



NEC3 Engineering & Construction Contract

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

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

for **The Provision of Construction and upgrade of MV &
LV overhead and underground Lines in Cape Coastal
Cluster (CCC)**

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CONTRACT No. [Insert at award stage]

Part C1: Agreements & Contract Data

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[to be inserted from Returnable Documents at award stage]	

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:

The Provision of Construction and upgrade of MV & LV overhead and underground Lines in Cape Coastal Cluster (CCC)

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

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

Options A B, C or D	The offered total of the Prices exclusive of VAT is	R [●]
Option E or F	The first forecast of the total Defined Cost plus the Fee 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)

Nosipho Manyonga

Capacity

Senior Manager- Asset Creation

**for the
Employer**

Eskom Holdings SOC LTD, Megawatt Park, Maxwell Drive, Sandton, Johannesburg
2199

(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:

Signature

Name

Capacity

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

Name & signature of witness

Date

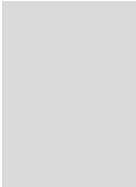
For the Employer

Nosipho Manyonga

Senior Manager- Asset Creation
Eskom Holdings SOC LTD, Megawatt
Park, Maxwell Drive, Sandton,
Johannesburg 2199

C1.2 ECC3 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	
		
	dispute resolution Option	B: Priced contract with bill of quantities W1: Conflict Resolution X1: Price Adjustment for Inflation X2: Changes in the Law X5: Sectional Completion X7: Delay Damages X16: Retention X18: Limitation of Liability
	and secondary Options	Z: Additional conditions of contract
	of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)	
10.1	The <i>Employer</i> is (Name):	Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa
	Address	Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg
10.1	The <i>Project Manager</i> is: (Name)	Danjany Ramdari
	Address	Sunnilaws Office Park Cnr Bonza Bay Rd and Quenera Drive Beacon Bay 5214
	Tel	043 703 5112
	Fax	086
	e-mail	RamdarDD@eskom.co.za

10.1	The <i>Supervisor</i> is: (Name)	
	Address	ESKOM HOLDINGS SOC LIMITED, Sunilaws Office Park, Beacon Bay EAST LONDON, 5205
	Tel No.	043-703 2574
	Fax No.	
	e-mail	
11.2(13)	The <i>works</i> are	The Provision of Construction and upgrade of MV & LV overhead and underground Lines in Cape Coastal Cluster (CCC)
11.2(14)	The following matters will be included in the Risk Register	<ul style="list-style-type: none"> • Geological Conditions • Inclement weather(rain, wind, snow, hailstorm, heatwave • Labour/community unrest • Management of heritage resources • Non-compliance to approval EIA, leading to work stoppages ,fine and/or prosecution • Normal construction hazards working with machinery • Electrocution • Power supply interruptions or failure • Fire and smoke • Snakes • Steep, rocky, unstable and slippery ground • Unforeseen geological conditions. Poor rock quality than anticipated. Unstable rock wedges. Unacceptable water inflows • Normal construction hazards for reinforced concrete works • Disaster Management Act(unforeseen diseases)
11.2(15)	The <i>boundaries of the site</i> are	The site is to be determined by task order
11.2(16)	The Site Information is in	Part 4: Site Information
11.2(19)	The Works Information is in	Part 3: Scope of Work and all documents and drawings to which it makes reference.
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa
13.1	The <i>language of this contract</i> is	English
13.3	The <i>period for reply</i> is	7 working days
2	The <i>Contractor's</i> main responsibilities	Data required by this section of the core clauses is provided by the <i>Contractor</i> in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.
3	Time	

11.2(3)	The <i>completion date</i> for the whole of the <i>works</i> is		
11.2(9)	The <i>key dates</i> and the <i>conditions</i> to be met are:	Condition to be met	key date
		1 Whole of the site]As per the first Accepted Programme
30.1	The <i>access dates</i> are:	Part of the Site	Date
		1 Complete Site	On Contract Date
31.1	The <i>Contractor</i> is to submit a first programme for acceptance within	Two weeks of the Contract Date. .	
31.2	The <i>starting date</i> is		
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	2 (two) weeks.	
35.1	The <i>Employer</i> is not willing to take over the <i>works</i> before the Completion Date.	[No data needed if this statement is included]	
4	Testing and Defects		
42.2	The <i>defects date</i> is	52 (Fifty two) weeks after Completion of the whole of the <i>works</i>	
43.2	The <i>defect correction period</i> is	2 (two) weeks	
5	Payment		
50.1	The <i>assessment interval</i> is	25th day of each month.	
51.1	The <i>currency of this contract</i> is the	South African Rand.	
51.2	The period within which payments are made is	Either 14 (fourteen) days or 30 (thirty) days depending on the <i>contractor's</i> BBBEE status at date of payment	
51.4	The <i>interest rate</i> is	the publicly quoted prime rate of interest (calculated on a 365 day year) charged from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and (ii) the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption “Money Rates” in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question	

then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted *mutatis mutandis* every 6 months thereafter and as certified, in the event of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited, whose appointment it shall not be necessary to prove.

6 Compensation events

60.1(13)	<p>The place where weather is to be recorded is:</p> <p>The <i>weather measurements</i> to be recorded for each calendar month are,</p> <p>The <i>weather measurements</i> are supplied by</p> <p>The <i>weather data</i> are the records of past <i>weather measurements</i> for each calendar month which were recorded at:</p> <p>and which are available from:</p>	<p>Port St Johns area</p> <p>the cumulative rainfall (mm)</p> <p>the number of days with rainfall more than 10 mm</p> <p>the number of days with minimum air temperature less than 0 degrees Celsius</p> <p>the number of days with snow lying at 09:00 hours South African Time</p> <p>and these measurements:</p> <p>SA Weather, Pretoria, 012-3676000</p> <p>Appointed Site</p> <p>the South African Weather Bureau and included in Annexure A to this Contract Data provided by the <i>Employer</i></p>
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60.1(13)	<p>Assumed values for the ten year return <i>weather data</i> for each <i>weather measurement</i> for each calendar month are:</p>	<p>As stated in Annexure A to this Contract Data provided by the <i>Employer</i>.</p> <p>Note: If this arrangement is used, delete the rows above for 60.1(13) and delete this note.</p>
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7	Title	<p>There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.</p>
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8 Risks and insurance

80.1	These are additional <i>Employer's</i> risks	None
80.2	The <i>Employer</i> provides these insurances from the Insurance Table	as stated in Annexure C Insurance Schedule (See Annexure B for basic guidance)
80.3	The insurance against loss of or damage to the <i>works</i> , Plant and Materials is to include cover for Plant and Materials	For a sum that is sufficient to provide their replacement on site

	provided by the <i>Employer</i> for an amount of	
80.4	The minimum limit of indemnity for insurance in respect of loss of or damage to property (except the <i>works</i> , Plant, Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) caused by activity in connection with this contract for any one event is	whatever the <i>Contractor</i> deems necessary in addition to that provided by the <i>Employer</i>
80.5	The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract for any one event is	As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 and the <i>Contractor's</i> common law liability for people falling outside the scope of the Act with a limit of Indemnity of not less than R500 000 (Five hundred thousand Rands).
80.6	The <i>Contractor</i> provides these additional insurances 1. Insurance against Professional Indemnity: 2. Insurance against whatever the <i>Contractor's</i> deems necessary which is not sufficiently covered by the insurances required to be effected by the <i>Employer</i>	in line with the <i>Contractor's</i> potential liability, the insurance suggested for these risks does not in any way limit the <i>Contractor's</i> liability in terms of this Contract for these risks
9	Termination	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
10	Data for main Option clause	
B	Priced contract with bill of quantities	
60.6	The <i>method of measurement</i> is	SANS 1200 published by South African Bureau of Standards and amended as stated in Part C2.1, Pricing Assumptions
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
W1.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See www.ice-sa.org.za) or its successor body.
W1.4(2)	The <i>tribunal</i> is:	Abitration.
W1.4(5)	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of

		<p>Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.</p> <p>The place where arbitration is to be held is East London, Eastern Cape, South Africa</p> <p>The person or organisation who will choose an arbitrator</p> <ul style="list-style-type: none"> - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is <p>the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.</p>
12	Data for secondary Option clauses	
X2	Changes in the law	There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.
X7	Delay damages (but not if Option X5 is also used)	
X7.1	Delay damages for Completion of the whole of the <i>works</i> are	R10 000 per day
X16	Retention (not used with Option F)	
X16.1	The <i>retention free amount</i> is	Nil
	The <i>retention percentage</i> is	10 %
X18	Limitation of liability	
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to:	R0.0 (zero Rand)
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to:	<p>the amount of the deductibles relevant to the event described in the insurance policy format selected in the data for clause 84.1 above, which policy is available on</p> <p>http://www.eskom.co.za/live/content.php?Item_ID=9248</p>
X18.3	The <i>Contractor's</i> liability for Defects due to his design which are not listed on the Defects Certificate is limited to	<p>The greater of</p> <ul style="list-style-type: none"> • the total of the Prices at the Contract Date and <p>the amounts excluded and unrecoverable from the <i>Employer's</i> assets policy for correcting the Defect (other than the resulting physical damage which is not excluded) plus R15M first amount payable in terms of the <i>Employer's</i> assets policy</p>
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	<p>the total of the Prices other than for the additional excluded matters.</p> <p>The <i>Contractor's</i> total liability for the additional excluded matters is not limited.</p> <p>The additional excluded matters are amounts</p>

		<p>for which the Contractor is liable under this contract for</p> <ul style="list-style-type: none"> • Defects due to his design which arise before the Defects Certificate is issued, • Defects due to manufacture and fabrication outside the Site, • loss of or damage to property (other than the <i>works</i>, Plant and Materials), • death of or injury to a person and • infringement of an intellectual property right.
X18.5	The <i>end of liability date</i> is	<p>(i) seven years years after the <i>defects date</i> for latent Defects and</p> <p>(ii) the date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of any replacement legislation) for any other matter.</p> <p>A latent Defect is a Defect which would not have been discovered on reasonable inspection by the <i>Employer</i> or the <i>Supervisor</i> before the <i>defects date</i>, without requiring any inspection not ordinarily carried out by the <i>Employer</i> or the <i>Supervisor</i> during that period. If the <i>Employer</i> or the <i>Supervisor</i> do undertake any inspection over and above the reasonable inspection, this does not place a greater responsibility on the <i>Employer</i> or the <i>Supervisor</i> to have discovered the Defect.</p>
Z	The <i>Additional conditions of contract</i> are	Z1 to Z15 always apply.
Z1	Cession delegation and assignment	
Z1.1	The <i>Contractor</i> does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the <i>Employer</i> .	
Z1.2	Notwithstanding the above, the <i>Employer</i> may on written notice to the <i>Contractor</i> cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry.	
Z2	Joint ventures	
Z2.1	If the <i>Contractor</i> constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations then these persons or organisations are deemed to be jointly and severally liable to the <i>Employer</i> for the performance of this contract.	
Z2.2	Unless already notified to the <i>Employer</i> , the persons or organisations notify the <i>Project Manager</i> within two weeks of the Contract Date of the key person who has the authority to bind the <i>Contractor</i> on their behalf.	
Z2.3	The <i>Contractor</i> does not alter the composition of the joint venture, consortium or other	

unincorporated grouping of two or more persons without the consent of the *Employer* having been given to the *Contractor* in writing.

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

- Z3.1 Where a change in the *Contractor's* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Contractor's* B-BBEE status, the *Contractor* notifies the *Employer* within seven days of the change.
- Z3.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Project Manager* within thirty days of the notification or as otherwise instructed by the *Project Manager*.
- Z3.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor's* obligation to Provide the Works.
- Z3.4 Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are P1, P2 and P3 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93.

Z4 Confidentiality

- Z4.1 The *Contractor* does not disclose or make any information arising from or in connection with this contract available to Others. This undertaking does not, however, apply to information which at the time of disclosure or thereafter, without default on the part of the *Contractor*, enters the public domain or to information which was already in the possession of the *Contractor* at the time of disclosure (evidenced by written records in existence at that time). Should the *Contractor* disclose information to Others in terms of clause 25.1, the *Contractor* ensures that the provisions of this clause are complied with by the recipient.
- Z4.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Project Manager*.
- Z4.3 In the event that the *Contractor* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Contractor*, to the extent permitted by law prior to disclosure, notifies the *Employer* so that an appropriate protection order and/or any other action can be taken if possible, prior to any disclosure. In the event that such protective order is not, or cannot, be obtained, then the *Contractor* may disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed.
- Z4.4 The taking of images (whether photographs, video footage or otherwise) of the *works* or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the *Project Manager*. All rights in and to all such images vests exclusively in the *Employer*.
- Z4.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

Z5 Waiver and estoppel: Add to core clause 12.3:

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

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

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

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

- Z7.1 Within one week of receiving a payment certificate from the *Project Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer's* procedures stated in the Works Information, showing the amount due for payment equal to that stated in the payment certificate.
- Z7.2 If the *Contractor* does not provide a tax invoice in the form and by the time required by this contract, the time by when the *Employer* is to make a payment is extended by a period equal in time to the delayed submission of the correct tax invoice. Interest due by the *Employer* in terms of core clause 51.2 is then calculated from the delayed date by when payment is to be made.
- Z7.3 The *Contractor* (if registered in South Africa in terms of the companies Act) is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Employer's* VAT number 4740101508 on each invoice he submits for payment.

Z8 Notifying compensation events

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

Z9 Employer's limitation of liability

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

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

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

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

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

Z12 Ethics

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

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

- Z12.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.
- Z12.2 The *Employer* may terminate the *Contractor's* obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Contractor* did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or remedies the *Employer* has. It is not required that the Committing Party had to have been found guilty, in court or in any other similar process, of such Prohibited Action before the *Employer* can terminate the *Contractor's* obligation to Provide the Services for this reason.
- Z12.3 If the *Employer* terminates the *Contractor's* obligation to Provide the Services for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.
- Z12.4 A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the *Employer* does not have a contractual bond with the Committing Party, the *Contractor* ensures that the Committing Party co-operates fully with an investigation.

Z13 Insurance

Z 13.1 Replace core clause 84 with the following:

Insurance cover 84

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

INSURANCE TABLE A

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

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

INSURANCE TABLE B

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

Z14 Nuclear Liability

- Z14.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.
- Z14.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 44 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 44 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.

As per Task allocation

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

Annexure B: Insurance provided by the Employer

These notes are provided as guidance to tendering contractors and the Contractor about the insurance provided by the Employer. Details of the insurance itself are available from the internet web link given below.

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

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

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

2. For ECC3 there are three main “formats” of cover and deductible structure; Format A, Format B and Format Dx.

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

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

In the case of contracts / packages within a project:

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

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

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

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

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

3. Tendering contractors should note that cover provided by the *Employer* is only per the policies available on the internet web link listed below and may not be the cover required by the tendering contractor or as intended by each of the listed insurances in the left hand column of the Insurance Table in clause 84.2. In terms of clause 84.1 “the *Contractor* provides the insurances stated in the Insurance Table except any insurance which the *Employer* is to provide”. Hence the *Contractor* provides insurance which the *Employer* does not provide and in cases where the *Employer* does provide insurance the *Contractor* insures for the difference between what the Insurance Table requires and what the *Employer* provides.
4. When the Marine Insurance is required the *Contractor* needs to obtain a copy of the latest edition of Eskom’s Marine Policies Procedures found at internet website given below.
5. **Further information and full details of all Eskom provided policies and procedures may be obtained from:**

http://www.eskom.co.za/live/content.php?Item_ID=9248

Annexure C: The *Employer's* Panel of Adjudicators

The following persons listed in alphabetical order of their surname have indicated their willingness to be included in the Eskom Panel of Adjudicators. Their CV's may be obtained by using the contact details provided.

Name	Location	Contact details (phone & e mail)
Nigel ANDREWS	Gauteng	+27 11 836-6760 nigela@quoin.net
Andrew BAIRD	Gauteng	+27 11 803 3008 andrewbaird@ecsconsult.co.za
Christopher BINNINGTON	Gauteng	+27 11 888-6141 cdb@bca.co.za
Peter HIGGINS	UK	+44 1293 873 868 peterhiggins@pdconsult.co.uk
Bruce LEECH	Gauteng	+27 11 290 4000 leech@counsel.co.za
Nigel NILEN	Gauteng	+27 11 465 3601; nilences@global.co.za
Peter THURLOW	Gauteng	+27 11 787 6226 info@thurlowassoc.com

Information about the Panel and appointment of the selected *Adjudicator* is available from Eskom Supply Chain Operations management, by contacting Leighton Itholeng (Tel.: +27 (0)11 800 4031) (Fax :+27 (0)86 668 0419) E-mail: Leighton.Itholeng@eskom.co.za

C1.2 Contract Data

Part two - Data provided by the *Contractor*

[Instructions to the contract compiler: (delete this notes before issue to tenderers with an enquiry)

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

Notes to a tendering contractor:

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

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

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name): Address Tel No. Fax No.	
11.2(8)	The <i>direct fee percentage</i> is The <i>subcontracted fee percentage</i> is	% %
11.2(18)	The <i>working areas</i> are the Site and	
24.1	The <i>Contractor's</i> key persons are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job Responsibilities: Qualifications:	

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

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

	Data for Schedules of Cost Components	<i>Note "SCC" means Schedule of Cost Components starting on page 60, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC3 (April 2013).</i>		
A	Priced contract with activity schedule	Data for the Shorter Schedule of Cost Components		
B	Priced contract with bill of quantities	Data for the Shorter Schedule of Cost Components		
41 in SSCC	The percentage for people overheads is:	%		
21 in SSCC	The published list of Equipment is the last edition of the list published by The percentage for adjustment for Equipment in the published list is	Minus %		
22 in SSCC	The rates of other Equipment are:	Equipment	Size or capacity	Rate
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:			
	If Option C, D or E is used	Data for Schedule of Cost Components		
23 in SCC	The listed items of Equipment purchased for work on this contract, with an on cost charge, are:	Equipment	Time related charge	Per (time period)

24 in SCC	The rates of special Equipment are:	Equipment	Size or capacity	Rate
44 in SCC	The percentage for Working Areas overheads is:	: %		
51 in SCC	The hourly rates for Defined Cost of manufacture or fabrication 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
52 in SCC	The percentage for manufacture and fabrication overheads is	%		
	If Option C, D, or E is used	Data for both schedules of cost components		
61 in SCC & 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 SCC & SSCC	The percentage for design overheads is	%		
63 in SCC & SSCC	The categories of design employees whose travelling expenses to and from the Working Areas are included as a cost of design of the <i>works</i> and Equipment done outside the Working Areas are:			
	If Option C, D or E is used	Data for the Shorter Schedule of Cost Components		

PART 2: PRICING DATA

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option B	3
C2.2	The <i>bill of quantities</i>	29

C2.1 Pricing assumptions: Option B

1. How work is priced and assessed for payment

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

Identified and defined terms	11	
	11.2	(21) The Bill of Quantities is the <i>bill of quantities</i> as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration.
		(28) The Price for Work Done to Date is the total of
		<ul style="list-style-type: none">the quantity of the work which the <i>Contractor</i> has completed for each item in the Bill of Quantities multiplied by the rate anda proportion of each lump sum which is the proportion of the work covered by the item which the <i>Contractor</i> 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.

2. 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.

3. Guidance before pricing and measuring

Employers preparing tenders or contract documents, and tendering contractors are advised to consult the sections dealing with the bill of quantities in the NEC3 Engineering and Construction Contract (April 2013) 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

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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

The NEC approach to the P & G bill assumes use will be made of method related charges for Equipment applied to Providing the Works based on durations shown in the Accepted Programme, fixed charges for the use of Equipment that is required throughout the construction phase, time related charges for people working in a supervisory capacity for the period required, and lump sum charges for other facilities or services not directly related to performing work items typically included in other parts of the bill.

The P & G section of the bill is not used for the assessment of compensation events.

4. Measurement and payment

4.1. 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)

4.2. General assumptions

- 4.2.1. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.
- 4.2.2. 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.
- 4.2.3. An item against which no Price is entered will be treated as covered by other Prices or rates in the *bill of quantities*.
- 4.2.4. 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

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for payment by the *Project Manager* at each assessment date will be used for determining payments due.

- 4.2.5. 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.
- 4.2.6. A 5 % handling fee is applicable to all material purchased by the contractor
- 4.2.7. The contractor's offer for supply rates shall be approved by the relevant Quantity Surveyor. These will be fixed for the duration of the task order.

4.3. Departures from the *method of measurement*

4.3.1.

4.4. Amplification of or assumptions about measurement items

For the avoidance of doubt 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.

4.4.1.

C2.2 the *provisional bill of quantities*

Note: All quantities are provisional and the final quantities will be re-measured on site upon completion.

CONTRACTOR:

.....
PRINT NAME

.....
SIGNATURE

.....
DATE

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

PROJECT NAME:			
CONTRACTOR:			
CONTRACT #:			
PO NUMBER:			
SUMMARY PAGE			NUMBER OF CONNECTIONS
			0
SECTION	DESCRIPTION	LABOUR TOTAL	GRAND TOTAL
A	PRELIMINARY AND GENERAL ITEMS		R 0.00
B	BUSH CLEARING & TREE FELLING		R 0.00
C	EXCAVATIONS		R 0.00
D	PLANTING OF POLES		R 0.00
E	Single Phase MV Structure (DOWNWIRE EXCL BUT BONDING INCL)		R 0.00
F	ASSEMBLE MV STAYS		R 0.00
G	ASSEMBLE SINGLE PHASE LV STRUCTURES		R 0.00
H	ASSEMBLE LV STAYS		R 0.00
I	POLE TOP BOX INSTALLATION		R 0.00
J	CONDUCTOR STRINGING (TENSION, REGULATE & BIND IN)		R 0.00
K	EQUIPMENT INSTALLATION		R 0.00
L	EARTHING INSTALLATION		R 0.00
M	SERVICE CONNECTION INSTALLATION		R 0.00
N	SERVICE CONDUCTOR INSTALLATION		R 0.00
O	UNDERGROUND CABLE INSTALLATION		R 0.00
P	MV/LV CABLE TERMINATION		R 0.00
Q	CABLE JOINT		R 0.00
R	EQUIPMENT DISMANTLING		R 0.00
S	LABELLING		R 0.00
T	EQUIPMENT TESTING		R 0.00
U	AS - BUILTS		R 0.00
V	MISCELLANEOUS		R 0.00
W	TRANSPORT		R 0.00
TOTAL EXCLUDING 15% VAT		R 0.00	R 0.00
15% VAT		R 0.00	R 0.00
TOTAL INCLUDING 15% VAT		R 0.00	R 0.00
COST PER CONNECTION			#DIV/0!

