and damaged fence posts.	TO BE CONFIRMED
	4	Replace all wire mesh on fence.	TO BE CONFIRMED
	5	Replace all rusted and damaged HV yard access gates.	TO BE CONFIRMED
	6	Earth straps required on all gates.	TO BE CONFIRMED
	7	Site De-establishment	TO BE CONFIRMED

30.1	The <i>access dates</i> are:	Part of the Site	Date
		1	Lomond Substation Kwagga Substation Njala Substation Pelly Substation
			TO BE CONFIRMED

31.1	The <i>Contractor</i> is to submit a first programme for acceptance within	Two (2) weeks of the Contract Date.
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31.2	The <i>starting date</i> is	20 April 2026
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32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	Four (4) weeks.
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35.1	The <i>Employer</i> is not willing to take over the <i>works</i> before the Completion Date.	
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4 Testing and Defects

42.2	The <i>defects date</i> is	Fifty two (52) weeks after Completion of the whole of the <i>works</i>.
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43.2	The <i>defect correction period</i> is	Two (2) weeks
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5 Payment

50.1	The <i>assessment interval</i> is	between the 20th day of each successive month.
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51.1	The <i>currency of this contract</i> is the	South African Rand.
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51.2	The period within which payments are made is	Four (4) weeks.
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51.4	The <i>interest rate</i> is	the publicly quoted prime rate of interest
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(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:

**Kwagga Substation - Atteridgeville
Lomond Substation - Hartbeespoort
Njala Substation - Rietvallei
Pelly Substation - Hammanskraal**

The *weather measurements* 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 *weather measurements* are supplied by

[•]

The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at:

[•]

and which are available from:

the South African Weather Bureau and included in Annexure A to this Contract Data provided by the *Employer*

60.1(13) Assumed values for the ten year return *weather data* for each *weather measurement* for each calendar month

As stated in Annexure A to this Contract Data provided by the *Employer*.

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	are:	
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.
8	Risks and insurance	
80.1	These are additional <i>Employer's</i> risks	1. Interrupted power of supply due to theft of and tempering with the Employer's assets while HV Yard fences are being demolished. Security personnel must be provided by the Contractor for the duration of the contract. The contractor should source the additional guards from the security company currently providing security at Pelly, Kwagga, Njala and Lomond Substations.
9	Termination	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.
10	Data for main Option clause	
B	Priced contract with bill of quantities	
60.6	The <i>method of measurement</i> is	BOQ published by and amended as stated in Part C2.1, Pricing Assumptions.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is	
	Address	Sandton, Gauteng
	Tel No.	
	Fax No.	
	e-mail	
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 www.ice-sa.org.za) 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	Gauteng, South Africa

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	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	
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.
X7	Delay damages (but not if Option X5 is also used)	
X7.1	Delay damages for Completion of the whole of the <i>works</i> are	0,01% per day up to a limit of 10%
X16	Retention (not used with Option F)	
X16.1	The <i>retention percentage</i> is	5%
		5%
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"> • the total of the Prices at the Contract Date and • 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.
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"> • Defects due to his design which arise before the Defects Certificate is issued,

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- Defects due to manufacture and fabrication outside the Site,
- loss of or damage to property (other than the works, Plant and Materials),
 - death of or injury to a person and
 - infringement of an intellectual property right.

X18.5	The <i>end of liability date</i> is	<p>(i) 03 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>
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X20	Key Performance Indicators (not used when Option X12 applies)	
X20.1	The <i>incentive schedule</i> for Key Performance Indicators is in	Annexure [●] to this Contract Data
X20.2	A report of performance against each Key Performance Indicator is provided at intervals of	[●] months
Z	The <i>Additional conditions of contract</i> are	Z1 to Z15 always apply.

Z1 Cession delegation and assignment

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

Z2 Joint ventures

- Z2.1 If the *Contractor* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations then these persons or organisations are deemed to be jointly

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and severally liable to the *Employer* for the performance of this contract.

Z2.2 Unless already notified to the *Employer*, the persons or organisations notify the *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.

