



NEC3 Professional Services Contract (PSC3)

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

**and
(Reg No.)**

**for Provision of Engineering Surveying Services on as and
when required basis for a period of three (3) years**

Contents:	No of pages
Part C1 Agreements & Contract Data	[•]
Part C2 Pricing Data	[•]
Part C3 Scope of Work: The Scope	[•]

CONTRACT No.

PART C1: AGREEMENTS & CONTRACT DATA

Document reference	Title	No of pages
C1.1	Form of Offer & Acceptance [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> [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:

Provision of Engineering Surveying Services on as and when required basis for a period of three (3) years

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	(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:**

Name &
signature of
witness

(Insert name and address of
organisation)

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 and Acceptance)	Agreements and Contract Data, (which includes this Form of Offer
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**

Name &
signature of
witness

*(Insert name and address of
organisation)*

Date

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

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	<i>(Insert name and address of organisation)</i>	<i>(Insert name and address of organisation)</i>
Name & signature of witness	_____	_____
Date	_____	_____

C1.2 PSC3 Contract Data

Part one - Data provided by the *Employer*

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

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	
	dispute resolution Option	G: Term contract
	and secondary Options	W1: Dispute resolution procedure
		X1: Price adjustment for inflation
		X2 Changes in the law
		X9: Transfer of rights
		X10 <i>Employer's Agent</i>
		X11: Termination by the <i>Employer</i>
		X18: Limitation of liability
		Z: <i>Additional conditions of contract</i>
	of the NEC3 Professional Services Contract (April 2013) ¹	
10.1	The <i>Employer</i> is (Name):	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
	Address	Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg
	Tel No.	011 800 6347
	Fax No.	N/A
11.2(9)	The <i>services</i> are	Provision of Engineering Surveying Services on as and when required basis for a period of three (3) years

¹ Available from Engineering Contract Strategies Tel 011 803 3008 Fax 011 803 3009 and www.ecs.co.za

11.2(10) The following matters will be included in the Risk Register

Risk: Delays meeting the key dates.
Remedy: Cancel the purchase order.
All other risks will be recorded in the risk register as and when identified.

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	2 weeks		
13.6	The <i>period for retention</i> is	3 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	As per the instructions on the task order	As per the instructions on the task order
3	Time			
31.2	The <i>starting date</i> is.	01 April 2026		
11.2(3)	The <i>completion date</i> for the whole of the services is.	31 March 2029		
11.2(6)	The <i>key dates</i> and the <i>conditions</i> to be met are:	Condition to be met		key date
		1	As per the instructions on the task order	As per the instructions on the task order
31.1	The <i>Consultant</i> is to submit a first programme for acceptance within	As per the instructions on the task order		
32.2	The <i>Consultant</i> submits revised programmes at intervals no longer than	1 week after the issue of the task order		
4	Quality			
40.2	The quality policy statement and quality plan are provided within	4 weeks of the Contract Date.		
42.2	The <i>defects date</i> is	1 week after the ratification request		
5	Payment			
50.1	The <i>assessment interval</i> is	between the 25th day of each successive month.		

50.3	The <i>expenses</i> stated by the <i>Employer</i> are	Item	Amount
		Refer to Part C2 of the contract	Refer to Part C2 of the contract
51.1	The period within which payments are made is	Thirty (30) days for QSE and Generic suppliers and fourteen (14) days for EME suppliers	
51.2	The <i>currency of this contract</i> is the	South African Rand	
51.5	The <i>interest rate</i> is	<p>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,</p> <p>and</p> <p>the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption "Money Rates" in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted <i>mutatis mutandis</i> every 6 months thereafter and as certified, in the event 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</p>	
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		

81.1 The amounts of insurance and the periods for which the *Consultant* maintains insurance are

Event	Cover	Period following Completion of the whole of the services or earlier termination
Liability for failure by the <i>Consultant</i> 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	See Notes to Consultants in Annexure A
death of or bodily injury to a person (not an employee of the <i>Consultant</i>) or loss of or damage to property arising from or in connection with the <i>Consultant's</i> Providing the Services.	Whatever the <i>Consultant</i> deems necessary for any occurrence or series of occurrences arising out of one event without limit to the number of claims.	See Notes to Consultants in Annexure A
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	As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 and the <i>Consultant's</i> common law liability for people falling outside the scope of the Act with a limit of indemnity of not less than R500 000-00 (five hundred thousand) in respect of each claim, without limit to the number of claims	As <i>Consultant</i> deems necessary

81.1 The *Employer* provides the following insurances

Refer to Annexure A for details of insurance provided by the *Employer*.

82.1 The *Consultant's* total liability to the *Employer* 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	
G	Term contract	
21.4	The <i>Consultant</i> prepares forecasts of the total Time Charge and <i>expenses</i> at intervals no longer than	Five (5) days after receipt of a signed task order and purchase order.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). 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 www.ice-sa.org.za).
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"> • if the Parties cannot agree a choice or • if the <i>arbitration procedure</i> does not state who selects an arbitrator, is 	the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.

