NEC3 Engineering & Construction Contract

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

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

for **Installation of 24 Core OPGW between Hlanganani and Mashau Substation for a period of 2 months.**

Contents:

Part C1 **Agreements & Contract Data**

Part C2 **Pricing Data**

Part C3 **Scope of Work**

Part C4 **Site Information**

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

Part C1: Agreements & Contract Data

Contents:

C1.1 Form of Offer and Acceptance

[to be inserted from Returnable Documents at award stage]

C1.2a Contract Data provided by the *Employer*

C1.2b Contract Data provided by the *Contractor*

[to be inserted from Returnable Documents at award stage]

C1.3 Proforma Guarantees

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:

Installation of 24 Core OPGW between Hlanganani and Mashau Substation for a period of 2 months

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

By the representative of the tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance the tenderer offers to perform all of the obligations and liabilities of the *Contractor* under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the *conditions of contract* identified in the Contract Data.

Options B	The offered total of the Prices exclusive of VAT is	**R**
	Sub total	**R**
	Value Added Tax @ 15% is	**R**
	The offered total of the amount due inclusive of VAT is[1]	**R**
	(in words)	

This Offer may be accepted by the *Employer* by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the *Contractor* in the *conditions of contract* identified in the Contract Data.

Signature(s) ....

Name(s) ....

Capacity ....

For the tenderer: .....

(Insert name and address of organisation)

Name & signature of witness Date

Tenderer's CIDB registration number (if applicable) .....

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

Acceptance

By signing this part of this Form of Offer and Acceptance, the *Employer* identified below accepts the tenderer's Offer. In consideration thereof, the *Employer* shall pay the *Contractor* the amount due in accordance with the *conditions of contract* identified in the Contract Data. Acceptance of the tenderer's Offer shall form an agreement between the *Employer* and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

Part C1	Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
Part C2	Pricing Data
Part C3	Scope of Work: Works Information
Part C4	Site Information

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the *Employer* during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The tenderer shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the *Employer*'s agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the *conditions of contract* identified in the Contract Data at, or just after, the date this agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy signed between them of this document, including the Schedule of Deviations (if any).

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

Signature(s) ....

Name(s) ....

Capacity ....

for the *Employer*

....

(Insert name and address of organisation)

Name & signature of witness ..... Date .....

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

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

Note:

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

No.	Subject	Details
1		
2		
3		
4		
5		
6		
7		

By the duly authorised representatives signing this Schedule of Deviations below, the *Employer* and the tenderer agree to and accept this Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the Offer agreed by the tenderer and the *Employer* during this process of Offer and Acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Form shall have any meaning or effect in the contract between the parties arising from this Agreement.

	For the tenderer:	**For the *Employer***
Signature	.....	.....
Name	.....	.....
Capacity	.....	.....
On behalf of	..... *(Insert name and address of organisation)*	..... *(Insert name and address of organisation)*
Name & signature of witness	.....	.....
Date	.....	.....

C1.2 ECC3 Contract Data

Part one - Data provided by the *Employer*

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

Clause	Statement	Data
1	**General**	
	The *conditions of contract* are the core clauses and the clauses for main Option	
		B: Priced contract with bill of quantities
	dispute resolution Option	**W1: Dispute resolution procedure**
	and secondary Options	
		X1: Price adjustment for inflation (Not Applicable)
		X2 Changes in the law
		X4 Parent Company Guarantees
		X5: Sectional Completion
		X7: Delay damages
		X13: Performance Bond
		X15: Limitation of Contractor's design to reasonable skill and care
		X16: Retention
		X18: Limitation of liability
		Note: X4 and or X13 will only be applicable should Financial Analysis report recommends that the parent company guarantee and or performance bond be obtained.
		Z: *Additional conditions of contract*
	of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)	
10.1	The *Employer* 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**
10.1	The *Project Manager* is: (Name)	**Eskom LIMLANGA Cluster (To be Confirmed)**

	Address	**To be confirmed**
	Tel	**To be confirmed**
	Fax	**To be confirmed**
	e-mail	**To be confirmed**
10.1	The *Supervisor* is: (Name)	**To be confirmed**
	Address	**To be confirmed**
	Tel No.	**To be confirmed**
	Fax No.	**To be confirmed**
	e-mail	**To be confirmed**
11.2(13)	The *works* are	**Installation of 24 Core OPGW between Hlanganani and Mashau Substation for a period of 2 months**
11.2(14)	The following matters will be included in the Risk Register	**1. Outage unavailability,** **2. Late supply of material** **3. Unavailability of raw material** **4. Incompatible Hardware between the OEMs and Hardware manufacturer**
11.2(15)	The *boundaries of the site* are	**The boundaries of the various servitudes on which the Distribution lines will be erected, per the terms of the agreed servitudes and the boundaries of substations (All areas will be specified as per works to be executed)**
11.2(16)	The Site Information is in	**Part4: Refer to Project Specific Agreement**
11.2(19)	The Works Information is in	**Part 3: Scope of Work and all documents and drawings to which it makes reference**
12.2	The *law of the contract* is the law of	**the Republic of South Africa**
13.1	The *language of this contract* is	**English**
13.3	The *period for reply* is	**1 week**
2	**The *Contractor's* main responsibilities**	**Data required by this section of the core clauses is provided by the *Contractor* in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.**
3	**Time**	
11.2(3)	The *completion date* for the whole of the *works* is	**Per Project Specific Agreement issued in terms of this contract agreement**
11.2(9)	The *key dates* and the *conditions* to be met are:	***Condition* to be met** / ***key date***
		1 **Stringing and Regulation complete** / **Per Project Specific**

		2	**End to End Testing**	**Agreement** **Per Project Specific Agreement**
30.1	The *access dates* are:		**Part of the Site**	**Date**
		1	**Per Project Specific Agreement issued in terms of this contract agreement**	**Per Project Specific Agreement**

31.1	The *Contractor* is to submit a first programme for acceptance within	**1 week after the Project Specific Agreement has been issued**
31.2	The *starting date* is	**To be advised**
32.2	The *Contractor* submits revised programmes at intervals no longer than	**2 weeks or as a when required by the Project Manager**
35.1	The *Employer* is not willing to take over the *works* before the Completion Date.	
4	**Testing and Defects**	
42.2	The *defects date* is	**52 weeks after Completion of the whole of the *works*.**
43.2	The *defect correction period* is	**5 working days**
5	**Payment**	
50.1	The *assessment interval* is	**One (1) month** **In order to facilitate payment for work done, the Contractor is to submit his Schedule of Work Done (verified by the Supervisor) for payment to the Project Manager by the 20th day of each month, in a similar format to the bill of quantities. The Project Manager will determine the value of the work done in accordance with Core clause 5 and changes to Core clause Z (A) sub-clause 50.2**
51.1	The *currency of this contract* is the	**South African Rand.**
51.2	The period within which payments are made is	**For contracts valued below R50 000 000 (Fifty Million Rand) including VAT, Eskom is committed to paying Suppliers within 30 days of submission of a tax compliant invoice with a GR number to Eskom Financial Shared Services.** **For contracts valued above R50 000 000 (Fifty Million Rand) including VAT, Eskom is committed to paying suppliers within 60 days of submission of a tax compliant invoice with a GR number to Eskom Financial Shared Services.**
51.4	The *interest rate* is	**(i) Zero percent above the publicly quoted prime rate of interest (calculated on a 365 day year) charged from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any dispute, by any manager of such bank,**

		whose appointment it shall not be necessary to prove) for amounts due in Rands and **(ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption "Money Rates" in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted *mutatis mutandis* every 6 months thereafter and as certified, in the event of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited, whose appointment it shall not be necessary to prove.**
6	**Compensation events**	
60.1(13)	The place where weather is to be recorded is:	**The *Contractor* construction site camps and the closest Weather Bureau Station.**
	The *weather measurements* to be recorded for each calendar month are,	**Excessive wind is wind in excess of 10/s or 36km/h** **the number of days with rainfall more than 10 mm** **the number of days with minimum air temperature less than 0 degrees Celsius** **When it snows, *Contractor*s will have to wait until the area dries up, to get access and towers are safe to climb on.**
	The *weather measurements* are supplied by	**South African Weather Services**
	The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at:	**The closest weather bureau stations to the Works**
	and which are available from:	**The South African Weather Bureau**
7	**Title**	As per the terms and conditions of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)
8	**Risks and insurance**	
80.1	These are additional *Employer*'s risks	**Community unrest and Riots**
9	**Termination**	As per the terms and conditions of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)