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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

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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:

Affected Party means, as the context requires, any party, irrespective of whether it is the *Contractor* 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,

Coercive Action 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,

Collusive Action 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,

Committing Party means, as the context requires, the *Contractor*, or any member thereof in the case of a joint venture, or its employees, agents, or Subcontractor or the Subcontractor's employees,

Corrupt Action 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,

Fraudulent Action 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,

Obstructive Action 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

Prohibited Action 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

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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	<u>Loss of or damage to property</u> <u>Employer's property</u> 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 <u>Other property</u> The replacement cost

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	<u>Bodily injury to or death of a person</u> 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

Insurance against or name of policy	Minimum amount of cover or minimum of indemnity
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 site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

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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:

AAIA	means approved asbestos inspection authority.
ACM	means asbestos containing materials.
AL	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.
Ambient Air	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.
Compliance Monitoring	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.
OEL	means occupational exposure limit.
Parallel Measurements	means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
Safe Levels	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.
Standard	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.
SANAS	means the South African National Accreditation System.
TWA	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

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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	Number of days	Number of days	Number of days	[Other

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	rainfall (mm)	with rain more than 10mm	with min air temp < 0 deg.C	with snow lying at 08:00 CAT	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 considered in assessing a compensation event.

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C1.2 Contract Data by Contractor

Part two - Data provided by the *Contractor*

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)² 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:	

² Available from Engineering Contract Strategies Tel 011 803 3008, Fax 011 803 3009 or see www.ecs.co.za

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		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	Priced contract with bill of quantities			
11.2(21)	The <i>bill of quantities</i> is in	(in figures) (in words), excluding VAT		
11.2(31)	The tendered total of the Prices is			
F	Management contract			
20.2	Work which the <i>Contractor's</i> will do himself is	Activity	price (lump sum or rate)	
	Data for Schedules of Cost Components	<i>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).</i>		
B	Priced contract with bill of quantities	Data for the Shorter Schedule of Cost Components		
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:	Equipment	Size or capacity	Rate

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61 in SSCC	<p>The hourly rates for Defined Cost of design outside the Working Areas are</p> <p>Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates.</p> <p>Please insert another schedule if foreign resources may also be used</p>	Category of employee		Hourly rate
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:			
	If Option C, D or E is used	Data for Schedule of Cost Components		
23 in SCC	The listed items of Equipment purchased for work on this contract, with an on cost charge, are:	Equipment	Time related charge	Per (time period)
24 in SCC	The rates of special Equipment are:	Equipment	Size or capacity	Rate
44 in SCC	The percentage for Working Areas overheads is:	:		
51 in SCC	<p>The hourly rates for Defined Cost of manufacture or fabrication outside the Working Areas are</p> <p>Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates</p> <p>Please insert another schedule if foreign resources may also be used</p>	Category of employee		Hourly rate

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52 in SCC	The percentage for manufacture and fabrication overheads is	%		
	If Option C, D, or E is used	Data for both schedules of cost components		
61 in SCC & SCCC	The hourly rates for Defined Cost of design outside the Working Areas are Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates. Please insert another schedule if foreign resources may also be used	Category of employee		Hourly rate
62 in SCC & SCCC	The percentage for design overheads is	%		
63 in SCC & SCCC	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:			
	If Option C, D or E is used	Data for the Shorter Schedule of Cost Components		
41 in SCCC	The percentage for people overheads is:	%		
21 in SCCC	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 SCCC	The rates of other Equipment are:	Equipment	Size or capacity	Rate

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PART 2: PRICING DATA

ECC3 Option B

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option B	
C2.2	The <i>bill of quantities</i>	

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C2.1 Pricing assumptions: Option B

How work is priced and assessed for payment

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

Identified and defined terms	11 11.2	(21) The Bill of Quantities is the <i>bill of quantities</i> as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration.
		(28) The Price for Work Done to Date is the total of <ul style="list-style-type: none"> • the quantity of the work which the <i>Contractor</i> has completed for each item in the Bill of Quantities multiplied by the rate and • a proportion of each lump sum which is the proportion of the work covered by the item which the <i>Contractor</i> has completed. <p>Completed work is work without Defects which would either delay or be covered by immediately following work.</p>
		(31) The Prices are the lump sums and the amounts obtained by multiplying the rates by the quantities for the items in the Bill of Quantities.

This confirms that Option B is a re-measurement contract and the bill comprises only items measured using quantities and rates or stated as lump sums. Value related items are not used. Time related items are items measured using rates where the rate is a unit of time.

