



## NEC3 Professional Services Contract (PSC3)

**Contract between Eskom Holdings SOC Ltd  
(Reg No. 2002/015527/30)**

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

**for Arnot Kendal 400kV T227 Specialised Rock  
Engineering assessment of undermined  
land for the period of 6 months**

| <b>Contents:</b>                              | <b>No of<br/>pages</b> |
|-----------------------------------------------|------------------------|
| <b>Part C1 Agreements &amp; Contract Data</b> | <b>[•]</b>             |
| <b>Part C2 Pricing Data</b>                   | <b>[•]</b>             |
| <b>Part C3 Scope of Work: The Scope</b>       | <b>[•]</b>             |

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

## PART C1: AGREEMENTS & CONTRACT DATA

| Document reference | Title                                                                                                        | No of pages |
|--------------------|--------------------------------------------------------------------------------------------------------------|-------------|
| C1.1               | Form of Offer & Acceptance<br>[to be inserted from Returnable Documents at award stage]                      | [•]         |
| C1.2a              | Contract Data provided by the <i>Employer</i>                                                                | [•]         |
| C1.2b              | Contract Data provided by the <i>Consultant</i><br>[to be inserted from Returnable Documents at award stage] | [•]         |
| C1.3               | Securities proforma                                                                                          | [•]         |

## 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:

### Arnot Kendal 400kV T227 Specialised Rock Engineering Assessment of Undermined Land

The tenderer, identified in the Offer signature block, has

|               |                                                                                                                                                                                 |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>either</i> | examined the documents listed in the Tender Data and addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender. |
| <i>or</i>     | examined the draft contract as listed in the Acceptance section and agreed to provide this Offer.                                                                               |

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 *Consultant* under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the *conditions of contract* identified in the Contract Data.

|                                                     |          |
|-----------------------------------------------------|----------|
| The offered total of the Prices exclusive of VAT is | <b>R</b> |
| Value Added Tax @ 14% is                            | <b>R</b> |
| The offered total of the Prices inclusive of VAT is | <b>R</b> |
| (in words)                                          |          |

If Option E or G apply, for each offered total insert in brackets, "(Not Applicable – Cost reimbursable)"

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 *Consultant* 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

## 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 Consultant 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: The Scope                                                         |

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 and signed original copy of this document, including the Schedule of Deviations (if any).

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.

**ARNOT KENDAL 400KV T227 SPECIALISED ROCK ENGINEERING ASSESSMENT OF UNDERMINED  
LAND FOR THE PERIOD OF 6 MONTHS**

## Schedule of Deviations

Note:

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

| No. | Subject | Details |
|-----|---------|---------|
| 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

## C1.2 PSC3 Contract Data

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

[Instructions to the contract compiler: (delete these two notes in the final draft of a contract)]

1. Please read the relevant clauses in the conditions of contract before you enter data. 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.
2. The PSC3 options are identified by shading in the left hand column. In the event that the option is not required select and delete the whole row.
3. Where the symbol "[•]" is used data is required to be inserted relevant to the clause and statement which requires it.]

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

| Claus<br>e | Statement                                                                              | Data                                                                                                                                                    |
|------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1          | <b>General</b>                                                                         |                                                                                                                                                         |
|            | The <i>conditions of contract</i> are the core clauses and the clauses for main Option |                                                                                                                                                         |
|            | dispute resolution Option                                                              | <b>A: Priced contract with activity schedule</b>                                                                                                        |
|            | and secondary Options                                                                  | <b>W1: Dispute resolution procedure</b>                                                                                                                 |
|            |                                                                                        | <b>X7: Delay damages</b>                                                                                                                                |
|            |                                                                                        | <b>X9: Transfer of rights</b>                                                                                                                           |
|            |                                                                                        | <b>X10: Employer's Agent</b>                                                                                                                            |
|            |                                                                                        | <b>X18: Limitation of liability</b>                                                                                                                     |
|            |                                                                                        | <b>Z: Additional conditions of contract</b>                                                                                                             |
|            | of the NEC3 Professional Services Contract (April 2013) <sup>1</sup>                   |                                                                                                                                                         |
| 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>                                                                         |
|            | Tel No.                                                                                | <b>[•]</b>                                                                                                                                              |
|            | Fax No.                                                                                | <b>[•]</b>                                                                                                                                              |

<sup>1</sup> Available from Engineering Contract Strategies Tel 011 803 3008 Fax 011 803 3009 and [www.ecs.co.za](http://www.ecs.co.za)

11.2(9) The *services* are to outline to minimum assessments to be conducted in and around the Arnot Kendal 400kV T227 area. The assessment aims to determine the feasibility of the proposed two (2) structure positions by determining the risk to the structure positions caused by subsurface coal combustion.

|          |                                                             |                                                       |
|----------|-------------------------------------------------------------|-------------------------------------------------------|
| 11.2(10) | The following matters will be included in the Risk Register | Delays due to rainy weather conditions                |
| 11.2(11) | The Scope is in                                             | Part 3: Scope of Work                                 |
| 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                              | 5 days                                                |
| 13.6     | The <i>period for retention</i> is                          | 10 years following Completion or earlier termination. |

## 2 The Parties' main responsibilities

|      |                                                                                 |                                    |             |
|------|---------------------------------------------------------------------------------|------------------------------------|-------------|
| 25.2 | The <i>Employer</i> provides access to the following persons, places and things | access to                          | access date |
|      |                                                                                 | 1 Eskom Park Boardroom (Induction) | TBC         |
|      |                                                                                 | 2 Site Access (Vulcan site)        | TBC         |

## 3 Time

|         |                                                                     |                            |                      |                           |
|---------|---------------------------------------------------------------------|----------------------------|----------------------|---------------------------|
| 31.2    | The <i>starting date</i> is.                                        | TBC                        |                      |                           |
| 11.2(3) | The <i>completion date</i> for the whole of the <i>services</i> is. | TBC                        |                      |                           |
| 11.2(6) | 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                          | Safety file approval | As per approved programme |
|         |                                                                     | 2                          | Site walkover        | As per approved programme |

**ARNOT KENDAL 400KV T227 SPECIALISED ROCK ENGINEERING ASSESSMENT OF UNDERMINED  
LAND FOR THE PERIOD OF 6 MONTHS**

|      |                                                                              |                                                            |                                                                                                      |                               |
|------|------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------|
|      |                                                                              | 3                                                          | Safe working procedure (SWP) approval                                                                | As per the approved programme |
|      |                                                                              | 4                                                          | Ground Truthing                                                                                      | As per the approved programme |
|      |                                                                              | 5                                                          | Approved drilling activities and any required laboratory or in-situ testing prior to work commencing | As per the approved programme |
|      |                                                                              | 6                                                          | Contractors detailed report approval                                                                 | As per the approved programme |
| 31.1 | The <i>Consultant</i> is to submit a first programme for acceptance within   | 1 week of the Contract Date.                               |                                                                                                      |                               |
| 32.2 | The <i>Consultant</i> submits revised programmes at intervals no longer than | 1 week.                                                    |                                                                                                      |                               |
| 4    | Quality                                                                      |                                                            |                                                                                                      |                               |
| 40.2 | The quality policy statement and quality plan are provided within            | 1 week of the Contract Date.                               |                                                                                                      |                               |
| 42.2 | The <i>defects date</i> is                                                   | 52 weeks after Completion of the whole of the services.    |                                                                                                      |                               |
| 5    | Payment                                                                      |                                                            |                                                                                                      |                               |
| 50.1 | The <i>assessment interval</i> is                                            | between the 25 <sup>th</sup> day of each successive month. |                                                                                                      |                               |
| 50.3 | The <i>expenses</i> stated by the <i>Employer</i> are                        | Item                                                       | Amount                                                                                               |                               |
|      |                                                                              | TBC                                                        | TBC                                                                                                  |                               |
| 51.1 | The period within which payments are made is                                 | 4 weeks.                                                   |                                                                                                      |                               |
| 51.2 | The <i>currency of this contract</i> is the                                  | South African Rand                                         |                                                                                                      |                               |