10	**Data for main Option clause**	
B	**Priced contract with bill of quantities**	
60.6	The *method of measurement* is	**As stated in Part C2.1, Pricing Assumptions**
11	**Data for Option W1**	
W1.1	The *Adjudicator* 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 *Adjudicator nominating body* is:	**the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See www.ice-sa.org.za) or its successor body.**
W1.4(2)	The *tribunal* is:	**arbitration.**
W1.4(5)	The *arbitration procedure* is	**the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.**
	The place where arbitration is to be held is	**South Africa**
	The person or organisation who will choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	**the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.**
12	**Data for secondary Option clauses**	
X1	**Price adjustment for inflation**	**The rates shall be fixed and firm for the duration of the project**
X1.1(a)	The *base date* for indices is	**Not Applicable**

X1.1(c)	The proportions used to calculate the Price Adjustment for **Labour** Factor are:	**Proportion**	**linked to index for**	**Index prepared by**
	Actual Labour Cost (Field Force) where subsistence allowance is paid	**N/A**	**N/A**	**N/A**

	The proportions used to calculate the Price Adjustment for **Transport** Factor are: Road Freight Costs	**Proportion** **N/A**	**Linked to index for** **N/A**	**Index prepare by** **N/A**
	The proportions used to calculate the Price Adjustment for **Accommodation** Factor are: Statistics SA | Consumer Price Index (CPI)	**Proportion** **N/A**	**linked to index for** **N/A**	**Index prepared** **N/A**
	The proportions used to calculate the Price Adjustment for **Cable Install and Test,** **Duct Cable Supply, Install and Test** **Patch Panel with Accessories** **Sarel Box - supply and install** **Fibre Splicing and testing** Factor are: Labour Material Lifting and handling Equipment Fixed portion	**Proportion** **N/A**	**linked to index for** **N/A**	**Index prepared** **N/A**
X2	**Changes in the law**	As per the terms and conditions of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)		
X4	**Parent Company**	**This will only be applicable should the Financial Analysis report recommend that the parent company guarantee be obtained. If a parent company owns the Contractor, the Contractor gives to the Employer a guarantee by the parent company of the Contractor's performance in the form set out in the Works**		
X5	**Sectional Completion**			
X5.1		**Section**	**Description** **The completion date for each section of the work will be specified in the Project Specific Agreement for any project executed in terms of this contract**	**Completion date**
X7	**Delay damages (but not if Option X5 is also used)**			
X7.1	Delay damages for Completion of the whole of the *works* are	**R 2 000 per day up to a limit of 5% total project cost**		
X13	Performance Bond			

X13.1	The amount of the performance bond is	**This will only be applicable should the Financial Analysis report recommend that the Performance bond be obtained.**
X15	**Limitation of the *Contractor*'s liability for his design to reasonable skill & care**	**The Contractor is not liable for Defects in the works due to his design so far as he proves that he used reasonable skill and care to ensure that his design complied with the Works Information.** **If the Contractor corrects a Defect for which he is not liable under this contract it is a compensation event.**
X16	**Retention**	
X16.1	The *retention percentage* is	**2.5%**
X18	**Limitation of liability**	
X18.1	The *Contractor*'s liability to the *Employer* for indirect or consequential loss is limited to:	**R0.0 (zero Rand)**
X18.2	For any one event, the *Contractor*'s liability to the *Employer* for loss of or damage to the *Employer*'s property is limited to:	**for the *Employer*'s existing and surrounding property in the care, custody and control of the *Contractor*.** **the amount of the deductible (first amount payable) relevant to the event described in the Format A insurance policy available on http //www eskom.co za/c/101/insurance- policies-procedures/** • **for all other existing *Employer*'s property:** **For any one occurrence or series of occurrences arising out of one event but unlimited during the period of Contract:** ○ **R15 million (fifteen million Rand) for Generation property:** ○ **R7.5 million (seven million five hundred thousand Rand) for Transmission property.** ○ **R1 million (one million Rand) for Distribution and all other *Employer*'s property**
X18.3	The *Contractor*'s liability for Defects due to his design which are not listed on the Defects Certificate is limited to	**The greater of** • **The total of the Prices at the Contract Date and** • **The amounts excluded and unrecoverable from the *Employer*'s assets policy for correcting the Defect (other than the resulting physical damage**

		which is not excluded) plus the applicable deductible as at contract date.
X18.4	The *Contractor*'s total liability to the *Employer* for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	**The total of the Prices at Completion of the Task Order other than for the additional excluded matters.** **The *Contractor*'s total liability for the additional excluded matters is not limited.** • **The additional excluded matters are amounts for which the *Contractor* is liable under this contract for loss of or damage to property (other than the works, *Employer*'s property, Plant and Materials),** • **death of or injury to a person and** • **infringement of an intellectual property right**
X18.5	The *end of liability date* is	**(i) 24 months after the *defects date* for latent Defects and** **(ii) the date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of any replacement legislation) for any other matter.** **A latent Defect is a Defect which would not have been discovered on reasonable inspection by the *Employer* or the *Supervisor* before the *defects date*, without requiring any inspection not ordinarily carried out by the *Employer* or the *Supervisor* during that period.** **If the *Employer* or the *Supervisor* do undertake any inspection over and above the reasonable inspection, this does not place a greater responsibility on the *Employer* or the *Supervisor* to have discovered the Defect.**
Z	**The *Additional conditions of contract* are**	**Z1 to Z15 always apply.**

Z1 Cession delegation and assignment

Z1.1 The *Contractor* does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Employer.*

Z1.2 Notwithstanding the above, the *Employer* may on written notice to the *Contractor* cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry.

Z2 Joint ventures

Z2.1 If the *Contractor* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations then these persons or organisations are deemed to be jointly and severally liable to the *Employer* for the performance of this contract.

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

within two weeks of the Contract Date of the key person who has the authority to bind the *Contractor* on their behalf.

Z2.3 The *Contractor* does not alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without the consent of the *Employer* having been given to the *Contractor* in writing.

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

Z3.1 Where a change in the *Contractor's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Contractor*'s B-BBEE status, the *Contractor* notifies the *Employer* within seven days of the change.

Z3.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Project Manager* within thirty days of the notification or as otherwise instructed by the *Project Manager*.

Z3.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor*'s obligation to Provide the Works.

Z3.4 Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are P1, P2 and P3 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93.

Z4 Confidentiality

Z4.1 The *Contractor* does not disclose or make any information arising from or in connection with this contract available to Others. This undertaking does not, however, apply to information which at the time of disclosure or thereafter, without default on the part of the *Contractor*, enters the public domain or to information which was already in the possession of the *Contractor* at the time of disclosure (evidenced by written records in existence at that time). Should the *Contractor* disclose information to Others in terms of clause 25.1, the *Contractor* ensures that the provisions of this clause are complied with by the recipient.

Z4.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Project Manager*.

Z4.3 In the event that the *Contractor* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Contractor*, to the extent permitted by law prior to disclosure, notifies the *Employer* so that an appropriate protection order and/or any other action can be taken if possible, prior to any disclosure. In the event that such protective order is not, or cannot, be obtained, then the *Contractor* may disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed.

Z4.4 The taking of images (whether photographs, video footage or otherwise) of the *works* or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the *Project Manager*. All rights in and to all such images vests exclusively in the *Employer*.

Z4.5 The *Contractor* ensures that all his sub*Contractor*s abide by the undertakings in this clause.

Z5 Waiver and estoppel: Add to core clause 12.3:

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

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

Z6.1 The *Contractor* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the *works*. Without limitation the *Contractor*:

- accepts that the *Employer* may appoint him as the "Principal *Contractor*" (as defined and provided for under the Construction Regulations 2014 (promulgated under the Occupational Health & Safety Act 85 of 1993) ("the Construction Regulations") for the Site;
- warrants that the total of the Prices as at the Contract Date includes a sufficient amount for proper compliance with the Construction Regulations, all applicable health & safety laws and regulations and the health and safety rules, guidelines and procedures provided for in this contract and generally for the proper maintenance of health & safety in and about the execution of *works*; and
- undertakes, in and about the execution of the *works*, to comply with the Construction Regulations and with all applicable health & safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Sub*Contractor*s, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.

Z6.2 The *Contractor*, in and about the execution of the *works*, complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Sub*Contractor*s, employees and others under the *Contractor's* direction and control, likewise observe and comply with the foregoing.

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

Z7.1 Within one week of receiving a payment certificate from the *Project Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer*'s procedures stated in the Works Information, showing the amount due for payment equal to that stated in the payment certificate.

Z7.2 If the *Contractor* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Employer* is to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the *Employer* in terms of core clause 51.2 is then calculated from the delayed date by when payment is to be made.

Z7.3 The *Contractor* (if registered in South Africa in terms of the companies Act) is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Employer*'s VAT number 4740101508 on each invoice he submits for payment.

Z8 Notifying compensation events

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

Z9 *Employer's* limitation of liability

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

Z9.2 The *Contractor*'s entitlement under the indemnity in 83.1 is provided for in 60.1(14) and the *Employer*'s liability under the indemnity is limited.