Function of the Bill of Quantities

Clause 55.1 in Option B states, "Information in the Bill of Quantities 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 Bill, 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 Bill of Quantities. The Bill of Quantities is only a pricing document.

Guidance before pricing and measuring

Employers preparing tenders or contract documents, and tendering contractors are advised to consult the sections dealing with the bill of quantities in the NEC3 Engineering and Construction Contract Guidance Notes before preparing the *bill of quantities* or before entering rates and lump sums into the *bill*.

There is no general provision in Option B for payment for materials on Site before incorporation into the *works*. If secondary Option X14 Advanced payment has not been used then the tendering contractor may obtain the same effect by inserting appropriate items in the method related charges where the *method of measurement* allows, or alternatively making allowance in the rates of the *bill of quantities* for the financing of Plant and Materials until they are incorporated in the *works*.

When compensation events arise, the default position is that the Bill of Quantities is not used to calculate the cost effect of the event. Defined Cost and the resulting Fee is used and Defined Cost includes all components of cost which the *Contractor* is likely to incur, including so called P & G items. Rates and lump sums from the Bill of Quantities, or from any other source, may be used instead of Defined Cost and

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the Fee only if the *Contractor* and *Project Manager* agree. If they are unable to agree, then Defined Cost plus Fee is used.

Measurement and payment

Symbols

The units of measurement described in the Bill of Quantities are metric units abbreviated as follows:

Abbreviation	Unit
%	percent
h	hour
ha	hectare
kg	kilogram
kl	kilolitre
km	kilometre
km-pass	kilometre-pass
kPa	kilopascal
kW	kilowatt
l	litre
m	metre
mm	millimetre
m ²	square metre
m ² -pass	square metre pass
m ³	cubic metre
m ³ -km	cubic metre-kilometre
MN	meganewton
MN.m	meganewton-metre
MPa	megapascal
No.	number
sum	Lump sum
t	tonne (1000kg)

General assumptions

Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.

The Prices and rates stated for each item in the Bill of Quantities shall be treated as being fully inclusive of all work, risks, liabilities, obligations, overheads, profit and everything necessary as incurred or required by the *Contractor* in carrying out or providing that item.

An item against which no Price is entered will be treated as covered by other Prices or rates in the *bill of quantities*.

The quantities contained in the Bill of Quantities may not be final and do not necessarily represent the actual amount of work to be done. The quantities of work assessed and certified for payment by the *Project Manager* at each assessment date will be used for determining payments due.

The short descriptions of the items of payment given in the *bill of quantities* are only for the purposes of identifying the items. Detail regarding the extent of the work entailed under each item is provided in the Works Information.

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Departures from the *method of measurement*

Amplification of or assumptions about measurement items

The following is provided to assist in the interpretation of descriptions given in the *method of measurement*. In the event of any ambiguity or inconsistency between the statements in the *method of measurement* and this section, the interpretation given in this section shall be used.

C2.2 the *bill of quantities*

Use this page as a summary page or as a cover page to the *bill of quantities*.

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PART 3: SCOPE OF WORK

Document reference	THE CENTRAL GRID REFURBISHMENT HV YARD FENCE FOR THE TSHWANE CLN AT THE FOLOWING SUBSTATIONS: LOMOND, KWAGGA, PELLY, AND NJALA SUBSTATIONS.	No of pages
	This cover page	1
C3.1	<i>Employer's Works Information</i>	19
	Total number of pages	29

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Description of the works

Executive overview

This project involves an adequate upgrade of the fencing around the HV Plant Yard of the various substations identified, that is, Lomond, Kwagga, Pelly, and Njala Substation. These substations are more than 40 years old and have never been refurbished. The aim of the project is for NTCSA to comply with the Occupational Health and Safety Act No. 85 of 1993 under section 43 schedule 6 and NTCSA policies and standards.

Employer's objectives and purpose of the works

The purpose and objective of this works is to ensure compliance with OHS Act and NTCSA policies and standard in providing a safe workplace.

Scope of Work

All construction work is to be carried out in accordance with NTCSA's Health, Safety and Environmental Specification. Contractor must rely on engineering drawings for detailed SOW. It involves HV Yard fence as per specification drawing number 0.54-4963 and design drawings for each station.