51.5 The *interest rate* is

the publicly quoted prime rate of interest charged by [●] Standard Bank of South Africa Limited at the time an amount payable in SA Rand was due,

and

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                                                                                                                                                              | 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. |
| 7    | Rights to material                                                                                                                                                               | 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    | Indemnity, insurance and liability                                                                                                                                               | 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. |
| 82.1 | The <i>Consultant's</i> total liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than the excluded matters, is limited to | The total of the Prices                                                                                                                                              |
| 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                                                                                                                                                      |                                                                                                                                                                      |
| A    | Priced contract with activity schedule                                                                                                                                           |                                                                                                                                                                      |
| 21.3 | The <i>Consultant</i> prepares forecasts of the total <i>expenses</i> at intervals of no longer than                                                                             | 1 week.                                                                                                                                                              |

|           |                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>11</b> | <b>Data for Option W1</b>                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                              |
| 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). |
|           | Address                                                                                                                                                                             | [•]                                                                                                                                                                                                                                                                                                                                                                                                          |
|           | Tel No.                                                                                                                                                                             | [•]                                                                                                                                                                                                                                                                                                                                                                                                          |
|           | Fax No.                                                                                                                                                                             | [•]                                                                                                                                                                                                                                                                                                                                                                                                          |
|           | e-mail                                                                                                                                                                              | [•]                                                                                                                                                                                                                                                                                                                                                                                                          |
| W1.2(3)   | The <i>adjudicator nominating body</i> is:                                                                                                                                          | the Chairman of the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering. (See <a href="http://www.ice-sa.org.za">www.ice-sa.org.za</a> ).                                                                                                                                                                                                                          |
| W1.4(2)   | The <i>tribunal</i> is:                                                                                                                                                             | arbitration                                                                                                                                                                                                                                                                                                                                                                                                  |
| W1.4(5)   | The <i>arbitration procedure</i> is                                                                                                                                                 | the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.                                                                                                                                                                                                                                                             |
|           | The place where arbitration is to be held is                                                                                                                                        | South Africa                                                                                                                                                                                                                                                                                                                                                                                                 |
|           | The person or organisation who will choose an arbitrator                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                              |
|           | <ul style="list-style-type: none"> <li>if the Parties cannot agree a choice or</li> <li>if the <i>arbitration procedure</i> does not state who selects an arbitrator, is</li> </ul> | the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.                                                                                                                                                                                                                                                                                    |
| <b>12</b> | <b>Data for secondary Option clauses</b>                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>X7</b> | <b>Delay damages</b>                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                              |

|       |                                                                                                            |                                                                                                                                                |                                                                                                                                    |                |
|-------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------------|
| X7.1  | Delay damages for late Completion of the whole of the <i>services</i> are                                  | R5 000 per day for each activity capped at 10% of the total contract cost                                                                      |                                                                                                                                    |                |
|       |                                                                                                            | section                                                                                                                                        | Activity/description                                                                                                               | amount per day |
|       |                                                                                                            | 1                                                                                                                                              | Site walkover completed as per the approved programme                                                                              | R5 000         |
|       |                                                                                                            | 2                                                                                                                                              | Safe working procedure (SWP) approval as per the approved programme                                                                | R5 000         |
|       |                                                                                                            | 3                                                                                                                                              | Ground Truthing completed as per the approved programme                                                                            | R5 000         |
|       |                                                                                                            | 4                                                                                                                                              | Drilling activities and any required laboratory or in-situ testing prior to work commencing approved as per the accepted programme | R5 000         |
|       |                                                                                                            | 6                                                                                                                                              | Contractors detailed report approved as per the accepted programme                                                                 | R5 000         |
| X9    | Transfer of rights                                                                                         | There is no reference to Contract Data in this Option and terms in italics used in this Option are identified elsewhere in this Contract Data. |                                                                                                                                    |                |
| X10   | The <i>Employer's Agent</i>                                                                                |                                                                                                                                                |                                                                                                                                    |                |
| X10.1 | The <i>Employer's Agent</i> is                                                                             |                                                                                                                                                |                                                                                                                                    |                |
|       | Name:                                                                                                      |                                                                                                                                                |                                                                                                                                    |                |
|       | Address                                                                                                    |                                                                                                                                                |                                                                                                                                    |                |
|       | Eskom Park, 2nd Floor, Cnr Watermeyer & Jellicoe Street, Emalahleni 1035                                   |                                                                                                                                                |                                                                                                                                    |                |
|       | The authority of the <i>Employer's Agent</i> is                                                            |                                                                                                                                                |                                                                                                                                    |                |
|       | “The Employer’s Agent acts for the Employer for all the purposes of this contract”                         |                                                                                                                                                |                                                                                                                                    |                |
| X18   | Limitation of liability                                                                                    |                                                                                                                                                |                                                                                                                                    |                |
| X18.1 | The <i>Consultant's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to: |                                                                                                                                                |                                                                                                                                    |                |
|       | R0.00 (Zero Rand)                                                                                          |                                                                                                                                                |                                                                                                                                    |                |

|          |                                                                                                                                            |                                                                             |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| X18.2    | The <i>Consultant's</i> liability to the <i>Employer</i> for Defects that are not found until after the <i>defects date</i> is limited to: | <b>The total of the Prices</b>                                              |
| X18.3    | The <i>end of liability date</i> is                                                                                                        | <b>five years after Completion of the whole of the services/task order.</b> |
| <b>Z</b> | <b>The <i>Additional conditions of contract</i> are</b><br><b>Z1 to Z14 always apply.</b>                                                  |                                                                             |

## **Z1 Cession delegation and assignment**

- Z1.1 The *Consultant* 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 *Consultant* 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 *Consultant* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations then these persons or organisations are deemed to be jointly and severally liable to the *Employer* for the performance of this contract.
- Z2.2 Unless already notified to the *Employer*, the persons or organisations notify the *Employer* within two weeks of the Contract Date of the key person who has the authority to bind the *Consultant* on their behalf.
- Z2.3 The *Consultant* 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 *Consultant* in writing.

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

- Z3.1 Where a change in the *Consultant's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Consultant's* B-BBEE status, the *Consultant* notifies the *Employer* within seven days of the change.
- Z3.2 The *Consultant* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Employer* within thirty days of the notification or as otherwise instructed by the *Employer*.
- Z3.3 Where, as a result, the *Consultant's* B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Consultant's* obligation to Provide the Services.
- Z3.4 Failure by the *Consultant* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are those stated in core clause 91. The payment on termination includes a deduction of the forecast of the additional cost to the *Employer* of completing the whole of the *services* in addition to the amounts due in terms of core clause 92.1.

**Z4 Confidentiality**

- Z4.1 The *Consultant* 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 *Consultant*, enters the public domain or to information which was already in the possession of the *Consultant* at the time of disclosure (evidenced by written records in existence at that time). Should the *Consultant* disclose information to Others in terms of clause 23.1, the *Consultant* ensures that the provisions of this clause are complied with by the recipient.
- Z4.2 If the *Consultant* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Employer*.
- Z4.3 In the event that the *Consultant* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Consultant*, 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 *Consultant* may disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed.
- Z4.4 The taking of images (whether photographs, video footage or otherwise) of the *Employer's* project works or any portion thereof, in the course of Providing the Services and after Completion, requires the prior written consent of the *Employer*. All rights in and to all such images vests exclusively in the *Employer*.

**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, 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 Provision of a Tax Invoice. Add to core clause 51**

- Z6.1 The *Consultant* (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.

**Z7 Notifying compensation events**

- Z7.1 Delete from the last sentence in core clause 61.3, "unless the *Employer* should have notified the event to the *Consultant* but did not".