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

PROJECT NAME:

START DATE:

CONTRACTOR:

END DATE:

CONTRACT #:

PO NUMBER:

Bill No:1		PRELIMINARY AND GENERAL ITEMS		SCOPE		
No		DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A	FIXED CHARGE ITEMS					
A.1	Site Establishment:	The Contractor shall establish the site camp and maintain throughout the construction period and allow for removal of such upon completion of Works. The Eskom Representative reserves the right to negotiate the rates for rental arrangements based on the project scope and magnitude.				
A.1.1.		Office and Meeting Room complete as per P&G's Guideline	Sum		R 17 550.44	R 0.00
A.1.2.		Stores	Sum		R 15 242.89	R 0.00
A.1.3.		Sanitation	Sum		R 2 219.39	R 0.00
A.1.4.		Electricity	Sum		R 2 465.99	R 0.00
A.1.5.		Supply and Install Diamond mesh fencing at 1.8 meters high	m		R 186.74	R 0.00
A.1.6.		Supply and Install Diamond mesh Lockable Gate 1.8m high x 3.6m wide	each		R 2 142.05	R 0.00
A.1.7.		Project Preparation	Sum		R 24 465.24	R 0.00
A.2.	Sign Board Labour					
A.2.1		Contractor shall erect on site, maintain throughout the construction duration(Safety)	each		R 412.68	R 0.00
		Project sign board	each		R 3 500.00	R 0.00
A.4.	Health and Safety measures (In terms of 34-333)	Safety & Health, Environmental				
A.4.1		Compliance with OH&S Act & Construction Regulations.	Sum		R 32 497.25	R 0.00
A.7.	Materials Management					
A.7.1		The Contractor shall make allowance to receive at Eskom stores, offload and stack the free-issue materials supplied to the contractor.	Sum		R 11 209.04	R 0.00
A.8.	Contractual requirements	Comply ,maintain all insurance and statutory contributions, etc.				
A.8.1		Allowance to Comply ,maintain all insurance and statutory contributions, etc. (Actual cost will be paid at the end of the project and proof of policy must be provided and must be compliant to contractual requirements)	Sum		cost + 10% fee	R 0.00
		Sub-Total A				R 0.00

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

B.	TIME RELATED ITEMS					
B.1	Site Establishment					
B.1.2.		Site office 6m x 3m with aircon	Weeks		R 1 700.00	R 0.00
B.1.3.		Site Storage 6m x 3m	Weeks		R 1 100.00	R 0.00
B.1.4.		Water	Weeks		R 420.34	R 0.00
B.1.5.		Sanitation (service)	Weeks		R 1 417.94	R 0.00
B.1.6.		Electricity (Eskom/Munic supply)	Weeks		R 313.85	R 0.00
B.1.7.		Electricity (Generator 6.5kVA)	Weeks		R 2 590.00	R 0.00
B.2	Accommodation	Accommodation Allowance is for the Contractors Staff excluding the casual labourers which are assumed to be residing in the area where the works are executed.				
B.2.1.		Staff Accommodation Allowance	Weeks		R 1 232.99	R 0.00
B.3	Security					
B.3.1.		Security on site - 24 Hour Unarmed Security (Must be registered with the appropriate body)	Weeks	cost + 7% fee inline with PSIRA		R 0.00
B.5.	Labour	The Contractor need to submit Weekly Time Sheets for all hourly compensation claims and a Daily attendance register				
B.5.1.		Supervisor per team	hourly		R 99.57	R 0.00
B.5.2.		Construction Manager (SACPMP Registered)	hourly		R 202.96	R 0.00
B.5.5.		Storeman (Storeman is required to reconcile and quantify All material on site including Eskom supplied material using the correct material return to stores forms. The Storeman shall adhere to the implementation and maintenance plan for Materials Management System for the duration of the contract).	hourly		R 57.05	R 0.00
B.5.6.		Community Liaison Officer	Daily (Max)		R 350.00	R 0.00
B.5.7.		Safety Officer (SACPMP Registered)	hourly		R 139.03	R 0.00
					Sub-Total B	R 0.00
					Total P & G's Carried To Summary	R 0.00

Verified By: Clerk of Works DATE

 Cost Checked By: Quantity Surveyor DATE

 Accepted By: Contractor DATE

 Approved By: Program Manager DATE

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

PROJECT NAME:			START DATE:				
CONTRACTOR:			END DATE:				
CONTRACT #:							
PO NUMBER:							
BILL OF ACTIVITIES							
ITEM	REFERENCE DRAWING	DESCRIPTION	UNIT	LABOUR QTY	LABOUR RATE	LABOUR TOTAL	GRAND TOTAL
A		PRELIMINARY AND GENERAL ITEMS				R 0.00	
SUB-TOTAL A						R 0.00	R 0.00
B		BUSH CLEARING & TREE FELLING					
In the event where the contractor is required to cut, remove and clear trees on site. This activity shall be used to execute such work provided that the quotation submitted is from a contractor who meets all the necessary requirements for Bush Clearing plus fee.							
1		Bush Clearing and Tree Felling (Scattered Formation)	m		ACCEPTED QUOTE + 5%		R 0.00
2		Bush Clearing and Tree Felling (Dense Formation)	m2		ACCEPTED QUOTE + 5%		R 0.00
SUB-TOTAL B						R 0.00	R 0.00
C		EXCAVATIONS					
Excavate only as per Eskom Standard for Holes and Trenches for Poles, Stays and Struts. All material will be elsewhere measured.							
1		STAYS & STRUTS					
1.1	D-DT-0350	LV Stay Back-Actor or Hand	Each		R 177.00	R 0.00	R 0.00
1.2	D-DT-0350	LV Stay auger	Each		R 1 306.34	R 0.00	R 0.00
1.3	D-DT-0350	LV Strut Back-Actor or Hand	Each		R 177.00	R 0.00	R 0.00
1.4	D-DT-0350	LV Strut auger	Each		R 1 306.34	R 0.00	R 0.00
1.5	D-DT-0337	LV Short Strut Back-Actor or Hand	Each		R 177.00	R 0.00	R 0.00
1.6	D-DT-0337	LV Short Strut auger	Each		R 1 306.34	R 0.00	R 0.00
1.7	D-DT-0350	MV Stay Back-Actor or Hand	Each		R 193.90	R 0.00	R 0.00
1.8	D-DT-0350	MV Stay auger	Each		R 1 317.93	R 0.00	R 0.00
1.9	D-DT-0350	MV Strut Back-Actor or Hand	Each		R 138.67	R 0.00	R 0.00
1.10	D-DT-0350	MV Strut auger	Each		R 1 317.93	R 0.00	R 0.00
2		WOOD POLES					
2.1	D-DT-0330	5m Pole Wood Back-Actor or Hand (1.0m Deep)	Each		R 138.67	R 0.00	R 0.00
2.2	D-DT-0330	5m Pole Wood auger (1.0m Deep)	Each		R 884.89	R 0.00	R 0.00
2.3	D-DT-0330	5m Pole Wood Hard Rock Drilling (1.0m Deep)	Each		R 1 004.87	R 0.00	R 0.00
2.4	D-DT-0330	5m Pole Wood Back-Actor or Hand (1.5m Deep)	Each		R 180.26	R 0.00	R 0.00
2.5	D-DT-0330	5m Pole Wood auger (1.5m Deep)	Each		R 1 306.34	R 0.00	R 0.00
2.6	D-DT-0330	5m Pole Wood Hard Rock Drilling (1.5m Deep)	Each		R 1 238.85	R 0.00	R 0.00
2.7	D-DT-0330	7m Pole Wood Back-Actor or Hand (1.3m Deep)	Each		R 221.87	R 0.00	R 0.00
2.8	D-DT-0330	7m Pole Wood auger (1.3m Deep)	Each		R 1 492.96	R 0.00	R 0.00
2.9	D-DT-0330	7m Pole Wood Hard Rock Drilling (1.3m Deep)	Each		R 1 415.83	R 0.00	R 0.00
2.10	D-DT-1866	8m Wooden Pole/X-Arm 160-179 Top Diameter Back-Actor or Hand (1.3m Deep)	Each		R 208.01	R 0.00	R 0.00
2.11	D-DT-1866	8m Wooden Pole/X-Arm 160-179 Top Diameter auger (1.3m Deep)	Each		R 1 507.32	R 0.00	R 0.00
2.12	D-DT-1866	8m Wooden Pole/X-Arm 160-179 Top Diameter Hard Rock Drilling (1.3m Deep)	Each		R 1 592.81	R 0.00	R 0.00
2.13	D-DT-0330	9m Pole Wood Back-Actor or Hand (1.5m Deep)	Each		R 277.35	R 0.00	R 0.00
2.14	D-DT-0330	9m Pole Wood auger (1.5m Deep)	Each		R 2 123.75	R 0.00	R 0.00
2.15	D-DT-0330	9m Pole Wood Hard Rock Drilling (1.5m Deep)	Each		R 2 279.00	R 0.00	R 0.00
2.16	D-DT-0330	10m Pole Wood Back-Actor or Hand (1.7m Deep)	Each		R 305.08	R 0.00	R 0.00
2.17	D-DT-0330	10m Pole Wood auger (1.7m Deep)	Each		R 2 210.73	R 0.00	R 0.00
2.18	D-DT-0330	10m Pole Wood Hard Rock Drilling (1.7m Deep)	Each		R 2 381.00	R 0.00	R 0.00
2.19	D-DT-0330	11m Pole Wood Back-Actor or Hand (1.8m Deep)	Each		R 333.15	R 0.00	R 0.00
2.20	D-DT-0330	11m Pole Wood auger (1.8m Deep)	Each		R 2 411.71	R 0.00	R 0.00
2.21	D-DT-0330	11m Pole Wood Hard Rock Drilling (1.8m Deep)	Each		R 2 519.00	R 0.00	R 0.00
2.22	D-DT-0330	12m Pole Wood Back-Actor or Hand (2.0m Deep)	Each		R 277.35	R 0.00	R 0.00
2.23	D-DT-0330	12m Pole Wood auger (2.0m Deep)	Each		R 3 130.44	R 0.00	R 0.00
2.24	D-DT-0330	12m Pole Wood Hard Rock Drilling (2.0m Deep)	Each		R 2 123.75	R 0.00	R 0.00
2.25	D-DT-0330	13m - 16m Pole Wood Back-Actor or Hand (2.2m Deep)	Each		R 305.08	R 0.00	R 0.00
2.26	D-DT-0330	13m - 16m Pole Wood auger (2.2m Deep)	Each		R 2 210.73	R 0.00	R 0.00
2.27	D-DT-0330	13m - 16m Pole Wood Hard Rock Drilling (2.2m Deep)	Each		R 2 300.72	R 0.00	R 0.00
2.30	D-DT-0330	18m Pole Wood Back-Actor or Hand (2.4m Deep)	Each		R 333.15	R 0.00	R 0.00
2.31	D-DT-0330	18m Pole Wood auger (2.4m Deep)	Each		R 2 411.71	R 0.00	R 0.00
2.32	D-DT-0330	18m Pole Wood Hard Rock Drilling (2.4m Deep)	Each		R 2 688.00	R 0.00	R 0.00
3		CONCRETE POLES					
3.1	D-DT-0330	11m Pole Concrete Back-Actor or Hand (1.8m Deep)	Each		R 249.60	R 0.00	R 0.00
3.2	D-DT-0330	11m Pole Concrete auger (1.8m Deep)	Each		R 1 808.78	R 0.00	R 0.00
3.3	D-DT-0330	11m Pole Concrete Hard Rock Drilling (1.8m Deep)	Each		R 1 946.77	R 0.00	R 0.00
3.4	D-DT-0330	12m Pole Concrete Pole Back-Actor or Hand (2m Deep)	Each		R 277.35	R 0.00	R 0.00
3.5	D-DT-0330	12m Pole Concrete Pole auger (2m Deep)	Each		R 3 130.44	R 0.00	R 0.00
3.6	D-DT-0330	12m Pole Concrete Hard Rock Drilling (1.0m Deep)	Each		R 2 123.75	R 0.00	R 0.00
3.7	D-DT-0330	13m Pole Concrete Back-Actor or Hand (2.2m Deep)	Each		R 305.08	R 0.00	R 0.00
3.8	D-DT-0330	13m Pole Concrete auger (2.2m Deep)	Each		R 2 210.73	R 0.00	R 0.00
3.9	D-DT-0330	13m Pole Concrete Hard Rock Drilling (1.0m Deep)	Each		R 2 300.72	R 0.00	R 0.00
3.10	D-DT-0330	14m Pole Concrete Back-Actor or Hand (2.3m Deep)	Each		R 318.94	R 0.00	R 0.00
3.11	D-DT-0330	14m Pole Concrete auger (2.3m Deep)	Each		R 2 311.21	R 0.00	R 0.00
3.12	D-DT-0330	14m Pole Concrete Hard Rock Drilling (2.3m Deep)	Each		R 2 477.70	R 0.00	R 0.00

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4		Heavy Conductor Wood Poles				
4.1	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 700mm Diameter	Each		R 249.60	R 0.00
4.2	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 800mm Diameter	Each		R 249.60	R 0.00
4.3	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1000mm Diameter	Each		R 249.60	R 0.00
4.4	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1000mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 771.60	R 0.00
4.5	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1000mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 945.60	R 0.00
4.6	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1200mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 771.60	R 0.00
4.7	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1200mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 771.60	R 0.00
4.8	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1800mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 771.60	R 0.00
4.9	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1800mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 945.60	R 0.00
4.10	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1800mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 321.35	R 0.00
4.11	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 2000mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 321.35	R 0.00
4.12	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 2200mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 321.35	R 0.00
4.13	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 2500mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 321.35	R 0.00
4.14	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 700mm Diameter	Each		R 308.16	R 0.00
4.15	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 800mm Diameter	Each		R 308.16	R 0.00
4.16	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1000mm Diameter	Each		R 308.16	R 0.00
4.17	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1000mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 830.16	R 0.00
4.18	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1000mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 1 004.16	R 0.00
4.19	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1200mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 830.16	R 0.00
4.20	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1200mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 1 004.16	R 0.00
4.21	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1800mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 830.16	R 0.00
4.22	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1800mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 1 004.16	R 0.00
4.23	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1800mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 352.16	R 0.00
4.24	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 2000mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 352.16	R 0.00
4.25	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 2200mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 352.16	R 0.00
4.26	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 2500mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 352.16	R 0.00
4.27	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 700mm Diameter	Each		R 318.94	R 0.00
4.28	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 800mm Diameter	Each		R 318.94	R 0.00
4.29	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1000mm Diameter	Each		R 318.94	R 0.00
4.30	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1000mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 840.94	R 0.00
4.31	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1000mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 1 014.94	R 0.00
4.32	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1200mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 840.94	R 0.00
4.33	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1200mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 1 014.94	R 0.00
4.34	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1800mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 840.94	R 0.00
4.35	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1800mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 1 014.94	R 0.00
4.36	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1800mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 362.94	R 0.00
4.37	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 2000mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 362.94	R 0.00
4.38	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 2200mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 362.94	R 0.00
4.39	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 2500mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 362.94	R 0.00

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5		Heavy Conductor Concrete Poles					
5.1	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 700mm Diameter	Each		R 249.60	R 0.00	R 0.00
5.2	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 900mm Diameter	Each		R 249.60	R 0.00	R 0.00
5.3	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1000mm Diameter	Each		R 249.60	R 0.00	R 0.00
5.4	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1200mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 771.60	R 0.00	R 0.00
5.5	D-DT-0330 & 240-758831148	11m Pole Back-Actor or Hand - 1800mm Deep x 1200mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 945.60	R 0.00	R 0.00
5.6	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1250mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 771.60	R 0.00	R 0.00
5.7	D-DT-0330 & 240-758831148	11m Pole Back-Actor or Hand - 1800mm Deep x 1250mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 771.60	R 0.00	R 0.00
5.8	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1500mm Diameter	Each		R 771.60	R 0.00	R 0.00
5.9	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1500mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 945.60	R 0.00	R 0.00
5.10	D-DT-0330 & 240-758831148	11m Pole Back-Actor or Hand - 1800mm Deep x 1500mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 1 321.35	R 0.00	R 0.00
5.11	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 2000mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 1 321.35	R 0.00	R 0.00
5.12	D-DT-0330 & 240-758831148	11m Pole Back-Actor or Hand - 1800mm Deep x 2000mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 1 321.35	R 0.00	R 0.00
5.13	D-DT-0330 & 240-758831148	11m Pole Back-Actor or Hand - 1800mm Deep x 2000mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 321.35	R 0.00	R 0.00
5.14	D-DT-0330 & 240-758831148	11m Pole Back-Actor or Hand - 1800mm Deep x 2500mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 308.16	R 0.00	R 0.00
5.15	D-DT-0330 & 240-758831148	11m Pole Back-Actor or Hand - 1800mm Deep x 3000mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 308.16	R 0.00	R 0.00
5.16	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 700mm Diameter	Each		R 308.16	R 0.00	R 0.00
5.17	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 900mm Diameter	Each		R 830.16	R 0.00	R 0.00
5.18	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1000mm Diameter	Each		R 1 004.16	R 0.00	R 0.00
5.19	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1200mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 830.16	R 0.00	R 0.00
5.20	D-DT-0330 & 240-758831148	12m Pole Back-Actor or Hand - 2000mm Deep x 1200mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 1 004.16	R 0.00	R 0.00
5.21	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1250mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 830.16	R 0.00	R 0.00
5.22	D-DT-0330 & 240-758831148	12m Pole Back-Actor or Hand - 2000mm Deep x 1250mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 1 004.16	R 0.00	R 0.00
5.23	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1500mm Diameter	Each		R 1 352.16	R 0.00	R 0.00
5.24	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1500mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 1 352.16	R 0.00	R 0.00
5.25	D-DT-0330 & 240-758831148	12m Pole Back-Actor or Hand - 2000mm Deep x 1500mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 1 352.16	R 0.00	R 0.00
5.26	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 2000mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 1 352.16	R 0.00	R 0.00
5.27	D-DT-0330 & 240-758831148	12m Pole Back-Actor or Hand - 2000mm Deep x 2000mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 318.94	R 0.00	R 0.00
5.28	D-DT-0330 & 240-758831148	12m Pole Back-Actor or Hand - 2000mm Deep x 2000mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 318.94	R 0.00	R 0.00
5.29	D-DT-0330 & 240-758831148	12m Pole Back-Actor or Hand - 2000mm Deep x 2500mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 318.94	R 0.00	R 0.00
5.30	D-DT-0330 & 240-758831148	12m Pole Back-Actor or Hand - 2000mm Deep x 3000mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 840.94	R 0.00	R 0.00
5.31	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 700mm Diameter	Each		R 1 014.94	R 0.00	R 0.00
5.32	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 900mm Diameter	Each		R 840.94	R 0.00	R 0.00
5.33	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1000mm Diameter	Each		R 1 014.94	R 0.00	R 0.00

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5.34	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1200mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 840.94	R 0.00	R 0.00
5.35	D-DT-0330 & 240-758831148	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1200mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 1 014.94	R 0.00	R 0.00
5.36	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1250mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 1 362.94	R 0.00	R 0.00
5.37	D-DT-0330 & 240-758831148	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1250mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 1 362.94	R 0.00	R 0.00
5.38	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1500mm Diameter	Each		R 1 362.94	R 0.00	R 0.00
5.39	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1500mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 1 362.94	R 0.00	R 0.00
5.40	D-DT-0330 & 240-758831148	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1500mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 1 362.94	R 0.00	R 0.00
5.41	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 2000mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each		R 1 362.94	R 0.00	R 0.00
5.42	D-DT-0330 & 240-758831148	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 2000mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each		R 1 362.94	R 0.00	R 0.00
5.43	D-DT-0330 & 240-758831148	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 2000mm Diameter Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 362.94	R 0.00	R 0.00
5.44	D-DT-0330 & 240-758831148	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 2500mm Diameter Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 362.94	R 0.00	R 0.00
5.45	D-DT-0330 & 240-758831148	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 3000mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each		R 1 362.94	R 0.00	R 0.00
6		Free Standing Poles					
6.1	2-WT/0000	9m Pole Free Standing 18kN Back-Actor or Hand (1.5m Deep) - Soil Type 1 & 2	Each		R 311.75	R 0.00	R 0.00
6.2	D-DT-1650	12m Pole Free Standing 8kN Back-Actor or Hand (2.5m Deep) - Soil Type 1 & 2	Each		R 311.75	R 0.00	R 0.00
6.3	D-DT-1650	12m Pole Free Standing 8kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 467.62	R 0.00	R 0.00
6.4	D-DT-1650	12m Pole Free Standing 8kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each		R 623.49	R 0.00	R 0.00
6.5	D-DT-1651	12m Pole Free Standing 15kN Back-Actor or Hand (2.5m Deep) - Soil Type 1 & 2	Each		R 584.52	R 0.00	R 0.00
6.6	D-DT-1651	12m Pole Free Standing 15kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 876.79	R 0.00	R 0.00
6.7	D-DT-1651	12m Pole Free Standing 15kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each		R 1 169.05	R 0.00	R 0.00
6.8	D-DT-1652	12m Pole Free Standing 27kN Back-Actor or Hand (2.5m Deep) - Soil Type 1 & 2	Each		R 1 052.14	R 0.00	R 0.00
6.9	D-DT-1652	12m Pole Free Standing 27kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 1 578.21	R 0.00	R 0.00
6.10	D-DT-1652	12m Pole Free Standing 27kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each		R 2 104.29	R 0.00	R 0.00
6.11	D-DT-1653	12m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each		R 1 636.67	R 0.00	R 0.00
6.12	D-DT-1653	12m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each		R 1 636.67	R 0.00	R 0.00
6.13	D-DT-1653	12m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 2 455.00	R 0.00	R 0.00
6.14	D-DT-1653	12m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each		R 3 273.33	R 0.00	R 0.00
6.15	D-DT-1654	12m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each		R 2 260.16	R 0.00	R 0.00
6.16	D-DT-1654	12m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each		R 2 260.16	R 0.00	R 0.00
6.17	D-DT-1654	12m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 3 390.24	R 0.00	R 0.00

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6.18	D-DT-1654	12m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each		R 3 390.24	R 0.00	R 0.00
6.19	D-DT-1655	12m Pole Free Standing Terminal Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each		R 311.75	R 0.00	R 0.00
6.20	D-DT-1655	12m Pole Free Standing Terminal Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each		R 311.75	R 0.00	R 0.00
6.21	D-DT-1655	12m Pole Free Standing Terminal Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 467.62	R 0.00	R 0.00
6.22	D-DT-1655	12m Pole Free Standing Terminal Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each		R 623.49	R 0.00	R 0.00
6.23	D-DT-1656	12m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each		R 2 844.68	R 0.00	R 0.00
6.24	D-DT-1656	12m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each		R 2 844.68	R 0.00	R 0.00
6.25	D-DT-1656	12m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 4 267.02	R 0.00	R 0.00
6.26	D-DT-1656	12m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each		R 4 267.02	R 0.00	R 0.00
6.27	D-DT-1657	12m Pole Free Standing 106kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each		R 4 130.64	R 0.00	R 0.00
6.28	D-DT-1657	12m Pole Free Standing 106kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each		R 4 130.64	R 0.00	R 0.00
6.29	D-DT-1657	12m Pole Free Standing 106kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 6 195.95	R 0.00	R 0.00
6.30	D-DT-1650	13m Pole Free Standing 8kN Back-Actor or Hand (2.5m Deep) - Soil Type 1 & 2	Each		R 311.75	R 0.00	R 0.00
6.31	D-DT-1650	13m Pole Free Standing 8kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 467.62	R 0.00	R 0.00
6.32	D-DT-1650	13m Pole Free Standing 8kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each		R 623.49	R 0.00	R 0.00
6.33	D-DT-1651	13m Pole Free Standing 15kN Back-Actor or Hand (2.5m Deep) - Soil Type 1 & 2	Each		R 584.52	R 0.00	R 0.00
6.34	D-DT-1651	13m Pole Free Standing 15kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 876.79	R 0.00	R 0.00
6.35	D-DT-1651	13m Pole Free Standing 15kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each		R 1 169.05	R 0.00	R 0.00
6.36	D-DT-1652	13m Pole Free Standing 27kN Back-Actor or Hand (2.5m Deep) - Soil Type 1 & 2	Each		R 1 052.14	R 0.00	R 0.00
6.37	D-DT-1652	13m Pole Free Standing 27kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 1 578.21	R 0.00	R 0.00
6.38	D-DT-1652	13m Pole Free Standing 27kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each		R 2 104.29	R 0.00	R 0.00
6.39	D-DT-1653	13m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each		R 1 636.67	R 0.00	R 0.00
6.40	D-DT-1653	13m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each		R 1 636.67	R 0.00	R 0.00
6.41	D-DT-1653	13m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 2 455.00	R 0.00	R 0.00
6.42	D-DT-1653	13m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each		R 3 273.33	R 0.00	R 0.00
6.43	D-DT-1654	13m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each		R 2 260.16	R 0.00	R 0.00
6.44	D-DT-1654	13m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each		R 2 260.16	R 0.00	R 0.00
6.45	D-DT-1654	13m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 3 390.24	R 0.00	R 0.00
6.46	D-DT-1654	13m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each		R 3 390.24	R 0.00	R 0.00
6.47	D-DT-1655	13m Pole Free Standing Terminal Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each		R 311.75	R 0.00	R 0.00
6.48	D-DT-1655	13m Pole Free Standing Terminal Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each		R 311.75	R 0.00	R 0.00
6.49	D-DT-1655	13m Pole Free Standing Terminal Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 467.62	R 0.00	R 0.00
6.50	D-DT-1655	13m Pole Free Standing Terminal Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each		R 623.49	R 0.00	R 0.00
6.51	D-DT-1656	13m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each		R 2 844.68	R 0.00	R 0.00
6.52	D-DT-1656	13m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each		R 2 844.68	R 0.00	R 0.00
6.53	D-DT-1656	13m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 4 267.02	R 0.00	R 0.00
6.54	D-DT-1656	13m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each		R 4 267.02	R 0.00	R 0.00
6.55	D-DT-1657	13m Pole Free Standing 106kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each		R 4 130.64	R 0.00	R 0.00
6.56	D-DT-1657	13m Pole Free Standing 106kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each		R 4 130.64	R 0.00	R 0.00
6.57	D-DT-1657	13m Pole Free Standing 106kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each		R 6 195.95	R 0.00	R 0.00
SUB-TOTAL C						R 0.00	R 0.00