1. Replace all rusted and damaged fence posts.
2. Replace all rusted and damaged HV yard access gates.
3. Replace all wire mesh on fence.
4. Earth straps required on all gates.
5. Use only galvanized bolts.
6. Keep the 45-degree fence overhang as per existing fence.
7. Dismantling, removal and adequate disposal of the old fencing and gates

LOMOND SUBSTATION

- To be read in conjunction with drawing Lom24P06-SE-E11
- Remove all strands of barbed wire on the single overhang and replace with new.
- All meshwire must be removed to spoil and replaced with new (1.35Km length).
- All the posts, stays and overhang members must be painted.
- Surface preparation, coating application procedures and guarantees must be in accordance with NTCSA specification 240-75883230 pages 12 to 16.
- The post or stay must be opened until the concrete is exposed.
- Remove the rust stains with steel wool. Care must be taken not to damage the galvanising.
- If part of a post or stay is found to be rusted to more than halve the original thickness, it must be replaced as detailed in drawing 0.54/4693.
- After surface preparation clean member with plascon metalcare galvanised iron cleaner.
- Apply one coat plascon metalcare galvanised iron primer. Apply two coats plascon metalcare, silvershine aluminium.
- All gates (8 off 6m, 1 off 4m and 1 off 1m) must be removed to spoil and replaced with new.
- Install additional 6m and 1m gates as shown.
- All gates require earth straps.

KWAGGA SUBSTATION

- To be read in conjunction with drawing Kwa24P04-SE-E11
- Remove all strands of barbed wire on the single overhang and replace with new
- All meshwire must be removed to spoil and replaced with new (0.215Km length).
- All the posts, stays and overhang members must be painted.
- Surface preparation, coating application procedures and guarantees must be in accordance with NTCSA specification 240-75883230 pages 12 to 16.
- The post or stay must be opened until the concrete is exposed.

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- Remove the rust stains with steel wool. Care must be taken not to damage the galvanising.
- If part of a post or stay is found to be rusted to more than halve the original thickness, it must be replaced as detailed in drawing 0.54/4693.
- After surface preparation clean member with plascon metalcare galvanised iron cleaner.
- Apply one coat plascon metalcare galvanised iron primer. Apply two coats plascon metalcare, silvershine aluminium.
- All gates (2 off 4m and 1 off 1m) must be removed to spoil and replaced with new.
- Install additional 6m and 1m gates as shown.
- All gates require earth straps.
- Install new ramp as shown.

PELLY SUBSTATION

- To be read in conjunction with drawing PEL24P09-SE-E11
- Remove all strands of barbed wire on the single overhang and replace with new.
- All meshwire must be removed to spoil and replaced with new (1.65Km length).
- All the posts, stays and overhang members must be painted.
- Surface preparation, coating application procedures and guarantees must be in accordance with NTCSA specification 240-75883230 pages 12 to 16.
- The post or stay must be opened until the concrete is exposed.
- Remove the rust stains with steel wool. Care must be taken not to damage the galvanising.
- If part of a post or stay is found to be rusted to more than halve the original thickness, it must be replaced as detailed in drawing 0.54/4693.
- After surface preparation clean member with plascon metalcare galvanised iron cleaner.
- Apply one coat plascon metalcare galvanised iron primer. Apply two coats plascon metalcare, silvershine aluminium.
- All gates (16 off 6m, 3 off 12m, 3 off 1m and 8 off 6m removable panels) must be removed to spoil and replaced with new.
- All gates require earth straps

NJALA SUBSTATION

- To be read in conjunction with drawing NJA24P02-SE-E11
- Remove all strands of barbed wire on the single overhang and replace with new.
- All meshwire must be removed to spoil and replaced with new (0.376Km length).
- All the posts, stays and overhang members must be painted.
- Surface preparation, coating application procedures and guarantees must be in accordance with NTCSA specification 240-75883230 pages 12 to 16.
- The post or stay must be opened until the concrete is exposed.
- Remove the rust stains with steel wool. Care must be taken not to damage the galvanising.
- If part of a post or stay is found to be rusted to more than halve the original thickness, it must be replaced as detailed in drawing 0.54/4693.
- After surface preparation clean member with plascon metalcare galvanised iron cleaner.
- Apply one coat plascon metalcare galvanised iron primer. Apply two coats plascon metalcare, silvershine aluminium.
- All gates (2 off 1m) must be removed to spoil and replaced with new.
- Install 2 additional 6m gates as shown.
- All gates require earth straps.
- Extend the concrete road as shown.