**Z8 *Employer's* limitation of liability**

- Z8.1 The *Employer's* liability to the *Consultant* for the *Consultant's* indirect or consequential loss is limited to R0.00 (zero Rand)

**Z9 Termination: Add to core clause 90.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":**

- Z9.1 or had a business rescue order granted against it.

**Z10 Delay damages: Addition to secondary Option X7 Delay damages (if applicable in this contract)**

- Z10.1 If the *Consultant'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 *Consultant's* obligation to Provide the Services.
- Z10.2 If the *Employer* terminates in terms of this clause, the procedures on termination are those stated in core clause 91. The payment on termination includes a deduction of the forecast of the additional cost to the *Employer* of completing the whole of the *services* in addition to the amounts due in terms of core clause 92.1.

**Z11 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 *Consultant* or a third party, such party's employees, agents, or Subconsultants or Subconsultant'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 *Consultant*, or any member thereof in the case of a joint venture, or its employees, agents, or Subconsultants or the Subconsultant'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.

- Z11.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.
- Z11.2 The *Employer* may terminate the *Consultant's* obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Consultant* 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 *Consultant's* obligation to Provide the Services for this reason.
- Z11.3 If the *Employer* terminates the *Consultant'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.
- Z11.4 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 *Consultant* ensures that the Committing Party co-operates fully with an investigation.

**Z12 Insurance**

Z12.1 Replace core clause 81 with the following:

81.1 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.

81.2 The *Consultant* provides the insurances stated in the Insurance Table A 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                                                                                                                                                                                                                                                                                                                                                                  | For the period following Completion of the whole of the <i>services</i> or earlier termination             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Liability of the <i>Consultant</i> for claims made against him arising out of his failure to use the skill and care normally used by professionals providing services similar to the <i>services</i>         | Whatever the <i>Consultant</i> deems necessary in respect of each claim, without limit to the number of claims.                                                                                                                                                                                                                                                                          | From the <i>starting date</i> until the earlier of Completion and the date of the termination certificate. |
| Liability for death of or bodily injury to a person (not an employee of the <i>Consultant</i> ) or loss of or damage to property resulting from an action or failure to take action by the <i>Consultant</i> | <p><b><u>Loss of or damage to property:</u></b><br/>           The replacement cost where not covered by the <i>Employer's</i> insurance</p> <p>The <i>Employer's</i> policy deductible, as at Contract Date, where covered by the <i>Employer's</i> insurance</p> <p><b><u>Bodily injury to or death of a person:</u></b><br/>           The amount required by the applicable law.</p> | From the <i>starting date</i> until the earlier of Completion and the date of the termination certificate. |
| Liability for death of or bodily injury to employees of the <i>Consultant</i> arising out of and in the course of their employment in connection with this contract                                          | The amount required by the applicable law                                                                                                                                                                                                                                                                                                                                                | From the <i>starting date</i> until the earlier of Completion and the date of the termination certificate. |

81.3 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 limit of indemnity |
|-------------------------------------|-------------------------------------------------------|
| Assets All Risk                     | Per the insurance policy document                     |
| Contract Works insurance            | Per the insurance policy document                     |

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|                                                   |                                   |
|---------------------------------------------------|-----------------------------------|
| 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 |

**Z13 Nuclear Liability**

- Z13.1 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.
- Z13.2 The *Employer* is solely responsible for and indemnifies the *Consultant* or any other person against any and all liabilities which the *Consultant* 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 *Consultant* or any other person or the presence of the *Consultant* or that person or any property of the *Consultant* 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*.
- Z13.3 Subject to clause Z13.4 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 *Consultant* or any other person, or the presence of the *Consultant* or that person or any property of the *Consultant* 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*.
- Z13.4 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.
- Z13.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

**Z14 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.

|                              |                                                                                                                                                                                                                                                                                                              |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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.                                                                                                    |

- Z14.1 The *Employer* ensures that the Ambient Air in the area where the *Consultant* 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.
- Z14.2 Upon written request by the *Consultant*, 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 *Consultant* may perform Parallel Measurements and related control measures at the *Consultant'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 Z14.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.
- Z14.3 The *Employer* manages asbestos and ACM according to the Standard.
- Z14.4 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.
- Z14.5 The *Consultant'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.
- Z14.6 The *Consultant* 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

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dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.

- Z14.7 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.



## C1.2 Contract Data

### Part two - Data provided by the *Consultant*

**[Instructions to the tendering consultant: (delete these notes in the final draft of a contract)]**

4. The tendering consultant is advised to read both the NEC3 Professional Services Contract, April 2013 and the relevant parts of its Guidance Notes (PSC3-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 158 & 159 of the PSC3 April 2013 Guidance Notes.
5. The number of the clause in the PSC3 which requires the data is shown in the left hand column for each statement however other clauses may also use the same data.
6. Whenever a cell is shaded in the left hand column it denotes this data is optional in PSC3 and would be required in relation to the option selected. The *Employer* should already have made the selection and deleted the rows not required.

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

| Clause           | Statement                                                                                                                                                                                                             | Data                                                                                                       |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 10.1             | The <i>Consultant</i> is (Name):<br><br>Address<br><br>Tel No.<br><br>Fax No.                                                                                                                                         |                                                                                                            |
| 22.1             | The <i>key people</i> are:<br><br>1 Name:<br><br>Job:<br><br>Responsibilities:<br><br>Qualifications:<br><br>Experience:<br><br>2 Name:<br><br>Job<br><br>Responsibilities:<br><br>Qualifications:<br><br>Experience: |                                                                                                            |
| Only if required |                                                                                                                                                                                                                       | <b>CV's (and further <i>key persons</i> data including CVs) are appended to Tender Schedule entitled .</b> |
| 11.2(3)          | The <i>completion date</i> for the whole of the <i>services</i> is                                                                                                                                                    |                                                                                                            |

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

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|          |                                                                                 |                                                                  |                    |
|----------|---------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------|
| 11.2(10) | The following matters will be included in the Risk Register                     |                                                                  |                    |
| 11.2(13) | The <i>staff rates</i> are:                                                     | <b>name/designation</b>                                          | <b>rate</b>        |
|          | Either complete here or cross refer to a schedule in Part C2.2                  |                                                                  |                    |
| 25.2     | The <i>Employer</i> provides access to the following persons, places and things | <b>access to</b><br><br><b>1</b><br><br><b>2</b><br><br><b>3</b> | <b>access date</b> |
| 31.1     | The programme identified in the Contract Data is                                |                                                                  |                    |
| 50.3     | The <i>expenses</i> stated by the <i>Consultant</i> are                         | <b>item</b>                                                      | <b>amount</b>      |
| <b>A</b> | <b>Priced contract with activity schedule</b>                                   |                                                                  |                    |
| 11.2(14) | The <i>activity schedule</i> is in                                              |                                                                  |                    |
| 11.2(18) | The tendered total of the Prices is                                             | <b>R</b> (in figures)<br><br>(in words), excluding VAT           |                    |

**PART 2: PRICING DATA**  
**PSC3 Option A**

| Document reference | Title                         | No of pages |
|--------------------|-------------------------------|-------------|
| C2.1               | Pricing assumptions: Option A | [•]         |
| C2.2               | The <i>activity schedule</i>  | [•]         |

## C2.1 Pricing assumptions: Option A

### How work is priced and assessed for payment

Option A is a lump sum form of contract where the work to be done is broken down into well defined activities each listed in the *activity schedule* and priced by the tendering consultant as a lump sum. (See clause 11.2(18)).

Only completed activities which are without Defects are assessed for payment at each assessment date; no part payment is made if the activity is not completed by the assessment date. (See clause 11.2(15)).

The *activity schedule* may change after the Contract Date as a result of compensation events. (See clause 11.2(14)).