Z10 Termination: Add to core clause 91.1, at the second main bullet point, fourth sub-bullet point,

after the words "against it":

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

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

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

Z12 Ethics

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

Affected Party means, as the context requires, any party, irrespective of whether it is the *Contractor* or a third party, such party's employees, agents, or Sub*Contractor*s or Sub*Contractor*'s employees, or any one or more of all of these parties' relatives or friends,

Coercive Action means to harm or threaten to harm, directly or indirectly, an Affected Party or the property of an Affected Party, or to otherwise influence or attempt to influence an Affected Party to act unlawfully or illegally,

Collusive Action means where two or more parties co-operate to achieve an unlawful or illegal purpose, including to influence an Affected Party to act unlawfully or illegally,

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

Corrupt Action means the offering, giving, taking, or soliciting, directly or indirectly, of a good or service to unlawfully or illegally influence the actions of an Affected Party,

Fraudulent Action means any unlawfully or illegally intentional act or omission that misleads, or attempts to mislead, an Affected Party, in order to obtain a financial or other benefit or to avoid an obligation or incurring an obligation,

Obstructive Action means a Committing Party unlawfully or illegally destroying, falsifying, altering or concealing information or making false statements to materially impede an investigation into allegations of Prohibited Action, and

Prohibited Action means any one or more of a Coercive Action, Collusive Action Corrupt Action, Fraudulent Action or Obstructive Action.

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

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

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

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

Z13 Insurance

Z 13.1 Replace core clause 84 with the following:

Insurance cover **84**

84.1 When requested by a Party, the other Party provides certificates from his insurer or broker stating that the insurances required by this contract are in force.

84.2 The *Contractor* provides the insurances stated in the Insurance Table A.

84.3 The insurances provide cover for events which are at the *Contractor*'s risk from the *starting date* until the earlier of Completion and the date of the termination certificate.

INSURANCE TABLE A

Insurance against	Minimum amount of cover or minim limit of indemnity
Loss of or damage to the *works*, Plant and Materials	The replacement cost where not covered by the *Employer*'s insurance The *Employer*'s policy deductible, as Contract Date, where covered by the *Employer*'s insurance
Loss of or damage to Equipment	The replacement cost
Liability for loss of or damage to property (except the *works*, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor*) caused by activity in connection with this contract	Loss of or damage to property *Employer*'s property The replacement cost where not covered by the *Employer*'s insurance The *Employer*'s policy deductible, as Contract Date, where covered by the *Employer*'s insurance Other property The replacement cost Bodily injury to or death of a person The amount required by applicable l
Liability for death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract	The amount required by the applical law

Z 13.2 **Replace core clause 87 with the following:**
The *Employer* provides the insurances stated in the Insurance Table B.

INSURANCE TABLE B

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

Z14 Nuclear Liability

Z14.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.

Z14.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 47 of 1999, save to the extent that any liabilities are incurred due to the unlawful intent of the *Contractor* or any other person or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

Z14.3 Subject to clause Z14.4 below, the *Employer* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any other person, or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

Z14.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 47 of 1999, or any replacement section dealing with the same subject matter.

Z14.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z15 Asbestos

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

AAIA means approved asbestos inspection authority.

ACM means asbestos containing materials.

AL means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.

Ambient Air means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.

Compliance Monitoring means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.

OEL means occupational exposure limit.

Parallel Measurements means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.

Safe Levels means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.

Standard means the *Employer*'s Asbestos Standard 32-303: Requirements for Safe Processing, Handling, Storing, Disposal and Phase-out of Asbestos and Asbestos Containing Material, Equipment and Articles.

SANAS means the South African National Accreditation System.

TWA means the average exposure, within a given workplace, to airborne asbestos fibres, normalised to the baseline of a 4 hour continuous period, also applicable to short term exposures, i.e. 10-minute TWA.

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

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

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

Z15.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is

conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.

Z15.5 The *Contractor*'s personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.

Z15.6 The *Contractor* continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including the Completion Date, are adjusted accordingly. The contractually agreed dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.

Z15.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos *Contractor*, instructed by the *Employer* at the *Employer*'s expense, and conducted in line with South African legislation.

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

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

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

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

C1.2 Contract Data

Part two - Data provided by the *Contractor*

Notes to a tendering *Contractor*:

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

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

Clause	Statement	Data
10.1	The *Contractor* is (Name): Address Tel No. Fax No.	
11.2(8)	The *direct fee percentage* is The *subcontracted fee percentage* is	**10%** **10%**
11.2(18)	The *working areas* are the Site and	
24.1	The *Contractor's* key persons are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job Responsibilities: Qualifications: Experience:	**CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .**

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

11.2(3)	The *completion date* for the whole of the *works* is			
11.2(14)	The following matters will be included in the Risk Register			
11.2(19)	The Works Information for the *Contractor*'s design is in:			
31.1	The programme identified in the Contract Data is			
B	**Priced contract with bill of quantities**			
11.2(21) 11.2(31)	The *bill of quantities* is in The tendered total of the Prices is	**Part of the Contract** **(in figures)** **(in words), excluding VAT**		
	Data for Schedules of Cost Components	*Note "SCC" means Schedule of Cost Components starting on page 60, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC3 (April 2013).*		
B	**Priced contract with bill of quantities**	**Data for the Shorter Schedule of Cost Components**		
41 in SSCC	The percentage for people overheads is:	**10%**		
21 in SSCC	The published list of Equipment is the last edition of the list published by The percentage for adjustment for Equipment in the published list is	**Minus %**		
22 in SSCC	The rates of other Equipment are:	**Equipment**	**Size or capacity**	**Rate**
61 in SSCC	The hourly rates for Defined Cost of design outside the Working Areas are **Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates.** **Please insert another schedule if foreign resources may also be used**	**Category of employee**	**Hourly rate**	

62 in SSCC	The percentage for design overheads is	**%**
63 in SSCC	The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are:	

C1.3 Forms of Securities

Pro formas for Bonds & Guarantee

For use with the NEC3 Engineering & Construction Contract

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

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

Option X16: Retention

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

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

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

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

Eskom Holdings SOC Limited
Megawatt Park
Maxwell Drive
Sandton
Johannesburg Date:

Dear Sirs

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

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

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

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

"Bank" - means [●], [●] Branch, (Registration No. [●]); [Drafting Note: Name of Bank to be inserted]

"Bank's Address" - means [●]; [Drafting Note: Bank's physical address to be inserted]

"Contract" – means the written agreement relating to the Project, entered into between Eskom and the *Contractor*, on or about the [●] day of [●] 200[●] (Contract Reference No. ……. as amended, varied, restated, novated or substituted from time to time; [Drafting Note: Signature Date and Contract reference number to be inserted]

"*Contractor*" – means [●] a company registered in accordance with the laws of [●] under Registration Number [●]. [Drafting Note: Name and details of *Contractor* to be inserted]

"Eskom" - means Eskom Holdings SOC Limited, a company registered in accordance with the laws of the Republic of South Africa under Registration Number 2002/015527/30

"Expiry Date" - means the date on which the Defects Certificate is issued in terms of the Contract.

"Guaranteed Sum" - means the sum of R [●] ([●] Rand); [Drafting Note: Insert amount of Retention Money Guarantee.].

"Project" - means the……..

At the instance of the *Contractor*, we the undersigned _____ and _____, in our respective capacities as _____ and _____ of the Bank, and duly authorized thereto, confirm that we hold the Guaranteed Sum at the disposal of Eskom, as security for the proper performance by the *Contractor* of all of its obligations in terms of and arising from the Contract and hereby undertake to pay to Eskom, on written demand from Eskom received prior to the Expiry Date, any sum or sums not exceeding in total the Guaranteed Sum.

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

be signed on behalf of Eskom by a director of Eskom or his authorised delegate.

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

state that the *Contractor* has failed to carry out his obligation(s) to rectify certain defect(s) for which he is responsible under the Contract (and the nature of such defect(s)) alternatively that the Demand Amount is payable to Eskom in the circumstances contemplated in the Contract.

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

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

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

The Bank's obligations in terms of this Guarantee:

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

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

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

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

This Guarantee:

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

is, save as provided for in **Error! Reference source not found.** above, personal to Eskom and is neither negotiable nor transferable;

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

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

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

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

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

Signed at _____ Date _____ Bank's seal or stamp

For and behalf of the Bank

Bank Signatory: _____ Bank Signatory: _____

Witness: _____ Witness: _____

PART 2: PRICING DATA

ECC3 Option B

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option B	
C2.2	The *bill of quantities*	

C2.1 Pricing assumptions: Option B

How work is priced and assessed for payment

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

Identified and defined terms 11

11.2 (21) The Bill of Quantities is the *bill of quantities* as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration.

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

- the quantity of the work which the *Contractor* has completed for each item in the Bill of Quantities multiplied by the rate and
- a proportion of each lump sum which is the proportion of the work covered by the item which the *Contractor* has completed.

Completed work is work without Defects which would either delay or be covered by immediately following work.