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D		PLANTING OF POLES				
Planting including backfilling and compaction are measured here. The costs are also inclusive of plant and equipment required to plant the Structures. Stay, Struts and Flying Stay are elsewhere measured. All backfill material included in price						
1		Soil Type 1				
1.1	D-DT-0058	5m Wooden Pole 80-100mm Top Diameter Soil Type 1	Each	R 126.52	R 0.00	R 0.00
1.2	D-DT-0058	5m Wooden Pole 80-100mm Top Diameter Soil Type 2	Each	R 358.15	R 0.00	R 0.00
1.3	D-DT-0058	5m Wooden Pole 80-100mm Top Diameter Soil Type 3	Each	R 991.61	R 0.00	R 0.00
1.4	D-DT-0058	5m Wooden Pole 80-100mm Top Diameter Soil Type 4	Each	R 879.61	R 0.00	R 0.00
1.5	D-DT-0066	6m Wooden Pole/X-Arm 160-179 Top Diameter Soil Type 1	Each	R 151.82	R 0.00	R 0.00
1.6	D-DT-0066	6m Wooden Pole/X-Arm 160-179 Top Diameter Soil Type 2	Each	R 204.96	R 0.00	R 0.00
1.7	D-DT-0066	6m Wooden Pole/X-Arm 160-179 Top Diameter Soil Type 3	Each	R 1 388.24	R 0.00	R 0.00
1.8	D-DT-0066	6m Wooden Pole/X-Arm 160-179 Top Diameter Soil Type 4	Each	R 1 055.52	R 0.00	R 0.00
1.9	D-DT-0050	7m Wooden Pole 100-120mm Top Diameter Soil Type 1	Each	R 151.81	R 0.00	R 0.00
1.10	D-DT-0050	7m Wooden Pole 100-120mm Top Diameter Soil Type 2	Each	R 204.95	R 0.00	R 0.00
1.11	D-DT-0050	7m Wooden Pole 100-120mm Top Diameter Soil Type 3	Each	R 1 388.24	R 0.00	R 0.00
1.12	D-DT-0050	7m Wooden Pole 100-120mm Top Diameter Soil Type 4	Each	R 1 231.44	R 0.00	R 0.00
1.13	D-DT-0050	7m Wooden Pole 120-139mm Top Diameter Soil Type 1	Each	R 177.12	R 0.00	R 0.00
1.14	D-DT-0050	7m Wooden Pole 120-139mm Top Diameter Soil Type 2	Each	R 239.11	R 0.00	R 0.00
1.15	D-DT-0050	7m Wooden Pole 120-139mm Top Diameter Soil Type 3	Each	R 1 388.24	R 0.00	R 0.00
1.16	D-DT-0050	7m Wooden Pole 120-139mm Top Diameter Soil Type 4	Each	R 1 231.44	R 0.00	R 0.00
1.17	D-DT-1866	8m Wooden Pole/X-Arm 160-179 Top Diameter Soil Type 1	Each	R 202.43	R 0.00	R 0.00
1.18	D-DT-0050	8m Wooden Pole/X-Arm 160-179 Top Diameter Soil Type 2	Each	R 273.28	R 0.00	R 0.00
1.19	D-DT-0050	8m Wooden Pole/X-Arm 160-179 Top Diameter Soil Type 3	Each	R 1 586.56	R 0.00	R 0.00
1.20	D-DT-0050	8m Wooden Pole/X-Arm 160-179 Top Diameter Soil Type 4	Each	R 1 407.36	R 0.00	R 0.00
1.21	D-DT-0055	9m Wooden Pole 140-159mm Top Diameter Soil Type 1	Each	R 217.82	R 0.00	R 0.00
1.22	D-DT-0055	9m Wooden Pole 140-159mm Top Diameter Soil Type 2	Each	R 294.06	R 0.00	R 0.00
1.23	D-DT-0055	9m Wooden Pole 140-159mm Top Diameter Soil Type 3	Each	R 1 784.88	R 0.00	R 0.00
1.24	D-DT-0055	9m Wooden Pole 140-159mm Top Diameter Soil Type 4	Each	R 1 583.28	R 0.00	R 0.00
1.25	D-DT-0055	9m Wooden Pole 160-179 mm Top Diameter Soil Type 1	Each	R 245.05	R 0.00	R 0.00
1.26	D-DT-0055	9m Wooden Pole 160-179 mm Top Diameter Soil Type 2	Each	R 330.82	R 0.00	R 0.00
1.27	D-DT-0055	9m Wooden Pole 160-179 mm Top Diameter Soil Type 3	Each	R 1 784.88	R 0.00	R 0.00
1.28	D-DT-0055	9m Wooden Pole 160-179 mm Top Diameter Soil Type 4	Each	R 1 583.28	R 0.00	R 0.00
1.29	D-DT-0055	9m Wooden Pole 180-199mm Top Diameter Soil Type 1	Each	R 272.28	R 0.00	R 0.00
1.30	D-DT-0055	9m Wooden Pole 180-199mm Top Diameter Soil Type 2	Each	R 367.58	R 0.00	R 0.00
1.31	D-DT-0055	9m Wooden Pole 180-199mm Top Diameter Soil Type 3	Each	R 1 784.88	R 0.00	R 0.00
1.32	D-DT-0055	9m Wooden Pole 180-199mm Top Diameter Soil Type 4	Each	R 1 583.28	R 0.00	R 0.00
1.33	D-DT-0052	10m Wooden Pole 160-179mm Top Diameter H4 Soil Type 1	Each	R 255.05	R 0.00	R 0.00
1.34	D-DT-0052	10m Wooden Pole 160-179mm Top Diameter H4 Soil Type 2	Each	R 344.32	R 0.00	R 0.00
1.35	D-DT-0052	10m Wooden Pole 160-179mm Top Diameter H4 Soil Type 3	Each	R 1 983.20	R 0.00	R 0.00
1.36	D-DT-0052	10m Wooden Pole 160-179mm Top Diameter H4 Soil Type 4	Each	R 1 759.20	R 0.00	R 0.00
1.37	D-DT-0052	10m Wooden Pole 160-179mm Top Diameter H5 Soil Type 1	Each	R 255.05	R 0.00	R 0.00
1.38	D-DT-0052	10m Wooden Pole 160-179mm Top Diameter H5 Soil Type 2	Each	R 344.32	R 0.00	R 0.00
1.39	D-DT-0052	10m Wooden Pole 160-179mm Top Diameter H5 Soil Type 3	Each	R 1 983.20	R 0.00	R 0.00
1.40	D-DT-0052	10m Wooden Pole 160-179mm Top Diameter H5 Soil Type 4	Each	R 1 759.20	R 0.00	R 0.00
1.41	D-DT-0052	10m Wooden Pole 180-199mm Top Diameter H4 Soil Type 1	Each	R 283.39	R 0.00	R 0.00
1.42	D-DT-0052	10m Wooden Pole 180-199mm Top Diameter H4 Soil Type 2	Each	R 382.57	R 0.00	R 0.00
1.43	D-DT-0052	10m Wooden Pole 180-199mm Top Diameter H4 Soil Type 3	Each	R 1 983.20	R 0.00	R 0.00
1.44	D-DT-0052	10m Wooden Pole 180-199mm Top Diameter H4 Soil Type 4	Each	R 1 759.20	R 0.00	R 0.00
1.45	D-DT-0052	10m Wooden Pole 180-199mm Top Diameter H5 Soil Type 1	Each	R 283.39	R 0.00	R 0.00
1.46	D-DT-0052	10m Wooden Pole 180-199mm Top Diameter H5 Soil Type 2	Each	R 238.57	R 0.00	R 0.00
1.47	D-DT-0052	10m Wooden Pole 180-199mm Top Diameter H5 Soil Type 3	Each	R 1 983.20	R 0.00	R 0.00
1.48	D-DT-0052	10m Wooden Pole 180-199mm Top Diameter H5 Soil Type 4	Each	R 1 759.20	R 0.00	R 0.00
1.49	D-DT-0052	10m Wooden Pole 200-219mm Top Diameter H4 Soil Type 1	Each	R 311.74	R 0.00	R 0.00
1.50	D-DT-0052	10m Wooden Pole 200-219mm Top Diameter H4 Soil Type 2	Each	R 420.84	R 0.00	R 0.00
1.51	D-DT-0052	10m Wooden Pole 200-219mm Top Diameter H4 Soil Type 3	Each	R 1 983.20	R 0.00	R 0.00
1.52	D-DT-0052	10m Wooden Pole 200-219mm Top Diameter H4 Soil Type 4	Each	R 1 759.20	R 0.00	R 0.00
1.53	D-DT-0052	10m Wooden Pole 200-219mm Top Diameter H5 Soil Type 1	Each	R 311.74	R 0.00	R 0.00
1.54	D-DT-0052	10m Wooden Pole 200-219mm Top Diameter H5 Soil Type 2	Each	R 420.84	R 0.00	R 0.00
1.55	D-DT-0052	10m Wooden Pole 200-219mm Top Diameter H5 Soil Type 3	Each	R 1 983.20	R 0.00	R 0.00
1.56	D-DT-0052	10m Wooden Pole 200-219mm Top Diameter H5 Soil Type 4	Each	R 1 759.20	R 0.00	R 0.00
1.57	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter H4 Soil Type 1	Each	R 274.23	R 0.00	R 0.00
1.58	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter H4 Soil Type 2	Each	R 370.21	R 0.00	R 0.00
1.59	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter H4 Soil Type 3	Each	R 2 181.52	R 0.00	R 0.00
1.60	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter H4 Soil Type 4	Each	R 1 935.12	R 0.00	R 0.00
1.61	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter 75MPA H4 Soil Type 1	Each	R 274.23	R 0.00	R 0.00
1.62	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter 75MPA H4 Soil Type 2	Each	R 370.21	R 0.00	R 0.00
1.63	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter 75MPA H4 Soil Type 3	Each	R 2 181.52	R 0.00	R 0.00

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1.64	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter 75MPA H4 Soil Type 4	Each	R 1 935.12	R 0.00	R 0.00
1.65	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter H5 Soil Type 1	Each	R 274.23	R 0.00	R 0.00
1.66	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter H5 Soil Type 2	Each	R 370.21	R 0.00	R 0.00
1.67	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter H5 Soil Type 3	Each	R 2 181.52	R 0.00	R 0.00
1.68	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter H5 Soil Type 4	Each	R 1 935.12	R 0.00	R 0.00
1.69	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter 75MPA H5 Soil Type 1	Each	R 308.51	R 0.00	R 0.00
1.70	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter 75MPA H5 Soil Type 2	Each	R 416.49	R 0.00	R 0.00
1.71	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter 75MPA H5 Soil Type 3	Each	R 2 181.52	R 0.00	R 0.00
1.72	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter 75MPA H5 Soil Type 4	Each	R 1 935.12	R 0.00	R 0.00
1.73	D-DT-0051	11m Wooden Pole 160-179mm Top Diameter H4 Soil Type 1	Each	R 308.51	R 0.00	R 0.00
1.74	D-DT-0051	11m Wooden Pole 160-179mm Top Diameter H4 Soil Type 2	Each	R 416.49	R 0.00	R 0.00
1.75	D-DT-0051	11m Wooden Pole 160-179mm Top Diameter H4 Soil Type 3	Each	R 2 181.52	R 0.00	R 0.00
1.76	D-DT-0051	11m Wooden Pole 160-179mm Top Diameter H4 Soil Type 4	Each	R 1 935.12	R 0.00	R 0.00
1.77	D-DT-0051	11m Wooden Pole 180-199mm Top Diameter H4 Soil Type 1	Each	R 342.79	R 0.00	R 0.00
1.78	D-DT-0051	11m Wooden Pole 180-199mm Top Diameter H4 Soil Type 2	Each	R 462.77	R 0.00	R 0.00
1.79	D-DT-0051	11m Wooden Pole 180-199mm Top Diameter H4 Soil Type 3	Each	R 2 181.52	R 0.00	R 0.00
1.80	D-DT-0051	11m Wooden Pole 180-199mm Top Diameter H4 Soil Type 4	Each	R 1 935.12	R 0.00	R 0.00
1.81	D-DT-0051	11m Wooden Pole 200-219mm Top Diameter H4 Soil Type 1	Each	R 377.07	R 0.00	R 0.00
1.82	D-DT-0051	11m Wooden Pole 200-219mm Top Diameter H4 Soil Type 2	Each	R 509.04	R 0.00	R 0.00
1.83	D-DT-0051	11m Wooden Pole 200-219mm Top Diameter H4 Soil Type 3	Each	R 2 181.52	R 0.00	R 0.00
1.84	D-DT-0051	11m Wooden Pole 200-219mm Top Diameter H4 Soil Type 4	Each	R 1 935.12	R 0.00	R 0.00
1.85	D-DT-0053	12m Wooden Pole 160-179mm Top Diameter Soil Type 1	Each	R 307.49	R 0.00	R 0.00
1.86	D-DT-0053	12m Wooden Pole 160-179mm Top Diameter Soil Type 2	Each	R 415.11	R 0.00	R 0.00
1.87	D-DT-0053	12m Wooden Pole 160-179mm Top Diameter Soil Type 3	Each	R 2 379.84	R 0.00	R 0.00
1.88	D-DT-0053	12m Wooden Pole 160-179mm Top Diameter Soil Type 4	Each	R 2 111.04	R 0.00	R 0.00
1.89	D-DT-0053	12m Wooden Pole 180-199mm Top Diameter Soil Type 1	Each	R 341.66	R 0.00	R 0.00
1.90	D-DT-0053	12m Wooden Pole 180-199mm Top Diameter Soil Type 2	Each	R 461.25	R 0.00	R 0.00
1.91	D-DT-0053	12m Wooden Pole 180-199mm Top Diameter Soil Type 3	Each	R 2 379.84	R 0.00	R 0.00
1.92	D-DT-0053	12m Wooden Pole 180-199mm Top Diameter Soil Type 4	Each	R 2 111.04	R 0.00	R 0.00
1.93	D-DT-0053	12m Wooden Pole 200-219mm Top Diameter Soil Type 1	Each	R 375.83	R 0.00	R 0.00
1.94	D-DT-0053	12m Wooden Pole 200-219mm Top Diameter Soil Type 2	Each	R 507.37	R 0.00	R 0.00
1.95	D-DT-0053	12m Wooden Pole 200-219mm Top Diameter Soil Type 3	Each	R 2 379.84	R 0.00	R 0.00
1.96	D-DT-0053	12m Wooden Pole 200-219mm Top Diameter Soil Type 4	Each	R 2 111.04	R 0.00	R 0.00
1.97	D-DT-0056	13m Wooden Pole 160-179mm Top Diameter H4 Soil Type 1	Each	R 337.32	R 0.00	R 0.00
1.98	D-DT-0056	13m Wooden Pole 160-179mm Top Diameter H4 Soil Type 2	Each	R 455.39	R 0.00	R 0.00
1.99	D-DT-0056	13m Wooden Pole 160-179mm Top Diameter H4 Soil Type 3	Each	R 2 578.16	R 0.00	R 0.00
1.100	D-DT-0056	13m Wooden Pole 160-179mm Top Diameter H4 Soil Type 4	Each	R 2 286.96	R 0.00	R 0.00
1.101	D-DT-0056	13m Wooden Pole 160-179mm Top Diameter H5 Soil Type 1	Each	R 337.32	R 0.00	R 0.00
1.102	D-DT-0056	13m Wooden Pole 160-179mm Top Diameter H5 Soil Type 2	Each	R 455.39	R 0.00	R 0.00
1.103	D-DT-0056	13m Wooden Pole 160-179mm Top Diameter H5 Soil Type 3	Each	R 2 578.16	R 0.00	R 0.00
1.104	D-DT-0056	13m Wooden Pole 160-179mm Top Diameter H5 Soil Type 4	Each	R 2 286.96	R 0.00	R 0.00
1.105	D-DT-0056	13m Wooden Pole 180-199mm Top Diameter H4 Soil Type 1	Each	R 374.79	R 0.00	R 0.00
1.106	D-DT-0056	13m Wooden Pole 180-199mm Top Diameter H4 Soil Type 2	Each	R 505.97	R 0.00	R 0.00
1.107	D-DT-0056	13m Wooden Pole 180-199mm Top Diameter H4 Soil Type 3	Each	R 2 578.16	R 0.00	R 0.00
1.108	D-DT-0056	13m Wooden Pole 180-199mm Top Diameter H4 Soil Type 4	Each	R 2 286.96	R 0.00	R 0.00
1.109	D-DT-0056	13m Wooden Pole 180-199mm Top Diameter H5 Soil Type 1	Each	R 374.79	R 0.00	R 0.00
1.110	D-DT-0056	13m Wooden Pole 180-199mm Top Diameter H5 Soil Type 2	Each	R 505.97	R 0.00	R 0.00
1.111	D-DT-0056	13m Wooden Pole 180-199mm Top Diameter H5 Soil Type 3	Each	R 2 578.16	R 0.00	R 0.00
1.112	D-DT-0056	13m Wooden Pole 180-199mm Top Diameter H5 Soil Type 4	Each	R 2 286.96	R 0.00	R 0.00
1.113	D-DT-0056	13m Wooden Pole 200-219mm Top Diameter H4 Soil Type 1	Each	R 412.28	R 0.00	R 0.00
1.114	D-DT-0056	13m Wooden Pole 200-219mm Top Diameter H4 Soil Type 2	Each	R 556.57	R 0.00	R 0.00
1.115	D-DT-0056	13m Wooden Pole 200-219mm Top Diameter H4 Soil Type 3	Each	R 2 578.16	R 0.00	R 0.00
1.116	D-DT-0056	13m Wooden Pole 200-219mm Top Diameter H4 Soil Type 4	Each	R 2 286.96	R 0.00	R 0.00
1.117	D-DT-0056	13m Wooden Pole 200-219mm Top Diameter H5 Soil Type 1	Each	R 412.28	R 0.00	R 0.00
1.118	D-DT-0056	13m Wooden Pole 200-219mm Top Diameter H5 Soil Type 2	Each	R 556.57	R 0.00	R 0.00
1.119	D-DT-0056	13m Wooden Pole 200-219mm Top Diameter H5 Soil Type 3	Each	R 2 578.16	R 0.00	R 0.00
1.120	D-DT-0056	13m Wooden Pole 200-219mm Top Diameter H5 Soil Type 4	Each	R 2 286.96	R 0.00	R 0.00
1.121	D-DT-0054	14m Wooden Pole 160-179mm Top Diameter H4 Soil Type 1	Each	R 370.93	R 0.00	R 0.00
1.122	D-DT-0054	14m Wooden Pole 160-179mm Top Diameter H4 Soil Type 2	Each	R 500.75	R 0.00	R 0.00
1.123	D-DT-0054	14m Wooden Pole 160-179mm Top Diameter H4 Soil Type 3	Each	R 2 578.16	R 0.00	R 0.00
1.124	D-DT-0054	14m Wooden Pole 160-179mm Top Diameter H4 Soil Type 4	Each	R 2 286.96	R 0.00	R 0.00
1.125	D-DT-0054	14m Wooden Pole 160-179mm Top Diameter H5 Soil Type 1	Each	R 370.93	R 0.00	R 0.00
1.126	D-DT-0054	14m Wooden Pole 160-179mm Top Diameter H5 Soil Type 2	Each	R 500.75	R 0.00	R 0.00
1.127	D-DT-0054	14m Wooden Pole 160-179mm Top Diameter H5 Soil Type 3	Each	R 2 578.16	R 0.00	R 0.00
1.128	D-DT-0054	14m Wooden Pole 160-179mm Top Diameter H5 Soil Type 4	Each	R 2 286.96	R 0.00	R 0.00
1.129	D-DT-0054	14m Wooden Pole 180-199mm Top Diameter H4 Soil Type 1	Each	R 412.14	R 0.00	R 0.00
1.130	D-DT-0054	14m Wooden Pole 180-199mm Top Diameter H4 Soil Type 2	Each	R 556.39	R 0.00	R 0.00
1.131	D-DT-0054	14m Wooden Pole 180-199mm Top Diameter H4 Soil Type 3	Each	R 2 578.16	R 0.00	R 0.00
1.132	D-DT-0054	14m Wooden Pole 180-199mm Top Diameter H4 Soil Type 4	Each	R 2 286.96	R 0.00	R 0.00
1.133	D-DT-0054	14m Wooden Pole 180-199mm Top Diameter H5 Soil Type 1	Each	R 412.14	R 0.00	R 0.00
1.134	D-DT-0054	14m Wooden Pole 180-199mm Top Diameter H5 Soil Type 2	Each	R 556.39	R 0.00	R 0.00
1.135	D-DT-0054	14m Wooden Pole 180-199mm Top Diameter H5 Soil Type 3	Each	R 2 578.16	R 0.00	R 0.00
1.136	D-DT-0054	14m Wooden Pole 180-199mm Top Diameter H5 Soil Type 4	Each	R 2 286.96	R 0.00	R 0.00
1.137	D-DT-0054	14m Wooden Pole 200-219mm Top Diameter H4 Soil Type 1	Each	R 453.35	R 0.00	R 0.00
1.138	D-DT-0054	14m Wooden Pole 200-219mm Top Diameter H4 Soil Type 2	Each	R 612.02	R 0.00	R 0.00
1.139	D-DT-0054	14m Wooden Pole 200-219mm Top Diameter H4 Soil Type 3	Each	R 2 578.16	R 0.00	R 0.00
1.140	D-DT-0054	14m Wooden Pole 200-219mm Top Diameter H4 Soil Type 4	Each	R 2 286.96	R 0.00	R 0.00
1.141	D-DT-0054	14m Wooden Pole 200-219mm Top Diameter H5 Soil Type 1	Each	R 453.35	R 0.00	R 0.00
1.142	D-DT-0054	14m Wooden Pole 200-219mm Top Diameter H5 Soil Type 2	Each	R 612.02	R 0.00	R 0.00
1.143	D-DT-0054	14m Wooden Pole 200-219mm Top Diameter H5 Soil Type 3	Each	R 2 578.16	R 0.00	R 0.00