### Function of the Activity Schedule

The Activity Schedule is only a pricing document. Clause 53.1 in Option A states: "Information in the Activity Schedule is not Scope". Specifications and descriptions of the service or any constraints on how it is to be done are included in the Scope and per Clause 21.1, "The *Consultant* Provides the Services in accordance with the Scope" and therefore not in accordance with the Activity Schedule.

### Link to the programme

Clause 31.4 states that "The *Consultant* 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 consultant will develop a high level programme first then resource each activity on the programme 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 consultant who prepares the *activity schedule* by breaking down the work described within the Scope into suitable activities which can be well defined, shown on a programme and priced as a lump sum.

The description of each activity must be sufficient to determine exactly what work is included within it and to know when it has been completed.

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

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

- Has taken account of the guidance given in the PSC3 Guidance Notes;
- 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 each programme which he submits for acceptance by the *Employer*;
- Has listed and priced activities in the *activity schedule* which are inclusive of everything necessary and incidental to Providing the Service in accordance with the Scope, as it was at the Contract Date, as well as correct Defects except correcting a Defect for which the *Consultant* is not liable;
- 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 *service* 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 *Consultant* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event.

However, the *Consultant* does not have to allow in his Prices for matters that may arise as a result of a compensation event.

## **Expenses**

*Expenses* are not included in the *activity schedule* items and are assessed separately at each assessment date, unless an additional condition of contract (Z clause) is included which requires that expenses be included within activity Prices and not paid separately.

*Expenses* associated with employing a staff member in Providing the Services are listed separately either by the *Employer* in Contract Data provided by the *Employer* or by the *Consultant* in Contract Data provided by the *Consultant*. As only the *expenses* listed may be claimed by the *Consultant*, all other cost to the *Consultant* associated with Providing the Services must be included within the activity schedule prices or *staff rates*.

Rate adjustment for inflation of *expenses* is explained in the PSC3 Guidance Notes.

## **Staff rates**

When a compensation event occurs changes to the affected Activity Schedule item or new priced items in the Activity Schedule are assessed as the actual Time Charge for work already done and the forecast Time Charge for work not yet done. (See clause 63.1 and 63.14 in Option A)

The Time Charge is the sum of the products of each of the *staff rates* multiplied by the total staff time appropriate to that rate properly spent on work in this contract. (Clause 11.2(13))

Tendering consultants are advised to consult the NEC3 Professional Services Contract Guidance Notes and Flow Charts before entering *staff rates* into Contract Data, or in C2.2 below.

This is because *staff rates* can be established in one of three ways:

- rates for named staff,
- rates for categories of staff or
- rates related to salaries paid to staff.

Rate adjustment for inflation, if necessary, can be based either on actual salary adjustments or by using Option X1: Price adjustment for inflation. See pages 13 and 14 in the PSC3 Guidance Notes.

## C2.2 the *activity schedule*

As per the BOQ attached -Arnot Kendal 400kV T227 Specialised Rock Engineering Assessment of Undermine

## PART 3: SCOPE OF WORK

| <b>Document reference</b> | <b>Title</b>                               | <b>No of pages</b> |
|---------------------------|--------------------------------------------|--------------------|
| C3.1                      | This cover page<br><i>Employer's Scope</i> | 1                  |
| C3.2                      | <i>Consultant's Scope</i>                  |                    |
|                           | Total number of pages                      |                    |

# C3.1: EMPLOYER’S SCOPE

## Contents

When the document is complete, insert a ‘Table of Contents’. To do this go to: Insert, → Reference, → Index and tables → Table of Contents. Three levels and the title (but not the subtitle) may be shown if the formats used in this template are retained.

Otherwise insert list of contents manually.

# 1. Description of the services

## 1.1 Executive overview

The National Transmission Company South Africa (NTCSA) (referred to hereafter as the Employer) requires a specialised rock engineering investigation to be conducted at Arnot Kendal 400kV T227. The Arnot Kendal 400kV T227 is located next to the Eskom Vulcan Substation, Emalahleni; and the underlying area has been subject to historical undermining. The historical undermining map has been received from the current mine owner and indicates the Arnot Kendal 400kV T227 is currently placed on a mine pillar (Refer Figure 1 below).

The historical undermining is suspected to have occurred before or within the 1970's (i.e., more than 50 years ago) and has recently resulted in surface expressions noted as burning sinkholes. At time of compilation of this scope of works, the nearest identified feature was noted at 14 meters to Arnot Kendal 400kV T227.

No details are available on the depth and details of the historically undermined area therefore the extent of the risk to the powerline structures cannot be fully established. The Employer intends to remove the impacted Arnot Kendal 400kV T227 and replace the structure with two (2) structures, which aim to be placed off the undermined ground.

## 1.2 Interpretation and terminology

**Professional Rock Engineer:** Professional Engineer/Scientist working in surface and underground Coal Mining industry with the SANIRE (South African National Institute for Rock Engineering), SAIMM (South African Institute of Mining and Metallurgy) and Chamber of Mines Rock Mechanics/Engineering accreditations.

**Contractor:** Any employer formally contracted (directly or indirectly) by NTCSA and who performs work, supplies a service, product, equipment or material for the purposes of advancing NTCSA business or other interests. This includes personal contractors (i.e. consultants) and third-party contractors i.e. vendors, suppliers, agents, joint ventures, principal contractors and subcontractors.

**Construction work:** The erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure. The installation, erection, dismantling or maintenance of a fixed plant where such work includes the risk of a person falling. The installation, erection, dismantling or maintenance of a fixed plant where such work includes the risk of a person falling.

| Abbreviation | Meaning given to the abbreviation                     |
|--------------|-------------------------------------------------------|
| LES          | Lines Engineering Services                            |
| NTCSA        | National Transmission Company of South Africa         |
| OHS Act      | Occupational Health and Safety Act                    |
| ORHVS        | Operating Regulations for High Voltage Systems        |
| PPE          | Personal Protective Equipment                         |
| SAIMM        | South African Institute of Mining and Metallurgy      |
| SANIRE       | South African National Institute for Rock Engineering |
| SANAS        | South African National Accreditation System           |
| SANS         | South African National Standards                      |
| SHEQ         | Safety Health Environment and Quality                 |
| SOW          | Scope of Work                                         |
| SWP          | Safe Work Procedure                                   |

## 2. Specification and description of the *services*

The Employer requires a professionally registered rock engineer (referred to hereafter as the Contractor) to:

- Assess the area by means of literature review, intrusive and non-intrusive testing to determine the area and extent of the undermining in and around the Arnot Kendal 400kV T227 area,
- Determine the level of risk of failure of Arnot Kendal 400kV T227,
- Confirm the sub-surface geological conditions at the two (2) proposed structure positions, recommend alternative structure positions (should the provided structure positions not be feasible),
- Confirm if the current recommended foundation system can be applied at the two (2) proposed structure positions, recommend and detail specialised foundation designs which may be required within the area (should the provided foundation system not be feasible) and,
- Propose and detail ground rehabilitation methods for the undermined land (where possible)

Figure 1 below indicates the historically undermined area map (as received from the current mine owners).