(31) The Prices are the lump sums and the amounts obtained by multiplying the rates by the quantities for the items in the Bill of Quantities.

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

Function of the Bill of Quantities

Clause 55.1 in Option B states, “Information in the Bill of Quantities is not Works Information or Site Information”. This confirms that specifications and descriptions of the work or any constraints on how it is to be done are not included in the Bill, but in the Works Information. This is further confirmed by Clause 20.1 which states, “The *Contractor* Provides the Works in accordance with the Works Information”. Hence the *Contractor* does **not** Provide the Works in accordance with the Bill of Quantities. The Bill of Quantities is only a pricing document.

Guidance before pricing and measuring

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

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

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

Measurement and payment

Symbols

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

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

General assumptions

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

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

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

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

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

Departures from the *method of measurement*

Amplification of or assumptions about measurement items

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

C2.2 the *bill of quantities*

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

Item	Description	Measure	Quantities	Rates	Unit Price	Service Number	UOM	Description	Comment
1	**P&G's**								
1.1	Security for the works duration construction.	monthly	2			3000017662	monthly	PROVIDE, SECURITY SERVICE: TYPE: LINE PROJECT GUARDING; METHOD: PHYSICAL SECURITY GUARDING SERVICES TACTICAL AND RESPONSE PATROLS FOR ESKOM LINE PROJECT; INCLUDING SITE CAMPS AND THE SERVITUDE, AND TO PROTECT ESKOM'S ASSETS WHEN THE CONTRACTOR VACATES FROM SITE AFTER TERMINATION OF THE CONTRACTS	
1.2	Complying with Environmental Management Programme and all other statutory environmental requirements.(Environmental Officer, travelling (EMP)). Per site	each	1			3000036015	Performance unit (LE)	ESTABLISH, SITE; TYPE PRELIMINARIES; ADDITIONAL TASK COST FOR COMPLIANCE TO THE ENVIRONMENTAL MANAGEMENT PLAN; MATERIAL SUPPLIER CONTRACTOR	

1.3	Facilities for others (Including container 3x6, Lights and water, furniture, Printer, White and green board, computer.)	monthly	2			3000057610	ea	ESTABLISH, SITE: TYPE: FACILITIES FOR CONTRACTOR; FACILITIES FOR THE CONTRACTOR INCLUDING STORAGE SHEDS, ABLUTION AND LATRINE FACILITIES, TOOLS AND EQUIPMENT, WATER SUPPLIES, ELECTRIC POWER, AND COMMUNICATIONS	Contractors site camp requirements
1.4	Name boards. (In No. 2) (new/ re-use)(Including provide name boards for project name board)	SUM	1			3000031881	ea	ESTABLISH, SITE: TYPE: NAME BOARDS; ADDITIONAL TASK: FIXED CHARGE RATE; MATERIAL SUPPLIER: CONTRACTOR; FACILITIES	Contractors site camp requirements
1.5	Complying with Eskom Health and Safety Requirements and all statutory requirements as per OHS Act.(Project Saftey File, traveling and authorisation, induction and exit, entry, signs, safety boards). Per site	each	1			3000036986	Performa nce unit (LE)	ESTABLISH, SITE: TYPE: OTHER HEALTH AND SAFETY RELATED ITEMS DEEMED NECESSARY TO COMPLY TO OHS ACT, REGULATIONS AND ESKOM SAFETY SPECIFICATIONS; ADDITIONAL TASK: OCCUPATIONAL HEALTH AND HYGIENE; MATERIAL SUPPLIER: CONTRACTOR TO SUPPLY MATERIAL	Authorised Person in terms on the OHRVS required.
1.7	Detailed "as built" records (as per works information) 3 soft copies and 1 hard copy(Handing	each	1			3000054869	ea	CREATE, DOCUMENT: TYPE: NETWORK AS BUILT; MEDIA: ELECTRONIC AND PRINTED	As per the FIBRE OPTIC CABLE SYSTEM ACCEPTANCE TESTING 240-70732888

	over documentations, drawings)								
1.8	De-establish and re-establish stringing teams including plant and equipment upon instruction from the Project Manager.	each	1			3000022739	ea	CLEAR, SITE: TYPE: CONTRACTORS ESTABLISHMENT; METHOD: THE REMOVAL INCLUDING BUT NOT LIMITED TO THE CONTRACTORS EQUIPMENT, FACILITIES, STRUCTURES, WASTE, MATERIALS AND ANY OTHER OBJECTS IN ORDER TO REHABILITATE THE SITE; ALL SPOIL AND WASTE WILL BE REMOVED TO A REGISTERED WASTE SITE AND CERTIFICATES OF DISPOSAL PROVIDED; METHOD: THE REMOVAL INCLUDING BUT NOT LIMITED TO THE CONTRACTORS EQUIPMENT, FACILITIES, STRUCTURES, WASTE, MATERIALS AND ANY OTHER OBJECTS IN ORDER TO REHABILITATE THE SITE; ALL SPOIL AND WASTE WILL BE REMOVED TO A REGISTERED WASTE SITE AND CERTIFICATES OF DISPOSAL PROVIDED	

2 Transportation And accomodation

2.1	Transportation LDV (4 vehicles + 1 Bakkie for Splicer)	km	3133			3000012315	km	TRANSPORT, PEOPLE: TYPE: TRANSPORT; TRANSPORT METHOD: ROAD; VEHICLE TYPE: LDV	Remeasurable kilometer and supported by the Vehicles Oddmeter readings

2.2	Transportation Heavy Duty(4 ton) 1 truck	km	1733			3000017391	km	TRANSPORT, EQUIPMENT: TYPE: WITH CRANE; TRANSPORT METHOD: ROAD; VEHICLE TYPE: TRUCK; WEIGHT: 3-8 T	Remeasurable kilometer and supported by the Vehicles Oddmeter readings
2.3	Transportation Extra Heavy Duty(8 ton) + 1 truck - establishment	km	5667			3000028947	km	TRANSPORT, EQUIPMENT: TYPE: VARIOUS; TRANSPORT METHOD: ROAD; VEHICLE TYPE: TRUCK WITH CRANE; WEIGHT: 8 T	Remeasurable kilometer and supported by the Vehicles Oddmeter readings
2.4	Transportation Extra Heavy Duty(12ton) + 1 truck - establishment	km	3667			3000011255	km	TRANSPORT, MATERIAL: TYPE: VARIOUS; TRANSPORT METHOD: ROAD; VEHICLE TYPE: TRUCK WITH CRANE; WEIGHT: 9-14 T	Remeasurable kilometer and supported by the Vehicles Oddmeter readings
2.5	Transportation People Carrier)	km	1733			3000024171	km	TRANSPORT, PEOPLE: TYPE: SITE; TRANSPORT METHOD: ROAD; VEHICLE TYPE: MINI BUS; NUMBER OF PEOPLE: VARY; TRANSPORT (PER KM)	Remeasurable kilometer and supported by the Vehicles Oddmeter readings
2.6	Accommodation (2 months for 20 people)	ea	1200			3000013402	ea	ACCOMMODATION: TYPE: SLEEPING OUT PER TEAM FREQUENCY; DURATION: AS AND WHEN REQUIRED	Remeasurable supported by the daily attendance register
2.7	T&S (2 months for 20 people)	day	1200			3000032675	days	TRAVEL AND SUBSISTENCE: TYPE: LIVING OUT ALLOWANCE; RATE: PER NIGHT	Remeasurable supported by the daily attendance register

3 General Surveys

4 Cable Install and Test

4.1	Stringing and regulation of OPGW cables (Including assocciated hardware)	metre	23922			3000056302	ea	STRINGING, CONDUCTOR: TYPE: OPTICAL GROUND WIRE; DIMENSIONS: OD 16 MM; METHOD: STRINGING AND REGULATION USING PULLER AND TENSIONER EQUIPMENT; 6/125 FIBER OPTIC CABLE; INCLUDING ASSOCIATED HARDWARE	Eskom to supply all the Hardware and Cable
4.3	Splicing per core	each	230			3000034456	ea	INSTALL, CABLE, COMMUNICATION: TYPE: TERMINATE AND SPLICE (PER FIBER); METHOD: MANUAL INSTALLATION; FIBER OPTIC CABLE TERMINATION AND SPLICING (PER FIBRE)	Contractor to supply all the required optical instruments
4.4	Installation of joint boxes (Insulated and non-insulated), 24 core	each	7			3000034385	ea	INSTALL, EQUIPMENT, COMMUNICATION: TYPE: JOINT BOX, 24-CORE; METHOD: MANUAL; STANDARD: ESKOM APPROVED; FIBRE OPTIC CABLEWORK	Contractor to supply all the required optical instruments
4.5	Drum Pre-haul test per core (5 drums with 24 fibres)	each	144			3000056305	ea	TEST, MATERIAL: TYPE: FIBER OPTIC CABLE; METHOD: DRUM PRE-HAUL, TEST PER CORE; FREQUENCY: ONCE OFF; FEEDBACK: WRITTEN	Contractor to supply all the required optical instruments