12	Data for secondary Option clauses	
X1	Price adjustment for inflation	
X1.1	<p>The index is</p> <p>The staff rates are {state whether “Fixed at the Contract Date and are not variable with changes in salary paid to individuals” or “Variable with changes in salary paid to individuals”}</p>	<p>CPI as published by Statistics SA</p> <p>Rates are fixed for the first 12 months of the contract, thereafter escalated once annually using the CPI rate from Statistics SA</p>
X2	Changes in the law	
X2.1	The law of the project is	South African law
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	<p>The <i>Employer's Agent</i> is</p> <p>Name:</p> <p>Address</p> <p>The authority of the <i>Employer's Agent</i> is</p>	<p>Busani Khumalo</p> <p>DSC Office Park, 2nd floor, Block C,6 Memorial Rd, Monument Heights, Kimberley, 8301</p> <p>To carry out all of the actions of the <i>Employer</i> in this contract.</p>
X11	Termination by the <i>Employer</i>	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.
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:	The total of the Prices
X18.3	The <i>end of liability date</i> is	Five years after Completion of the whole of the <i>services/task order</i>.
Z	The <i>Additional conditions of contract</i> are	
		Z1 to Z11 always apply.

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 Ethics

- Z4.1 Any offer, payment, consideration, or benefit of any kind made by the *Consultant* which constitutes or could be construed either directly or indirectly as an illegal or corrupt practice, as an inducement or reward for the award or in execution of this contract constitutes grounds for terminating the *Consultant's* obligation to Provide the Services or taking any other action as appropriate against the *Consultant* (including civil or criminal action).
- Z4.2 The *Employer* may terminate the *Consultant's* obligation to Provide the Services if the *Consultant* (or any member of the *Consultant* where the *Consultant* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations) is found guilty by a competent court, administrative or regulatory body of participating in illegal or corrupt practices.
- Such practices include making of offers, payments, considerations, or benefits of any kind or otherwise, whether in connection with any procurement process or contract with the *Employer* or other people or organisations and including in circumstances where the *Consultant* or any such member is removed from the an approved vendor data base of the *Employer* as a consequence of such practice.
- Z4.3 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.

Z5 Confidentiality

- Z5.1 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.
- Z5.2 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*.
- Z5.3 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.
- Z5.4 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*.

Z6 Waiver and estoppel: Add to core clause 12.3:

- Z6.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties, 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.

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

- Z7.1 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.

Z8 Notifying compensation events

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

Z9 *Employer's* limitation of liability

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

Z10 Termination: Add to core clause 90.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":

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

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

- Z11.1 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.
- Z11.2 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.

Annexure A: Notes to Consultants

This is guidance to Consultants to assist their decision making about what cover to arrange in the insurance to be provided by the Consultant. The guidance is not part of the contract and the Employer carries no liability for it. The Consultant must obtain its own advice.

1. For the purpose of works contracts, insurance provided by Eskom (the *Employer*) has been arranged on the basis of “project” or “contract” value, where the value is the total of the Prices at Completion of the whole of the works including VAT.

A “project” is a collection of contracts or work packages to be undertaken as part of a single identified capital expansion or refurbishment of a particular asset or facility.

A “contract” is a single contract not linked to or being part of a “project”.

2. There are three main “formats” of cover and deductible structure; Format A, Format B and Format Dx.

Format A is for a project or contract value less than or equal to R350M (three hundred and fifty million Rand) inclusive of VAT.

Format B is for a project or contract value greater than R350M (three hundred and fifty million Rand) inclusive of VAT.

In the case of contracts / packages within a project:

- For a contract / package of R50M which is part of a R400M project, Format B will apply
- For a contract / package of R250M which is part of a R6 billion project, Format B will apply;
- For a contract / package of R120M which is part of a R350M project Format A will apply;

For a contract which is not part of a project the same limits apply:

- For a contract of R50M, Format A will apply
- For a contract of R355M, Format B will apply.

Format Dx applies only to Distribution Division projects and contracts. If a Distribution Division project or contract exceeds the Format A limit, the Eskom Insurance Management Services [EIMS] need to be contacted for advice on how to formulate the insurance cover. Cover and deductibles for Distribution Division are per the relevant policy available on the internet web link given below.

Format A generally applies to Transmission Division projects and contracts. If a Transmission Division project or contract exceeds the Format A limit, the Eskom Insurance Management Services [EIMS] need to be contacted for advice on how to formulate the insurance cover.

3. Further information and full details of all Eskom provided policies and procedures may be obtained from:

http://www.eskom.co.za/Tenders/InsurancePoliciesProcedures/Pages/EIMS_Policies_From_1_April_2014_To_31_March_2015.aspx

4. The Insurance which the *Consultant* is to provide against his liability for claims made against him arising out of his failure to use reasonable skill and care (first row in the Insurance Table of clause 81.1 in the PSC3) should also indemnify the *Consultant* for those sums which he could become legally liable to pay as damages arising from any claim first made against him and reported to Insurers some time after Completion of the whole of the *services*. Hence the *Consultant* needs to ensure that his cover is in place at least until all his liabilities under the contract have expired. Such claims could arise out of any negligent act, error or omission committed or alleged to have been committed by the *Consultant* in the conduct of professional services in connection with the contract.