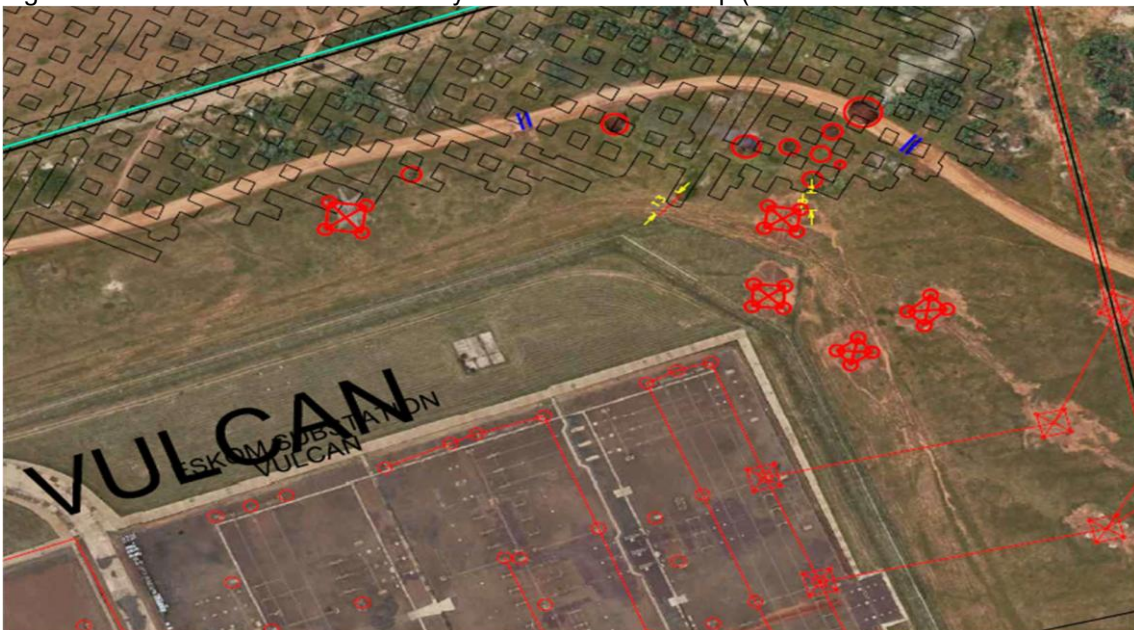
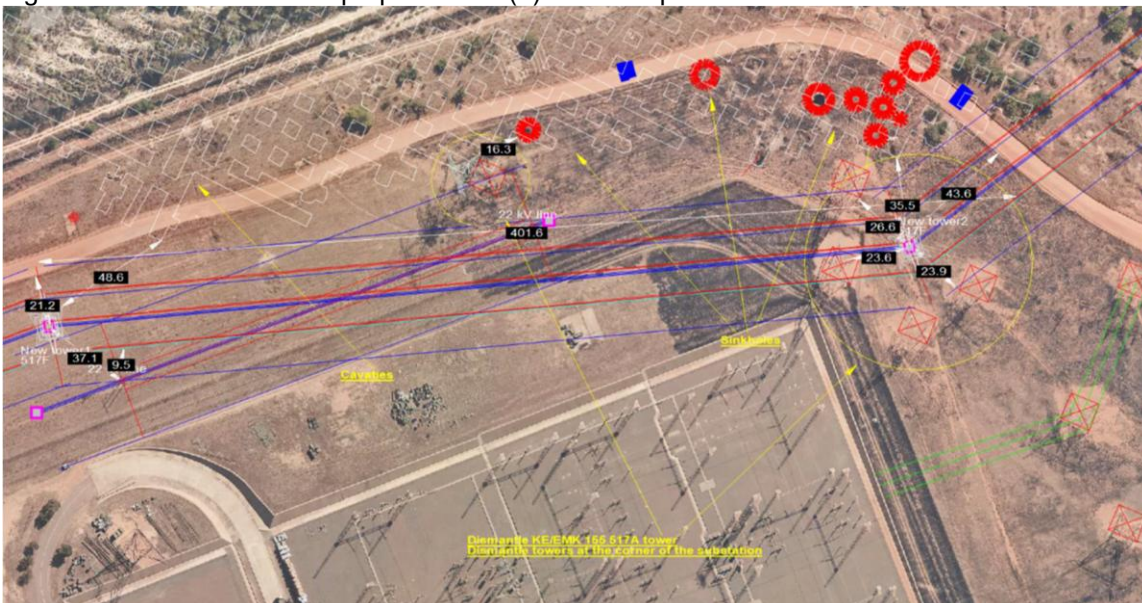


Figure 2 below indicates the proposed two (2) structure positions.



**ARNOT KENDAL 400KV T227 SPECIALISED ROCK ENGINEERING ASSESSMENT OF UNDERMINED LAND****Line Details**

- The Arnot Kendal 400kV power line was constructed over the years 1971, 1975, 1988, 2002, 2014.
- The details of Arnot Kendal 400kV T227 and the proposed two (2) new structures can be found in Table 1 and Table 2 below.

**Table 1: Existing Arnot Kendal T227 details summary**

|                              |                             |
|------------------------------|-----------------------------|
| Powerline Construction Year  | 2014                        |
| Impacted Line Section Length | 920m                        |
| Conductor Type               | 2 x Dino                    |
| Conductor Attachment Height  | 33m                         |
| Insulators                   | Glass cap and pin           |
| Tower Types                  | 517A (suspension)           |
| Earthwire                    | 2 x 9/2.65 Steelwire        |
| Fibre                        | None                        |
| Tower co-ordinates           | 25°49'34.60"S 29° 6'33.88"E |

**Table 2: Proposed structure positions**

| Twr Pref No                 | Bend? | Type | S_Type | Con<br>d<br>Att. | Tube | Sheet | Deg. Lat      | Deg. Long    | Height<br>Above<br>MSL |
|-----------------------------|-------|------|--------|------------------|------|-------|---------------|--------------|------------------------|
| <a href="#">New tower 1</a> | Y     | 517  | F      | 18               |      |       | 25°49'36.38"S | 29°6'27.63"E | 1521                   |
| <a href="#">New tower 2</a> | Y     | 517  | F      | 18               |      |       | 25°49'35.68"S | 29°6'40.54"E | 1514                   |

**ROLES AND RESPONSIBILITIES**

- The Consultant:
  - provides adequate resources including provision of equipment for required works,
  - sources and reviews existing historical undermining information and confirms the validity thereof,
  - ensures all materials and ground checks are conducted timeously and recorded adequately,
  - manages cost and a scheduled time frame of works,
  - ensures the scope is carried out in full,
  - manages all works on site and all outputs of sub-contracted works (as needed),
  - provides regular feedback on the status of the works,
  - ensures that all site work is undertaken by and/or supervised by the required professional (i.e., a professionally registered Rock Engineer),
  - ensures that prior to any works, all parties working on site familiarized themselves with the Employer's safety requirements, Mine safety requirements (where applicable) and the Occupational Health and Safety (OSH) Act (85 of 1993),
  - ensures all works complies with applicable licenses and authorisations,
  - obtains all necessary approvals and acceptances (as needed),
  - applies his discretion in conducting works in areas of subsidence and sinkholes,
  - ensures that, should the ground conditions exhibit notable changes, the Employer is informed promptly,
  - notifies the Employer as soon as possible, if any impedance or ruptured services is encountered,
  - ensures that all work conducted in close proximity to live lines within NTCSA servitude is conducted under the supervision of an Authorised Person,
  - NB. The Employer will provide an Authorised Person as/where needed,
  - must ensure that all equipment has maintained required height and width clearances as advised by the Employer and the Authorised Person (as needed),

**ARNOT KENDAL 400KV T227 SPECIALISED ROCK ENGINEERING ASSESSMENT OF UNDERMINED LAND**

- must ensure that all equipment has been earthed to the satisfaction of the Employer (see [1]Annexure C) and overseen by the Authorised Person (as needed),
- ensures the successful implementation of ground truthing, structure position feasibility, viable
- foundation systems and ground rehabilitation (as required).
- No fieldworks conducted should trigger further ground instability e.g., spontaneous
- combustion.

## **2.1 Stage 1: Preparation**

### **Site Walkover**

The Consultant (and all necessary team members/sub-contractors):

- conduct a site walkover of the impacted area/s,
- identifies areas of notable ground features and contributing environmental factors,
- identifies areas of notable adjacent and bisecting infrastructure,
- makes notes and observations to ensure that the works are not encumbered by the overall site conditions,
- ensures works take into consideration the necessary safety considerations for the stability of the area.