4.6	Road Crossing (Regional and Provincial)	each	5			3000056724	ea	INSTALL, CROSSING: TYPE: REGIONAL/PROVINCIAL ROAD; MATERIAL: STEEL; METHOD: MANUAL; STRUCTURE FOR FIBRE INSTALLATION	Contractor to prepare temporary structures and do stringing for the type of crossings:
4.9	HV Crossing (12 x22kV)	each	12			3000056722	ea	INSTALL, CROSSING: TYPE: HV LINE; MATERIAL: STEEL; METHOD: MANUAL; STRUCTURE FOR FIBRE INSTALLATION	Contractor to prepare temporary structures and do stringing for the type of crossings:
4.13	DRESSING OF SUSPENSION TOWERS WITH ASSEMBLIES	each	32			3000057936	ea	INSTALL, COMPONENT: TYPE: FIBRE CABLE SUSPENSION ASSEMBLY; METHOD: ATTACH; DRESSING OF TOWERS WITH ASSEMBLIES	
4.14	DRESSING OF STRAIN TOWERS WITH ASSEMBLIES	each	53			3000057937	ea	INSTALL, COMPONENT: TYPE: FIBRE CABLE STRAIN ASSEMBLY; METHOD: ATTACH; DRESSING OF TOWERS WITH ASSEMBLIES	

5 Duct Cable Supply, Install and Test

5.2	Install of Duct cable as per specification	metre	500			3000056274	meter	INSTALL, CABLE, FIBER OPTIC: TYPE: HAULING INTO DUCT; METHOD: INSTALL, LAY AND TERMINATE AS PER SPEC	Eskom to supply the Duct fibre cable

	3.1.2 Hauling per metre								
5.3	Supply and Install of class 6 HDPE tubing as per specification	metre	600			3000057935	meter	INSTALL, CABLE WAY: TYPE: HDPE CONDUIT (CLASS 6 YELOW); METHOD: INSTALL HDPE CONDUIT PIPE (CLASS 6 YELLOW) AS SPECIFIED BY TST41-115 & 240-46264031; (INCLUDING JOINTING).	Contractor to supply materials and install as per the scope of work
5.4	Supply and install of 50 x 2mm minimum galvanized steel pipe	each	6			3000056260	ea	INSTALL, CABLE, ELECTRICAL: TYPE: CONDUITS: 50MM DIAMETER; METHOD: GALVANISED STEEL CONDUITS	Contractor to supply materials and install as per the scope of work
5.5	Trenching - excavate, backfill and consolidation in pickable ground	metre	100			3000056262	meter	EXCAVATE: METHOD: BY HAND 500 MM DEEP; GROUND TYPE: PICKABLE SOIL; REASON: FIBRE CABLE LAYING; FILLING MATERIAL: NATURAL GROUND; TRENCHING, BACKFILL AND CONSOLIDATION	

6 Patch Panel with Accessories

6.1	19" rackmount 24-way fibre patch panel - supply and install	each	2			3000057930	ea	INSTALL, EQUIPMENT, ELECTRONIC: TYPE: 24 WAY FO PATCH PANEL; METHOD: MOUNT TO 19 IN RACK; STANDARD: 240-70733995; SUPPLY AND INSTALL	Contractor to supply materials and install as per the scope of work

6.3	19" rackmount 12-way fibre patch panel - supply and install	each	2			3000057933	ea	INSTALL, EQUIPMENT, ELECTRONIC: TYPE: 12 WAY FO PATCH PANEL; METHOD: MOUNT TO 19 IN RACK; STANDARD: 240-70733995; SUPPLY AND INSTALL	Contractor to supply materials and install as per the scope of work

7 Sarel Box - supply and install

7.1	Sarel Box with Accessories	each	2			3000057938	ea	INSTALL, EQUIPMENT: TYPE: FIBRE TERMINATION BOX; WITH ACCESSORIES	Contractor to supply materials and install as per the scope of work

8 Fibre Splicing and testing

8.1	Splicing of fibre per core	each	204			3000034456	ea	INSTALL, CABLE, COMMUNICATION: TYPE: TERMINATE AND SPLICE (PER FIBER); METHOD: MANUAL INSTALLATION; FIBER OPTIC CABLE TERMINATION AND SPLICING (PER FIBRE)	Contractor to supply all the required optical instruments

8.2	Final OTDR testing for both 1310 nm and 1550 nm wavelengths on fibre cores from both ends as per specification	each	1			3000034455	each	TEST, EQUIPMENT: TYPE: FIBRE TESTING; METHOD: MANUAL, CONNECT TO SYSTEM AND CARRY OUT TEST, TO COMPLY TO SANS OR SABS REQUIRMENTS; FREQUENCY: AS AND WHEN REQUIRED; FEEDBACK: AS PER ESKOM SPEC; FIBER OPTIC END TO END TESTING (OTDR AND PMLS) AS PER PROCEDURE TPC41-5 (I.E. PER FIBRE FROM PATCH PANEL TO PATCH PANEL)	Contractor to supply all the required optical instruments
8.3	Final end to end power budget measurements for both 1310 nm and 1550 nm wavelengths on fibre cores from both ends as per specification	each	1			3000034455	each	TEST, EQUIPMENT: TYPE: FIBRE TESTING; METHOD: MANUAL, CONNECT TO SYSTEM AND CARRY OUT TEST, TO COMPLY TO SANS OR SABS REQUIRMENTS; FREQUENCY: AS AND WHEN REQUIRED; FEEDBACK: AS PER ESKOM SPEC; FIBER OPTIC END TO END TESTING (OTDR AND PMLS) AS PER PROCEDURE TPC41-5 (I.E. PER FIBRE FROM PATCH PANEL TO PATCH PANEL)	Contractor to supply all the required optical instruments

9 General

9.1	Supply Dual 3m SC-APC to SC-APC Patch leads (ruggedized)	each	12						Contractor to supply materials and install as per the scope of work
9.2	Supply Dual 3m SC-APC to FC Patch leads (ruggedized)	each	6						Contractor to supply materials and install as per the scope of work

9.3	Other - please specify								Contractor to supply materials and install as per the scope of work

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8.2	Cable Install and Test	
8.3	Duct Cable Supply, Install and Test	
8.4	Patch Panel with Accessories	
8.5	Sarel Box - supply and install	
8.6	Fibre Splicing and testing	
8.7	General	
	TOTAL	

PART 3: SCOPE OF WORK

Document reference	Title	No of pages
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C3.1	*Employer*'s Works Information	
C3.2	*Contractor*'s Works Information	
	Total number of pages	

C3.1: *EMPLOYER*'S WORKS INFORMATION

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1 Description of the works

1.1 Executive overview

Installation of 24 Core OPGW between Hlanganani and Mashau Substation for a period of 2 months

The project involves installing a new 24-core OPGW fibre optic cable between Hlanganani and Mashau as part of the 132 kV line project.

The scope of work entails but not limited to the following:

- The line length is approximately 23.5km long.
- The Fibre to be stringed and The Contractor shall ensure that vibration dampers have been fitted to the cable adjacent to the tension and suspension clamps, before doing any gantry installation work.
- The installation of staggered bird flappers on the shield wire and OPGW
- The OPGW cable shall be joined to the Non-metallic DUCT fibre optic cable (G.652D, 24- core, dual window, Single Mode) on both gantries and terminated inside the fibre cabinets on both ends respectively.
- The 24 – Way Patch Panels will be housed inside the FOX MSAP or Fibre cabinet at both Substations
- The fibre will be terminated on 24 – way Patch panels at both Substations control rooms.
- The fibre will be terminated on 12 – way Patch panels at both Substations control rooms.
- Duplex, single mode patch leads should be supplied to ensure equipment connectivity.
- The 6-core DUCT fibre cable shall be terminated on a 6 –Way Sarel box inside the Protection Panel and patch onto the protection relay for Tele-protection.
- The splice enclosure shall be mounted approximately 1m-to-1.5m above ground level in the HV yard.
- The HDPE pipe shall extend through the galvanized steel pipe and shall be sealed with UV-resistant silicone sealer
- After installation, the end-to-end test shall be done on each individual fibres and witnessed by Eskom.