C1.2 Contract Data

Part two - Data provided by the *Consultant*

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): Address Tel No. Fax No.	
22.1	The <i>key people</i> are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job: Responsibilities: Qualifications: Experience:	
Only if required		CV's (and further <i>key persons</i> data including CVs) are appended to Tender Schedule entitled .
11.2(3)	The <i>completion date</i> for the whole of the <i>services</i> is	31 March 2029

11.2(10)	The following matters will be included in the Risk Register	Risk: Delays meeting the key dates. Remedy: Cancel the purchase order. All other risks will be recorded in the risk register as and when identified	
11.2(13)	The <i>staff rates</i> are:	name/designation	rate
	Either complete here or cross refer to a schedule in Part C2.2	Refer to Part C2 of the contract	Refer to Part C2 of the contract
25.2	The <i>Employer</i> provides access to the following persons, places and things	access to 1 As per the instructions on the task order	access date As per the instructions on the task order
50.3	The <i>expenses</i> stated by the <i>Consultant</i> are	Refer to Part C2 of the contract	Refer to Part C2 of the contract
G	Term contract		
11.2(25)	The <i>task schedule</i> is in	As per the instructions on the task order	

PART 2: PRICING DATA

PSC3 Option G

Document reference	Title	No of pages
C2.1	Pricing assumptions : Option G	[•]
C2.2	<i>Staff rates, expenses and the task schedule.</i>	[•]

• C2.1 Pricing assumptions: Option G

How work is priced and assessed for payment

From Option G: Term contract

Identified and defined terms	11	
	11.2	(17) The Price for Services Provided to Date is, for each Task, the total of the Time Charge for work which has been completed on time based items on the Task Schedule and a proportion of the lump sum price for each other item on the Task Schedule which is the proportion of work completed on that item. (20) The Prices are the Time Charge for items described as time based on the Task Schedule and the lump sum price in the Task Schedule for each other item.

From the Core Clauses:

Identified and defined terms	11.2	(13) The Time Charge is the sum of the products of each of the <i>staff rates</i> multiplied by the total staff time appropriate to that rate properly spent on work in this contract.
------------------------------	------	--

and

Assessing the amount due	50.3	The amount due is the Price for Services Provided to Date, the amount of the <i>expenses</i> properly spent by the <i>Consultant</i> in Providing the Services and other amounts to be paid to the <i>Consultant</i> less amounts to be paid by or retained from the <i>Consultant</i> . Any tax which the law requires the <i>Employer</i> to pay to the <i>Consultant</i> is included in the amount due.
--------------------------	------	--

In effect Option G is a cost reimbursable form of contract with work ordered by the *Employer* on a Task by Task basis using the Task Schedule to compile the cost of carrying out a Task.

Expenses are calculated separately and added to the amount due for the services provided.

Staff rates and expenses

Tendering consultants are advised to consult the NEC3 Professional Services Contract Guidance Notes before entering *staff rates* into Contract Data, or in section C2.2 which follows.

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 of the PSC3 Guidance Notes.

Expenses associated with employing a staff member in Providing the Services can be 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 *staff rates*.

Rate adjustment for inflation of *expenses* is explained on page 15 of the PSC3 Guidance Notes.

The function of the Task Schedule

The Task Schedule may include items of work to be paid for on a rate (Time Charge) or on a lump sum price for the item. Any work ordered during the term of the contract – i. e. before the Completion Date – for which there is no priced item in the Task Schedule is priced using the compensation event procedure and the resulting Price is added into the Price List.

The *task schedule* is prepared by the *Employer* for the *Consultant* to price, or may be prepared jointly with the *Consultant*. It is typically priced in two parts as items of work to be carried out on a time basis and lump sum prices for other items of work. The task schedule must be as complete as possible and fully representative of all the work and *services* which the *Employer* may require the *Consultant* to carry out. The only unknown is when the work is to be carried out; the Task Order will be used to instruct when work to be done.

• C2.2 Staff rates, expenses & the task schedule

This section can be used when the *staff rates* and *expenses* are considerable in number and more conveniently located here than in the Contract Data. Entries in the Contract Data should refer to this section of Part 2.

State whether the *staff rates* and *expenses* exclude or include VAT.

1. The rates and expenses exclude VAT.



Engineering Survey
Contract - Rates Estim

The task schedule

Will be confirmed at task order level.

PART 3: SCOPE OF WORK

Document reference	Title	No of pages
C3.1	This cover page <i>Employer's Scope</i>	1
	Total number of pages	

C3.1: EMPLOYER'S SCOPE

SUB-TRANSMISSION ENGINEERING

SPECIFICATION No. HV 01/2013

33/44/66/88/132 kV HV LINE & SUB STATION SURVEYS

1. Preliminary Route Selection

A preliminary line route is selected on topographical, aerial photographs and/or orthophoto plans at a scale suited to the required level of detail. (e.g. 1:250 000, 1:50 000, 1:10 000) Cadastral information and plans are to be obtained from the Surveyor Generals and Deeds offices.

The Objective of a preliminary route is, considering obstacles and restrictions, to achieve the most direct, cost effective, accessible route possible. The route should be mutually acceptable to Eskom, and all interested and affected parties. The line is to be as straight and direct and as short as restrictions will practically allow.

Accessibility has to be considered for construction and maintenance.

Aeroplane landing strips no part of the power line may protrude from a 3048m long & 768m wide approach surface measured at a slope of 1:50 at a distance of 60 from the end of any runway.

Building restrictions as per half servitude width.

Civil aviation spans higher than 60m above the ground need approval.

Crop Compensation Eskom has to reimburse owners for damages and the loss of trees and crops.

Explosive magazines dependent on span lengths, power lines must be more than 30 m away.

Flood lines try to locate structures above 50 year flood plains.

Graves and cemeteries can be crossed but should be avoided due to public objection.

Irrigated lands avoid crossing lands irrigated with pipes. Wheel move and centre pivot systems may not have structures placed where their operation would be limited.

Land usage impacts on the value of property and is a price factor in the route selection.

Landowners the route has to be mutually acceptable.