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1.144	D-DT-0054	14m Wooden Pole 200-219mm Top Diameter H5 Soil Type 4	Each	R 2 286.96	R 0.00	R 0.00	
1.145	D-DT-0057	15m Wooden Pole 160-179mm Top Diameter Soil Type 1	Each	R 453.35	R 0.00	R 0.00	
1.146	D-DT-0057	15m Wooden Pole 160-179mm Top Diameter Soil Type 2	Each	R 612.02	R 0.00	R 0.00	
1.147	D-DT-0057	15m Wooden Pole 160-179mm Top Diameter Soil Type 3	Each	R 2 974.80	R 0.00	R 0.00	
1.148	D-DT-0057	15m Wooden Pole 160-179mm Top Diameter Soil Type 4	Each	R 2 638.80	R 0.00	R 0.00	
1.149	D-DT-0057	15m Wooden Pole 190-199mm Top Diameter Soil Type 1	Each	R 453.35	R 0.00	R 0.00	
1.150	D-DT-0057	15m Wooden Pole 190-199mm Top Diameter Soil Type 2	Each	R 612.02	R 0.00	R 0.00	
1.151	D-DT-0057	15m Wooden Pole 190-199mm Top Diameter Soil Type 3	Each	R 2 974.80	R 0.00	R 0.00	
1.152	D-DT-0057	15m Wooden Pole 190-199mm Top Diameter Soil Type 4	Each	R 2 638.80	R 0.00	R 0.00	
1.153	D-DT-0057	15m Wooden Pole 200-219mm Top Diameter Soil Type 1	Each	R 407.86	R 0.00	R 0.00	
1.154	D-DT-0057	15m Wooden Pole 200-219mm Top Diameter Soil Type 2	Each	R 550.61	R 0.00	R 0.00	
1.155	D-DT-0057	15m Wooden Pole 200-219mm Top Diameter Soil Type 3	Each	R 2 974.80	R 0.00	R 0.00	
1.156	D-DT-0057	15m Wooden Pole 200-219mm Top Diameter Soil Type 4	Each	R 2 638.80	R 0.00	R 0.00	
1.157	D-DT-0049	16m Wooden Pole 180-199mm Top Diameter Soil Type 1	Each	R 448.48	R 0.00	R 0.00	
1.158	D-DT-0049	16m Wooden Pole 180-199mm Top Diameter Soil Type 2	Each	R 605.45	R 0.00	R 0.00	
1.159	D-DT-0049	16m Wooden Pole 180-199mm Top Diameter Soil Type 3	Each	R 3 173.12	R 0.00	R 0.00	
1.160	D-DT-0049	16m Wooden Pole 180-199mm Top Diameter Soil Type 4	Each	R 2 814.72	R 0.00	R 0.00	
1.161	D-DT-0049	16m Wooden Pole 200-219mm Top Diameter Soil Type 1	Each	R 493.34	R 0.00	R 0.00	
1.162	D-DT-0049	16m Wooden Pole 200-219mm Top Diameter Soil Type 2	Each	R 666.01	R 0.00	R 0.00	
1.163	D-DT-0049	16m Wooden Pole 200-219mm Top Diameter Soil Type 3	Each	R 3 173.12	R 0.00	R 0.00	
1.164	D-DT-0049	16m Wooden Pole 200-219mm Top Diameter Soil Type 4	Each	R 2 814.72	R 0.00	R 0.00	
1.165	D-DT-0048	18m Wooden Pole 180-199mm Top Diameter Soil Type 1	Each	R 493.16	R 0.00	R 0.00	
1.166	D-DT-0048	18m Wooden Pole 180-199mm Top Diameter Soil Type 2	Each	R 665.77	R 0.00	R 0.00	
1.167	D-DT-0048	18m Wooden Pole 180-199mm Top Diameter Soil Type 3	Each	R 3 569.76	R 0.00	R 0.00	
1.168	D-DT-0048	18m Wooden Pole 180-199mm Top Diameter Soil Type 4	Each	R 3 166.56	R 0.00	R 0.00	
1.169	D-DT-0048	18m Wooden Pole 200-219mm Top Diameter Soil Type 1	Each	R 542.47	R 0.00	R 0.00	
1.170	D-DT-0048	18m Wooden Pole 200-219mm Top Diameter Soil Type 2	Each	R 732.34	R 0.00	R 0.00	
1.171	D-DT-0048	18m Wooden Pole 200-219mm Top Diameter Soil Type 3	Each	R 3 569.76	R 0.00	R 0.00	
1.172	D-DT-0048	18m Wooden Pole 200-219mm Top Diameter Soil Type 4	Each	R 3 166.56	R 0.00	R 0.00	
2		Concrete Poles					
2.1	D-DT-0017	11m Concrete Pole 10kN Ultimate Load	Each	R 311.75	R 0.00	R 0.00	
2.2	D-DT-0015	12m Concrete Pole 10kN Ultimate Load	Each	R 340.08	R 0.00	R 0.00	
2.3	D-DT-0016	13m Concrete Pole 10kN Ultimate Load	Each	R 368.42	R 0.00	R 0.00	
2.4	D-DT-0018	14m Concrete Pole 10kN Ultimate Load	Each	R 396.76	R 0.00	R 0.00	
3		Free Standing(Unsupported)					
3.1	PA09599B01	9m Concrete Pole 18kN	Each	R 311.75	R 0.00	R 0.00	
3.2	D-DT-1650	12m Concrete Pole 8kN	Each	R 311.75	R 0.00	R 0.00	
3.3	D-DT-1651	12m Concrete Pole 15kN	Each	R 584.52	R 0.00	R 0.00	
3.4	D-DT-1652	12m Concrete Pole 27kN	Each	R 1 052.14	R 0.00	R 0.00	
3.5	D-DT-1653	12m Concrete Pole 42kN	Each	R 1 636.67	R 0.00	R 0.00	
3.6	D-DT-1654	12m Concrete Pole 58kN	Each	R 2 260.16	R 0.00	R 0.00	
3.7	D-DT-1655	12m Concrete Pole 65kN - Terminal Structure	Each	R 2 532.94	R 0.00	R 0.00	
3.8	D-DT-1656	12m Concrete Pole 73kN	Each	R 2 844.68	R 0.00	R 0.00	
3.9	D-DT-1657	12m Concrete Pole 106kN	Each	R 4 130.64	R 0.00	R 0.00	
3.10	D-DT-1650	13m Concrete Pole 8kN	Each	R 337.72	R 0.00	R 0.00	
3.11	D-DT-1651	13m Concrete Pole 15kN	Each	R 633.23	R 0.00	R 0.00	
3.12	D-DT-1652	13m Concrete Pole 27kN	Each	R 1 139.82	R 0.00	R 0.00	
3.13	D-DT-1653	13m Concrete Pole 42kN	Each	R 1 773.06	R 0.00	R 0.00	
3.14	D-DT-1654	13m Concrete Pole 58kN	Each	R 2 448.51	R 0.00	R 0.00	
3.15	D-DT-1655	13m Concrete Pole 65kN - Terminal Structure	Each	R 2 744.01	R 0.00	R 0.00	
3.16	D-DT-1656	13m Concrete Pole 73kN	Each	R 3 081.74	R 0.00	R 0.00	
3.17	D-DT-1657	13m Concrete Pole 106kN	Each	R 4 474.86	R 0.00	R 0.00	
SUB-TOTAL D					R 0.00	R 0.00	
E	Single Phase MV Structure (DOWNWIRE EXCL BUT BONDING INCL)						
	Supply and erect MV support structures as per Eskom DDT 0400, 1300, 1700, 1800 drawings and OU specific SI Engineering instructions. Auxiliary equipment such as bonding, jumpers, jumper terminations, pole and x-arm mounting and mounting hardware, conductor attachment hardware and insulators to be included. Poles are measured elsewhere, crossarms are included. Stay, strut material measured elsewhere. Pole, stay and strut excavations are measured elsewhere. Where road crossing structures are to be used the line hardware needs to be changed to include : For intermediate a suitable fullwrap road crossing tie and for a strain structure a 3bolt suitable pistol grip. Other relevant road crossing hardware to be included where required. Road crossings to be inserted in BOQ where required and marked with "RX" as part of the description. MV intermediate structures that fall within high lightning zones in the OU shall have the a spark gap device installed on its BIL downwire. Refer DDT3134. All other intermediate structures will have a normal BIL. All line hardware purchased will be paid elsewhere as cost plus fee.						
	1	Intermediate - 0 deg					
	1.1	D-EC2063	Phase / Phase - Delta intermediate 0 degrees D2063 - A-Frame with 4kN Posts + Bird Perch	Each	R 250.34	R 0.00	R 0.00
	1.2	D-EC2063	Phase / Phase - Delta intermediate 0 degrees D2063 - A-Frame 10kN Posts + Bird Perch & road-xing ties	Each	R 250.34	R 0.00	R 0.00
1.3	D-EC2063	Phase / Phase - Delta intermediate 0 degrees D2063 - A-Frame with 4kN Posts + Bird Perch with spark gap	Each	R 269.12	R 0.00	R 0.00	
1.4	D-EC2063	Phase / Phase - Delta intermediate 0 degrees D2063 - A-Frame 10kN Posts + Bird Perch & road-xing ties with spark gap	Each	R 269.12	R 0.00	R 0.00	
1.5	1300	PHASE / PHASE - STAGGEREDVERTICAL (450mm SPACING) - INTERMEDIATE - 0° DEVIATION	Each	R 250.34	R 0.00	R 0.00	

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1.6	1300	Phase / phase – Staggered Vertical (450mm spacing) – Intermediate - 0° Deviation Rx	Each		R 251.34	R 0.00	R 0.00
1.7	1310	PHASE / PHASE - STAGGEREDVERTICAL (600mm SPACING) - INTERMEDIATE - 0° DEVIATION	Each		R 250.34	R 0.00	R 0.00
1.8	1310	Phase / phase – Staggered Vertical (600mm spacing) – Intermediate - 0° Deviation Rx	Each		R 251.34	R 0.00	R 0.00
1.9	1320	Phase / phase – Delta (450mm Stud) – Intermediate - 0° Deviation	Each		R 219.05	R 0.00	R 0.00
1.10	1320	Phase / phase – Delta (450mm Stud) – Intermediate - 0° Deviation Rx	Each		R 219.05	R 0.00	R 0.00
1.11	1330	PHASE / PHASE - DELTA (600mmSTUD) - INTERMEDIATE - 0° DEVIATION	Each		R 219.05	R 0.00	R 0.00
1.12	1330	Phase / phase – Delta (600mm Stud) – Intermediate - 0° Deviation Rx	Each		R 219.05	R 0.00	R 0.00
1.13	1330	Phase / phase – Delta (600mm Stud) – Intermediate - 0° Deviation With Spark Gap Device	Each		R 250.34	R 0.00	R 0.00
1.14	1330	Phase / phase – Delta (600mm Stud) – Intermediate - 0° Deviation With Spark Gap Device -Rx	Each		R 250.34	R 0.00	R 0.00
1.15	1340	PHASE / PHASE - DELTA / 2,5mWOOD X-ARM - INTERMEDIATE - 0° DEVIATION	Each		R 250.34	R 0.00	R 0.00
1.16	1340	PHASE / PHASE - DELTA / 2,5mWOOD X-ARM - INTERMEDIATE - 0° DEVIATION RX	Each		R 250.34	R 0.00	R 0.00
1.17	1340B	Phase / phase – Delta/2.5M Wooden X-arm – Intermediate - 0° Deviation	Each		R 250.34	R 0.00	R 0.00
1.18	1340B	Phase / phase – Delta/2.5M Wooden X-arm – Intermediate - 0° Deviation Rx	Each		R 250.34	R 0.00	R 0.00
1.19	1340B	Phase / phase – Delta/2.5M Wooden X-arm – Intermediate - 0° Deviation With Spark Gap Device	Each		R 269.12	R 0.00	R 0.00
1.20	1340B	Phase / phase – Delta/2.5M Wooden X-arm – Intermediate - 0° Deviation With Spark Gap Device-Rx	Each		R 269.12	R 0.00	R 0.00
1.21	1390	Phase / phase - T-frame / 2m Steel X-arm – Intermediate - 0° Deviation	Each		R 246.59	R 0.00	R 0.00
1.22	1390	Phase / phase - T-frame / 2m Steel X-arm – Intermediate - 0° Deviation -RX	Each		R 246.59	R 0.00	R 0.00
1.23	1390	Phase / phase - T-frame / 2m Steel X-arm – Intermediate - 0° Deviation -With Spark Gap device	Each		R 246.59	R 0.00	R 0.00
1.24	1390	Phase / phase - T-frame / 2m Steel X-arm – Intermediate - 0° Deviation -With Spark Gap device - RX	Each		R 246.59	R 0.00	R 0.00
1.25	1370	Phase / phase - H-Pole / 4,5m Wood X-arm – Intermediate - 0° Deviation	Each		R 393.19	R 0.00	R 0.00
1.26	1370	Phase / phase - H-Pole / 4,5m Wood X-arm – Intermediate - 0° Deviation -RX	Each		R 393.19	R 0.00	R 0.00
1.27	1370	Phase / phase - H-Pole / 4,5m Wood X-arm – Intermediate - 0° Deviation -With Spark Gap device	Each		R 420.76	R 0.00	R 0.00
1.28	1370	Phase / phase - H-Pole / 4,5m Wood X-arm – Intermediate - 0° Deviation -With Spark Gap device-RX	Each		R 420.76	R 0.00	R 0.00
2		Strainer - Small (1 - 30) deg					
2.1	1301	PHASE / PHASE - VERTICAL (450mmSPACING) - INTERMEDIATE - SMALL(1°±10°) DEVIATION	Each		R 187.76	R 0.00	R 0.00
2.2	1301	PHASE / PHASE - VERTICAL (450mmSPACING) - INTERMEDIATE - SMALL(1°±10°) DEVIATION Rx	Each		R 187.76	R 0.00	R 0.00
2.3	1302	PHASE / PHASE - VERTICAL (450mmSPACING) - INTERMEDIATE - MEDIUM(±10°-30°) DEVIATION	Each		R 187.76	R 0.00	R 0.00
2.4	1302	PHASE / PHASE - VERTICAL (450mmSPACING) - INTERMEDIATE - MEDIUM(±10°-30°) DEVIATION Rx	Each		R 187.76	R 0.00	R 0.00
2.5	1311	PHASE / PHASE - VERTICAL (600mmSPACING) - INTERMEDIATE - SMALL (1°±10°) DEVIATION	Each		R 219.05	R 0.00	R 0.00
2.6	1311	PHASE / PHASE - VERTICAL (600mmSPACING) - INTERMEDIATE - SMALL (1°±10°) DEVIATION Rx	Each		R 219.05	R 0.00	R 0.00
2.7	1312	Phase / phase – Vertical (600mm spacing) – Intermediate - Medium (10-30°) Deviation	Each		R 219.05	R 0.00	R 0.00
2.8	1312	Phase / phase – Vertical (600mm spacing) – Intermediate - Medium (10-30°) Deviation Rx	Each		R 219.05	R 0.00	R 0.00
2.9	1371	Phase / phase – H-Pole / 4.5m Wood x-arm – Intermediate – Small (1 –10°) deviation	Each		R 391.41	R 0.00	R 0.00
2.10	1371	Phase / phase – H-Pole / 4.5m Wood x-arm – Intermediate – Small (1 –10°) deviation-RX	Each		R 391.41	R 0.00	R 0.00
2.11	1391	Phase / phase - T-frame/ 2m Steel X-arm – Intermediate - Small (1- +/- 10°) Deviation	Each		R 246.59	R 0.00	R 0.00
2.12	1391	Phase / phase - T-frame/ 2m Steel X-arm – Intermediate - Small (1- +/- 10°) Deviation -RX	Each		R 215.76	R 0.00	R 0.00
3		Strainer - 0 deg					
3.1	1303	PHASE / PHASE - VERTICAL (450mmSPACING) - STRAIN - 0° DEVIATION	Each		R 250.34	R 0.00	R 0.00
3.2	1303	PHASE / PHASE - VERTICAL (450mmSPACING) - STRAIN - 0° DEVIATION Rx	Each		R 250.34	R 0.00	R 0.00
3.3	1313	PHASE / PHASE - VERTICAL (600mmSPACING) - STRAIN - 0° DEVIATION	Each		R 250.34	R 0.00	R 0.00
3.4	1313	PHASE / PHASE - VERTICAL (600mmSPACING) - STRAIN - 0° DEVIATION Rx	Each		R 250.34	R 0.00	R 0.00
3.5	1340	Phase / phase – Delta/2.5M Wooden X-arm –Strain - 0° Deviation	Each		R 247.71	R 0.00	R 0.00
3.6	1340	Phase / phase – Delta/2.5M Wooden X-arm –Strain - 0° Deviation Rx	Each		R 247.71	R 0.00	R 0.00
3.7	1340B	Phase / phase – Delta/2.5M Wooden X-arm –Strain - 0° Deviation	Each		R 247.71	R 0.00	R 0.00
3.8	1340B	Phase / phase – Delta/2.5M Wooden X-arm –Strain - 0° Deviation Rx	Each		R 247.71	R 0.00	R 0.00
3.9	1340B	Phase / phase – Delta/2.5M Wooden X-arm –Strain - 0° Deviation With Spark Gap Device	Each		R 266.29	R 0.00	R 0.00
3.10	1340B	Phase / phase – Delta/2.5M Wooden X-arm –Strain - 0° Deviation With Spark Gap Device-Rx	Each		R 266.29	R 0.00	R 0.00
3.11	1343	Phase / phase – Delta/2.5M Wooden X-arm –Strain - 0° Deviation	Each		R 247.71	R 0.00	R 0.00
3.12	1343	Phase / phase – Delta/2.5M Wooden X-arm –Strain - 0° Deviation - Rx	Each		R 247.71	R 0.00	R 0.00
3.13	1373	Phase / phase - H-Pole / 4,5m Wood X-arm – Strain - 0° Deviation	Each		R 391.41	R 0.00	R 0.00
3.14	1373	Phase / phase - H-Pole / 4,5m Wood X-arm – Strain - 0° Deviation -RX	Each		R 391.41	R 0.00	R 0.00

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4		Strainer - Medium (1 - 60) deg				
4.1	1304	PHASE / PHASE - VERTICAL (450mmSPACING) - STRAIN - SMALL(1°-30°) DEVIATION	Each	R 250.34	R 0.00	R 0.00
4.2	1304	PHASE / PHASE - VERTICAL (450mmSPACING) - STRAIN - SMALL(1°-30°) DEVIATION - Rx	Each	R 250.34	R 0.00	R 0.00
4.3	1314	PHASE / PHASE - VERTICAL (600mmSPACING) - STRAIN - SMALL(1°-30°) DEVIATION	Each	R 250.34	R 0.00	R 0.00
4.4	1314	PHASE / PHASE - VERTICAL (600mmSPACING) - STRAIN - SMALL(1°-30°) DEVIATION - Rx	Each	R 250.34	R 0.00	R 0.00
4.5	1334	PHASE / PHASE - DELTA / 1,3mSTEEL X-ARM - STRAIN - MEDIUM (1°-60°) DEVIATION	Each	R 250.34	R 0.00	R 0.00
4.6	1334	PHASE / PHASE - DELTA / 1,3mSTEEL X-ARM - STRAIN - MEDIUM (1°-60°) DEVIATION Rx	Each	R 250.34	R 0.00	R 0.00
4.7	1344	Phase / phase - Delta/2.5M Wooden X-arm -Strain - Medium (1-60°) Deviation	Each	R 247.71	R 0.00	R 0.00
4.8	1344	Phase / phase - Delta/2.5M Wooden X-arm -Strain - Medium (1-60°) Deviation -Rx	Each	R 247.71	R 0.00	R 0.00
4.9	1374	Phase / phase - H-Pole / 4,5m Wood X-arm - Strain - Medium(1°- 60°) Deviation	Each	R 391.41	R 0.00	R 0.00
4.10	1374	Phase / phase - H-Pole / 4,5m Wood X-arm - Strain - Medium(1°- 60°) Deviation -RX	Each	R 391.41	R 0.00	R 0.00
5		Strainer - Terminal				
5.1	1346	Phase / phase - Delta/2.5M Wood X-arm - Strain - Terminal	Each	R 247.71	R 0.00	R 0.00
5.2	1346	Phase / phase - Delta/2.5M Wood X-arm - Strain - Terminal -Rx	Each	R 247.71	R 0.00	R 0.00
5.3	1376	Phase / phase - H-Pole / 4,5m Wood X-arm - Strain - Terminal	Each	R 391.41	R 0.00	R 0.00
5.4	1376	Phase / phase - H-Pole / 4,5m Wood X-arm - Strain - Terminal -RX	Each	R 391.41	R 0.00	R 0.00
6		Take-Off				
6.1	1811	Phase / phase Take-off - Vertical (600mm spacing)	Each	R 146.78	R 0.00	R 0.00
6.2	1811	Phase / phase Take-off - Vertical (600mm spacing)-RX	Each	R 146.78	R 0.00	R 0.00
6.3	1814	Phase / phase Take-off - 2,5m Wooden X-arm	Each	R 184.94	R 0.00	R 0.00
6.4	1814	Phase / phase Take-off - 2,5m Wooden X-arm-RX	Each	R 184.94	R 0.00	R 0.00
6.5	1815	Phase / phase Take-off - 2 x 2,5m Wooden X-arm	Each	R 293.55	R 0.00	R 0.00
6.6	1815	Phase / phase Take-off - 2 x 2,5m Wooden X-arm-RX	Each	R 293.55	R 0.00	R 0.00
6.7	1816	Phase / phase Take-off - H-Pole (3,5m Wooden X-arm)	Each	R 342.48	R 0.00	R 0.00
6.8	1816	Phase / phase Take-off - H-Pole (3,5m Wooden X-arm)-RX	Each	R 342.48	R 0.00	R 0.00
6.9	1817	Phase / phase Take-off - H-Pole (2 x 3,5m Wooden X-arm)	Each	R 391.41	R 0.00	R 0.00
6.10	1817	Phase / phase Take-off - H-Pole (2 x 3,5m Wooden X-arm) -RX	Each	R 391.41	R 0.00	R 0.00
		Assemble Three Phase MV Structures (Downwire excluded but Bonding included)				
7		Intermediate - 0 deg				
	D-EC2063	3 Phase Delta intermediate 0 degrees D2063 - A-Frame with 4kN Posts + Bird Perch	Each	R 250.34	R 0.00	R 0.00
	D-EC2063	3 Phase Delta intermediate 0 degrees D2063 - A-Frame 10kN Posts + Bird Perch & road-xing ties	Each	R 250.34	R 0.00	R 0.00
	D-EC2063	3 Phase Delta intermediate 0 degrees D2063 - A-Frame with 4kN Posts + Bird Perch with spark gap	Each	R 269.12	R 0.00	R 0.00
	D-EC2063	3 Phase Delta intermediate 0 degrees D2063 - A-Frame 10kN Posts + Bird Perch & road-xing ties with spark gap	Each	R 269.12	R 0.00	R 0.00
7.1	D-DT-1700	3 Phase - Staggered Vertical (450mm Spacing)	Each	R 207.61	R 0.00	R 0.00
7.2	D-DT-1710	3 Phase - Staggered Vertical (600mm Spacing)	Each	R 207.61	R 0.00	R 0.00
7.3	D-DT-1720	3 Phase - Delta (450mm Stud)	Each	R 207.61	R 0.00	R 0.00
7.4	D-DT-1730	3 Phase - Delta (Intermediate 'T' Crossarm)	Each	R 207.61	R 0.00	R 0.00
7.5	D-DT-1740	3 Phase - Delta / 2,5m Wood Crossarm	Each	R 237.27	R 0.00	R 0.00
7.6	D-DT-1750	3 Phase - Delta / 4,5m Wood Crossarm	Each	R 470.78	R 0.00	R 0.00
7.7	D-DT-1760	3 Phase - H-Pole / 3,5m Wood Crossarm	Each	R 376.62	R 0.00	R 0.00
7.8	D-DT-1770	3 Phase - H-Pole / 4,5m Wood Crossarm	Each	R 376.62	R 0.00	R 0.00
7.9	D-DT-1785	MV Heavy Conductor - 3 Phase Staggered Vertical 800mm Spacing	Each	R 470.78	R 0.00	R 0.00
7.10	D-DT-1790	MV Heavy Conductor - 3 Phase - Delta - 3500mm Wooden Crossarm	Each	R 470.78	R 0.00	R 0.00
7.11	D-DT-1793	MV Heavy Conductor - 22kV H-Pole Suspension Structure General Arrangement	Each	R 470.78	R 0.00	R 0.00
7.12	D-DT-1870	Three Phase T-Frame / 2m Steel Crossarm	Each	R 237.27	R 0.00	R 0.00
	1740	3 Phase - Delta/2.5M Wooden X-arm -Strain - 0° Deviation	Each	R 246.59	R 0.00	R 0.00
	1740	3 Phase - Delta/2.5M Wooden X-arm -Strain - 0° Deviation Rx	Each	R 246.59	R 0.00	R 0.00
7.13	1740B	3 Phase - Delta / 2,5m Wood X-arm - Intermediate - 0° Deviation	Each	R 246.59	R 0.00	R 0.00
7.14	1740B	3 Phase - Delta / 2,5m Wood X-arm - Intermediate - 0° Deviation -RX	Each	R 246.59	R 0.00	R 0.00
7.15	1740B	3 Phase - Delta / 2,5m Wood X-arm - Intermediate - 0° Deviation -With Spark Gap Device	Each	R 265.08	R 0.00	R 0.00
7.16	1740B	3 Phase - Delta / 2,5m Wood X-arm - Intermediate - 0° Deviation -With Spark Gap Device-RX	Each	R 265.08	R 0.00	R 0.00
7.17	1750	3 Phase - Delta / 4,5m Wood X-arm - Intermediate - 0° Deviation -RX	Each	R 470.78	R 0.00	R 0.00
7.18	1750	3 Phase - Delta / 4,5m Wood X-arm - Intermediate - 0° Deviation -With Spark Gap Device	Each	R 470.78	R 0.00	R 0.00
7.19	1750	3 Phase - Delta / 4,5m Wood X-arm - Intermediate - 0° Deviation -With Spark Gap Device-RX	Each	R 470.78	R 0.00	R 0.00
7.20	1710	3 Phase - Staggered Vertical (600mm Spacing) Intermediate 0° Deviation Rx	Each	R 207.61	R 0.00	R 0.00
7.21	1770	3 Phase - H-Pole / 4,5m Wood X-arm - Intermediate - 0° Deviation -RX	Each	R 391.41	R 0.00	R 0.00
7.22	1770	3 Phase - H-Pole / 4,5m Wood X-arm - Intermediate - 0° Deviation -With Spark Gap Device	Each	R 376.62	R 0.00	R 0.00
7.23	1770	3 Phase - H-Pole / 4,5m Wood X-arm - Intermediate - 0° Deviation -With Spark Gap Device -RX	Each	R 376.62	R 0.00	R 0.00
7.24	1790	Heavy Conductor - 3 Phase Delta-3500mm Wooden X-arm Intermediate 0° Deviation Rx	Each	R 470.78	R 0.00	R 0.00
7.25	1710	3 Phase - Staggered Vertical (600mm Spacing) Intermediate 0° Deviation Rx	Each	R 207.61	R 0.00	R 0.00