1.2 Employer's objectives and purpose of the works

The benefit of the required service includes:

- Improve protection system communication.
- Will support SCADA communication, allowing the 132 kV equipment at Rampheri Substation to be monitored and operated remotely from the relevant control centre.
- Improved network reliability for fast and reliable communication enables quicker detection and

1.3 Interpretation and terminology

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation

OPGW	Optical Ground Wire
ADSS	All Dielectric Self-Supporting
OTDR	Optical Time Domain Reflectometer
PMLS	Power Meter and light source
AFC	Approved for construction
OBL	Outside battery limits
QITP	Quality Inspection Test Plan

2 Management and start up.

2.1 Management meetings

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register and compensation events	Monthly or as request by *Contractor* and *Employer*	Site Camp	*Employer*, *Contractor*, *Supervisor*, and Project Engineer
Overall contract progress and feedback	Monthly or as request by *Contractor* and *Employer*	Site Camp	*Employer*, *Contractor*, *Supervisor*, and Project Engineer

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

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

2.2 Documentation control

All contract documentation shall be assigned a unique alphanumeric identification code that reflects the document's source, recipient, communication type, and sequential communication number.
The standard format is [Source]-[Recipient] - [Document Type]- [Sequential Number]

Formal Format:

- Contractual communications shall be issued as compiled letters or approved forms.
- Messages must be on official letterhead or within a controlled template.
- Emails may be used only as a transmission mechanism, not as the communication itself.
- The formal letter or form shall be attached as a PDF (locked format to prevent alteration).
- The email body may provide a brief summary only.

Prohibited Methods:

- No contractual instruction, request, variation, or clarification shall be issued as plain text in an email body, instant messaging, or verbal communication.

- Handwritten notes, texts, or informal apps (e.g., WhatsApp) are not accepted documentation channels.

This alphanumeric identification shall appear on:
- The document header/footer
- The transmittal sheet
- The document register
- Email subject line when issued electronically

The *Contractor* will submit the following documents to the *Employer* for review; the *Employer* will review the documents for acceptance and inform the *Contractor* if the documents have been accepted or if it is not accepted and stating the reasons of not the accepting the documentation. The *Employer* will give the *Contractor* reasonable time which will be agreed to between the *Contractor* and the *Employer* to respond or re-submit the documents.

Used Standard forms
- Delegation of *Employer*'s actions
- Access provided by the *Employer*
- Early warning notification by the *Contractor*
- Early warning notification by the *Employer*
- Completion certificate issued by the *Employer*
- Notification of a Defect
- Defects Certificate issued by the *Employer*
- *Contractor*'s assessment of an amount due
- Notification of a compensation event
- Quotation for proposed instruction or changed decision
- Termination certificate issued by the *Employer*
- Notification of a dispute
- *Contractor*'s submission to the *Employer*
- *Employer*'s instruction
- *Employer*'s summary of the amount due

Construction Records

Upon Completion, the Contractor shall provide final "as-built" records in accordance with the requirements below.
- The Contractor shall compile two hard copy sets of the construction records and submit them to the Project Manager. In addition, the Contractor shall provide a compact disc containing the same construction records.
- The construction records shall consist of the following information, as supplied by the persons indicated below:

Item	Data	Information Supplied by
	Cover and index	*Project Manager*
1	**General Line Date**	*Project Manager*
2	**Summary of Project**	*Project Manager*
3	**Tower Schedules**	*Contractor*
4	**Stringing Records**	*Contractor*
5	**OPGW Installation**	OPGW Contractor or Subcontractor
5.1	Schematic Layout	
5.2	Fibre Coding	
5.3	Light Source Results	
5.4	Splice Performance Summary (detailed report submitted separately)	

6	**Drawings**	
6.1	Tower Outline Drawings	*Project Manager*
6.2	OPGW Hardware	*Contractor*
6.3	Insulator Drawings	*Contractor*
7	Line Profiles	*Project Manager*

The *Project Manager* submits relevant information as detailed above to the *Contractor* within two weeks of Take-over. The *Contractor* compiles the document and submits copies to the *Employer* within four weeks after receipt of the relevant information.

2.3 Health and Safety Risk Management

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

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

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

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

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

The *Contractor* shall comply with the health and safety requirements contained in Annexure _____ to this Works Information.

2.4 Environmental constraints and management

The *Contractor* shall have an environmental management system in place that will ensure that the requirements of the environmental management plan are effectively implemented and managed.

Campsite establishment and dis-establishment are to be managed in accordance with Eskom specifications

The layout should be such that it facilitates a circular traffic route that eliminates the need to reverse when loading and off-loading

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

Environmental Control Officer (ECO)
It is the responsibility of the ECO to monitor the *Contractor*'s implementation of his duties

Reporting
It is required that the *Contractor* makes all documents, weekly reports, monthly reports, complaints register, environmental incident register (spills, impacts, legal transgressions, etc.) as well as corrective and preventative actions taken available to the ECO upon request.

Environmental training and awareness
The *Contractor* ensures that the *Contractor* and sub-*Contractor*s staff receives environmental awareness training before commencement of the work. The training will be presented by the *Supervisor* with the assistance of the ECO. An attendance register is to be maintained Any new staff must receive the environmental awareness training.
The *Contractor* shall comply with the environmental criteria and constraints stated in Annexure _____

2.5 Quality assurance requirements

The *Contractor* shall comply with the quality criteria as stated in the "Supplier Quality Management Specification", attached to this Work Information. The *Contractor* is to provide a quality inspection and test plan for the design, manufacture, delivery and installation as stated in the Scope of Work, for review and approval.

2.6 Programming constraints

Requirements for the programme

The programme shall include the following

Method statements which identify the equipment and other resources which the *Contractor* plans to use
Planned completion of each section of the works
The order and timing of the operations which the *Contractor* plans to do m order to Provide the Works
Makes provision for

- float
- time risk allowances
- health and safety requirements

The dates when, in order to Provide the Works in accordance with his programme, the *Contractor* will need'
Plant and Materials or things to be provided by the *Employer*
The *Contractor* shall submit the first programme to the Project Manager for acceptance within two (2) weeks of the starting date of the Task Order. The programme Is to conform strictly to the requirements of core clause 31 and the Contract Data.
The *Contractor* revises the programme as required in accordance with core clause 32
Each time the programme is revised, the *Contractor* submits a revised Forecast Rate of Payment.

Rain and its effect on the Accepted Programme

The *Contractor* allows for 10 (ten) days above 15mm of rain and its effects on the critical path for foundation construction
The *Contractor* allows a further 10 (ten) days above 15mm for rain and its effects on the critical path for tower assembly and erection
The *Contractor* allows a further 10 (ten) days above 15mm for rain and its effects on the critical path for stringing.
The above allowances run sequentially are priced as part of the Price List per Tender The said sequential 30 (thirty) days form part of the contract duration and are clearly Indicated in the contract schedule as 3 critical path activities

2.7 Contractor's management, supervision and key people

The *Contractor* must submit an organogram which clearly indicates the people resources that will be utilised for this project. The organogram must clearly indicate lines of authority as well as lines of communication Site staff as well as head office staff must be indicated.

Where work is required in the existing HV Yard and in close proximity to existing transmission and distribution lines the *Contractor* will have to adhere to Eskom's High Voltage regulations. The *Contractor*'s staff must have completed the necessary high voltage regulations modules in order to be issued with a permit to work in these yards.

The *Supervisor* monitors and co-ordinates all construction activities in accordance with the contract and relevant specifications.

The *Supervisor* records all quality test results and other activities from inspections as required.

The *Supervisor* verifies the *Contractor'*s soil/rock nomination at each foundation position, before submission to the Project Manager, but this does affect the *Contractor*'s obligation to ensure that the correct soi/rock nomination s done

The *Supervisor* arranges and co-ordinates the de-energisation of overhead power-Anes (where possible) and substation electrical fences, crossings of national highways, railway lines and telecommunication lines, in accordance with TRMSCAAC1 rev3

2.8 Invoicing and payment

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

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

The *Contractor* shall address the tax invoice to Eskom Holdings SOC Ltd and include on each invoice the following information:

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

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

2.9 Insurance provided by the Employer

The *Employer* has Marine Insurance Cover and annual contractors all risks cover available

2.10 Contract change management

The changes to the contract The *Contractor* and *Employer* will be guided by the core clause 6 compensation event, should there be any

2.11 Provision of bonds and guarantees

Eskom will apply a penalty of 2.5% of the Contract Value for failure to meet SDL&I obligations.

For the duration of the contract, Eskom will retain 2.5% of every invoice (excluding VAT) as security for the fulfilment of all SDL&I Obligations. The retained amounts shall only be released to the Contractor upon:

- Eskom receives the SDL&I progress report/s from the contractor.
- Fulfilment of all SDL&I obligations by the contractor.

Submission of an approved compliance report by SDL&I Department.

3 Engineering and the Contractor's design

3.1 Employer's design

- The *Employer* is responsible for the design of the works and will bear the responsibility for the adequacy of hrs designs. The design of the works has been done by Network Engineering Design of Eskom Distribution
- The design is done according to the Eskom Specification for Line design and is depicted on the drawings and specifications that have been issued as part of this Project Specific Agreement
- Supply of line profiles, Construction profiles are issued within 2 (two) weeks of the starting date
- Servitude gate and game gate drawings
- Shop drawings for all towers to be used in this contract are provided on request only. All towers' designs specified are copyrighted by the *Employer* or the designer.
- Supply of conductor sag/tension data
- Details/drawings of "Free Issue Materials" (or materials supplied by Eskom) on delivery.