Other power line crossings lower voltages are built below higher voltage lines. Test clearance with higher conductor at hot design template 50 or 80°C and lower conductor at cold template design template -5°C. Crossings should be close to structures but further than overturning distance. Surveyors must be aware of blow out conditions and the proximity to stay wires.

Parallel power lines create induced currents; separation distances must be applied to maintain acceptable voltages.

Petronet pipelines structures or parts thereof are not permitted within than 15m of pipelines.

Quarries only single shot blasting permitted within 500m of a power line.

Road crossings as per clearance chart conditions differ for National, District & Abnormal load routes.

Rocky areas can present clearance and access problems. Foundations are also more costly.

Servitude widths & building restrictions of power lines must be known before a route can be selected (as per Eskom clearance chart).

Shooting ranges no power lines within a 824m wide strip (wider if more than 12 targets) & 2500m behind range.

Side slope areas of excessive side slope are to be avoided.

Spoornet crossings not less than 80 degrees to Eskom centre line. Clearances for each conductor type and structures as per clearance chart.

Structure dimensions of the particular power line must be known before a route can be selected this will indicate the expected 'foot print' area of towers and the conductor spacing for side slope considerations.

Sub-tropical fruit trees require special clearances.

Sugar cane lands must be avoided where possible as fires interfere with the performance of power lines.

Telkom separation distance is to be applied when paralleling with power lines. Optic fibre lines are not affected by interference or induced currents. Crossings as per specified crossing angles and the clearance of a structure on which a man can stand unsupported is to be applied over telephone poles.

Township developments existing and proposed have to be considered and routes planned in accordance with the cadastral layout.

Tree plantations allow 28m overturning distance to pine and gum or similar trees.

Orchids allow additional clearance of 3m above estimated height of fruit trees.

Trust land must be identified as way leaves for all properties traversed are required from the occupants (e.g. Tribal Trust land) as well as servitude from the trustees.

Water features normal ground clearance is applied but over navigable waters a 15m mast height plus 2,5m plus minimum safety clearance is above the high watermark.

Wetlands and adjacent areas should be avoided as they are environmentally sensitive.

Windmills bore holes & overhead water tanks overturning distance.

2. Assist Environmental Department

Act in an advisory capacity regarding clearances and restrictions to produce an EIA. Investigate each corridor to finalise route selection with the environmentalist. Compile a DESD form. Should it be necessary to clear trace lines through trees for survey purposes, the survey contractor shall give prior notification to the property owner. Application is made to the Department of Environmental Affairs for approval. The owner has to give his consent to cut or trim indigenous trees and a permit must be granted by Provincial office of Wildlife before proceeding with the survey.

3. Route approval

Customer relations It is essential that good relations with Eskom's customers be maintained. Every reasonable consideration to Property Owners must be given by the contractor and his staff. The contractor shall ensure that the Property Owner and other interested persons are aware of the activities to take place. He shall also ensure that all gates are kept closed and particular care shall be taken to avoid damage to livestock, crops, fences or farm roads. Environmental awareness shall be maintained at all times. Care shall also be given to avoid littering and the causing fires.

It is an express part of this contract that the contractor shall be held liable for all damage arising from negligence on the part of himself and/or his employees.

Show the route to construction, engineering and maintenance and get an Eskom preferred solution.

Await the Environmental Authorization (EA) & Provincial Wildlife permit.

Hold Point

4. Fix and co-ordinate angles

Angles (bend points) are to be alphabetically numbered A, B, C Through the alphabet and starting again at AA, AB, AC....etc. All fixing is to be done by recognised survey methods. Where GPS is used for fixing survey class units of high accuracy must be used. For long lines it is absolutely essential that the surveyor is competent in the adjustment of a geoidal model to achieve a compatible seamless WGS84 model particularly in the Z height values. 20mm x 500mm round steel pegs are to be used to mark the angles and a 1m fencing standard is to be placed near the peg. The grass around all pegs is to be cleared so as to improve relocation of pegs.

Eskom peg colour codes: Depending on OU's

Suspension – blue

Strain – red

Stay wires and line pegs - white

Centre pegs – 12mm x 500mm steel

Angle centre pegs – 20mm x 500 mm steel

5. Update Route Plans

Plot bend points and provide a proposed route plan for the Land and Rights for valuation purposes. Routes through tree plantations, cane etc. that may result in claims for compensation must be brought to the attention of Eskom's representative so that the issue can be resolved without causing construction delays.

6. Appoint Registered Valuator – Land and Rights Section

An approved valuator is appointed by a specific mandate to value properties and trees if necessary.

7. Negotiate Route

Preliminary negotiations with property owners are started to gather owner details & discuss the route in detail (as per EA) - in rural trust areas get tribal resolution consent letters from each Nkosi as per Land and rural Department's principles. Keep a note book for each project where you can record all route discussions (including environmental issues) and dates. It is not recommended to make agreements contrary to what is in the option document as it is impossible to implement differing conditions for each property. Make sketches to clarify decisions. Flag bends and terminals for the route approval above before proceeding to profiling and designing.

8. Draw up options

Compensation is calculated the options are then checked by Sub Tx Survey & Land and Rights (before owner signature). Hold Point.

9. Obtain signed options

a) The options showing compensation are now presented to the landowners for signature. In rural settlement areas a wayleave is obtained from each occupant as well as an option from the property custodian/trustees (registered owner).

b) An option schedule is prepared, and a route plan is marked up with the option item numbers.

c) Make a copy of the Valuation.

d) Copy any other correspondence, resolutions etc.

Finalize the negotiation package - see check list - submit 10 a-d with covering letter to Eskom Land Development.