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8		Intermediate - (0 - 10) deg				
8.1	D-DT-1701	3 Phase - Vertical (450mm Spacing)	Each	R 207.61	R 0.00	R 0.00
8.2	D-DT-1711	3 Phase - Vertical (600mm Spacing)	Each	R 207.61	R 0.00	R 0.00
8.3	D-DT-1771	3 Phase - H-Pole / 4,5m Wood Crossarm	Each	R 376.62	R 0.00	R 0.00
8.4	D-DT-1871	Three Phase T-Frame / 2m Steel Crossarm	Each	R 237.27	R 0.00	R 0.00
8.5	1771	3 Phase - H-Pole / 4,5m Wood X-arm - Intermediate - Small(1°-±10°) Deviation -RX	Each	R 376.62	R 0.00	R 0.00
8.6	1711	3 Phase - Vertical (600mm Spacing) Intermediate-Small (1- ±10°) Deviation Rx	Each	R 207.61	R 0.00	R 0.00
9		Intermediate - (15 - 30) deg				
9.1	D-DT-1702	3 Phase - Vertical (450mm Spacing)	Each	R 207.61	R 0.00	R 0.00
9.2	D-DT-1712	3 Phase - Vertical (600mm Spacing)	Each	R 207.61	R 0.00	R 0.00
9.3	1712	3 Phase - Vertical (600mm Spacing) Intermediate-Medium (±15-30°) Deviation Rx	Each	R 207.61	R 0.00	R 0.00
10		Strainer - 0 deg				
10.1	D-DT-1703	3 Phase - Vertical (450mm Spacing)	Each	R 237.27	R 0.00	R 0.00
10.2	D-DT-1713	3 Phase - Vertical (600mm Spacing)	Each	R 237.27	R 0.00	R 0.00
10.3	D-DT-1733	3 Phase - Delta / 1,3m Steel Crossarm	Each	R 237.27	R 0.00	R 0.00
10.4	D-DT-1743	3 Phase - 600mm Phase Spacing Delta / 2,5m Wood Crossarm	Each	R 266.93	R 0.00	R 0.00
10.5	D-DT-1747	3 Phase - 600mm Phase Spacing Delta / 2 x 2,5m Wood Crossarm	Each	R 470.78	R 0.00	R 0.00
10.6	D-DT-1747	3 Phase - 800mm Phase Spacing Delta / 2 x 2,5m Wood Crossarm	Each	R 470.78	R 0.00	R 0.00
10.7	D-DT-1753	3 Phase - Delta / 4,5m Wood Crossarm	Each	R 470.78	R 0.00	R 0.00
10.8	D-DT-1763	3 Phase - Delta / 3,5m Wood Crossarm	Each	R 470.78	R 0.00	R 0.00
10.9	D-DT-1767	3 Phase - H-Pole / 2 x 3,5m Wood Crossarm	Each	R 819.16	R 0.00	R 0.00
10.10	D-DT-1773	3 Phase - H-Pole / 4,5m Wood Crossarm	Each	R 376.62	R 0.00	R 0.00
10.11	D-DT-1777	3 Phase - H-Pole / 2 x 4,5m Wood Crossarm	Each	R 819.16	R 0.00	R 0.00
10.12	D-DT-1783	3 Phase - Trips	Each	R 847.40	R 0.00	R 0.00
10.13	D-DT-1786	MV Heavy Conductor - 22kV 3 Phase - Vertical 800mm Spacing	Each	R 470.78	R 0.00	R 0.00
10.14	D-DT-1794	MV Heavy Conductor - 22kV H-Pole Braced	Each	R 470.78	R 0.00	R 0.00
10.15	1767	3 Phase - H-Pole / 2 x 3,5m Wood X-arm - Strain - 0° Deviation -RX	Each	R 819.16	R 0.00	R 0.00
10.16	1773	3 Phase - H-Pole / 4,5m Wood X-arm - Strain - 0° Deviation-RX	Each	R 376.62	R 0.00	R 0.00
10.17	1777	3 Phase - H-Pole / 2 x 4,5m Wood X-arm - Strain - 0° Deviation -RX	Each	R 819.16	R 0.00	R 0.00
10.18	1713	3 Phase - Vertical (600mm Spacing) Strain 0° Deviation Rx	Each	R 237.27	R 0.00	R 0.00
10.19	1743	3 Phase - Delta / 2,5m Wood X-arm - Strain - 0° Deviation -RX	Each	R 266.93	R 0.00	R 0.00
10.20	1747	3 Phase - Delta / 2 x 2,5m Wood X-arm - Strain - 0° Deviation -RX	Each	R 470.78	R 0.00	R 0.00
10.21	1753	3 Phase - Delta / 4,5m Wood X-arm - Strain - 0° Deviation -RX	Each	R 470.78	R 0.00	R 0.00
10.22	1763	3 Phase - H-Pole / 3,5m Wood X-arm - Strain - 0° Deviation -RX	Each	R 470.78	R 0.00	R 0.00
10.23	1785	3 Phase - Staggered Vertical (800mm spacing) 0° Deviation Rx Wood Poles Rx	Each	R 470.78	R 0.00	R 0.00
10.24	1786	3 Phase - Vertical (800mm spacing) Strain 0° Deviation 10kN Wood Poles Rx	Each	R 470.78	R 0.00	R 0.00
10.25	1783	3 Phase - Trips - Strain - 0° Deviation (Front view) -RX	Each	R 847.40	R 0.00	R 0.00
10.26	1794	Heavy Conductor H-Pole Braced In-Line strain-RX	Each	R 470.78	R 0.00	R 0.00
11		Strainer - Small (1 - 30) deg				
11.1	D-DT-1704	3 Phase - Vertical (450mm Spacing)	Each	R 237.27	R 0.00	R 0.00
11.2	D-DT-1714	3 Phase - Vertical (600mm Spacing)	Each	R 237.27	R 0.00	R 0.00
11.3	D-DT-1734	3 Phase - Delta / 1,3m Steel Crossarm	Each	R 266.93	R 0.00	R 0.00
11.4	D-DT-1787	MV Heavy Conductor - 22kV 3 Phase - Vertical 800mm Spacing	Each	R 470.78	R 0.00	R 0.00
11.5	1714	3 Phase - Vertical (600mm Spacing) Strain - Small(1-30°) Deviation Rx	Each	R 237.27	R 0.00	R 0.00
11.6	1787	3 Phase - Vertical (800mm spacing) Strain 0-30° Deviation 10kN Wood Poles Rx	Each	R 470.78	R 0.00	R 0.00
12		Strainer - Medium (1 - 60) deg				
12.1	D-DT-1744	3 Phase - Delta / 2,5m Wood Crossarm	Each	R 266.93	R 0.00	R 0.00
12.2	D-DT-1748	3 Phase - Delta / 2 x 2,5m Wood Crossarm	Each	R 470.78	R 0.00	R 0.00
12.3	D-DT-1754	3 Phase - Delta / 4,5m Wood Crossarm	Each	R 470.78	R 0.00	R 0.00
12.4	D-DT-1754	3 Phase - Delta / 2 x 4,5m Wood Crossarm	Each	R 470.78	R 0.00	R 0.00
12.5	D-DT-1764	3 Phase - H-Pole / 3,5m Wood Crossarm	Each	R 470.78	R 0.00	R 0.00
12.6	D-DT-1768	3 Phase - Pole / 2 x 3,5m Wood Crossarm	Each	R 819.16	R 0.00	R 0.00
12.7	D-DT-1774	3 Phase - H-Pole / 4,5m Wood Crossarm	Each	R 376.62	R 0.00	R 0.00
12.8	D-DT-1778	3 Phase - Pole / 2 x 4,5m Wood Crossarm	Each	R 819.16	R 0.00	R 0.00
12.9	D-DT-1795	MV Heavy Conductor - 22kV H-Pole Braced	Each	R 470.78	R 0.00	R 0.00
12.10	1744	3 Phase - Delta / 2,5m Wood X-arm - Strain - Medium(1°-60°) Deviation -RX	Each	R 266.93	R 0.00	R 0.00
12.11	1748	3 Phase - Delta / 2 x 2,5m Wood X-arm - Strain - Medium(1°-60°) Deviation -RX	Each	R 470.78	R 0.00	R 0.00
12.12	1754	3 Phase - Delta / 4,5m Wood X-arm - Strain - Medium(1°-60°) Deviation -RX	Each	R 470.78	R 0.00	R 0.00
12.13	1754	3 Phase - Delta / 2x4,5m Wood X-arm - Strain - Medium(1°-60°) Deviation -RX	Each	R 470.78	R 0.00	R 0.00
12.14	1764	3 Phase - H-Pole / 3,5m Wood X-arm - Strain - Medium(1°-60°) Deviation -RX	Each	R 470.78	R 0.00	R 0.00
12.15	1768	3 Phase - H-Pole / 2 x 3,5m Wood X-arm - Strain - Medium(1°-60°) Deviation -RX	Each	R 819.16	R 0.00	R 0.00
12.16	1774	3 Phase - H-Pole / 4,5m Wood X-arm - Strain - Medium(1°-60°) Deviation -RX	Each	R 376.62	R 0.00	R 0.00
12.17	1778	3 Phase - H-Pole / 2 x 4,5m Wood X-arm - Strain - Medium(1°-60°) Deviation -RX	Each	R 819.16	R 0.00	R 0.00
12.18	1795	Heavy Conductor H-Pole Braced Angle strain (1-60°)-RX	Each	R 470.78	R 0.00	R 0.00

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13		Strainer - Large (61- 90) deg				
13.1	D-DT-1705	3 Phase - Vertical (450mm Spacing)	Each	R 266.93	R 0.00	R 0.00
13.2	D-DT-1715	3 Phase - Vertical (600mm Spacing)	Each	R 237.27	R 0.00	R 0.00
13.3	D-DT-1735	3 Phase - Delta / 1,3m Steel Crossarm	Each	R 237.27	R 0.00	R 0.00
13.4	D-DT-1742	3 Phase - Delta 2,5m Wood Crossarm / 1700 Steel Crossarm	Each	R 431.25	R 0.00	R 0.00
13.5	D-DT-1742	3 Phase - Delta 2,5m Wood Crossarm / 2,5m Wood Crossarm	Each	R 431.25	R 0.00	R 0.00
13.6	D-DT-1745	3 Phase - Delta 2 x 2,5m Wood Crossarm / 1700 Steel Crossarm	Each	R 470.78	R 0.00	R 0.00
13.7	D-DT-1745	3 Phase - Delta 2 x 2,5m Wood Crossarm / 2 x 2,5m Wood Crossarm	Each	R 470.78	R 0.00	R 0.00
13.8	D-DT-1745	3 Phase - Delta 1 x 2,5m Wood Crossarm / 1700 Steel Crossarm	Each	R 470.78	R 0.00	R 0.00
13.9	D-DT-1745	3 Phase - Delta 2,5m Wood Crossarm 2,5m Wood Crossarm	Each	R 470.78	R 0.00	R 0.00
13.10	D-DT-1784	3 Phase - Trips	Each	R 847.40	R 0.00	R 0.00
13.11	D-DT-1788	MV Heavy Conductor - 22kV 3 Phase - Vertical 800mm Spacing	Each	R 470.78	R 0.00	R 0.00
13.12	D-DT-1791	MV Heavy Conductor - 22kV 3 Phase - Vertical 800mm Spacing (Double Wood Poles)	Each	R 862.50	R 0.00	R 0.00
13.13	D-DT-1792	MV Heavy Conductor - 22kV 3 Phase - Vertical 800mm Spacing (Double Wood Poles)	Each	R 862.50	R 0.00	R 0.00
13.14	D-DT-1873	3 Phase - H-Pole / 2 x 4.5m Wooden Crossarm	Each	R 819.16	R 0.00	R 0.00
13.15	1715	3 Phase - Vertical (600mm Spacing) Strain - Large(30-90°) Deviation Rx	Each	R 237.27	R 0.00	R 0.00
13.16	1745	3 Phase - Delta /2 x 2,5m wood x-arms/1700 WOOD x-arm - strain - (60° - 90°) deviation-RX	Each	R 470.78	R 0.00	R 0.00
13.17	1745	3 Phase - Delta /2 x 2,5m wood x-arms/ 3x2.5 wood x-arms - strain - (60° - 90°) deviation	Each	R 470.78	R 0.00	R 0.00
13.18	1745	3 Phase - Delta /2 x 2,5m wood x-arms/ 3x2.5 wood x-arms - strain - (60° - 90°) deviation-RX	Each	R 470.78	R 0.00	R 0.00
13.19	1784	3 Phase – Trips – Strain - Large(1°-90°) Deviation (Front view) -RX	Each	R 847.40	R 0.00	R 0.00
13.20	1873	3 Phase H-pole /2X4.5m Wooden X-arm Strain Large (60-90°) Deviation Rx	Each	R 819.16	R 0.00	R 0.00
14		Strainer - Terminal				
14.1	D-DT-1706	3 Phase - Vertical (450mm Spacing)	Each	R 237.27	R 0.00	R 0.00
14.2	D-DT-1716	3 Phase - Vertical (600mm Spacing)	Each	R 207.61	R 0.00	R 0.00
14.3	D-DT-1736	3 Phase - Delta / 1,3m Steel Crossarm	Each	R 237.27	R 0.00	R 0.00
14.4	D-DT-1746	3 Phase - Delta / 2,5M Wood Crossarm	Each	R 266.93	R 0.00	R 0.00
14.5	D-DT-1749	3 Phase - Delta / 2 x 2,5m Wood Crossarm	Each	R 470.78	R 0.00	R 0.00
14.6	D-DT-1756	3 Phase - Delta / 4,5M Wood Crossarm	Each	R 470.78	R 0.00	R 0.00
14.7	D-DT-1766	3 Phase - H-pole / 3,5m Wood Crossarm	Each	R 470.78	R 0.00	R 0.00
14.8	D-DT-1769	3 Phase - H-pole / 2 x 3,5m Wood Crossarm	Each	R 819.16	R 0.00	R 0.00
14.9	D-DT-1776	3 Phase - H-pole / 4,5m Wood Crossarm	Each	R 376.62	R 0.00	R 0.00
14.10	D-DT-1779	3 Phase - H-pole / 2 x 4,5m Wood Crossarm	Each	R 819.16	R 0.00	R 0.00
14.11	D-DT-1789	MV Heavy Conductor - 22kV 3 Phase - Vertical 800mm Spacing	Each	R 470.78	R 0.00	R 0.00
14.12	D-DT-1796	MV Heavy Conductor - 22kV H-Pole Braced	Each	R 470.78	R 0.00	R 0.00
14.13	1746	3 Phase - Delta / 2,5m Wood X-arm - Strain - Terminal -RX	Each	R 277.41	R 0.00	R 0.00
14.14	1749	3 Phase - Delta / 2 x 2,5m Wood X-arm - Strain - Terminal -RX	Each	R 489.26	R 0.00	R 0.00
14.15	1756	3 Phase - Delta / 4,5m Wood X-arm - Strain - Terminal -RX	Each	R 489.26	R 0.00	R 0.00
14.16	1766	3 Phase - H-Pole / 3,5m Wood X-arm - Strain - Terminal -RX	Each	R 489.26	R 0.00	R 0.00
14.17	1769	3 Phase - H-Pole / 2 x 3,5m Wood X-arm - Strain - Terminal -RX	Each	R 851.31	R 0.00	R 0.00
14.18	1776	3 Phase - H-Pole / 4,5m Wood X-arm - Strain - Terminal -RX	Each	R 391.41	R 0.00	R 0.00
14.19	1779	3 Phase - H-Pole / 2 x 4,5m Wood X-arm - Strain - Terminal-RX	Each	R 851.31	R 0.00	R 0.00
14.20	1789	3 Phase - Vertical (800mm spacing) Strain-Terminal (10kN Wood Poles) Rx	Each	R 489.26	R 0.00	R 0.00
14.21	1716	3 Phase - Vertical (600mm Spacing) Strain - Terminal Rx	Each	R 215.76	R 0.00	R 0.00
14.22	1796	Heavy Conductor H-Pole Braced Terminal structure-RX	Each	R 489.26	R 0.00	R 0.00
14.23	1793	Heavy Conductor H-Pole Suspension Structure-RX	Each	R 489.26	R 0.00	R 0.00
14.24	1793	Heavy Conductor H-Pole Suspension Structure- With Spark Gap Device	Each	R 518.61	R 0.00	R 0.00
14.25	1793	Heavy Conductor H-Pole Suspension Structure- With Spark Gap Device-RX	Each	R 518.61	R 0.00	R 0.00
15		Take-Off				
15.1	D-DT-1800	3 Phase Take-Off - Vertical (450mm Spacing)	Each	R 207.61	R 0.00	R 0.00
15.2	D-DT-1801	3 Phase Take-Off - Vertical (600mm Spacing)	Each	R 207.61	R 0.00	R 0.00
15.3	D-DT-1803	3 Phase Take-Off - Delta / 1,3m Steel Crossarm	Each	R 207.61	R 0.00	R 0.00
15.4	D-DT-1804	3 Phase Take-Of - 2,5M Wooden Crossarm	Each	R 207.61	R 0.00	R 0.00
15.5	D-DT-1805	3 Phase Take-Of - 2 x 2,5M Wooden Crossarm	Each	R 376.62	R 0.00	R 0.00
15.6	D-DT-1806	3 Phase Take-Of - H-Pole 3,5M Wooden Crossarm	Each	R 329.55	R 0.00	R 0.00
15.7	D-DT-1807	3 Phase Take-Of - H-Pole 2 x 3,5M Wooden Crossarm	Each	R 376.62	R 0.00	R 0.00
15.8	D-DT-1808	3 Phase Take-Off - 1.7m Steel Crossarm (Fox)	Each	R 164.77	R 0.00	R 0.00
15.9	D-DT-1809	3 Phase Take-Off - 1.7m Steel Crossarm (Hare)	Each	R 164.77	R 0.00	R 0.00
15.10	1801	3 Phase Take-off – Vertical 600mm Spacing Rx	Each	R 207.61	R 0.00	R 0.00
15.11	1804	3 Phase Take-off - 2,5m Wooden X-arm-RX	Each	R 207.61	R 0.00	R 0.00
15.12	1805	3 Phase Take-off - 2 x 2,5m Wooden X-arm-RX	Each	R 376.62	R 0.00	R 0.00
15.13	1806	3 Phase Take-off - H-Pole (3,5m Wooden X-arm)-RX	Each	R 329.55	R 0.00	R 0.00
15.14	1807	3 Phase Take-off - H-Pole (2 x 3,5m Wooden X-arm) -RX	Each	R 376.62	R 0.00	R 0.00
15.15	(OU Specific Drawing No)	Erect goal posts, supply and erect temporary structures and traffic signs and regulate traffic during construction for all road crossings/railways crossings . (This includes any loss of production during road crossings and ensuring that access is maintained to roads and properties as well as any fees by Prov. Traffic Dept)	Each	R 2 965.84	R 0.00	R 0.00
SUB-TOTAL E					R 0.00	R 0.00

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F		ASSEMBLE MV STAYS					
Supply and install stays, flying stays, struts Hip Stay including backfilling & compaction. Accessories include staywire, stayrods, stay plates, soil anchors, stay insulators, guy grips stay mounting brackets, mounting hardware, anti climbing devices, stayguards and danger labels. Poles and excavations are measured elsewhere. The installation and erection of strut poles are measured here. All hardware purchased will be paid elsewhere as cost plus fee.							
1.1	D-DT-0341	Make-Off Conventional Stay	Each		R 348.61	R 0.00	R 0.00
1.2	D-DT-0343	Make-Off Flying Stay	Each		R 416.12	R 0.00	R 0.00
1.3	D-DT-0342/0351	Make-Off Strut Pole	Each		R 308.96	R 0.00	R 0.00
1.4	D-DT-0344	Hip Stay	Each		R 545.47	R 0.00	R 0.00
1.5	0357 (Sh 1 of 3)	LV/MV-ROCK ANCHOR INSTALLATION (EXPANDABLE SHELL & RESIN TYPE)	Each		R 245.75	R 0.00	R 0.00
1.6	0357 (Sh 2 of 3)	LV/MV-ROCK ANCHOR INSTALLATION (2 EYED ROD AND PIN TYPE)	Each		R 196.60	R 0.00	R 0.00
1.7	0357 (Sh 3 of 3)	MV- SOFT ROCK ANCHOR INSTALLATION	Each		R 196.60	R 0.00	R 0.00
SUB-TOTAL F						R 0.00	R 0.00
G		ASSEMBLE SINGLE PHASE LV STRUCTURES					
Supply and erect LV support structures as per Eskom DDT 1100(only use insulated neutral ABC). Auxiliary equipment such as strain clamps, suspension clamps, cable ties, IPC's , end caps, LV shackle insulators, binding wires, D brackets, dead end preforms, threaded rods, pigtail bolts, eyenuts, terminations to be included. Pole, stay and strut material and excavations are measured elsewhere. All hardware purchased will be paid elsewhere as cost plus fee.A436							
1		A. List of single-phase ABC wood pole					
1.1	1153	LV 1 phase insulated/bare neutral ABC Suspension Assembly (0°- 30°)	Each		R 73.39	R 0.00	R 0.00
1.2	1154	LV 1 phase insulated/bare neutral ABC Terminal Assembly	Each		R 97.85	R 0.00	R 0.00
1.3	1155	LV 1 phase insulated/bare neutral ABC Strain Assembly (0°- 60°)	Each		R 97.85	R 0.00	R 0.00
1.4	1156	LV 1 phase insulated/bare neutral LV 2 phase bare neutral (60°- 90°)	Each		R 97.85	R 0.00	R 0.00
1.5	1157	LV 1 phase insulated/bare neutral ABC T from Intermediate	Each		R 97.85	R 0.00	R 0.00
1.6	1158	LV 1 phase insulated/bare neutral ABC Cross Intermediate Suspension Assembly	Each		R 122.31	R 0.00	R 0.00
1.7	1159	LV 1 phase insulated/bare neutral ABC T from Strain	Each		R 146.78	R 0.00	R 0.00
1.8	1160	LV 1 phase insulated/bare neutral ABC X Intermediate-Strain Assembly	Each		R 171.24	R 0.00	R 0.00
1.9	1161	LV - 1 PHASE BARE NEUTRAL ABCINLINE FUSE UNIT ASSEMBLY WOOD POLE	Each			R 0.00	R 0.00
		ASSEMBLE DUAL PHASE LV STRUCTURES					
Supply and erect LV support structures as per Eskom DDT 1100(only use insulated neutral ABC). Auxiliary equipment such as strain clamps, suspension clamps, cable ties, IPC's , end caps, LV shackle insulators, binding wires, D brackets, dead end preforms, threaded rods, pigtail bolts, eyenuts, terminations to be included. Pole, stay and strut material and excavations are measured elsewhere. All hardware purchased will be paid elsewhere as cost plus fee.A436							
2		B. List of Dual - phase ABC wood pole					
2.1	1145	LV 2 phase insulated/bare neutral ABC Suspension Assembly (0°- 30°)	Each		R 73.39	R 0.00	R 0.00
2.2	1146	LV 2 phase insulated/bare neutral LABC Terminal Assembly	Each		R 97.85	R 0.00	R 0.00
2.3	1147	LV 2 phase insulated/bare neutral ABC Strain Assembly (0° - 60°)	Each		R 97.85	R 0.00	R 0.00
2.4	1148	LV 2 phase insulated/bare neutral ABC Strain Assembly (60° - 90°)	Each		R 97.85	R 0.00	R 0.00
2.5	1149	LV 2 phase insulated/bare neutral ABC T from Intermediate	Each		R 97.85	R 0.00	R 0.00
2.6	1150	LV 2 phase insulated/bare neutral ABC Intermediate Suspension Assembly	Each		R 122.31	R 0.00	R 0.00
2.7	1151	LV 2 phase insulated/bare neutral ABC T from Strain	Each		R 146.78	R 0.00	R 0.00
2.8	1152	LV 2 phase insulated/bare neutral ABC X Intermediate-Strain Assembly	Each		R 171.24	R 0.00	R 0.00
		ASSEMBLE 3 PHASE LV STRUCTURES					
Supply and erect LV support structures as per Eskom DDT 1100(only use insulated neutral ABC). Auxiliary equipment such as strain clamps, suspension clamps, cable ties, IPC's , end caps, LV shackle insulators, binding wires, D brackets, dead end preforms, threaded rods, pigtail bolts, eyenuts, terminations to be included. Pole, stay and strut material and excavations are measured elsewhere. All hardware purchased will be paid elsewhere as cost plus fee.A436							
3		C. List of 3-phase ABC wood pole					
3.1	D-DT-1100	LV - 3 Phase insulated/bare neutral ABC Suspension Assembly 0-30 Deg.	Each		R 91.80	R 0.00	R 0.00
3.2	D-DT-1121	LV - 3 Phase insulated/bare neutral ABC Strain Assembly 0-60 Deg.	Each		R 122.40	R 0.00	R 0.00
3.3	D-DT-1122	LV - 3 Phase insulated/bare neutral ABC Strain Assembly 60-90 Deg.	Each		R 122.40	R 0.00	R 0.00
3.4	D-DT-1120	LV - 3 Phase insulated/bare neutral ABC Terminal Assembly	Each		R 122.40	R 0.00	R 0.00
3.5	D-DT-1140	LV - 3 Phase insulated/bare neutral ABC T-Off Assembly from Intermediate	Each		R 122.40	R 0.00	R 0.00
3.6	D-DT-1141	LV - 3 Phase insulated/bare neutral ABC Cross Intermediate - Intermediate Assembly	Each		R 153.00	R 0.00	R 0.00
3.7	D-DT-1142	LV - 3 Phase insulated/bare neutral ABC T-Off Assembly From Strain	Each		R 183.60	R 0.00	R 0.00
3.8	D-DT-1143	LV - 3 Phase insulated/bare neutral ABC Cross Intermediate - Strain Assembly	Each		R 214.20	R 0.00	R 0.00