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Interpretation and terminology

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation
BEE	Black Economic Empowerment
BWO	Black Women Owned
EMP	Environmental Management Plan
ECO	Environmental Control Officer
LBS	Large Black Supplier
MVA	Mega Vars
TPD	Transmission Projects Delivery
SBE	Small Black Enterprise
SD&L	Supplier Development and Localisation
SHE	Safety, Health and Environmental
SHEQ	Safety, Health, Environmental and Quality
SOC	State Owned Company

Management and start up.

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:
Risk Reducing Meeting	Monthly (as and when required during execution)	Lomond/ Kwagga/ Pelly/ Njala Substation site office or Ms Teams	<p><i>Employer;</i></p> <ul style="list-style-type: none"> • <i>Project Manager</i> • <i>Site Supervisor</i> • <i>Project Coordinator</i> <p><i>Contractor;</i></p> <ul style="list-style-type: none"> • <i>Contract Manager / Project Manager</i> • <i>Site Supervisor</i>
Overall contract progress, SHERQ and feedback	Monthly (as and when required during execution)	Lomond/ Kwagga/ Pelly/ Njala Substation site office or Ms Teams	<p><i>Employer;</i></p> <ul style="list-style-type: none"> • <i>Project Manager</i> • <i>Site Supervisor</i> • <i>Project Engineer</i> • <i>Quantity Surveyor</i>

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			<ul style="list-style-type: none"> • ECO • SHE Officer • Project Coordinator <p><i>Contractor;</i></p> <ul style="list-style-type: none"> • Contract Manager / Project Manager • Site Supervisor • Contract Manager • SHE Officer
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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.

Documentation control

2.2.1) Contractual correspondence;

- Properly compiled letters on official Company letterhead or forms attached to an e-mail and a message in an e-mail itself.

2.2.2) Site communication;

- Contractor site diary signed daily by the Site Supervisor.
- Site instructions issued by the Site Supervisor.
- Non-Conformance issued to the contractor by the Site Supervisor / Project Manager

Health and safety risk management

The Contractor shall comply with the health and safety of requirements contained in **Tshwane HV yard fencing refurb project: Lomond, Pelly, Njala and Kwagga Substations SHE Spec TPDMAN-SP-84** and all the other documents the specification refers to.

2.3.1 Termination due to Non Compliance.

NTCSA reserves the right to terminate the contract in the event that the contractor is found to be consistently non-compliant to any SHEQ related issue.

Environmental constraints and management

The Contractor shall comply with the environmental criteria and constraints stated in the following document;

- Environmental Requirements for Contractors and Supplies_PDPMAN-ST-37
- Waste Management Plan_TPDMAN-PN-53
- Construction Environmental Management Programme (EMPr) for Tshwane HV yard fencing refurb project: Lomond, Pelly, Njala and Kwagga Substations
- Environmental Incident Management Procedure

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Quality assurance requirements

- The *Contractor* shall comply with the quality management criteria and constraints as stated in the South African National Standards (SANS 1200).
- The *Contractor* shall also comply with the quality management criteria and constraints stated in "Standard Requirements for Procurement of Assets, Goods and Services" (TST 41 – 168 revision 0).
- The *Contractor* is also required to comply with the Supplier Quality Management Specification (QM 58) 240-105658000.
- In addition to the above, the following shall apply:
- The *Contractor* implements and maintains a quality management system in order to ensure compliance with the works information and also as a minimum meets the requirements of the ISO 9000 series for quality management systems. In addition, the Contractor is to meet the requirements of "Quality Requirements for the Procurement of Assets, Goods and Services". 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* ensures that his staff and sub-contractors are conversant with the content of the scope of work, quality control plans and work instructions.
- The *Contractor* ensures that the works is carried out in accordance with the inspection and test plans, acceptance test procedures and other specifications in the works information.
- The *Contractor* ensures that all specifications and requirements are communicated to the relevant parties in his organisation. Copies of all relevant specifications and drawings must be available on site.
- All documentation has a clearly stated revision number and previously similar documentation is revoked.
- Any quality-related problems/issues are to be reported to the *Supervisor* immediately and resolved as soon as possible.
- All completed work is signed-off on inspection and test plans and control sheets on a daily basis and all the relevant signatures are on the documentation.