## **2.2 Stage 2: Concept**

### **GROUND TRUTHING**

- The Contractor is required to conduct and collate the site walkover and a desktop empirical analysis of the historical, current and future expected mining works (verification of mine plan and mining forecast). The literature study determines the possible impacts on the proposed future stability of the proposed two (2) new structure foundation/s. The desktop task is expected to include the analysis of the impacted pillar/s stability and scaling, and effect of the roof and floor deterioration.
  - Given the prevalent ground conditions. The desktop study is expected to include the incidence and rate of weathering, mining techniques, surcharge loading, spontaneous combustion of coal and current and future probable hydrological conditions (where applicable).
  - Following the literature assessment of the area, the Contractor employs intrusive and non-intrusive ground investigation methods to confirm the extent and impact of the historical undermining on the Arnot Kendal 400kV T227 area.
  - The Contractor must conduct intrusive and non-intrusive testing at the areas of the proposed two (2) structures to confirm the feasibility of the positions for new structure. The historical undermining boundary (as sourced from the current mine owner) has been used to position the two (2) structures off the undermined land boundary. Should there be undermining or concerns with the proposed positions, the Contractor must highlight the risk of the position/s and propose revised positions for the structure/s. Structure relocation recommendation must have a stable footprint of  $\geq 20\text{m}$  from the base of the tower foundation.
  - For the intrusive and non-intrusive testing, the Contractor conducts the necessary surveys of the affected area. The Contractor may also purchase satellite images (where required).
  - Due to the uncertainty of the depth and method of historical undermining, the Contractor is required to conduct geological drilling (e.g., sonic drilling) to ascertain/ confirm the undermined boundary, the feasibility of the proposed positions, determine the soil profile/ geology of the area, extent of consolidation and the potential for competent load bearing layers as needed for the proposed foundation systems.
- Suggest provision to be made for a minimum of 12 x 60m depth boreholes
- Additional drilling may be conducted at the discretion of the Contractor or the area findings.
- Any additional drilling required, must be preceded by an accepted written technical substantiation.
- Reasonable estimates will be made of the rock conditions using the Rock Mass Classification (RMR) system. Estimates of current and future stress conditions will be made and observations on the sustainability and longevity of the support systems used will be made.
  - Laboratory testing may be conducted at the discretion of the Contractor.
- Any laboratory testing required, must be preceded by an accepted written laboratory testing suite outline.
- The Contractor advises on any reasonable interventions that can be performed to reduce the probability and consequence of subsidence/sinkholes or whether the timelines for failure be favourably altered.
  - The proposed foundation system to be used for the two (2) structures is a Type 4 conventional foundation system (Refer APPENDIX C: indicative Conceptual foundation drawing (type 4)). Based on the ground investigation findings, the Contractor may deem the need for specialised foundation

systems. Specialised foundation systems (where specified) must be fully detailed for construction purposed and must be presented to and accepted by the Employer prior to finalisation for use.

- The proposed powerline structure to be used at the two (2) locations is the 517F structure. The tower drawing and tower loading can be found in APPENDIX B: TOWER DRAWING NEW PROPOSED STRUCTURES (517F).
- All recommendations are adequately detailed to allow for constructable implementation this includes material specifications and material quantities as well as placement methodologies and Quality Management (QM) items such as e.g., material testing frequencies and strength testing yields.
- The Contractor must also assess the area to be traversed by construction plant. The Contractor must identify potentially unsafe areas for vehicles, plant and laydowns, and must communicate these areas in writing to the Employer.
  - Drilling is required on existing access roads or potential access pathways (where required) to accommodate the investigative works and potential future construction works.
- The Contractor determines if the Employer is able to perform safe routine maintenance on the two (2) structures in the vicinity of the undermined and subsidence/sinkhole affected areas. The Contractor outlines the conditions or procedures to be followed in order execute safe working procedures. This will need to be covered/considered from a geotechnical perspective and would need to be augmented by any site specific SHEQ procedures normally used by the Employer.
- Prior to commencement of works, all drilling and required laboratory/in-situ testing must be accepted by the Employer.

### **2.3 Stage 3: Design development**

The Contractor report:

- assesses the impacted area by intrusive and non-intrusive methods,
- consolidates all field information and produces a comprehensive technical report of findings,
- uses the desktop and ground investigation findings to confirm the feasibility of the proposed two (2) structure positions, and/or details proposed structure relocation position/s to more stable ground, and/or ground improvement methods (where possible). The Contractor confirms the use of the proposed foundation system and/or recommends and details special foundations (where needed),
- includes but is not limited to geotechnical risks/ risk spread due to surface instability and/or depression/features from mining, mining related activities and associated surface damage due to rat-holing and/or subsidence/sinkholes and/or any ground –related failures,
- confirms if the surface expressions of failure are limited to the visible features area,
- provides an explanation of the failure types and warning signs associated with the identification of failure types,
- provides time guidance for the failure/s and/or unreasonably high risk of failure leading to the founding surface being too risky,
- provides clear recommendations on the level of risk of the area and potential structure/s collapse, All documentation to be submitted in digital (word-friendly \*.pdf format, shape files /Cad files) and hardcopy formats (2 x copies).

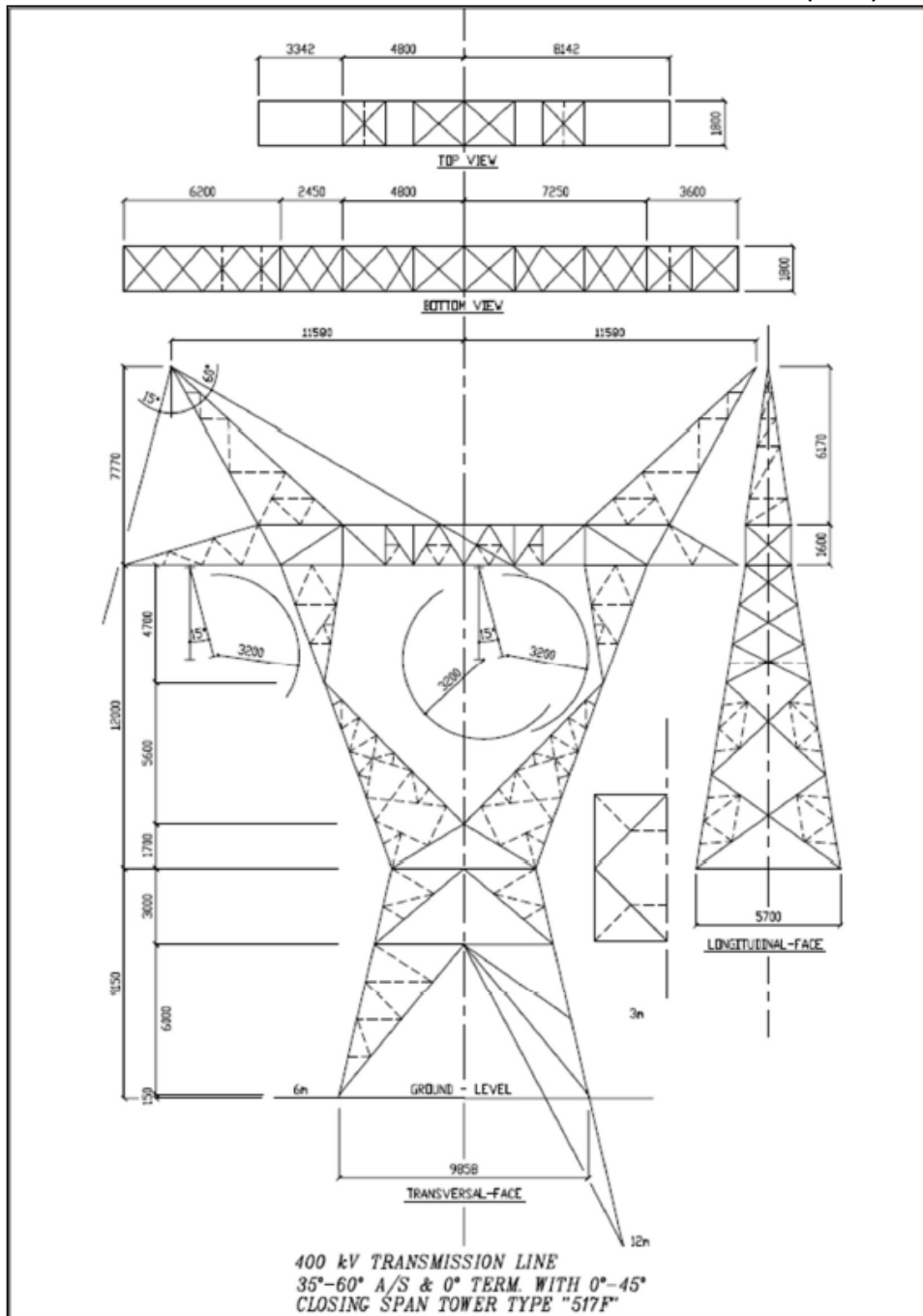
**NB.** Written consent must be received from the Employer for any/all deviations from the works as outlined herein.