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ASSEMBLE 3 PHASE LV STRUCTURES							
Supply and erect LV support structures as per Eskom DDT 1100. Auxiliary equipment such as strain clamps, suspension clamps, cable ties, IPC's, end caps, LV shackle insulators, binding wires, D brackets, dead end preforms, threaded rods, pigtail bolts, eyenuts, terminations to be included. Pole, stay and strut material and excavations are measured elsewhere. All hardware purchased will be paid elsewhere as cost plus fee.A436							
4		D. List of three-phase Bare Wire wood pole					
4.1	0920	LV 3phase Bare Wire Suspension Assembly 0 Deg	Each	R 124.18	R 0.00	R 0.00	
4.2	0921	LV 3phase Bare Wire in-line Strain Assembly	Each	R 124.18	R 0.00	R 0.00	
4.3	0922	LV 3 phase Bare Wire 1-100 Deg Angle Assembly	Each	R 124.18	R 0.00	R 0.00	
4.4	0924	LV 3 phase Bare Wire Terminal Assembly	Each	R 124.18	R 0.00	R 0.00	
4.5	0925	LV 3 phase Bare Wire T-Off Assembly from Intermediate	Each	R 124.18	R 0.00	R 0.00	
4.6	0926	LV 3 phase Bare Wire Intermediate Right Angle Crossing	Each	R 198.68	R 0.00	R 0.00	
4.7	0927	LV 3 phase Bare Wire T-Off Assembly from Strain	Each	R 124.18	R 0.00	R 0.00	
4.8	0928	LV 3 phase Bare Wire Cable Connection	Each	R 124.18	R 0.00	R 0.00	
4.9	0929	LV 3 phase Bare Wire Service Distribution Box Connection	Each	R 99.34	R 0.00	R 0.00	
4.10	0932	LV 3 phase Bare Wire Open Wire/ABC Connection	Each	R 124.18	R 0.00	R 0.00	
4.11	0934	LV 3 phase Bare Wire Intermediate Strain Crossing	Each	R 173.85	R 0.00	R 0.00	
4.12	0935	LV 3 phase Bare Wire Strain-Strain Crossing	Each	R 198.68	R 0.00	R 0.00	
ASSEMBLE DUAL - PHASE LV STRUCTURES							
Supply and erect LV support structures as per Eskom DDT 1100. Auxiliary equipment such as strain clamps, suspension clamps, cable ties, IPC's, end caps, LV shackle insulators, binding wires, D brackets, dead end preforms, threaded rods, pigtail bolts, eyenuts, terminations to be included. Pole, stay and strut material and excavations are measured elsewhere. All hardware purchased will be paid elsewhere as cost plus fee.A436							
5		E. List of Dual - phase Bare Wire Wood pole					
5.1	0940	LV 2phase Bare Wire Suspension Assembly 0 Deg	Each	R 99.34	R 0.00	R 0.00	
5.2	0941	LV 2phase Bare Wire in-line Strain Assembly	Each	R 99.34	R 0.00	R 0.00	
5.3	0942	LV 2 phase Bare Wire 1-100 Deg Angle Assembly	Each	R 99.34	R 0.00	R 0.00	
5.4	0944	LV 2 phase Bare Wire Terminal Assembly	Each	R 99.34	R 0.00	R 0.00	
5.5	0945	LV 2phase Bare Wire T-Off Assembly from Intermediate	Each	R 99.34	R 0.00	R 0.00	
5.6	0946	LV 2phase Bare Wire Intermediate Right Angle Crossing	Each	R 198.68	R 0.00	R 0.00	
5.7	0947	LV 2 phase Bare Wire T-Off Assembly from Strain	Each	R 99.34	R 0.00	R 0.00	
5.8	0948	LV 2 phase Bare Wire Cable Connection	Each	R 99.34	R 0.00	R 0.00	
5.9	0949	LV 2 phase Bare Wire Service Distribution Box Connection	Each	R 74.51	R 0.00	R 0.00	
5.10	0950	LV 2 phase Bare Wire Open Wire/ABC Connection	Each	R 99.34	R 0.00	R 0.00	
5.11	0951	LV 2 phase Bare Wire Intermediate Strain Crossing	Each	R 149.01	R 0.00	R 0.00	
5.12	0952	LV 2 phase Bare Wire Strain-Strain Crossing	Each	R 173.85	R 0.00	R 0.00	
ASSEMBLE SINGLE - PHASE LV STRUCTURES							
Supply and erect LV support structures as per Eskom DDT 1100. Auxiliary equipment such as strain clamps, suspension clamps, cable ties, IPC's, end caps, LV shackle insulators, binding wires, D brackets, dead end preforms, threaded rods, pigtail bolts, eyenuts, terminations to be included. Pole, stay and strut material and excavations are measured elsewhere. All hardware purchased will be paid elsewhere as cost plus fee.A436							
6		F. List of Single-phase Bare Wire wood pole					
6.1	0960	LV 1phase Bare Wire Suspension Assembly 0 Deg	Each	R 49.67	R 0.00	R 0.00	
6.2	0961	LV 1phase Bare Wire in-line Strain Assembly	Each	R 74.51	R 0.00	R 0.00	
6.3	0962	LV 1 phase Bare Wire 1-100 Deg Angle Assembly	Each	R 74.51	R 0.00	R 0.00	
6.4	0964	LV 1 phase Bare Wire Terminal Assembly	Each	R 74.51	R 0.00	R 0.00	
6.5	0965	LV 1phase Bare Wire T-Off Assembly from Intermediate	Each	R 74.51	R 0.00	R 0.00	
6.6	0966	LV 1phase Bare Wire Intermediate Right Angle Crossing	Each	R 173.85	R 0.00	R 0.00	
6.7	0967	LV 1 phase Bare Wire T-Off Assembly from Strain	Each	R 74.51	R 0.00	R 0.00	
6.8	0968	LV 1 phase Bare Wire Cable Connection	Each	R 74.51	R 0.00	R 0.00	
6.9	0969	LV 1 phase Bare Wire Service Distribution Box Connection	Each	R 49.67	R 0.00	R 0.00	
6.10	0970	LV 1phase Bare Wire Open Wire/ABC Connection	Each	R 74.51	R 0.00	R 0.00	
6.11	0971	LV 1 phase Bare Wire Intermediate Strain Crossing	Each	R 149.01	R 0.00	R 0.00	
6.12	0972	LV 1 phase Bare Wire Strain-Strain Crossing	Each	R 149.01	R 0.00	R 0.00	
6.13	0980	LV Bare Wire - MV/LV Bare Wire Staying Technology	Each	R 49.67	R 0.00	R 0.00	
6.14	0981	LV Bare Wire - LV Metering 3Phase, 2Phase and 1Phase Connections	Each	R 49.67	R 0.00	R 0.00	
6.15	0982	LV Bare Wire - Eye Nut Assembly	Each	R 24.84	R 0.00	R 0.00	
6.16	0983	LV Bare Wire - Binding Techniques	Each	R 24.84	R 0.00	R 0.00	
SUB-TOTAL G					R 0.00	R 0.00	
H		ASSEMBLE LV STAYS					
Supply and install stays, flying stays, struts Short Stay including backfilling & compaction. Accessories include staywire, stayrods, stay plates, soil anchors, stay insulators, guy grips stay mounting brackets, mounting hardware, anti climbing devices, stayguards and danger labels. Poles and excavations are measured elsewhere. The installation and erection of strut poles are measured here. All hardware purchased will be paid elsewhere as cost plus fee.							
1.1	D-DT-0341	Make-Off Conventional Stay	Each	R 331.17	R 0.00	R 0.00	
1.2	D-DT-0343	Make-Off Flying Stay	Each	R 395.33	R 0.00	R 0.00	
1.3	D-DT-0342/0351	Make-Off Strut Pole	Each	R 293.52	R 0.00	R 0.00	
1.4	D-DT-0344	Make-Off Short Strut Pole	Each	R 293.52	R 0.00	R 0.00	
SUB-TOTAL H					R 0.00	R 0.00	
I		POLE TOP BOX INSTALLATION					
Install on a wooden and/or concrete pole a pole mounted distribution box as specified complete with pole mounting brackets (including sealing), cable ties, PG clamps, miniature circuit breaker(s), neutral, phase and earth bars, insulated copper tails for connecting to LV ABC, insulation piercing connectors and factory installed cable openings. Included shall be the stainless steel strapping, buckles and terminations of the tails onto the LV ABC. Eskom D-DT standards as amended will apply.							
1.1	D-DT-3236	2 Way Fibre Glass Box for Split Metering	Each	R 173.34	R 0.00	R 0.00	
1.2	D-DT-3236	4 Way Fibre Glass Box for Split Metering	Each	R 173.34	R 0.00	R 0.00	
1.3	D-DT-3055	8 Way Fibre Glass Box for Split Metering	Each	R 173.34	R 0.00	R 0.00	
1.4	D-DT-3236	2 Way Steel Box for Split Metering	Each	R 260.00	R 0.00	R 0.00	
1.5	D-DT-3236	4 Way Steel Box for Split Metering	Each	R 260.00	R 0.00	R 0.00	
1.6	D-DT-3236	6 Way Steel Box for Split Metering	Each	R 260.00	R 0.00	R 0.00	
1.7	D-DT-3236	8 Way Steel Box for Split Metering	Each	R 260.00	R 0.00	R 0.00	
1.8	3055	BOX,POLE TOP SPLIT METER 2-WAY 50A D3055	Each	R 260.00	R 0.00	R 0.00	
1.9	3055	BOX,POLE TOP SPLIT METER 4-WAY 50A D3055	Each	R 260.00	R 0.00	R 0.00	
1.10	3055	BOX,POLE TOP SPLIT METER 2-WAY 120A D3055	Each	R 260.00	R 0.00	R 0.00	
1.11	3055	BOX,POLE TOP SPLIT METER 8-WAY 50A D3055	Each	R 260.00	R 0.00	R 0.00	
SUB-TOTAL I					R 0.00	R 0.00	

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J		CONDUCTOR STRINGING (TENSION, REGULATE & BIND IN)				
Install Eskom issued marked conductor. Material quantity to allow for 5% sag in addition to actual conductor length quantity. Installation includes handling, stringing and final sagging. This will be for greased ungreased conductor						
1.1		Fox Conductor 1-Phase	m	R 3.76	R 0.00	R 0.00
1.2		Fox Full Tension Joint*	Each	R 92.20	R 0.00	R 0.00
1.3		Mink Conductor 1-Phase	m	R 3.76	R 0.00	R 0.00
1.4		Mink Full Tension Joint*	Each	R 92.20	R 0.00	R 0.00
1.5		Hare Conductor 1-Phase	m	R 3.76	R 0.00	R 0.00
1.6		Hare Full Tension Joint*	Each	R 92.20	R 0.00	R 0.00
1.7		Chickadee Conductor 1-Phase	m	R 15.80	R 0.00	R 0.00
1.8		Chickadee Full Tension Joint*	Each	R 173.82	R 0.00	R 0.00
1.9		Kingbird Conductor 1-Phase	m	R 15.80	R 0.00	R 0.00
1.10		Kingbird Full Tension Joint*	Each	R 173.82	R 0.00	R 0.00
1.11	3136	MV Bare AAAC Pine Greased	m	R 3.76	R 0.00	R 0.00
1.12		Pine Conductor Full Tension Joint	Each	R 92.20	R 0.00	R 0.00
1.13	3136	MV Bare AAAC Oak Greased	m	R 3.76	R 0.00	R 0.00
1.14		Oak Conductor Full Tension Joint	Each	R 92.20	R 0.00	R 0.00
1.15	3136	MV Bare AAAC 35mmsq Greased	m	R 3.76	R 0.00	R 0.00
1.16	0831	35mm sq. Full Tension Joint* 2 Core	Each	R 92.20	R 0.00	R 0.00
1.17	0831	35mm sq. Full Tension Joint* 3 Core	Each	R 138.80	R 0.00	R 0.00
1.18	0831	35mm sq. Full Tension Joint* 4 Core	Each	R 368.79	R 0.00	R 0.00
1.19		35 mm sq. ABC 3-phase	m	R 3.76	R 0.00	R 0.00
1.20	0800 series	70mm sq. Full Tension Joint* 4 Core	Each	R 92.20	R 0.00	R 0.00
1.21		70 mm sq. ABC 3-phase	m	R 3.76	R 0.00	R 0.00
1.22	3141	COND,ABC 2C XLPE 35SQ INS NEUT	m	R 2.30	R 0.00	R 0.00
1.23	3141	COND,ABC 3C XLPE 35SQ INS NEUT	m	R 2.45	R 0.00	R 0.00
1.24	3141	COND,ABC 4C XLPE 35SQ INS NEUT	m	R 3.26	R 0.00	R 0.00
1.25	3141	COND,ABC 3C XLPE 70SQ INS NEUT	m	R 2.45	R 0.00	R 0.00
1.26	3141	COND,ABC 4C XLPE 70SQ INS NEUT	m	R 3.26	R 0.00	R 0.00
SUB-TOTAL J					R 0.00	R 0.00
K		EQUIPMENT INSTALLATION				
Install Transformer/Recloser/Voltage Regulator/MV Metering Units as per relevant Eskom DDT 1800 Series Assembly Drawing and OU Specific SI Engineering Instructions. All Auxiliary Equipment to include Station and Distribution MV, LV Surge Arrestors, Control Boxes, Metering Kiosks, Jumper Terminations, Anti Climbing Devices , LDPE Pipe Covered Jumpers as per 02TB-023 and Danger Labels, Channel Irons, Cradles, Standoff Insulators, Conductor Busbars and suitable Equipment Labels & X Arms. Pole Planting, Stays, Struts, Isolators Earthing Material and Excavations are elsewhere measured. Transformers/Reclosers/Voltage Regulators and MV Metering Units will be Eskom Free Issue Material. Main Line Structures and Auxiliary Equipment are elsewhere measured. All material purchased will be paid elsewhere as cost plus fee.						
1		Transformers				
1.1	D-DT-1862	Install 5-Pole Double Platform Mounted Transformer Structure	Each	R 2 695.31	R 0.00	R 0.00
1.2	D-DT-1863	Install 2-Pole Platform Mounted Transformer Structure	Each	R 2 432.29	R 0.00	R 0.00
1.3	D-DT-1864	Install 5-Pole Double Platform Mounted Transformer Structure (Out of Line)	Each	R 3 678.75	R 0.00	R 0.00
1.4	D-DT-1865	Install 2-Pole Platform Mounted Transformer Structure (Out of Line)	Each	R 2 432.29	R 0.00	R 0.00
1.5	D-DT-1865B	Transformer - Out- of- Line 100kVA to 200KVA	Each	R 2 432.29	R 0.00	R 0.00
1.6	D-DT-1866	Install Single Pole Mounted Out of Line Transformer Structure (Out of Line)	Each	R 2 138.86	R 0.00	R 0.00
1.7	D-DT-1866B	Transformer - Out- of- Line 16kVA to 100kVA/64kVA	Each	R 2 138.86	R 0.00	R 0.00
1.8	D-DT-3021	Relocate - 300-500kVA x 3-Phase	Each	R 8 208.93	R 0.00	R 0.00
1.9	D-DT-3021	Install Transformer - 300-500kVA x 3-Phase	Each	R 6 616.12	R 0.00	R 0.00
1.10	D-DT-3021	Relocate - 200kVA x 3-Phase	Each	R 3 987.89	R 0.00	R 0.00
1.11	D-DT-3021	Install Transformer - 200kVA x 3-Phase	Each	R 2 432.29	R 0.00	R 0.00
1.12	D-DT-3021	Relocate - 100kVA x 3-Phase	Each	R 3 987.89	R 0.00	R 0.00
1.13	D-DT-3021	Install Transformer - 100kVA x 3-Phase	Each	R 2 432.29	R 0.00	R 0.00
1.16	D-DT-3021	Relocate - 50kVA x 3-Phase	Each	R 2 463.41	R 0.00	R 0.00
1.17	D-DT-3021	Install Transformer - 50kVA x 3-Phase	Each	R 2 138.86	R 0.00	R 0.00
1.18	D-DT-3021	Relocate - 25kVA x 3-Phase	Each	R 2 463.41	R 0.00	R 0.00
1.19	D-DT-3021	Install Transformer - 25kVA x 3-Phase	Each	R 2 138.86	R 0.00	R 0.00
1.20	D-DT-3021	Relocate Transformer - 16kVA x 1-Phase	Each	R 2 463.41	R 0.00	R 0.00
1.22	D-DT-3021	Install Transformer - 16kVA x 1-Phase	Each	R 2 138.86	R 0.00	R 0.00
1.23		Install Labels (Chromadek)	Each	R 462.33	R 0.00	R 0.00
1.24	1860	Transformer - 5-100kVA Single Pole Mounted	Each	R 1 647.22	R 0.00	R 0.00
1.25	1861	TRANSFORMER - 100-200kVA / 2-POLE PLATFORM MOUNTED (H-POLE) GENERAL ARRANGEMENT	Each	R 1 709.61	R 0.00	R 0.00
2		Transformer MV Protection				
2.1	D-DT-1849	Equipment Links Cut-Outs Or Disconnectors 2.5m Wood Crossarm / Single Pole	Each	R 425.63	R 0.00	R 0.00
2.2	D-DT-1850	Section / Equipment Links Or Disconnectors 1.3m Steel Crossarm / Single Pole	Each	R 425.63	R 0.00	R 0.00
2.3	D-DT-1869	Section / Equipment Links Cut/Out Or Disconnectors 1.7m Steel Crossarm/Single Pole	Each	R 255.38	R 0.00	R 0.00
2.4	D-DT-0261	Install Surge Arresters (3-phase)	Each	R 344.71	R 0.00	R 0.00
2.5		Install Labels (Chromadek)	Each	R 462.33	R 0.00	R 0.00

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3		Transformer LV Protection				
3.1	D-DT-0309	80A Morsdorf Type Fuses - 3-Phase	Set	R 188.52	R 0.00	R 0.00
3.2	D-DT-0309	125A Morsdorf Type Fuses - 3-Phase	Set	R 377.07	R 0.00	R 0.00
3.3	D-DT-0309	160A Morsdorf Type Fuses - 3-Phase	Set	R 377.07	R 0.00	R 0.00
3.4	D-DT-3034	150A MCCB - 3-Phase(Circuit breaker)	Each	R 377.07	R 0.00	R 0.00
3.5	D-DT-3034	300A MCCB - 3-Phase(Circuit breaker)	Each	R 412.95	R 0.00	R 0.00
3.6	0309	Three phase trf and LV fuse holder connection - ABC conductor- 40A NH00	Set	R 111.06	R 0.00	R 0.00
3.7	0309	Three phase trf and LV fuse holder connection - ABC conductor- 63A NH00	Set	R 111.06	R 0.00	R 0.00
3.8	0309	Dual phase trf and LV fuse holder connection - ABC conductor- 40A NH00	Set	R 111.06	R 0.00	R 0.00
3.9	0309	Dual phase trf and LV fuse holder connection - ABC conductor- 63A NH00	Set	R 111.06	R 0.00	R 0.00
3.10	0309	Dual phase trf and LV fuse holder connection - ABC conductor- 80A NH00	Set	R 188.52	R 0.00	R 0.00
3.11	0309	Dual phase trf and LV fuse holder connection - ABC conductor- 125A NH00	Set	R 377.07	R 0.00	R 0.00
3.12	0309	Dual phase trf and LV fuse holder connection - ABC conductor- 160A NH00	Set	R 377.07	R 0.00	R 0.00
3.13	0309	Single phase trf and LV fuse holder connection - ABC conductor- 40A NH00	Set	R 111.06	R 0.00	R 0.00
3.14	0309	Single phase trf and LV fuse holder connection - ABC conductor- 63A NH00	Set	R 111.06	R 0.00	R 0.00
3.15	0309	Single phase trf and LV fuse holder connection - ABC conductor- 80A NH00	Set	R 188.52	R 0.00	R 0.00
3.16	0309	Single phase trf and LV fuse holder connection - ABC conductor- 125A NH00	Set	R 377.07	R 0.00	R 0.00
3.17	0309	Single phase trf and LV fuse holder connection - ABC conductor- 160A NH00	Set	R 377.07	R 0.00	R 0.00
3.18		Install Data Concentrator (Complete)	Each	R 120.00	R 0.00	R 0.00
3.19		Install Labels (Chromadek)	Each	R 462.33	R 0.00	R 0.00
4		Pole Mounted Sectionalizer				
4.1	D-DT-1821	Install Sectionalizer Structure	Each	R 955.69	R 0.00	R 0.00
4.2	D-DT-1828	Install Sectionalizer - Out-Of-Line Structure	Each	R 1 433.53	R 0.00	R 0.00
4.3	D-DT-1821	Install Sectionalizer	Each	R 1 433.53	R 0.00	R 0.00
4.4	D-DT-1848	Section Links Cut/Outs Or Disconnectors 2.5m Wood Crossarm / Single Pole	Each	R 255.38	R 0.00	R 0.00
4.5	D-DT-1852	Equipment Links - Cut-Outs Or Disconnectors - 3.5/4.5m Wood Crossarm / H-Pole	Each	R 425.63	R 0.00	R 0.00
4.6	D-DT-1853	Equipment Isolating (In-Out) Links - Cut-Outs Or Disconnectors - 2 x 2.5m Wood Crossarm / H-Pole	Each	R 766.13	R 0.00	R 0.00
4.7	D-DT-1854	Equipment Isolating (In-Out) Links - Cut-Outs Or Disconnectors - 4.5m Wood Crossarm / Out-Of-Line	Each	R 766.13	R 0.00	R 0.00
4.8	D-DT-1857	3 Phase Switch Disconnecter Ganged, Link Stick Operated Horizontal Assembly H-Pole 1800 And 2200 Centres	Each	R 510.75	R 0.00	R 0.00
4.9	D-DT-1858	3 Phase Switch Disconnecter Ganged, Link Stick Operated Assembly Single Pole Mounted	Each	R 510.75	R 0.00	R 0.00
4.10	D-DT-1875	Equipment Isolating (In-Out) Links Cut/Outs Or Disconnectors 2x2.4m Steel Crossarm / H-Pole	Each	R 766.13	R 0.00	R 0.00
4.11	D-DT-0261	Install Surge Arresters	Each	R 344.71	R 0.00	R 0.00
4.12		Install Labels (Chromadek)	Each	R 462.33	R 0.00	R 0.00
5		Pole Mounted Recloser				
5.1	D-DT-1825	Install Recloser Structure	Each	R 1 464.76	R 0.00	R 0.00
5.2	D-DT-1829	Install Recloser - Out-Of-Line Structure	Each	R 1 674.00	R 0.00	R 0.00
5.3	D-DT-0272	Install Recloser On Existing Structure	Each	R 1 674.00	R 0.00	R 0.00
5.4	D-DT-1848	Section Links Cut/Outs Or Disconnectors 2.5m Wood Crossarm / Single Pole	Each	R 255.38	R 0.00	R 0.00
5.5	D-DT-1852	Equipment Links - Cut-Outs Or Disconnectors - 3.5/4.5m Wood Crossarm / H-Pole	Each	R 425.63	R 0.00	R 0.00
5.6	D-DT-1853	Equipment Isolating (In-Out) Links - Cut-Outs Or Disconnectors - 2 x 2.5m Wood Crossarm / H-Pole	Each	R 766.13	R 0.00	R 0.00
5.7	D-DT-1854	Equipment Isolating (In-Out) Links - Cut-Outs Or Disconnectors - 4.5m Wood Crossarm / Out-Of-Line	Each	R 766.13	R 0.00	R 0.00
5.8	D-DT-1857	3 Phase Switch Disconnecter Ganged, Link Stick Operated Horizontal Assembly H-Pole 1800 And 2200 Centres	Each	R 510.75	R 0.00	R 0.00
5.9	D-DT-1858	3 Phase Switch Disconnecter Ganged, Link Stick Operated Assembly Single Pole Mounted	Each	R 510.75	R 0.00	R 0.00
5.10	D-DT-1875	Equipment Isolating (In-Out) Links Cut/Outs Or Disconnectors 2x2.4m Steel Crossarm / H-Pole	Each	R 766.13	R 0.00	R 0.00
5.11	D-DT-0270	Install Auxiliary Transformer	Each	R 2 138.86	R 0.00	R 0.00
5.12	D-DT-0261	Install Surge Arresters	Each	R 344.71	R 0.00	R 0.00
5.13		Install Labels (Chromadek)	Each	R 462.33	R 0.00	R 0.00
5.14	D-DT-1829B	Recloser structure – General arrangement (INCLUDING PMRTV) (sheet 1 of 2) (Bypass structure not included)	Each	R 1 950.04	R 0.00	R 0.00