Programming constraints

The Contractor must allow for 5 days of rain above the average rainfall (and the effects of rain) on the critical path of erection activities. Lastly, allow a further 5 days for rain above the average rainfall (and the effects of rain) on the critical path of all other construction activities.

The programme shall be submitted for acceptance in accordance with Core Clause 31 in the Engineering and Construction Contract, in terms of which resources to complete each activity must be clearly identified. The programme shall be submitted within four weeks of the starting date. It is recommended that Gantt or bar chart formats be used for project planning, while progress graphs/schedules be submitted at bi-weekly project meetings to monitor progress.

The programme shall include all the requirements of clause 31.2 of the Engineering and Construction Contract.

Progress

The *Contractor* monitors progress weekly in conjunction with the *Supervisor*. A weekly progress report shall be submitted to the *Project Manager* every Friday.

The *Contractor* shall submit his record of Work Done to Date (verified by the *Supervisor*) to the *Project Manager* on the 20th of each month. (The application is to have the same format as the relevant Bill of Quantities or Activity Schedule, and show present, previous and total quantities to date).

Contractor's management, supervision and key people

The *Contractor* shall submit an organizational structure showing his human resources and their lines of authority/communication.

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The *Contractor* shall provide experienced and competent personnel in the following key positions:

Contracts Manager/s

Competency level:

National Diploma Electrical/Civil Engineering/Construction Management/Surveying/Quantity Surveying.

Site Manager/s

Competency level:

National Diploma Electrical Engineering/Construction Management/Surveying/Quantity Surveying or a minimum of 10 years relevant civil construction experience for the approval of the Project Manager.

Supervisors

Competency level:

As specified in the document labelled, SHE Spec **Tshwane HV yard fencing refurb project: Lomond, Pelly, Njala and Kwagga Substations SHE Spec TPDMAN-SP-84** and the documents, it is referring to.

Required SHE personnel

Competency level:

As specified in the document labelled, SHE Spec **Tshwane HV yard fencing refurb project: Lomond, Pelly, Njala and Kwagga Substations SHE Spec TPDMAN-SP-84** and the documents, it is referring to.

Invoicing and payment

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 showing the amount due for payment equal to that stated in the *Project Manager's* payment certificate.

The *Contractor* shall address the tax invoice to NTCSA Holdings SOC Limited, P O Box 1091, Johannesburg, 2000 and include on each invoice the following information:

- Name and address of the *Contractor* and the *Project Manager*;
- The contract number and title;
- *Contractor's* VAT registration number;
- The *Employer's* VAT registration number 4740101508;
- Description of service provided for each item invoiced based on the Price List;
- Previous, present and to date values per payment certificate;
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
- Any other information as may be required

2.8.1 Procedure for invoice payment:

Work done is assessed by the *Contractor* and Employer Quantity Surveyor (QS), after which the Employer's QS and the *Contractor*, agree on the assessment and the amount to be invoiced. The Employer QS will then generate a payment certificate signed by both the Employer's QS and Employer's Project Manager. A service entry/GR would be then generated for the jointly signed payment certificate by the Employer on SAP system. There is no need for the *Contractor* to append a GR on their invoice, the *Contractor* is only required to submit a correct soft copy of their invoice to invoicesNTCSAlocal@NTCSA.co.za and it will be processed and paid.

Insurance provided by the Employer

As stipulated in the Contract Data.

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Contract change management

Any change in the works or people on the contract shall be communicated as per the requirements of the NEC within stipulated timelines.

Provision of bonds and guarantees

Not applicable.

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

All relevant information as may be applicable to make it easier to assess the work.

Training workshops and technology transfer

Not applicable for this contract.

Engineering and the Contractor's design

Employer's design

The Employer will bear the responsibility for the adequacy of his designs, and the *Contractor* shall comply with the design criteria stated in the *Works Information* supplied by the *Employer*.