3.2 Equipment required to be included in the works

The defined term 'Equipment' in core clause 11.2(7) makes a cross reference to the Works Information concerning any Equipment which the *Contractor* is required to include in the works. Complete here or if not applicable either delete the heading or retain the heading and state 'None'. (the *Contractor* will provide all required equipment as per the project specific agreement.

3.3 As-built drawings, operating manuals and maintenance schedules

Use this section to describe these requirements. Pay particular attention to when and in what form they are required. Consideration should be given to obtaining operating manuals and maintenance schedules before Completion of the whole of the works when there is still considerable financial incentive for the *Contractor* to do so. The *Contractor* shall provide as built drawings as per the project specific agreement and that will include update

1. update spanning plan, indication position of joint boxes
2. OTDR test results (as per the fibre optic cable system acceptance testing procedure

4 Procurement

There is a cross reference from the definition of Disallowed Cost in Options C D and E to the Works Information regarding procurement procedures. This part of the Works Information MUST include any such procedures to be able to administer this procedure. Options A & B may also require constraints on procurement procedures.

4.1 People

4.1.1 Minimum requirements of people employed on the Site

Specify any constraints relating to people employed to Provide the Works; for example permits for foreigners, training (other than H & S), use of labour from designated areas and industrial relations.

4.1.2 BBBEE and preferencing scheme

General Information on Validity of Sworn Affidavits

Tenderers submitting B-BBEE Sworn Affidavits must ensure that the affidavits meet the following key pointers to ensure their validity:

- Name/s of deponent as they appear in the identity document and the identity number.
- Designation of the deponent as the director, owner or member must be indicated in order to know that person is duly authorised to depose of an affidavit. (Mark the applicable option).
- Name of enterprise as per enterprise registration documents issued by the CIPC, where applicable, and enterprise business address.
- Percentage of black ownership, black female ownership and designated group. In the case of specialised enterprises as per Statement 004, the percentage of black beneficiaries must be reflected. (No blank spaces to be left).
- Indicate total revenue for the year under review and whether it is based on audited financial statements or management account. (Mark the applicable option).
- Financial year end as per the enterprise's registration documents, which was used to determine the total revenue. (Financial year end to be stipulated by day/month/year).
- B-BBEE Status level. An enterprise can only have one status level. (Tick applicable level)
- Empowering supplier status must be indicated. For QSEs, the deponent must select the basis for the empowering supplier status.
- Date deponent signed and date of Commissioner of Oath must be the same. (The sworn affidavit must be signed in the presence of the Commissioner of Oath. Furthermore the Commissioner must also sign and stamp)

Commissioner of Oath cannot be an employee or ex officio of the enterprise because, a person cannot by law, commission a sworn affidavit in which they have an interest.

SDL&I Objectives in line with Reconstruction and Development Programme (RDP) Goals

Tenderers who complete and submit the objectives as required, but who do not meet Eskom's targets, will not be disqualified. SDL&I objectives do not form part of scoring but commitments will form part of contractual obligations.

1. **Local Content:** Local Production and Content must be achieved in full by the tenderer.

Designated Sector	Component /Material	Threshold
Plastic Pipes	High density polyethene HDPE pipes	100%
Telecom Cables	Optical Fibre Cables	90%
Steel Value Added Products	Ducting and Structural pipework	10%

2. Job Creation

Tenderers are required to submit proposals for the type and number of jobs that will be created and retained in South Africa as a direct result of being awarded a contract.

Number of Jobs to be created	**Number of jobs to be retained**

Note: Communities based local to site (areas around site) should be prioritised for employment and all unskilled labourers sourced from areas local to site.

3. Procurement spend on entities with a minimum 51% black ownership.

The tenderer is encouraged to procure/spend on designated groups on the following paid invoices for both:

- Indirect expenses (e.g. overheads) on goods and services supplied to the contractor/supplier by designated groups; and
- Direct spend on goods and services supplied by the subcontractors for the execution of the scope of work.

Activities, as a proportion of the local procurement content, which may be subcontracted to designated black owned enterprises must be submitted in the table below:

Procurement from Designated Groups	Target	Tenderer's Proposal
Procurement from EME/QSE >51% owned by black people (based in Limpopo Province)	2%	

4.2 Reporting and Monitoring

- The suppliers shall on a quarterly basis submit a report to Eskom in accordance with Data Collection Template on their compliance with the SDL&I obligations described above.
- Eskom shall review the SDL&I reports submitted by the suppliers within 30 (thirty) days of receipt of the reports and notify the suppliers in writing if their SDL&I obligations have not been met.
- Upon notification by Eskom that the suppliers have not met their SDL&I obligations, the suppliers shall be required to implement corrective measures to meet those SDL&I obligations before the commencement of the following report, failing which Retention clauses shall be invoked.

Every contract shall be accompanied by the SDL&I Implementation Schedule, which must be completed by the suppliers and returned to SDL&I representative for acceptance 28 days after contract award. This will be used as a reference document for monitoring, measuring and reporting on the supplier's progress in delivering on their stated SDL&I commitments

4.3 Plant and Materials

4.3.1 Quality

Quality is usually designed in or specified in the technical specifications referred to in section 6 of this Works Information. However, to cover circumstances where quality may not be prescribed, this sub-paragraph could be used as an overarching default requirement. It could also be used to deal with how repairs are carried out after a Defect has been notified; for example, can the item be fixed up or must it be replaced by a new one. See also SANS 1200A, sub-paragraph 3.1

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

No Plant is provided "free issue" to the *Contractor* for this Contract. AII Plant Is to be provided by the *Contractor*. Certain Materials are provided "free issue" to the *Contractor* - refer to Bill of Quantities and 6 (Services and other things provided by the *Employer*) hereunder.

4.3.3 Contractor's procurement of Plant and Materials

All transportation to site of plant and material required for this project will be by means of road transport. The *Contractor* must familiarise himself with the road conditions to site

The *Contractor* must prepare a fenced off storage yard on or off-site for the off-loading and safekeeping of all plant and material delivered to site Material must be off loaded and stored separately in areas allocated for this purpose. The *Contractor* must manage such storage areas as to ensure safety compliance as well as security of the plant and material

4.3.4 Spares and consumables

Any spares must be handed over to the *Supervisor* during the take-over procedure once the works complete

4.4 Contractor's Equipment (including temporary works).

The *Contractor* must keep a daily record of all equipment on Site. The information differentiates between hired and *Contractor*-owned equipment. The record must also clearly indicate when equipment is working and who the operator of the equipment was for the recorded shift.

The *Contractor* ensures that these records are verified and signed off by the *Supervisor* daily and that this document is available on Site at all times.

Employer or the Project Manager are not liable to any of the equipment

5 Construction

5.1 Temporary works, Site services & construction constraints

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

The *Contractor* will be required to monitor and control access to the Site. There is a single main access control point to the Distribution sub-stations and *Contractor* provides security, who are responsible to provide personnel to man this access point during working hours. All employees and visitors to site must undergo an alcohol test which must be carried out by the *Contractor*'s personnel

An entry register must be kept on a daily basis of all vehicles and personnel that enter the *Contractor*'s site.

5.1.2 Restrictions to access on Site, roads, walkways and barricades

The *Employer* and *Contractor* representatives will negotiate access with respective landowners. Written records of such engagement are kept. Vehicular access may be restricted, prohibited or impossible in certain areas.

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

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

The *Contractor* shall clearly specify the proposed working hours in its submission. Upon contract award, the *Contractor* shall adhere to the approved working hours and maintain detailed, accurate records demonstrating compliance. The *Contractor* shall ensure that the *Supervisor* signs these records on a daily basis, and shall provide the Project Manager and *Supervisor* with access to such records at all times

The *Contractor* indicates any shift work or extended working hours required in order to meet with the required completion dates of the Specific Project Agreement. The Project Manager and SHEQ manager's permission to work these hours are obtained prior to working such hours. Permission will only be granted if the longer hour worked have been accepted in writing by the Department of Labour.

5.1.4 Health and safety facilities on Site

The *Contractor* must refer to Eskom Safety, Health and Environmental Specification for the installation of Fibre Cable for any project.

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

The *Contractor* must refer to General environmental requirements

5.1.6 Title to materials from demolition and excavation

The *Contractor* has no title to materials from excavation and demolition.

5.1.7 Cooperating with and obtaining acceptance of Others

The *Contractor* may have to share the working areas and co-operate with other *Contractor*s during the execution of Project Specific Agreement and agrees to do so optimally.