### **2.4 Stage 4: Production information**

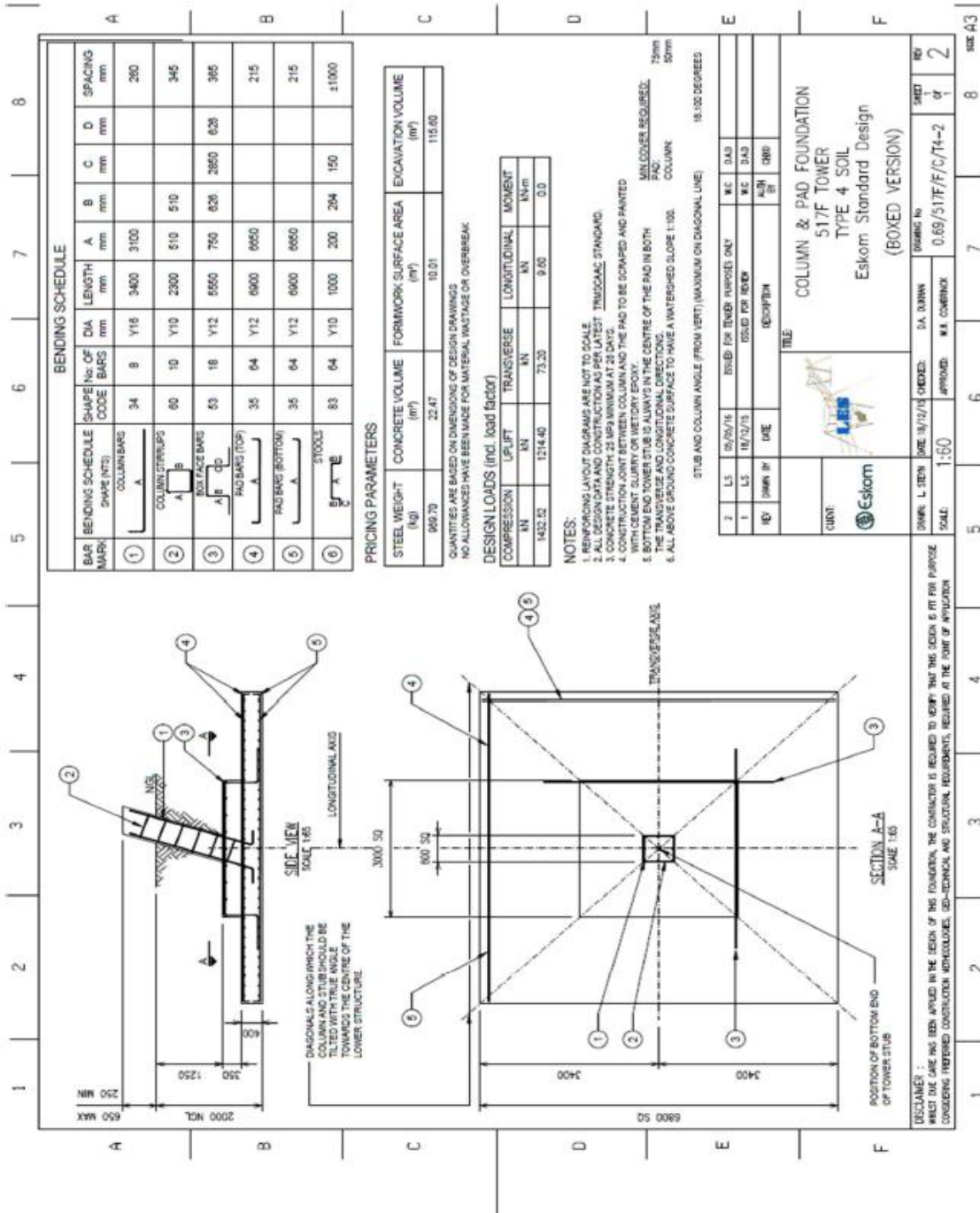
Kindly see attached appendix below:

## CONTRACT NUMBER



**APPENDIX B: TOWER DRAWING NEW PROPOSED STRUCTURES (517F)**

**APPENDIX C: INDICATIVE CONCEPTUAL FOUNDATION DRAWING (TYPE 4) – NOT FOR CONSTRUCTION**



## CONTRACT NUMBER



## 2.5 Stage 5: Manufacture, Installation and Construction Information:

Prior to commencement of works, all drilling and required laboratory/in-situ testing must be accepted by the Employer.

## 2.6 Stage 6: Post Practical Completion

- Uses the desktop and ground investigation findings to confirm the feasibility of the proposed two (2) structure positions, and/or details proposed structure relocation position/s to more stable ground, and/or ground improvement methods (where possible). The Contractor confirms the use of the proposed foundation system and/or recommends and details special foundations (where needed),
- Conduct orientation session to help users understand the design, layout, and functionality of the works.
- Provide manuals, guides, or digital resources for ongoing reference.
- Provide a period of support to address unforeseen issues.
- Feed lessons learned into future projects

## 3. Constraints on how the *Consultant* Provides the Services.

### 3.1 Management meetings

Regular meetings of a general nature may be convened and chaired by the *Employer's Agent* as follows:

| Title and purpose                      | Approximate time & interval                           | Location | Attendance by:                                  |
|----------------------------------------|-------------------------------------------------------|----------|-------------------------------------------------|
| Risk register and compensation events  | As and when early warning is issued.                  | Ms Teams | Consultant, Employer's Agent and others (CFT)   |
| Overall contract progress and feedback | After each section is completed                       | Ms Teams | <i>Employer's Agent, Consultant</i> and Other   |
| Kick-off meeting (Optional)            | 7 Days before start of task order activity/activities | TBC      | <i>Employer's Agent, Consultant</i> and all CFT |
| Site assessments meetings              | As and when required                                  | TBC      | <i>Employer's Agent, Consultant</i> and Other   |
| Close-off meeting (Compulsory)         | 7 Day after last task order activity completed        | TBC      | Employer, Contractor and other                  |
| SHEQ meeting                           | Monthly                                               | MS Teams | Employer, Contractor and other                  |

### 3.2 *Consultant's* key persons

The Consultant's shall provide updates on the progress status of the assessment

### 3.3 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 *Consultant* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.

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

**ARNOT KENDAL 400KV T227 SPECIALISED ROCK ENGINEERING ASSESSMENT OF UNDERMINED LAND**

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

### 3.4 Documentation control and retention

#### 3.4.1 Identification and communication

All documentation to be submitted in digital (word-friendly \*.pdf format, shape files /Cad files) and hardcopy formats (2 x copies).

Documentation in writing accepted via e-mail, fax or postage. Listing of certifying or verifying documents generated to provide evidence of compliance with specified requirements; documents are to be provided using the proper Eskom document numbering requirements NTCSA reserves the right to review, inspect, and audit any or all parts of the supplier's QMS, as well as any documentation, materials, or equipment associated with the work, at any time or service work CLN.