Parts of the works which the Contractor is to design

N/A

Procedure for submission and acceptance of Contractor's design

N/A

Other requirements of the Contractor's design

The design shall be done as per the Employer's specifications.

Use of Contractor's design

N/A

Design of Equipment

To be done as per the requirements and specification of the Employer.

Equipment required to be included in the works

As per the concept design and works specification provided.

As-built drawings, operating manuals and maintenance schedules

N/A

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Procurement

Subcontracting

Preferred subcontractors

The *Contractor* shall be required to subcontract a certain portion of the scope of work. A minimum of 30% of the certain portion of the scope of work.

Subcontract documentation, and assessment of subcontract tenders

The use of the **NEC suite of Contracts** is highly recommended for subcontracting in order to enable a similar sub-contractor management.

Limitations on subcontracting

The *Sub-Contractors* will also be required to conform to the *Employer's* SHEQ requirements.

Attendance on subcontractors

The *Sub-Contractors* will also be required to conform to the *Employer's* SHEQ requirements

Plant and Materials

Quality

Refer to attached quality documents (TST41-168 Quality Assurance for Procurement of Assets, Goods and Services)

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

1. The *Employer* will not be issuing any free-issue material

Contractor's procurement of Plant and Materials

The *Contractor* shall comply to document "TST41-168 Quality Assurance for Procurement of Assets, Goods and Services" in works information during fabrication, supply and delivery of earthing copper and earthing devices.

Spares and consumables

No plant and materials shall be "free issued" by the *Employer* for this contract

Tests and inspections before delivery

No testing is required by the relevant specifications in the document shall be done by the *Contractor*. The *Contractor* shall notify the *Project Manager* on the relevant form about any inspection required before materials are delivered to site, e.g. Support Steel.

Marking Plant and Materials outside the Working Areas

The *Contractor* shall mark all Equipment, Plant and Material which is outside of the working area destined for the works.

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Construction

The Contractor shall comply with all the requirements of SHE specification, Environmental Management Plan (EMP) and all relevant statutory requirements.

Temporary works, Site services & construction constraints

Employer's Site entry and security control, permits, and Site regulations

The *Contractor* will have to adhere to NTCSA's High Voltage regulations. Thus, the *Contractor* personnel will be expected to have completed the necessary High Voltage Regulations (ORHVS) modules in order to be issued with a permit to work in these yards. The Contractor must arrange with the Grid for authorisation of personnel in terms of ORHVS.

Restrictions to access on Site, roads, walkways and barricades

Specific permit conditions include:

- All NTCSA employees and / or their agents must be fully aware and adhere to health and safety requirements at all times;
- Spot checks may be carried out by Security personnel and check that all health and safety requirements are being adhered to;
- Gates must be closed immediately after access or departure by NTCSA and / or their authorized agent;
- An NTCSA employee and / or their agent must be in attendance at all requisite times, including but not limited to during construction to ensure proper procedures are followed; to safeguard NTCSA's assets and to prevent unauthorized entry;
- An up to date register of Security personnel and / or their agents working on the project must be kept;
- The number of persons on site must be kept to the minimum required for the purpose of use thereof;
- During the construction phase access will be given on a daily basis and any keys issued must be signed for and returned before leaving the site;
- NTCSA retains the right to have personnel present on site during any activity conducted in line with the project.

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

Working hours are: 07h00 to 17h00.

Basic conditions of employment will be adhered to – a 45 hour week will apply, with a maximum of 10 hours overtime.

Health and safety facilities on Site

The *Contractor* shall comply with all the requirements of SHE specification and all relevant statutory requirements.

Environmental controls, fauna & flora, dealing with objects of historical interest

The *Contractor* shall comply with all the requirements of the EMP and all other statutory requirements.

Title to materials from demolition and excavation

The *Contractor* shall make his own arrangements, to the approval of the *Supervisor* and the Local Authorities, for the disposal of all surplus material and construction waste resulting from the *works*. Disposal of all waste (Building, Hazardous and Domestic) must be in accordance with the CEMP.

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Cooperating with and obtaining acceptance of Others

The *Contractor* will be required to integrate with other contractors, as well as *the Employer's* personnel during construction. It is expected that cooperation will be given when this happens during the project construction.

Publicity and progress photographs

This **is not allowed** except with prior arrangement with the *Employer's Project Manager* and media department.