5.1.8 Publicity and progress photographs

The *Supervisor* will record progress by means of a photographic record as required by the Project Manager. All works will be photographed at the QITP hold points so that a photographic record exists of the quality compliance of the works during the various stages of construction

The *Contractor* may also take photographs as a photographic record of the progress. The *Contractor* must obtain the Project Managers permission to take photos on Ste for any other purpose

5.1.9 Contractor's Equipment

The *Contractor* must keep a daily record of all equipment on Site The information differentiates between hired and *Contractor*-owned equipment. The record must also clearly indicate when equipment is working and who the operator of the equipment was for the recorded shift.

The *Contractor* ensures that these records are verified and signed off by the *Supervisor* daily and that this document is available on Site at all times.

5.1.10 Site services and facilities

The *Contractor* shall everything necessary for providing the Works.

5.1.11 Facilities provided by the Contractor

The Preliminary and General section of the Price List makes provision for the *Contractor* to price items and facilities required for the execution of the works amongst other things.

- The *Contractor* shall provide their supply (generator) points necessary for the works. Adequate and/or continuous supply is not guaranteed and no claims for delay or standing time as a result of insufficiencies or failures will be considered. Any measures which the *Contractor* may require to maintain continuity and quality of supply shall be arranged by him at his own expense.
- A site for the *Contractor*'s yard will be provided. The *Contractor* shall not occupy any site area other than that allocated to him.
- If required Eskom will make an area available for the *Contractor* to store equipment etc.
- Toilet facilities are not available on site; the *Contractor* is advised to provide his own portable toilet facilities. The *Contractor* is to ensure that these facilities are kept in a clean condition to Eskom's satisfaction.
- There is no drinking water, and the *Contractor* has to bring its own water
- It is the *Contractor's* responsibility to provide his own living accommodation
- *Contractor* to provide own temporary office, telephone and workshops on site
- *Contractor* to provide own safe storage for material and plant

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

The information will be included in the Project Specific Agreement

5.1.13 Survey control and setting out of the works

The *Employer* marks the line route with iron pegs at each bend point and provides co-ordinates of each bend point

5.1.14 Excavations and associated water control

The details for handling deep foundations and controlling water from excavations to be included in the project specific agreement.

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

The details to be included in the project specific agreement.

5.1.16 Control of noise, dust, water and waste

The *Contractor* must refer to Eskom Environmental Specification for the installation of Fibre Cable for any project.

5.1.17 Sequences of construction or installation

The *Contractor* will submit the method statement as per the project specific agreement.

5.1.18 Giving notice of work to be covered up

State the procedure for notifying the *Supervisor*

5.1.19 Hook ups to existing works

Only authorised personnel are permitted to carry out or participate in any activities involving connections to existing works.

5.2 Completion, testing, commissioning and correction of Defects

5.2.1 Work to be done by the Completion Date

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

	Item of work	**To be completed by**
	As built drawings of Project Specific Agreement	Within 7 days after Completion
	Performance testing of the *works* in use as specified in the Works Information of the Project Specific Agreement.	See performance testing requirements.

5.2.2 Materials facilities and samples for tests and inspections

The *Contractor* shall provide materials facilities and samples for tests and inspections.

5.2.3 Commissioning

No commissioning work will be undertaken under this contract, only end to end testing will be performed

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

The *Contractor* will be responsible to perform the End-to-End Testing, and the *Employer* will witness the testing.

5.2.5 Take over procedures

Take over is after or at the same time as Completion.

5.2.6 Access given by the Employer for correction of Defects

The *Contractor* to undertake the correction of the defect once all the outages have been approved.

5.2.7 Operational maintenance after Completion

The *Employer* may require the *Contractor* before the defects date to perform certain duties after Completion and take over which relate to maintenance of the works

6 Plant and Materials standards and workmanship

6.1 Investigation, survey and Site clearance

The *Contractor* is responsible for conducting site survey before commencement of works. The method statement for the execution of works will be submitted to the *Employer* for approval. All constraints to be identified in the method statement

6.2 Process control and IT works

6.2.1 Specifications

The following is a list of specifications and standards applicable to the (to the specific project)

Environmental Management Plan		
The specifications, standards and guides listed below are applicable to this contract and are **available on request.** Latest revision available at time of tender will apply		
Optical Distribution Frame/Patch Panel 240-70733995		
OPGW Hardware and Installation requirements for Overhead Lines 240 - 110403330		
NRS 061-2-2004 Specification for Overhead Ground wire with Optical Fibre Part2		
NRS 078-2-2005 Long-Span ADSS Cables Part 2		
NRS 088-2-2016 Duct and Direct-Buried Underground Fibre-Optic Cables Part 2		
Fibre Optic Cable System Acceptance Testing 240 – 70732888		
Fibre Optic Gantry to Substation control room scope of work guideline 240-106030205		
Fibre-Optic Design Standard Part 2 Substations 240- 46264031		
Labelling of Fibre Optic Cables 240-46263618		
Optical Distribution Frame/Patch Panel 240-70733995		

6.3 Materials

The *Employer* supplies and delivers to the *Contractor*'s camp, the following, which the *Contractor* takes delivery of, checks for completeness, provides suitable off-loading and secures storage facilities and implements an efficient Material Management System

	Date by which it will be provided
Fibre Optic Cables	As per Project Manager's instruction
Insulators	As per Project Manager's instruction
Line hardware and fittings	As per Project Manager's instruction
Aircraft warning devices, bird-guards and bird-diverters	As per Project Manager's instruction

6.4 Disposal

The *Contractor* shall make his own arrangements to the approval of the *Supervisor* and the Local Authorities, for the disposal of all surplus material and construction waste resulting from the works. The *Contractor* is reminded that all waste from aluminium products supplied by the *Employer* may only be disposed of in accordance with the *Employer*s "Aluminium disposal Procedure" No deviations from this procedure are allowed.

7 List of drawings

7.1 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.

Note: Some drawings may contain both Works Information and Site Information.

Drawing number	Revision	Title
		Bend point co-ordinates, staking tables and profiles.
		Outline tower drawings
		Conceptual hardware drawings
		Eskom Standard Conventional Foundation drawings
		Conceptual Hardware Drawings

SHEQ Related Non-Performance

Termination due to Non-compliance

ESKOM reserves the right to terminate the contract in the event that the *Contractor* is found to be consistently non-compliant to Eskom OHS requirements, policies, procedures and applicable legislation.

Fines for environmental violations

For fines relating to Environmental violations, please refer to the document titled "Environmental Requirements for *Contractor*s working (attached with the specific min-tender)

Fines for Quality related issues

For any substandard work *Contractor* shall re-do / re-work at their own costs

Sub-*Contractor* Management

Sub-*Contractor*s are to be managed in accordance with the Eskom OHS and applicable legislation recommended Failure to comply will result in a fine of R50 000 00 per non-compliance (attached with the specific mini tender)

ESKOM reserves the right to recommend that the sub-*Contractor* in the event that the *Contractor* is found to
be consistently non-compliant to Eskom OHS requirements, policies, procedures and applicable legislation

C3.2 *CONTRACTOR*'S WORKS INFORMATION

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

Typical sub headings could be

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

This section could also be compiled as a separate file.

PART 4: SITE INFORMATION

Document reference	Title	No of pages
	This cover page	1
C4	Site Information	22
	Total number of pages	

PART 4: SITE INFORMATION

Description of the Site and its surroundings

Information about the site at time of tender which may affect the work in this contract.

Access Limitations

Access to the substation Is controlled by security services and the *Contractor* shall adhere to all procedures set out by them.

The Distribution Line servitudes outside the Sub Station cross Landowner properties, these Landowners must be given advance notice of any construction activity scheduled to take place on their properties.

The *Contractor* should inspect the site in order to ascertain the conditions and extent of the *Contractor*'s risk.

Access will only be allowed if arranged through the ECO on site.

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

If the *works* have interfaces or hook up points with existing facilities or comprise refurbishment of existing facilities, provide full details of these so that the tendering *Contractor* can plan his design and construction to integrate with them as the Works Information requires. As built drawings of the existing facilities usually provide the necessary information; such drawings can be listed here stating where they are located for the *Contractor*'s use.

Subsoil information

Provide details of geotechnical reports, borehole records and test results for parts of the Site where earthworks are required by this contract. These details may be referenced as an Annexure to this document where they are extensive.

Hidden services

Before any work commences, it will be the responsibility of the *Contractor* to ascertain the position of any existing services, heritage areas and no-go areas.

Known areas will be pointed out to the *Contractor* by the *Site Supervisors*, ECO, and once these have been indicated to the *Contractor* they shall be deemed "known" Any costs incurred for repairs to any “known" services shall be for the *Contractor*'s account.

Existing Roads & Distribution Lies cross the servitudes Refer to EMP and Profiles

Other reports and publicly available information

This subsection may refer to mapping, hydro-graphic data, hydrological information, shipping movements, tides and published papers or Geological Surveys that the tendering *Contractor* may need to be able to decide his method of working and programme and prepare any designs for which he would be responsible.