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6		Voltage Regulator					
6.1	D-DT-1830	Install Voltage Regulator - 11/22kV 100/200A Open Delta Structure	Each		R 1 989.75	R 0.00	R 0.00
6.2	D-DT-1831	Install Voltage Regulator - 11/22kV 100/200A Closed Delta Structure	Each		R 1 989.75	R 0.00	R 0.00
6.3	D-DT-1833	Install Voltage Regulator - 11/22kV 100/200A Open Delta - Out-Of-Line Structure	Each		R 2 274.00	R 0.00	R 0.00
6.4	1833B	Regulator - 100 / 200A Open Delta – General Arrangement (sheet 1 of 3)	Each		R 2 648.98	R 0.00	R 0.00
6.5	D-DT-1834	Install Voltage Regulator - 11/22kV 100/200A Closed Delta - Out-Of-Line Structure	Each		R 2 274.00	R 0.00	R 0.00
6.6	1834B	Regulator - 100 / 200A Closed Delta - General Arrangement (Sheet 1 of 2)	Each		R 2 648.98	R 0.00	R 0.00
6.7	D-DT-3119	Install Voltage Regulator On Existing Structure	Each		R 2 648.98	R 0.00	R 0.00
6.8	D-DT-1848	Section Links Cut/Outs Or Disconnectors 2.5m Wood Crossarm / Single Pole	Each		R 255.38	R 0.00	R 0.00
6.9	D-DT-1851	Equipment Links - Cut-Outs Or Disconnectors - 2.5m Wood Crossarm / H-Pole	Each		R 255.38	R 0.00	R 0.00
6.10	D-DT-1852	Equipment Links - Cut-Outs Or Disconnectors - 3.5/4.5m Wood Crossarm / H-Pole	Each		R 425.63	R 0.00	R 0.00
6.11	D-DT-1854	Equipment Isolating (In-Out) Links - Cut-Outs Or Disconnectors - 4.5m Wood Crossarm / Out-Of-Line	Each		R 425.63	R 0.00	R 0.00
6.12	D-DT-1857	3 Phase Switch Disconnector Ganged, Link Stick Operated Horizontal Assembly H-Pole 1800 And 2200 Centres	Each		R 510.75	R 0.00	R 0.00
6.13	D-DT-1858	3 Phase Switch Disconnector Ganged, Link Stick Operated Assembly Single Pole Mounted	Each		R 510.75	R 0.00	R 0.00
6.14	D-DT-1874	Equipment Links Or Disconnectors 2.4m Steel Crossarm / H-Pole	Each		R 766.13	R 0.00	R 0.00
6.15	D-DT-0261	Install Surge Arresters	Each		R 344.71	R 0.00	R 0.00
6.16		Install Labels (Chromadek)	Each		R 462.33	R 0.00	R 0.00
7		Pole Mounted CT-VT Unit					
7.1	D-DT-1839	Install MV CT / VT Metering Bulk Tariff Out-Of-Line Structure	Each		R 1 674.00	R 0.00	R 0.00
7.2	D-DT-1840	Install MV CT / VT Metering Bulk Tariff In Line Structure	Each		R 1 674.00	R 0.00	R 0.00
7.3	D-DT-1841	Install CT/VT Metering Statistical Structure	Each		R 1 989.75	R 0.00	R 0.00
7.4	D-DT-1846	Install CT/VT Metering Statistical Out-Of-Line Structure	Each		R 1 989.75	R 0.00	R 0.00
7.5	D-DT-3118	Install CT/VT unit	Each		R 2 274.00	R 0.00	R 0.00
7.6	D-DT-1848	Section Links Cut/Outs Or Disconnectors 2.5m Wood Crossarm / Single Pole	Each		R 255.38	R 0.00	R 0.00
7.7	D-DT-1850	Section / Equipment Links Or Disconnectors 1.3m Steel Crossarm / Single Pole	Each		R 194.04	R 0.00	R 0.00
7.8	D-DT-1852	Equipment Links - Cut-Outs Or Disconnectors - 3.5/4.5m Wood Crossarm / H-Pole	Each		R 425.63	R 0.00	R 0.00
7.9	D-DT-1853	Equipment Isolating (In-Out) Links - Cut-Outs Or Disconnectors - 2 x 2.5m Wood Crossarm / H-Pole	Each		R 766.13	R 0.00	R 0.00
7.10	D-DT-1854	Equipment Isolating (In-Out) Links - Cut-Outs Or Disconnectors - 4.5m Wood Crossarm / Out-Of-Line	Each		R 425.63	R 0.00	R 0.00
7.11	D-DT-1857	3 Phase Switch Disconnector Ganged, Link Stick Operated Horizontal Assembly H-Pole 1800 And 2200 Centres	Each		R 510.75	R 0.00	R 0.00
7.12	D-DT-1858	3 Phase Switch Disconnector Ganged, Link Stick Operated Assembly Single Pole Mounted	Each		R 510.75	R 0.00	R 0.00
7.13	D-DT-1875	Equipment Isolating (In-Out) Links Cut/Outs Or Disconnectors 2x2.4m Steel Crossarm / H-Pole	Each		R 766.13	R 0.00	R 0.00
7.14	D-DT-3236	Install CT/VT Metering Kiosk	Each		R 144.82	R 0.00	R 0.00
7.15	D-DT-0261	Install Surge Arresters	Each		R 344.71	R 0.00	R 0.00
7.16		Install Labels (Chromadek)	Each		R 462.33	R 0.00	R 0.00
8		Pole Mounted Shunt Capacitor Banks					
8.1	D-DT-1832	Install Capacitor Structure	Each		R 2 274.00	R 0.00	R 0.00
8.2	D-DT-3218	Install Capacitor Bank	Each		R 2 274.00	R 0.00	R 0.00
8.3	D-DT-1849	Equipment Links Cut-Outs Or Disconnectors 2.5m Wood Crossarm / Single Pole	Each		R 425.63	R 0.00	R 0.00
8.4	D-DT-1850	Section / Equipment Links Or Disconnectors 1.3m Steel Crossarm / Single Pole	Each		R 425.63	R 0.00	R 0.00
8.5	D-DT-0261	Install Surge Arresters	Each		R 344.71	R 0.00	R 0.00
8.6		Install Labels (Chromadek)	Each		R 462.33	R 0.00	R 0.00
9		Line Arrester					
9.1		Install Equipment Links	Each		R 572.50	R 0.00	R 0.00
9.2	D-DT-1842	Line Arresters 1.3m Long Steel Crossarm Staggered Vertical Configuration	Each		R 344.71	R 0.00	R 0.00
9.3	D-DT-1843	Line Arresters 2.5m Long Wooden Crossarm Vertical Configuration	Each		R 344.71	R 0.00	R 0.00
9.4	D-DT-1844	Line Arresters H-Pole Configuration	Each		R 398.72	R 0.00	R 0.00
9.5	D-DT-1845	Line Arresters Delta Configuration	Each		R 344.71	R 0.00	R 0.00
9.6		Install Labels (Chromadek)	Each		R 462.33	R 0.00	R 0.00
10		3 Phase Sectional Links					
10.1	D-DT-1847	Section Links Cut/Outs Or Disconnectors 3.5/4.5m Wood Crossarm / H-Pole	Each		R 425.63	R 0.00	R 0.00
10.2	D-DT-1848	Section Links Cut/Outs Or Disconnectors 2.5m Wood Crossarm / Single Pole	Each		R 255.38	R 0.00	R 0.00
10.3	D-DT-1850	Section / Equipment Links Or Disconnectors 1.3m Steel Crossarm / Single Pole			R 255.38	R 0.00	R 0.00
10.4	D-DT-1857	3 Phase Switch Disconnector Ganged, Link Stick Operated Horizontal Assembly H-Pole 1800 And 2200 Centres	Each		R 510.75	R 0.00	R 0.00
10.5	D-DT-1858	3 Phase Switch Disconnector Ganged, Link Stick Operated Assembly Single Pole Mounted	Each		R 510.75	R 0.00	R 0.00
10.6	D-DT-1869	Section / Equipment Links Cut/Out Or Disconnectors 1.7m Steel Crossarm/Single Pole	Each		R 255.38	R 0.00	R 0.00
10.7		Install Labels (Chromadek)	Each		R 462.33	R 0.00	R 0.00

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11		Bird Flight Diverter				
11.1	D-DT-3029	Install Bird Flight Diverter	Each	R 7.00	R 0.00	R 0.00
12		Miniature Substation				
12.1		Prepare Site Including Excavation and Compaction for Pre-Cast Plinth	m ²	R 347.56	R 0.00	R 0.00
12.2	D-DT-0859	Install Pre-Cast Plinth	Each	R 4 672.47	R 0.00	R 0.00
12.3	D-DT-0859	Install Miniature Substation	Each	R 2 005.76	R 0.00	R 0.00
12.4	D-DT-3034	MCCB - 3-Phase	Each	R 412.95	R 0.00	R 0.00
12.5		Vermine Proofing	Each	R 463.67	R 0.00	R 0.00
12.6		Stencilling	Each	R 17.70	R 0.00	R 0.00
12.7		Install Labels (Chromadek and Aluminium)	SET	R 462.33	R 0.00	R 0.00
12.8	D-DT-3409	Install Vertical Fuse Pillar	Each	R 225.00	R 0.00	R 0.00
12.9	D-DT-3181	Install NH02 Fuse	Each	R 225.00	R 0.00	R 0.00
13		Ring Main Unit				
13.1		Prepare Site Including Excavation and Compaction for Pre-Cast Plinth	m ²	R 347.56	R 0.00	R 0.00
13.2	D-DT-0863	Install Pre-Cast Plinth	Each	R 2 359.72	R 0.00	R 0.00
13.3	D-DT-8060	Install Ring Main Unit	Each	R 1 415.83	R 0.00	R 0.00
13.4		Vermine Proofing	Each	R 463.67	R 0.00	R 0.00
13.5		Stencilling	p/letter	R 17.70	R 0.00	R 0.00
13.6		Install Labels (Chromadek)	Each	R 462.33	R 0.00	R 0.00
14		Ground Mounted CT-VT Unit				
14.1		Prepare Site Including Excavation and Compaction for Pre-Cast Plinth	m ²	R 347.56	R 0.00	R 0.00
14.2	D-DT-0865	Install Pre-Cast Plinth	Each	R 2 359.72	R 0.00	R 0.00
14.3	D-DT-0865	Install CT-VT Unit	Each	R 1 002.88	R 0.00	R 0.00
14.4		Vermine Proofing	Each	R 463.67	R 0.00	R 0.00
14.5		Stencilling	p/letter	R 17.70	R 0.00	R 0.00
14.6		Install Labels (Chromadek)	Each	R 462.33	R 0.00	R 0.00
15		Meter Kiosk				
15.1		Prepare Site Including Excavation and Compaction for Pre-Cast Plinth	m ²	R 347.56	R 0.00	R 0.00
15.2	D-DT-0865	Install Pre-Cast Plinth	Each	R 2 772.67	R 0.00	R 0.00
15.3	D-DT-0865	Install LPU Meter Kiosk	Each	R 144.82	R 0.00	R 0.00
15.4	D-DT-3236	4 Way High Risk Steel Kiosk	Each	R 711.33	R 0.00	R 0.00
15.5	D-DT-3236	6 Way High Risk Steel Kiosk	Each	R 711.33	R 0.00	R 0.00
15.6	D-DT-3236	8 Way High Risk Steel Kiosk	Each	R 711.33	R 0.00	R 0.00
15.7	D-DT-3236	12 Way High Risk Steel Kiosk	Each	R 711.33	R 0.00	R 0.00
15.8		Energy Management Units (Meter)	Each	R 405.16	R 0.00	R 0.00
15.9		Vermine Proofing	Each	R 463.67	R 0.00	R 0.00
15.10		Stencilling	p/letter	R 17.70	R 0.00	R 0.00
15.11		Install Labels (Chromadek)	Each	R 462.33	R 0.00	R 0.00
SUB-TOTAL K					R 0.00	R 0.00
L		EARTHING INSTALLATION				
MV & LV Earthing Trenching shall include Excavation, Backfilling, Compaction and Installation of electrode and conductor as per the Eskom Standard for Earthing						
1		Transformer - MV Earthing				
1.1		Excavation - length long, 0.5m deep and 0.6m wide	m ³	R 147.48	R 0.00	R 0.00
1.2	D-DT-3139	16mm sq. Bare Stranded Cu Conductor	m	R 11.80	R 0.00	R 0.00
1.3	D-DT-3137	16mm sq. Insulated Stranded Cu Conductor	m	R 11.80	R 0.00	R 0.00
1.4	D-DT-3091	Earth Electrode (Type as per the design)	Each	R 247.77	R 0.00	R 0.00
1.5		Backfill - length long, 0.5m deep and 0.6m wide	m ³	R 120.35	R 0.00	R 0.00
2		Transformer - LV Earthing				
2.1		Excavation - length long, 0.5m deep and 0.6m wide	m ³	R 147.48	R 0.00	R 0.00
2.2	D-DT-3139	16mm sq. Bare Stranded Cu Conductor	m	R 11.80	R 0.00	R 0.00
2.3	D-DT-3137	16mm sq. Insulated Stranded Cu Conductor	m	R 11.80	R 0.00	R 0.00
2.4	D-DT-3091	Earth Electrode (Type as per the design)	Each	R 247.77	R 0.00	R 0.00
2.5		Backfill - length long, 0.5m deep and 0.6m wide	m ³	R 120.35	R 0.00	R 0.00
3		Other Overhead System Equipment Earthing - Capacitor Bank / CT-VT Unit / Line Arrester / Recloser / Sectionalizer / Voltage Regulator				
3.1		Excavation - length long, 0.5m deep and 0.6m wide	m ³	R 147.48	R 0.00	R 0.00
3.2	D-DT-3139	16mm sq. Bare Stranded Cu Conductor	m	R 11.80	R 0.00	R 0.00
3.3	D-DT-3137	16mm sq. Insulated Stranded Cu Conductor	m	R 11.80	R 0.00	R 0.00
3.4	D-DT-3091	Earth Electrode (Type as per the design)	Each	R 247.77	R 0.00	R 0.00
3.5		Backfill - length long, 0.5m deep and 0.6m wide	m ³	R 120.35	R 0.00	R 0.00
4		Other Underground System Equipment Earthing - Miniature Substation / Ring Main Unit / CT-VT Unit				
4.1		Excavation - length long, 0.5m deep and 0.6m wide	m ³	R 147.48	R 0.00	R 0.00
4.2	D-DT-3139	16mm sq. Bare Stranded Cu Conductor	m	R 11.80	R 0.00	R 0.00
4.3	D-DT-3091	Earth Electrode (Type as per the design)	Each	R 247.77	R 0.00	R 0.00
4.4		Backfill - length long, 0.5m deep and 0.6m wide	m ³	R 120.35	R 0.00	R 0.00
5		Earthing Installation excluding trenching				
5.1	D-DT-3066	MV Earthing (Type 1 Crowfoot)	Each	R 2 800.00	R 0.00	R 0.00
5.2	D-DT-3066	MV Earthing (Type 2 Crowfoot)	Each	R 3 100.00	R 0.00	R 0.00
5.3	D-DT-3066	MV Earthing (Type 3 Crowfoot)	Each	R 3 400.00	R 0.00	R 0.00
5.4	D-DT-3066	MV Earthing (Type 4 Crowfoot)	Each	R 3 600.00	R 0.00	R 0.00
SUB-TOTAL - L					R 0.00	R 0.00

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M		SERVICE CONNECTION INSTALLATION					
House Connections include installation of ready board, mounting hardware, wooden backboards, customer interface units, conduit pipe, excavations and backfilling of underground connection, capturing of customer data including GPS coordinates. Digging and bulleting for road crossing including installation of sleeves and warning tape are measured here							
1.1	D-DT-0360	Overhead service connection direct to dwelling (from the pole top box to the pre-paid meter) (Type A) to brick dwelling	Each		R 72.03	R 0.00	R 0.00
1.2	D-DT-0360	Overhead service connection with service pole (from the pole top box to the pre-paid meter) (Type B) to mud dwelling	Each		R 72.03	R 0.00	R 0.00
1.3	D-DT-0367	Underground Service Connection	Each		R 490.80	R 0.00	R 0.00
1.4		25mm Conduit LDPE Pipe	m		R 147.48	R 0.00	R 0.00
1.5	D-DT-0854	Excavation - 0.75m Deep and 0.45 Wide	m ³		R 147.48	R 0.00	R 0.00
1.6		Road Crossing - Digging	m		R 926.19	R 0.00	R 0.00
1.7		Road Crossing - Bulleting	Each		R 421.59	R 0.00	R 0.00
1.8	D-DT-8018	Install Sleeves	m		R 4.72	R 0.00	R 0.00
1.9	D-DT-0854	Laying of Warning Tape	m		R 2.75	R 0.00	R 0.00
1.10	D-DT-0854	Backfill - 0.75m Deep and 0.45 Wide	m ³		R 120.35	R 0.00	R 0.00
2		Split / Smart Metering					
2.1	D-DT-3145	Customer Interface Unit	Each		R 35.00	R 0.00	R 0.00
2.2	D-DT-3176	Split Meter Ready-Board	Each		R 176.98	R 0.00	R 0.00
2.3	D-ST-2351	Wooden Backboard for Ready board mounting (for Tin and Mud houses)	Each		R 147.48	R 0.00	R 0.00
2.4		Split Meter Installation	Each		R 325.00	R 0.00	R 0.00
2.5		Capture and Upload of Customer Data New & Existing Including GPS Coordinates	Each		R 9.72	R 0.00	R 0.00
SUB-TOTAL M						R 0.00	R 0.00
N		Service Conductor Installation: Accessories for Service Conductor installation shall include installation of pigtailed, bolts, strain clamps, threaded rod, cable saddles, stringing of all types of service cable. Installation of poles and its accessories are measured elsewhere					
1	D-DT-3140	6mm sq Tinned Copper Airdac with Communication Core	m		R 2.14	R 0.00	R 0.00
3	D-DT-0384	Kicker Pole Dressing	Each		R 27.39	R 0.00	R 0.00
4	D-DT-0384	Shack Pole Dressing	Each		R 27.39	R 0.00	R 0.00
5	D-DT-3128	16mm sq Underground	m		R 6.44	R 0.00	R 0.00
6	0366	Service suspension assembly	Each		R 24.46	R 0.00	R 0.00
7	0384	Service strain assembly/arrangement	Each		R 48.93	R 0.00	R 0.00
SUB-TOTAL N						R 0.00	R 0.00
O		Underground Cable Installation: installation of underground cable include trenching for excavation in general trench, rail/road crossing or along the road, directional drilling & excavation for end pits, backfilling of trench, supply of accessories includes appropriate sleeves, supply & compaction of imported bedding and blanket soil, laying of warning tape and installation of cable route markers. Laying of cable shall be in accordance with Eskom standard of laying cables. After the execution of the works, reinstatement on gardens, pavements, driveways and tarred surfaces shall be measured here					
1		Trenching					
1.1	D-DT-0854	Excavation - General Trench - 1.0m Deep and 0.45m Wide	m ³		R 147.48	R 0.00	R 0.00
1.2	D-DT-0854	Excavation - Rail/Road Crossing Trench - 1.6m Deep and 0.45m Wide	m ³		R 147.48	R 0.00	R 0.00
1.3	D-DT-0854	Excavation - Along The Road Trench - 1.3m Deep and 0.45m Wide	m ³		R 147.48	R 0.00	R 0.00
1.4		Install Barricading	m		R 41.30	R 0.00	R 0.00
1.5		Install Shoring	m		R 225.00	R 0.00	R 0.00
1.6	D-DT-0854	Compact Blanket Soil	m ²		R 120.35	R 0.00	R 0.00
1.7	D-DT-0854	Sifted Soil - 0.25m High and 0.45m Wide	m ³		R 120.35	R 0.00	R 0.00
1.8		Dispose of unused Excavated Material at approved disposal site	m ³		R 245.00	R 0.00	R 0.00
1.9	D-DT-0854	Imported Soil - 0.25m High and 0.45m Wide	m ³		R 383.45	R 0.00	R 0.00
2		Road & Rail Crossing					
2.1		Directional Drilling (Supply Invoice + 5%)	m		R 0.00	R 0.00	R 0.00
2.2		Excavate Start and End Pits	m ³		R 147.48	R 0.00	R 0.00
2.3		Supply and Install appropriate sleeve	Each		R 321.59	R 0.00	R 0.00
2.4		Rail, river and Road - pipe jacking method including access holes, shoring as well as handling of equipment-(outsourced) Supply Invoice + 5%	m		R 0.00	R 0.00	R 0.00
3		Road crossing trench import of backfill material and compaction					
3.1	D-DT0854	Application of tar according to municipal standard - Supply Invoice + 5%	m ²		R 0.00	R 0.00	R 0.00
3.2		Bedding soil for cable	m		R 13.21	R 0.00	R 0.00
3.3		Blanket soil for cable	m ³		R 13.21	R 0.00	R 0.00
3.4		G5 filling for cable	m ³		R 17.62	R 0.00	R 0.00