10. Tree Clearing Areas and Special Conditions

Mark-up tree clearing areas on route plans and document any special conditions. Note that special conditions should not be contrary to what is in the option form. These conditions should also not be in perpetuity or transferable to others. Examples of these conditions could be: Construction to drive behind the back of the house, the dogs bite or big trucks to use the gate & not the cattle grid.

11. Route Plans Submitted To Project Controller Or Project Engineering depending on the OU'

The project controller arranges to have trees and bush cleared.

12. Profile Line- OUs to specify

Line pegs are number in straight AB - A1, A2, A3, in straight BC - B1, B2, B3, B4 etc.

Profile readings are taken at a maximum 25m apart and at every change of grade, side slope is to be read 7-15.5m off the centre line on both sides of the line.

Sufficient detail and overhead readings are to be taken to produce a strip plan and crossing drawings. Readings must be taken on detail at least 50m away so as to produce good intersecting angles. The surveying of the route shall not only be restricted to the centreline but shall effectively be a strip survey that includes any other physical features that may affect the line.

Field data must be WGS 84 co-ordinates in excel format with description, Y, X, Z values, height above ground, feature code, plan comment & profile comment.

13. Template line

Compile a preliminary detailed design on a suitable software package with the intent to carry the design over to Eskom's PLS CADD software (assisted by the contractor).

A strip plan drawing of each straight separately is compiled 1:1 for PLS CADD & Micro Station (.dgn format).

Strip plan to include;

Centre line

Bends and deviation angles

Property description and owners

All detail drawn and "no go" zones

Spot shots on level 6 (switched off)

Obtain Engineering Department approval for the designed line. Note that this can require the testing of various structure and conductor combination solutions as requested by Engineering to optimize the design.

Hold Point

Prepare construction drawing (converted to 1:7500) & Bill of materials (BOM)/tower schedule.

14. Phase 1 pegging

Set out the tower centres line pegs only and read levels for foundation schedules.

a) Start at angle to tower to line peg to tower etc. as the case may be. Set out in one direction only and always record peg positions and closing check distances.

b) Do spot checks of profile at minimum clearance and to overhead services.

c) Report back on suitability of tower positions & make adjustments if necessary (plans & BOM).

d) Move pegs as required and assist Civil Engineering with soil nominations.

e) Surveyors to do a peg walk with environmentalist, construction, design, maintenance and interested and affected parties.

f) Eskom to prepare foundation and stub level schedule.

15. Apply For Approvals – OU preferences

Road crossings prepare a referenced letter and the relevant form and 3 Dept. of Transport plans. On receipt of return correspondence Eskom sign conditions & initial each page. Eskom then apply for a cheque by invoice the original is posted and a copy is filed.

A copy of the approval is added to the package for the Project Controller/ Engineer.

National roads prepare a referenced letter and 7 drawings. Ensure that structures are more than 40m from roads fences.

Rail crossings prepare a referenced letter with an occupation and works order number from the Eskom register and 5 drawings, on return sign conditions & drawings. Eskom then apply for a cheque by invoice the original is posted and a copy is filed. Add the addendum No to the Rail crossing drawing.

Telkom prepare a standard letter referenced letter and 3 hi-lighted route plans. Check the conductor & earth wire details on the letter. On return a copy of the approval is added to the package for the Project Controller/ Engineer and the original is filed.

Tribal Trust prepares 4 referenced letters and 8 hi-lighted route plans. These are posted to Local Govt. & Housing, Forestry & the local Magistrate. The reply's from these and letter from the Tribal Authority submitted to Ulundi. Ensure that the information on letter is correct. A copy of the Permission to Occupy (P.T.O.) is added to the package for Project Controller. The original is sent to New Germany for payment.

Oil pipe lines prepare a referenced letter and 5 drawings for Petronet. On return a copy of the approval is added to the package for the Project Controller and the original is filed.

Civil aviation prepares a referenced letter and 2 hi-lighted drawings for submission to their offices in Pretoria.

Transmission Lines prepare a referenced letter and a crossing plan in the prescribed format for submission to Eskom Megawatt Park.

16. Prepare Final Package

17. Co-Ordinates to Eskom Survey Office

These are used to update route plans and Graphic Information Systems (GIS).

18. File All Documents in Survey File- Ou preference

Documents are grouped in colour coded folders - green for calculations, pink for negotiations, yellow for correspondence and approvals and blue for the package. Hold Point.

19. Phase 2 Pegging

Peg tower legs and reference pegs.

20. Phase 3 Pegging

Tower stub setting.

33/44/66/88/132 SUB STATION SURVEYS

1. Site selection

Select site & access road (ensure 230m sight distance at 1.3 m above ground depending on Provincial Road office requirements)

2. Turn in lines

Surveyors & planner to assist in re-linking lines.

3. ASSIST ENVIRONMENTAL DEPARTMENT

Assist Environmental Dept. to produce an EIA. Compile a DESD form. Should it be necessary to clear trees for survey purposes, the survey contractor shall give prior notification to the property owner. Application to Department of Environmental Affairs or Forestry for a permit to cut natural bush or cut or trim indigenous trees must be approved before proceeding to survey even if owner has given his consent.

4. SOIL TEST BY PROJECT ENGINEER

Assist Civil Engineering with soil nominations.

5. APPOINT REGISTERED VALUATOR

An approved valuator is appointed by a specific mandate to value properties and trees if necessary.

Trees are to be brought to the attention of the Project Coordinator.