#### 3.4.2 Retention of documents

the *Consultant* retains copies of drawings, specifications, reports and other documents which record the services in the form stated in the Scope for a period of 10 years after completion of the service.

### 3.5 Records and forecasting of expenses

N/A

### 3.6 Records and forecasting of the Time Charge

N/A

### 3.7 Invoicing and payment

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

The *Consultant* shall address the tax invoice to  
Eskom Holding SOC(Ltd), Transmission North East Grid  
and include on each invoice the following information:

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

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

| General Information                                                                                                                                                                                                                                    | x |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| No Pro-forma Invoice                                                                                                                                                                                                                                   |   |
| Check Vendor number against the Address and name Tax invoice                                                                                                                                                                                           |   |
| Insert the Vendor number on Tax invoice (Top right-hand corner)                                                                                                                                                                                        |   |
| Bank details must be on the invoice or on a attach sheet, but it does not require a bank stamp just a letter                                                                                                                                           |   |
| Check banking details on invoice against SAP system. If more than one banking account check bank account against banking details on invoice. If banking details not on invoice, write the bank code next to the vendor number account (bank code 0002) |   |
| Check Vendor VAT number against the vendor master (FK03). If VAT number not on master records, prepare a list and forward to Vendor Management to check and update the vendor master records                                                           |   |
| No fax copies of Tax invoices allowed                                                                                                                                                                                                                  |   |

|                                                                                                                                                                                                                                                                                                                |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| No copies of Tax invoices allowed unless original printed by the Vendor. If a photocopy tax invoice, it must be an original "certified copy" (i.e not a copy of a "certified copy" invoice) from the vendor and check in system if not previously be paid. Put stamp "not previously paid" on invoice and sign |  |
| Ensure that date received stamp is clear on invoice                                                                                                                                                                                                                                                            |  |
| Stamp all invoices with the VAT stamp, complete and sign (only when VAT is applicable)                                                                                                                                                                                                                         |  |
| The stamp should not be stamped over any written information                                                                                                                                                                                                                                                   |  |
| When scanning invoice, check the quality before linking in SAP (inboxes)                                                                                                                                                                                                                                       |  |
| <b>With Reference Invoices</b>                                                                                                                                                                                                                                                                                 |  |
| Goods receipt must be done (payment with reference)                                                                                                                                                                                                                                                            |  |
| Ensure that the SAP purchase order number is clear and correct on the invoice                                                                                                                                                                                                                                  |  |
| GR number to be written on the invoices                                                                                                                                                                                                                                                                        |  |
| If multiple line on the invoice write the line number of the order against the lines to ensure that the processors match the correct lines (to ensure that 191100 is matched correctly)                                                                                                                        |  |

**Rates**

Only Eskom approved rates are applicable in this contract. In an event whereby reimbursable item/s are not found on the standard Bill of Quantities, Consultant may submit three quotations of that particular item/s for rate evaluation exercise before work can be done.

**3.8 Contract change management**

All changes to the Contract, such as Contractor management changes or Compensation events shall be communicated through standard NEC PSC 3 forms.

**3.9 Inclusions in the programme**

All stages from 1-6 to form part of milestones in the programme.

**3.10 Quality management****3.10.1 System requirements**

All recommendations are adequately detailed to allow for constructable implementation this includes material specifications and material quantities as well as placement methodologies and Quality Management (QM) items such as e.g., material testing frequencies and strength testing yields.

**Driven machinery to comply with the following standards:**

- Cranes comply and are operated in accordance with CR 22.
- Rope / pilot wire selection in compliance with SANS 4308-1.
- Classify cranes / lifting equipment according to SANS 4301- 1.
- Communicate during lifting with cranes /lifting equipment according to SANS 10296.
- Maintenance / operation / training of cranes, lifting equipment and operators in accordance with SANS 10307.

**3.10.2 Information in the quality plan**

Refer to document identifier **240-138850942** quality Spec

**3.11 The Parties use of material provided by the Consultant****3.11.1 Employer's purpose for the material**

N/A

**3.11.2 Restrictions on the Consultant's use of the material for other work**

N/A

### 3.11.3 Transfer of rights if Option X 9 applies

This report has been prepared solely for NTCSEA NEG for the purpose of **ARNOT KENDAL 400KV T227 SPECIALISED ROCK ENGINEERING ASSESSMENT OF UNDERMINED LAND**, it may not be used for any other purpose without our prior written consent.

## 3.12 Management of work done by Task Order

N/A

## 3.13 Health and safety

The *Consultant* shall at all times comply with the health and safety requirements prescribed by law as they may apply to the *services*.

[If the *Consultant* may be required to work on Eskom premises, such as a power station, where health and safety requirements additional to those prescribed by law apply, specify these here or state, The *Consultant* shall comply with the health and safety requirements contained in SHE specification document identifier number **240-138850942** to this Scope

## 3.14 Procurement

### 3.14.1 BBBEE and preferencing scheme

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

### 3.14.2 Other constraints

#### Project Risks

The following risks can be encountered on site and must be considered when compiling Safe Work Procedure/s:

- Substation area is regarded as high security risk
- Surface expressions (sinkholes) – burning and smoking
- Ground hot spots caused by underground coal combustion
- Potential space constraints and access for heavy duty equipment for all towers
- Detailed inspection to be done on all impacted towers to identify additional risks before work commences.

- General EA and or WULA for any construction

A generic risk assessment matrix has been attached

### 3.14.3 Preferred subconsultants

N/A

### 3.14.4 Subcontract documentation, and assessment of subcontract tenders

N/A

### 3.14.5 Limitations on subcontracting.

N/A

### 3.14.6 Attendance on Subconsultants

N/A

### 3.15 Correction of Defects

2 weeks after notification is sent.

### 3.16 Working on the *Employer's* property

Access protocol should be followed as per the property owners' requirements and Eskom's Access to farms 34-190: (TGL 41-340) including strategy on dealing with game farms. All Contractors should adhere to respective sites' specific requirements, i.e Private property, Farms, Game reserves, Plantations, Mines, e.t.c.

#### 3.16.1 *Employer's* entry and security control, permits, and site regulations

Accessing private land

The Eskom contractor shall as a minimum:

- Remain on all existing roads and tracks and within the servitude area and not deviate there from.
- Keep Eskom gates locked and leave property owners' gates as found; also complete the Eskom Gate's register
- Not interfere with the property owners' activities.
- Request permission for the use of water.
- Not make fires.
- Not litter.
- Not drop fences.
- Not collect firewood without consent; and
- Not disturb or remove stones/rock from the site (e.g. archaeological and heritage sites).
- Contractor to complete the Landowner Consent forms to obtain permission to work within the property, and submit them to Eskom
- On completion of the work, landowners shall sign-off that work was completed to their satisfaction.

#### 3.16.2 People restrictions, hours of work, conduct and records

Supplier shall abide to Labour Law 8 hours expected a day.

### 3.17 Cooperating with and obtaining acceptance of Others

All Contractors should adhere to respective sites' specific requirements, i.e Private property, Farms, Game reserves, Plantations, Mines, etc.

### 3.18 Things provided by the *Employer*

The following will be provided by employer:

- Ablution facilities
- Portable water

### 3.19 Cataloguing requirements by the *Consultant*

N/A

## 4. List of drawings

### 4.1 Drawings issued by the *Employer*

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

| Drawing number | Revision  | Title                                                  |
|----------------|-----------|--------------------------------------------------------|
| L09482         | June 2025 | "Thermal & Colour Ortho-Imagery Data: METADATA REPORT" |
| PDF/DGN Maps:  |           | Undermining (Excelsior Cavities)                       |
|                |           | Conceptual Foundation Drawing                          |
|                |           | Tower Drawing/s                                        |
|                |           |                                                        |