Contractor's Equipment

Records are to be kept of Equipment on Site including whether it is owned or hired.

The *Contractor* shall inform the *Project Manager* prior to the removal of any equipment during the contract period from the Working Areas.

Equipment provided by the Employer

No equipment shall be provided by the *Employer*.

Site services and facilities

Power supply connection point will be made available on site. *Contractor* shall provide any necessary piping and cabling to connect to this facility. The *Contractor* must make their own provision for any water (drinking and construction) requirements on site.

Facilities provided by the Contractor

The *Contractor* is to provide the following items to facilitate the *Employer's* site *Supervisors* project administration within four weeks of contract award:

As per instruction by the *Project Manager* for provision made in the Bill of Quantities.

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

The *Contractor* keeps records of the following and submits copies of these records to the *Supervisor* weekly:

- Number of personnel by category and/or trade on site on a daily basis.
- Detailed list of equipment by category on site on a daily basis with an indication of it's working condition i.e. working order, under repair, working but standing idle etc.
- Weather conditions as agreed with the *Supervisor* on a daily basis.

A risk register is to be kept by the *Contractor* in which all events are recorded. Records of events that could give rise to Compensation Events are to be kept up to date for inspection by the *Supervisor* and/or *Project Manager* at all times and this is to be kept in a risk register. This is not for inspection purposes but for management as per core clause 16.

Existing premises, inspection of adjoining properties and checking work of Others

Work will be undertaken next to existing substations, and care needs to be taken by the *Contractor* for all these live condition at all times.

Survey control and setting out of the works

N/A

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Excavations and associated water control

Refer to the SHE specification, EMPr and any other statutory requirements.

Underground services, other existing services, cable and pipe trenches and covers

N/A

Control of noise, dust, water and waste

Refer to the SHE specification, EMP and any other statutory requirements.

Sequences of construction or installation

This will be determined by the *Contractor* and the *Site Supervisor* during execution.

Giving notice of work to be covered up

After construction the *Contractor* is to rehabilitate any damage caused to the environment to the satisfaction of the *Supervisor*. The remedial works are to be “signed-off” by both parties before acceptance.

Hook ups to existing works

N/A

Completion, testing, commissioning and correction of Defects

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 all work	Within 14 days after Completion

Use of the *works* before Completion has been certified

To be allowed for and provided by the *Contractor*.

Materials facilities and samples for tests and inspections

Take-over of The Works will be in accordance NEC procedures in conjunction with NTCSA Transmission standard for substation inspection TST 41-638. The *Contractor* advises the *Supervisor* when the *Works* is available for final inspection, and provides assistance.

Commissioning

Not Applicable.

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

Not Applicable.

Take over procedures

Take-over of The Works will be in accordance NEC procedures in conjunction with NTCSA Transmission standard for substation inspection TST 41-638. The *Contractor* advises the *Supervisor* when the *Works* is available for final inspection, and provides assistance.

Access given by the *Employer* for correction of Defects

Clause 43.4 of the NEC will apply as well as normal ORHVS procedures for getting permits.

Performance tests after Completion

Not Applicable

Training and technology transfer

Not Applicable

Operational maintenance after Completion

Not Applicable.

Plant and Materials standards and workmanship

Investigation, survey and Site clearance

Not Applicable

Civil engineering and structural works

As per detailed design requirements for all the poles, mesh wire and gates

Electrical & mechanical engineering works

Not Applicable

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PART 4: SITE INFORMATION

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

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PART 4: SITE INFORMATION

General description

The Sites surroundings, Contractor must ensure minimum disruption to prevent damage. The Contractor will held liable for any damages caused.

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

The Site existing within a Live high voltage substation with apparatus operating at a high voltage and Contractor must consider the Site condition prior to start with activities.

Subsoil information

Substation has sinkholes and Contractor must first assess soil condition prior to using heavy plant, vehicles and machinery to prevent falling into sinkholes

Hidden services

The Site existing within a Live Substation with apparatus operating at a high voltage. The Contractor must ensure that prior to excavating, a cable detection is conducted to prevent cutting of live cables and other hidden services such as water and drainage pipes.

Other reports and publicly available information

The Site is prone to theft and the Contractor must put in place measures to minimise theft of their material during the project duration.