6. NEGOTIATE SITE & ACCESS ROAD

Preliminary negotiations with property owners are started to gather owner details & discuss the site in detail (as per EA) - in rural trust areas get tribal resolution consent letters from each Nkosi/Chief.

7. CONSULT ROAD ENGINEER

Consult for access road specifications.

8. DRAW UP OPTION

Compensation is calculated the options are then checked by Sub Tx Survey & Land and Rights (before owner signature)

HOLD POINT

9. OBTAIN SIGNED OPTION

a) The option showing compensation is now presented to the land owner for signature.

b) An option schedule is prepared and a route plan is marked up with the option item numbers.

c) Make a copy of the Valuation- depending on OU's

d) Copy any other correspondence, resolutions etc.

Finalise the negotiation package - see check list - submit 10 a-d with covering letter to Eskom Land Development.

10. PLACE CONTROL BEACONS

Place control beacons (in cement) fix & level.

11. TACHY SURVEY SITE

A contour plan of the site and the access road is produced and is submitted to the Survey Department to plan the layout of the substation.

12. CO-ORDINATES TO ESKOM SURVEY OFFICE

These are used to update route plans and Graphic Information Systems (GIS).

13. APPLY FOR APPROVALS

Apply for approvals to Local Government and Housing and as above.

14. CALCULATE VOLUMES – OU Dependent

The soil cut & fill volumes are calculated on suitable software for the creation of the substation platform. This is done in conjunction with the Civil Engineers to the required slope (normally 1:100) and ModAasto compaction rates.

15. PHASE 1 PEGGING

Preliminary pegs are placed for earthworks.

16. PHASE 2 PEGGING

After compaction tests by design, place setting out pegs & check earth work & drainage levels.

17. TURN IN LINES

Profile & design Turn-in & -out lines and peg terminal towers in their correct positions. Add new detail & S/S on profile & strip plans to include closing spans.

18. CO-ORDINATES TO SERVEY OFFICE

These are used to update route plans and Graphic Information Systems (GIS).

19. FILE ALL DOCUMENTS IN SURVEY FILE

Documents are grouped in colour coded folders - green for calculations, pink for negotiations, yellow for correspondence and approvals and blue for the package.

Available from Engineering Survey office

Clearance chart

Rifle range detail

Airstrip plan detail

Civil Aviation Approval details

Valuators letter

Option Forms

Check lists

Power line crossing drawing

Railway line crossing drawing
Profile drawing example
Damage compensation form
Land Survey manual chapter 12 - profiling notes
Tower Schedule
Abnormal load routes

ELECTRIFICATION AND ENGINEERING

SPECIFICATION No. E 01/2013 Rev 0

22/11 kV MV AND LV LINE SURVEYS SCOPE OF WORK

SCOPE

This specification covers all possible aspects of survey related work required for the construction of Electrification, Reticulation and System Improvement projects.

Refer to Eskom Overhead Power Line Design Manual covering Terrain, Structure and Conductor aspects as well as the Survey Manuals Volume 1 & 2.

Any contract for survey work may comprise some or all of the following: -

SURVEYING OF RETICULATION LINES AND CABLES

1. ROUTE SELECTION

The Objective of route selection is, taking into account obstacles and restrictions, to achieve the most long term cost effective, efficient and accessible route possible. The route should be mutually acceptable to Eskom and all interested and affected parties.

Accessibility has to be considered for construction and maintenance.

Aeroplane landing strips no part of the power line may protrude from a 3048m long & 768m wide approach surface measured at a slope of 1:50 at a distance of 60 from the end of any runway.

Building restrictions either side of centre line; Rural MV = 9m LV = 3m, Urban MV & LV = 3m and underground cables 1,5m. (Depending on OU's)

Civil aviation spans higher than 60m above the ground need approval.

Crop Compensation Eskom has to reimburse owners for damages and the loss of trees and crops.

Explosive magazines dependent on span lengths, power lines must be more than 30 m away.

Flood lines try to locate structures above 50 year flood plains.

Graves and cemeteries can be crossed but should be avoided due to public objection.

Irrigated lands avoid crossing lands irrigated with pipes. Wheel move and centre pivot systems may not have structures placed where their operation would be limited.

Land usage impacts on the value of property and is a price factor in the route selection.

Landowners the route has to be mutually acceptable.

Other power line crossings lower voltages are built below higher voltage lines. Test clearance with higher conductor at hot design template 50 or 80°C and lower conductor at cold template design template -5°C. Crossings should be close to structures but further than overturning distance. Surveyors must be aware of blow out conditions and the proximity to stay wires.

Parallel power lines create induced currents; separation distances must be applied to maintain acceptable voltages.

Petronet pipe lines structures or parts thereof are not permitted within than 15m of pipelines.

Quarries only single shot blasting permitted within 500m of a power line.

Road crossings as per clearance chart conditions differ for National, Provincial, District & Abnormal load routes.

Rocky areas can present clearance and access problems. Foundations are also more costly. Servitude widths & building restrictions of power lines must be known before a route can be selected (as per Eskom clearance chart).

Shooting ranges no power lines within a 824m wide strip (wider if more than 12 targets) & 2500m behind range.

Side slope areas of excessive side slope are to be avoided.

Spoornet crossings not less than 80 degrees to Eskom centre line. Clearances for each conductor type and structures as per clearance chart.

Structure dimensions of the particular power line must be known before a route can be selected this will indicate the expected 'foot print' area of towers and the conductor spacing for side slope considerations.

Sub-tropical fruit trees require special clearances.

Sugar cane lands must be avoided where possible as fires interfere with the performance of power lines.

Telkom separation distance is to be applied when paralleling with power lines. Optic fibre lines are not affected by interference or induced currents. Crossings as per specified crossing angles and the clearance of a structure on which a man can stand unsupported is to be applied over telephone poles.

Township developments existing and proposed have to be considered and routes planned in accordance with the cadastral layout.

Tree plantations allow 25m overturning distance to pine and gum or similar trees.

Orchids allow additional clearance of 3m above estimated height of fruit trees.

Trust land must be identified as way-leaves for all properties traversed are required from the occupants (e.g. Tribal Trust land) as well as servitude from the trustees.

Water features normal ground clearance is applied but over navigable waters a 15m mast height plus 2,5m plus minimum safety clearance is above the high watermark.

Wetlands and adjacent areas should be avoided as they are environmentally sensitive.

Windmills bore holes & overhead water tanks over turning distance.

2. ENVIRONMENTAL ASSESSMENT

Compile a DESD form and escalate it to the relevant Area Surveyor where required.

The Area Surveyor will appoint / refer to Environmental Section a Botanist to investigate and apply for the necessary permits.

NB: It however remains the contract surveyors responsibility to follow up and to ensure that the necessary permits are applied for and obtained before any construction takes place (OU dependent).

Should it be necessary to clear trace lines through trees for survey purposes, the survey contractor shall give prior notification to the property owner. Application is made to the Department of Environmental Affairs / Forestry for approval. The owner has to give his consent to cut or trim indigenous trees and a permit must be granted by Provincial Wildlife before proceeding with the survey. Act in an advisory capacity regarding clearances and restrictions to produce an EIA if required. Investigate any alternative corridors to finalize route selection with the environmentalist.

3. ROUTE APPROVAL AND OBTAINING SIGNED WAYLEAVE.

Two types of rights of servitude.

In "general terms" - Way leave Owner and Eskom Agreement.

In "Specific terms" –servitude diagram and Title Deed endorsement and involve consideration payment.

Customer relations It is essential that good relations with Eskom's customers be maintained. Every reasonable consideration to Property Owner's requests must be given by the contractor and his staff. The contractor shall ensure that the Property Owner and other interested persons are aware of the activities to take place. When Property Owner and Eskom agree on final route a wayleave must be completed and signed but the Registered Property Owner as confirmed by Deed

Search. If property is occupied by someone other than the Registered Property Owner, then this person is also required to sign the Way-leave. Surveyors shall also ensure that all gates are kept closed and particular care shall be taken to avoid damage to livestock, crops, fences or farm roads. Environmental awareness shall be maintained at all times. Care shall also be given to avoid littering and the causing of fires.

It is an express part of this contract that the contractor shall be held liable for all damage arising from negligence on the part of himself and/or his employees.

4. RECORDING OF LINE ROUTES

All bend, tee-off and terminal points must be co-ordinated by use of GPS to 2 - 5 metre accuracy, and these points must be loaded on to plan with Topographic or photographic background for printing and attaching to Wayleave with printed Co-ordinate list.

5. PROFILING OF LINE ROUTE – OU dependent

MV Line route is to be profiled as per Eskom Overhead Power Line Design manual. All detail is to be recorded to allow for correct placing of structures when doing the line design. LV Line route is to be profiled only where services are crossed.

6. LINE DESIGN – OU dependent

Line design is to be done as per Eskom Overhead Power Line Design Manual and Survey Guide Manual Volume 1 & 2. Line design is to be done using Model maker Software package and a printed final profile to be submitted with package.

7. PEGGING OF STRUCTURES

All structures are to be pegged in field as per Survey Guide Manual Volume 1 & 2. All Structure positions, Stay/Strut positions and centre line of H-poles are to be pegged. All bends, RMU and Mini sub positions on Underground Cable Routes are to be pegged.

8. BILL OF STRUCTURES

All structures details are to be shown on the Survey CAD drawing by use to CAD Codes as per Survey Guide Manual Volume 1 & 2.

9. CROSSING CLEARANCE PROFILES

All work to be done as per Eskom Overhead Power Line Design Manual and Survey Guide Manual Volume 1 & 2. Detail Service Crossing drawings to be produced as per Eskom Drawing standard.

10. CLEARANCE CHECKS

Clearance checks to be done using Total Station and standard survey methods and compared to Eskom Clearance Chart in Survey Guide Manual Volume 2.

OTHER SURVEY TASKS

1. TOPOGRAPHIC SURVEYS

Site Identification, selection and detail survey by Standard Survey Methods as per Eskom requirements and Sub Station Design.

2. DATA CAPTURE

Capture of data for various requirements by use of GPS to obtain co-ordinates and detail of point.

3. CAD WORK

Produce CAD drawings to Eskom Drawing Standard contained within Survey Guide Manual Volume 1. Only Legally Licensed Micro Station Software Packages to be used for producing CAD Drawings.

Description of the services

Executive overview

LANDS & RIGHTS

Negotiation - Signed Options (as per L & R)

Negotiation - Signed Way leaves

Tribal consent / resolution (for Option)

Tribal consent / resolution (for Way leave)

Public participation

Project handover

Regional or provincial tender committee process

Property valuation appointment

Cadastral survey appointment

Expropriation

HIGH VOLTAGE LINE SURVEYS

Route selection & fixing

Obtaining signed option agreements

Profiling + ASCII files

Optimizing + spanning sheets (.dgn format)

Bill of Structures (.xls format)

Pegging

MEDIUM & LOW VOLTAGE LINE SURVEYS

Route selection & fixing

Signed way leave & Distr. Enviro. screening document(DESD)

Profiling + ASCII files

Optimizing + spanning sheets (.dgn format)

Bill of Structures (.xls format)

Pegging

Survey - Fix Bends, T/Offs, TRF positions in WGS84

TOPOGRAPHICAL SURVEYS

Site identification & selection (includes access road)

Obtaining of signed Option

Topographical survey , control & generation of ASCII files

Generation of contour plans & .dxf file

Placing of site boundary pegs , X & Y axis and bench mark

MISCELLANEOUS CHARGES

Crossing profiles of services
Statutory approvals (Telkom , Roads and Spoornet)
Mapping of Stands (3 points per dwelling plus boundary positions)
contractor's team (hour rate)
penalty clause
Travelling time surveyor & assistant/s
Transport cost (Office where the contract is issued to site & return , base to site & return daily)
Accommodation cost per surveyor per night
Accommodation cost per surveyor and assistant/s per night
plato registration
re-survey existing hv/mv/lv power-lines-profile, conductor, points of attachment and sags
preparation costs, investigation, deeds, tel-compensation for small projects

The scope of work is categorized according to A, B and C terrain as follows:

Area A : Open grassland with very limited bush , limited settlement.
Area B : Undulating terrain , grassland with scattered bush , medium settlement.
Area C : Rugged terrain, dense bushy areas , dense settlement.

Interpretation and terminology

The following abbreviations are used in this Scope:

Abbreviation	Meaning given to the abbreviation
ECSA	Engineering Council of South Africa
SACPCMP	South African Council for Project and Construction Management Professionals
TBA	To Be Announced

Constraints on how the *Consultant* Provides the Services.

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	Weekly on _____ at _____	TBA	TBA
Overall contract progress and feedback	Monthly on _____ at _____	TBA	<i>Employer's Agent , Consultant and TBA</i>

--	--	--	--

Meetings of a specialist nature may be convened as specified elsewhere in this Scope or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the *services*. Records of these meetings shall be submitted to the *Employer's Agent* by the person convening the meeting within five days of the meeting.

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall not be used for the purpose of confirming actions or instructions under the contract as these shall be done separately by the person identified in the *conditions of contract* to carry out such actions or instructions.

Consultant's key persons

As per the task order instruction.

Documentation control and retention

Identification and communication

The documentation shall be specified in the task order.

Retention of documents

Documents shall be retained for a period of five (5) years upon Completion or Termination.

Records and forecasting of expenses

Records of expenses shall be maintained and submitted to the *Employer* on request.

Records and forecasting of the Time Charge

Records of time charges shall be maintained and submitted to the *Employer* on request.

Invoicing and payment

The following details shall be shown on or attached to each Invoice to show how the amount due has been assessed:

The *Consultant* shall address the tax invoice to Neo Khonkhobe and include on it 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* VAT registration number 4740101508;

Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
(add other as required)

Transfer of rights if Option X 9 applies

The *Employer* owns the *Consultant's* rights over the reports prepared for this contract by the *Consultant*.

The *Consultant* shall not challenge or assist any other party challenging at any time the validity or ownership of any of the intellectual property rights relating to the material created and developed for this contract.

Management of work done by Task Order

The task schedule which lists the items of services to be carried out will be prepared by the *Employer* and will be sent to the *Consultant* to price as per the agreed rates.

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.

Procurement

BBBEE and preferencing scheme

The allocation of work will be done by the regional task order committee and the latest version of the terms of reference will apply.

Supplier development and localisation (SDL&I) will measure the impact along the key performance areas:

- a) Job Creation – The *Consultant* shall comply with the implementation plan submitted to train and to retain the number of jobs as a direct result of this contract.
- b) Skills Development – the *Consultant* is obligated to train candidates for skills development during the duration of the contract as per the SDL&I plan submitted by the *Consultant*.
- c) Supplier Development – In order to increase the number of Black Owned firms in this industry, non-Black Owned firms will be encouraged to partner with Black Owned suppliers and expose them to the industry supply chain and as well as mentoring and coaching them throughout the duration of the contract. The *Consultant* will also be encouraged to *sub-consult* to Black *Consultants* and firms.

The *Consultant* shall maintain or improve their current BBBEE Contribution level by the end of this contract duration. The *Consultant* will also improve on the Black Ownership of their company as per the *Employer's* preference. The *Consultant* will be required to submit a new BBBEE compliance certificate should the ownership of the firm change during the duration of the contract.

The main *Consultant* will be responsible for leading and managing the *sub-consultant*, the assessment of the sub-consultant's documentation and the *sub-consultant's* performance. The NEC documentation is to be used when appointing a *sub-consultant*.

The *Consultant* shall not sub-contract more than 25% of the value of the work issued or the contract.

Correction of Defects

As per the data provided by the *Employer*.

Working on the *Employer's* property

Most of the work will be performed outside the *Employer's* property; however should there be a need to do work on the *Employer's* property, it will be confirmed at task order level.

People restrictions, hours of work, conduct and records

It is very important that the *Consultant* keeps records of his people working on the *Employer's* property including the *sub-consultants*. The *Employer's* Agent shall have access to these records at any time. These records may be required in the event of a compensation event.

Cooperating with and obtaining acceptance of Others

To be discussed and confirmed at the task order level.

Things provided by the *Employer*

To be discussed and confirmed at the task order level.