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

4		Compacting Bedding Soil				
4.1	D-DT-0854	Sifted Soil - 0.15m High and 0.45m Wide	m ²	R 120.35	R 0.00	R 0.00
4.2	D-DT-0854	Imported Soil - 0.15m High and 0.45m Wide	m ²	R 348.06	R 0.00	R 0.00
5		Laying of Cable				
5.1	D-DT-0854	Laying of 3-Core 50mm sq. MV Cable	m	R 17.70	R 0.00	R 0.00
5.2	D-DT-0854	Laying of 3-Core 95mm sq. MV Cable	m	R 40.00	R 0.00	R 0.00
5.3	D-DT-0854	Laying of 3-Core 185mm sq. MV Cable	m	R 65.00	R 0.00	R 0.00
5.4	D-DT-0854	Laying of 3-Core 300mm sq. MV Cable	m	R 120.00	R 0.00	R 0.00
5.5	D-DT-0854	Laying of 4-Core 16mm sq. LV Cable	m	R 17.70	R 0.00	R 0.00
5.6	D-DT-0854	Laying of 4-Core 25mm sq. LV Cable	m	R 17.70	R 0.00	R 0.00
5.7	D-DT-0854	Laying of 4-Core 35mm sq. LV Cable	m	R 17.70	R 0.00	R 0.00
5.8	D-DT-0854	Laying of 4-Core 50mm sq. LV Cable	m	R 17.70	R 0.00	R 0.00
5.9	D-DT-0854	Laying of 4-Core 70mm sq. LV Cable	m	R 35.00	R 0.00	R 0.00
5.10	D-DT-0854	Laying of 4-Core 120mm sq. LV Cable	m	R 58.00	R 0.00	R 0.00
5.11	D-DT-0854	Laying of 4-Core 185mm sq. LV Cable	m	R 65.00	R 0.00	R 0.00
5.12	D-DT-0854	Laying of 4-Core 240mm sq. LV Cable	m	R 120.00	R 0.00	R 0.00
6		Compacting Blanket Soil				
6.1	D-DT-0854	Sifted Soil - 0.25m High and 0.45m Wide	m ²	R 120.35	R 0.00	R 0.00
6.2	D-DT-0854	Imported Soil - 0.25m High and 0.45m Wide	m ²	R 348.06	R 0.00	R 0.00
7		Backfilling of the Cable Trench				
7.1	D-DT-0854	General Trench - 0.6m High and 0.45m Wide	m ³	R 120.35	R 0.00	R 0.00
7.2	D-DT-0854	Rail/Road Crossing Trench - 1.2m High and 0.45m Wide	m ³	R 120.35	R 0.00	R 0.00
7.3	D-DT-0854	Along The Road Trench - 0.9m High and 0.45m Wide	m ³	R 120.35	R 0.00	R 0.00
7.4	D-DT-0854	Laying of Warning Tape	m	R 2.75	R 0.00	R 0.00
7.5	D-DT-8012	Installation of Cable Route Markers	Each	R 141.58	R 0.00	R 0.00
7.6		Re-instatement of Gardens	m ²	R 225.49	R 0.00	R 0.00
7.7		Re-instatement of Pavements	m ²	R 271.43	R 0.00	R 0.00
7.8		Re-instatement of Driveways	m ²	R 1 728.49	R 0.00	R 0.00
7.9		Re-instatement of Tarred surfaces	m ²	R 772.81	R 0.00	R 0.00
SUB-TOTAL O					0.00	R 0.00
P		MV/LV CABLE TERMINATION				
Termination of cable shall be done in accordance with Eskom standard of terminating cables for the termination onto air-filled cable, termination onto overhead line cable in their deferent classifications. Termination material are free issue, unless otherwise ordered and/or specified by the Project Manger to supply all accessories on an as and when required basis as cost plus fee.						
1		LV Cable Termination onto Air-Filled Cable Termination Enclosure				
1.1		Install 2-Core 16mm sq. LV Bare Termination	Each	R 1 250.65	R 0.00	R 0.00
1.2		Install 4-Core 16mm sq. LV Bare Termination	Each	R 1 250.65	R 0.00	R 0.00
1.3		Install 4-Core 25mm sq. LV Bare Termination	Each	R 1 250.65	R 0.00	R 0.00
1.4		Install 4-Core 35mm sq. LV Bare Termination	Each	R 1 250.65	R 0.00	R 0.00
1.5		Install 4-Core 50mm sq. LV Bare Termination	Each	R 1 250.65	R 0.00	R 0.00
1.6		Install 4-Core 70mm sq. LV Bare Termination	Each	R 1 250.65	R 0.00	R 0.00
1.7		Install 4-Core 120mm sq. LV Bare Termination	Each	R 1 250.65	R 0.00	R 0.00
1.8		Install 4-Core 185mm sq. LV Bare Termination	Each	R 1 250.65	R 0.00	R 0.00
1.9		Install 4-Core 240mm sq. LV Bare Termination	Each	R 1 250.65	R 0.00	R 0.00
1.10		Install 3-Core 50mm sq. Shrouded Termination	Each	R 1 250.65	R 0.00	R 0.00
2		MV Cable Termination onto Air-Filled Cable Termination Enclosure				
2.1	D-DT-8011	Install 3-Core 50mm sq. Shrouded Termination	Each	R 1 250.65	R 0.00	R 0.00
2.2	D-DT-8006	Install 3-Core 50mm sq. Unscreened Separable Connector Termination	Each	R 1 592.81	R 0.00	R 0.00
2.3	D-DT-8006	Install 3-Core 50mm sq. Unscreened Separable Connector Extended Screen Termination	Each	R 1 592.81	R 0.00	R 0.00
2.4	D-DT-8006	Install 3-Core 50mm sq. Screened Separable Connector Termination	Each	R 1 592.81	R 0.00	R 0.00
2.5	D-DT-8011	Install 3-Core 95mm sq. Shrouded Termination	Each	R 1 250.65	R 0.00	R 0.00
2.6	D-DT-8006	Install 3-Core 95mm sq. Unscreened Separable Connector Termination	Each	R 1 592.81	R 0.00	R 0.00
2.7	D-DT-8006	Install 3-Core 95mm sq. Unscreened Separable Connector Extended Screen Termination	Each	R 1 592.81	R 0.00	R 0.00
2.8	D-DT-8006	Install 3-Core 95mm sq. Screened Separable Connector Termination	Each	R 1 592.81	R 0.00	R 0.00
2.9	D-DT-8011	Install 3-Core 185mm sq. Shrouded Termination	Each	R 1 250.65	R 0.00	R 0.00
2.10	D-DT-8006	Install 3-Core 185mm sq. Unscreened Separable Connector Termination	Each	R 1 592.81	R 0.00	R 0.00
2.11	D-DT-8006	Install 3-Core 185mm sq. Unscreened Separable Connector Extended Screen Termination	Each	R 1 592.81	R 0.00	R 0.00
2.12	D-DT-8006	Install 3-Core 185mm sq. Screened Separable Connector Termination	Each	R 1 740.29	R 0.00	R 0.00
2.13	D-DT-8011	Install 3-Core 300mm sq. Shrouded Termination	Each	R 1 250.65	R 0.00	R 0.00
2.14	D-DT-8006	Install 3-Core 300mm sq. Unscreened Separable Connector Termination	Each	R 1 592.81	R 0.00	R 0.00
2.15	D-DT-8006	Install 3-Core 300mm sq. Unscreened Separable Connector Extended Screen Termination	Each	R 1 592.81	R 0.00	R 0.00
2.16	D-DT-8006	Install 3-Core 300mm sq. Screened Separable Connector Termination	Each	R 1 740.29	R 0.00	R 0.00

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

3		MV Cable Termination onto Overhead Line from Substation				
3.1	D-DT-0850	Install 50mm sq O/D Termination	Each	R 892.92	R 0.00	R 0.00
3.2	D-DT-0851	Install 50mm sq O/D Termination	Each	R 892.92	R 0.00	R 0.00
3.3	D-DT-0850	Install 95mm sq O/D Termination	Each	R 892.92	R 0.00	R 0.00
3.4	D-DT-0851	Install 95mm sq O/D Termination	Each	R 892.92	R 0.00	R 0.00
3.5	D-DT-0850	Install 185mm sq O/D Termination	Each	R 892.92	R 0.00	R 0.00
3.6	D-DT-0851	Install 185mm sq O/D Termination	Each	R 892.92	R 0.00	R 0.00
3.7	D-DT-0850	Install 300mm sq O/D Termination	Each	R 892.92	R 0.00	R 0.00
3.8	D-DT-0851	Install 300mm sq O/D Termination	Each	R 892.92	R 0.00	R 0.00
3.9	D-DT-1850	Install Equipment Links - 3-Phase	Each	R 892.92	R 0.00	R 0.00
3.10	D-DT-0261	Install Surge Arresters - 3-Phase	Each	R 344.71	R 0.00	R 0.00
3.11	D-DT-8023	Install a Steel Pipe	Each	R 294.96	R 0.00	R 0.00
SUB-TOTAL P					R 0.00	R 0.00
Q		CABLE JOINT				
Cable joint bay shall be executed in accordance with Eskom standard of jointing cables in their different classifications. Joint bay materials including kits are free issue, unless otherwise ordered and/or specified by the Project Manager to supply all accessories on an as and when required basis and paid as cost plus fee. Excavations, compaction and backfilling of cable joints bay shall be measured here including supply of imported soil in bedding and blankets or sifted soil where specified.						
1.1	D-DT-0854	Excavate a Joint Bay	m ³	R 147.48	R 0.00	R 0.00
1.2	D-DT-0854	Compact Bedding Soil	m ²	R 120.35	R 0.00	R 0.00
1.3	D-DT-0854	Sifted Soil - 0.15m High and 0.45m Wide	m ³	R 120.35	R 0.00	R 0.00
1.4		Dispose of Excavated Material at approved disposal site	m ³	R 245.00	R 0.00	R 0.00
1.5	D-DT-0854	Imported Soil -0.15m High and 0.45m Wide	m ³	R 348.06	R 0.00	R 0.00
1.6	D-DT-8008	Make-Off a Cable Joint - 3-Core 16mm sq MV Cable	Each	R 92.20	R 0.00	R 0.00
1.6	D-DT-8008	Make-Off a Cable Joint - 3-Core 50mm sq MV Cable	Each	R 92.20	R 0.00	R 0.00
1.6	D-DT-8008	Make-Off a Cable Joint - 3-Core 95mm sq MV Cable	Each	R 92.20	R 0.00	R 0.00
1.7	D-DT-8008	Make-Off a Cable Joint - 3-Core 185mm sq MV Cable	Each	R 92.20	R 0.00	R 0.00
1.8	D-DT-8008	Make-Off a Cable Joint - 3-Core 300mm sq MV Cable	Each	R 92.20	R 0.00	R 0.00
1.9	D-DT-8014	Make-Off a Cable Joint - 4-Core 16mm sq LV Cable	Each	R 92.20	R 0.00	R 0.00
1.10	D-DT-8014	Make-Off a Cable Joint - 4-Core 25mm sq LV Cable	Each	R 92.20	R 0.00	R 0.00
1.10	D-DT-8014	Make-Off a Cable Joint - 4-Core 35mm sq LV Cable	Each	R 92.20	R 0.00	R 0.00
1.10	D-DT-8014	Make-Off a Cable Joint - 4-Core 50mm sq LV Cable	Each	R 92.20	R 0.00	R 0.00
1.11	D-DT-8014	Make-Off a Cable Joint - 4-Core 70mm sq LV Cable	Each	R 92.20	R 0.00	R 0.00
1.12	D-DT-8014	Make-Off a Cable Joint - 4-Core 120mm sq LV Cable	Each	R 92.20	R 0.00	R 0.00
1.13	D-DT-8014	Make-Off a Cable Joint - 4-Core 185mm sq LV Cable	Each	R 92.20	R 0.00	R 0.00
1.13	D-DT-8014	Make-Off a Cable Joint - 4-Core 240mm sq LV Cable	Each	R 92.20	R 0.00	R 0.00
1.18	D-DT-0854	Backfill a Joint Bay	m ³	R 120.35	R 0.00	R 0.00
1.19	D-DT-8012	Install a Route Marker	Each	R 141.58	R 0.00	R 0.00
SUB-TOTAL Q					R 0.00	R 0.00
R		EQUIPMENT DISMANTLING				
Includes Cut Up, Coiling And Loading But Excludes Transport To The Nearest Eskom Stores						
1.1		Dismantle LV Conductor	m	R 4.72	R 0.00	R 0.00
1.2		Dismantle MV Conductor	m	R 4.72	R 0.00	R 0.00
1.3		Dismantle Service Cable	m	R 3.15	R 0.00	R 0.00
1.4		Dismantle MV Overhead Transformers	Each	R 412.95	R 0.00	R 0.00
1.5		Dismantle MV Overhead Sectionalizer	Each	R 412.95	R 0.00	R 0.00
1.6		Dismantle MV Overhead Reclosers	Each	R 412.95	R 0.00	R 0.00
1.7		Dismantle MV Pole Mounted CT-VT Unit	Each	R 412.95	R 0.00	R 0.00
1.8		Dismantle MV Pole Mounted Shunt Capacitor Banks	Each	R 412.95	R 0.00	R 0.00
1.9		Dismantle MV Line Arrestor	Each	R 397.67	R 0.00	R 0.00
1.10		Dismantle MV Overhead Section / Equipment Links	Each	R 397.67	R 0.00	R 0.00
1.11		Remove LV Pole Top Boxes	Each	R 355.64	R 0.00	R 0.00
1.12		Dismantle Stays	Each	R 261.12	R 0.00	R 0.00
1.13		Dismantle Poles	Each	R 240.33	R 0.00	R 0.00
1.14		Remove MV Cable, includes excavation and backfill	m	R 177.00	R 0.00	R 0.00
1.15		Remove LV Cable, includes excavation and backfill	m	R 177.00	R 0.00	R 0.00
1.16		Remove MV Cable I/D Terminations	Each	R 365.76	R 0.00	R 0.00
1.17		Remove MV Cable O/D Terminations	Each	R 365.76	R 0.00	R 0.00
1.18		Remove RMU	Each	R 2 949.65	R 0.00	R 0.00
1.19		Remove Minisub	Each	R 2 949.65	R 0.00	R 0.00
1.20		Remove Ground Mounted CT-VT Unit	Each	R 1 749.65	R 0.00	R 0.00
1.21		Remove LV Kiosks	Each	R 123.09	R 0.00	R 0.00
1.22		Remove Plinths	Each	R 1 849.65	R 0.00	R 0.00
1.23		Transport Of Dismantled/Decommissioned To Eskom Stores	KM	R 22.06	R 0.00	R 0.00
1.28		Removal of a post / pin insulator	Each	R 24.46	R 0.00	R 0.00
1.30		Removal of SPU unit with rails	Each	R 24.46	R 0.00	R 0.00
1.31		Removal of LPU unit (indoor and outdoor)	No	R 24.46	R 0.00	R 0.00
1.33		Moving of pre-Paid Meter (Meter Shifting)	Each	R 73.39	R 0.00	R 0.00
1.39		Removal of ED / ECU	Each	R 74.86	R 0.00	R 0.00
1.41		AP4 Meter Box + Pipe	Each	R 112.28	R 0.00	R 0.00
1.42		Removal - complete of one Regulator can/voltage regulator	Each	R 131.37	R 0.00	R 0.00
2		BIL & BONDING				
2.1		Re-instate broken/damage bonding & BIL on existing structure	No	R 48.93	R 0.00	R 0.00
SUB-TOTAL R					R 0.00	R 0.00

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

S		LABELLING					
Allow for the following end items to be applied as per relevant Eskom Instructions/Bulletins/Procedures and Standards where not already allowed for in Structure Package							
1.1		MV Pole Number	Each		R 17.70	R 0.00	R 0.00
1.2		LV Pole Number	Each		R 17.70	R 0.00	R 0.00
1.3		Meter Number	Each		R 17.70	R 0.00	R 0.00
SUB-TOTAL S						R 0.00	R 0.00
T		EQUIPMENT TESTING					
Allowance shall be made for the complete testing and commissioning of Medium Voltage equipment. Tests to include earth electrode resistance measurement. Transformer to include a LV earth electrode resistance measurement. Soil Resistivity Tests for Equipment to be performed as appropriate and to be verified by Eskom's Clerk of Works, and must be according to Eskom Standard							
1.1		Perform Phasing Test	Each		R 95.42	R 0.00	R 0.00
1.2		Continuity Tests	Each		R 95.42	R 0.00	R 0.00
1.3		Earth Resistance Test	Each		R 95.42	R 0.00	R 0.00
1.4		A.C. Over-Voltage Test	Each		R 95.42	R 0.00	R 0.00
1.5		D.C. Insulation Test	Each		R 95.42	R 0.00	R 0.00
1.6		Outer Sheath Test (Serving Test)	Each		R 95.42	R 0.00	R 0.00
1.7		Compaction Test	Each		R 95.42	R 0.00	R 0.00
1.8		C.O.C Test for Certificate	No		R 250.00	R 0.00	R 0.00
1.9		Voltage Regulator commissioning test	No		R 95.42	R 0.00	R 0.00
1.10		Recloser commissioning test	No		R 95.42	R 0.00	R 0.00
SUB-TOTAL T						R 0.00	R 0.00
U		AS - BUILTS					
Allow for the following end items to be applied as per relevant Eskom Instructions/Bulletins/Procedures and Standards where not already allowed for in Structure Package							
1		As-built Drawings	Each		R 3 500.00	R 0.00	R 0.00
SUB-TOTAL U						R 0.00	R 0.00
V		MISCELLANEOUS					
Allow for the following end items to be applied as per relevant Eskom instructions/bulletins/procedures and standards where not already allowed for in structure package. Note the cross arms below are applicable for existing structures only.							
1.1	3175	Damper,vibrat spiral 8.29-11.71 D3175	Each		R 24.46	R 0.00	R 0.00
1.2	3175	Damper,vibrat spiral 11.72-14.30 D3175	Each		R 24.46	R 0.00	R 0.00
1.3	7028	Set: Device warning-Aircraft warning 8.87-13.55;2	SET		R 54.31	R 0.00	R 0.00
1.4	7028	Set: Device warning -Aircraft warning 7.35-14.16;2	SET		R 54.31	R 0.00	R 0.00
1.5	7028	Set: Device warning-Aircraft warning 18.13-23.88;2	SET		R 54.31	R 0.00	R 0.00
SUB-TOTAL V						R 0.00	R 0.00
VERIFIED BY: CLERK OF WORKS			DATE:				
COST CHECK BY: QUANTITY SURVEYOR			DATE:				
ACCEPTED BY: CONTRACTOR			DATE:				
APPROVED BY: PROGRAM MANAGER			DATE:				

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

PROJECT NAME:

START DATE:

CONTRACTOR:

END DATE:

CONTRACT #:

PO NUMBER:

BILL OF ACTIVITIES					
ITEM	DESCRIPTION	UNIT	LABOUR QTY	LABOUR RATE	LABOUR TOTAL
W	TRANSPORT				
Unless otherwise specified, transport is to be used under specific instruction from the Project Manager only. This excludes staff transport. Staff transport is to be paid to transport workers from base location to site only. LDV/4x4 will only be paid for justifiable use and will be to the sole discretion of the Project Manager					
1.1	LDV 4x2	km		R 5.72	R 0.00
1.2	LDV/4x4	km		R 5.72	R 0.00
1.3	Personnel Transport for Staff	km		R 7.83	R 0.00
1.4	10 m³ Tipper Truck	km		R 30.11	R 0.00
1.5	6 m³ Tipper Truck	km		R 26.76	R 0.00
1.6	Transport Truck 2-4 ton	km		R 8.63	R 0.00
1.7	Transport Truck 5-8 ton	km		R 11.96	R 0.00
1.8	Transport Truck 5-8 ton with crane	km		R 16.93	R 0.00
1.9	Transport Truck 9-14 ton	km		R 22.00	R 0.00
1.10	Transport Truck 9-14 ton with crane	km		R 32.80	R 0.00
SUB-TOTAL W					R 0.00

VERIFIED BY: CLERK OF WORKS

DATE:

COST CHECK BY: QUANTITY SURVEYOR

DATE:

ACCEPTED BY: CONTRACTOR

DATE:

APPROVED BY: PROGRAM MANAGER

DATE:

The Provision of Construction and upgrade of MV & LV overhead and
Underground Lines in Cape Coastal Cluster (CCC)

PROJECT NAME:

START DATE:

CONTRACTOR:

END DATE:

CONTRACT #:

PO NUMBER:

ITEM: Y	LABOUR		SCOPE		
	DESCRIPTION	UNIT	QTY	LABOUR RATE	LABOUR TOTAL
This schedule is used to assist with the valuation of Compensation Events					
1.1	Electrician (qualified trade test)-skilled	hour		R 119.58	R 0.00
1.2	Linesman (Proof of qualification required)-semi skilled	hour		R 69.68	R 0.00
1.3	Cable Jointer-skilled	hour		R 119.58	R 0.00
1.4	Storeman	hour		R 40.10	R 0.00
1.5	Semi-skilled Labour (Proof of qualification required)	hour		R 69.67	R 0.00
1.6	Unskilled Labour-no formal NQFqualification	hour		R 24.48	R 0.00
	TOTAL - Y				R 0.00
VERIFIED BY: CLERK OF WORKS		DATE:			
COST CHECK BY: QUANTITY SURVEYOR		DATE:			
ACCEPTED BY: CONTRACTOR		DATE:			
APPROVED BY: PROGRAM MANAGER		DATE:			

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

PROJECT NAME:

START DATE:

CONTRACTOR:

END DATE:

CONTRACT #:

PO NUMBER:

ITEM X	INFILLS		SCOPE		
No	DESCRIPTION	UNIT	QTY	LABOUR RATE	LABOUR TOTAL
P&G's					
1.1	Provision of 10% Allowance for all P&G's Expenses (Excluding Transport, Running Costs)	lump sum	10%	R 0.00	R 0.00
SUB-TOTAL 1					R 0.00
DIRECT & INDIRECT CONNECTIONS	House Connections (Type 1 & 2). Accessories include House Labels, Pigtail Bolts, Strain clamps, Cable Saddles, Ready Board Mounting Hardware, Threaded Rods, Meters, Customer Interface Units, Ready Boards, Service Cable, Poles and Excavations are all inclusive. All Free Issue Material will be issued. Capturing and Handling over of Customer Data and updated PCS file is included.				
2.1	Type 1 connection can involve service cable and / or a meter. The main infrastructure must be on the boundary of the property applying for point of supply.	e.a.		R 971.82	R 0.00
2.3	Type 2 Only LV Infrastructure required connections can only involve extension of the main LV Overhead Line, Cable or Bundle Conductor in order to supply the Customer. (connecting this customer must not require the increase of a Transformer Capacity-Pole Mounted or Mini Sub). Service Cable and Meter included.	e.a.		R 1 700.41	R 0.00
SUB-TOTAL 2					R 0.00
TRANSPORT	Transport of resources to and from site will be done in terms of OHS Act (T). The cost to the Contractor to provide safe transport for his employees should be in terms of the Construction Regulations Clause 21 (2) (a) and (i) & adhere to Eskom Life Saving rules. Tracker records to be provided as proof of km's travelled.				
3.1	LDV 2X4	km		R 5.72	R 0.00
3.2	LDV 4X4	km		R 5.72	R 0.00
3.3	2-4 Ton Truck	km		R 8.63	R 0.00
3.4	8 Ton Truck	km		R 11.96	R 0.00
3.5	8 Ton Truck (with Crane)	km		R 16.93	R 0.00
					R 0.00
TOTAL - X					R 0.00
VERIFIED BY: CLERK OF WORKS		DATE:			
COST CHECK BY: QUANTITY SURVEYOR		DATE:			
ACCEPTED BY: CONTRACTOR		DATE:			
APPROVED BY: PROGRAM MANAGER		DATE:			

PART 3: SCOPE OF WORK

Document reference	Title	No of pages
C3.1	This cover page	1
	<i>Employer's Works Information</i>	17
	Total number of pages	18

C3.1: EMPLOYER'S WORKS INFORMATION

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1 Description of the works

1.1 Executive overview

Executive overview

In general, the work covered by the contract is as follows:

- Upgrade and construction of 1.9/3.3kV up to 33kV overhead networks
- Upgrade & Installation of 11kV/ 22kV up to 33kV Mini Subs
- Installation and upgrade of existing equipment
- Installation of MV & LV Cables (230V up to 33kV)
- Removal & Installation of LV kiosks
- Construction of MV/LV overhead networks
- Upgrade of MV/LV overhead networks
- Construction of MV/LV overhead networks
- Installation of Reclosers

1.2 Employer's objectives and purpose of the works

The Eskom Project Manager will contact the allocated Contractor and issue the Contractor with the design package for the project to be executed. A Project Specific Agreement will be issued as well, which will detail all the project specific requirements for execution of the project for the task order to be issued. The Project Specific Agreement issued will form the basis of the agreement between Eskom and the Contractor for each project to be executed in terms of this contract.

The terms and conditions contained in the Project Specific Agreement will be in accordance with the terms and conditions of this contract but specific to the requirements of the project to be executed.

The allocated Contractor will do a site visit at his own cost (This is not applicable for Type 1 Infills) with the Eskom project representatives and verify the scope of work to be executed contained in the design package, assess the Site conditions, the Project Specific SHEQ requirements and SD&L requirements before the quotation for the works is finalised. The Project Manager will then request a quotation from the Contractor for the execution of the works as verified. The quotation must be submitted to the Project Manager by the Contractor within 7 days. The Project Manager will request the Quantity Surveyor to verify the quotation for correctness and confirm the cost according to the agreed negotiated rates.

Should the quotation require adjustment, the Project Manager will request the allocated Contractor to amend the quotation. Once the quotation has been accepted by Eskom, the Project Manager will issue the allocated Contractor with a Task Order for the project which will contain a Task Order Number and will be attached to the Project Specific Agreement. The Project Specific Agreement will then be signed off by the Project Manager and the Contractor and work may then commence on the project.

No work may commence on a project unless the Task Order has been issued, the Project Specific Agreement has been signed, the Contractor Safety File has been approved by Eskom, the 37(2) agreement has been signed and Site Access has been granted to the allocated Contractor. Eskom will not be liable to pay for any work unless a valid Task Order Number has been issued.

The Contractor is to submit the Project Specific Safety File within seven days upon being requested to do so by the Project Manager for approval by Eskom. The Safety File is to conform to all Eskom and OHS requirements. Should there be a need to rectify the safety file an additional opportunity will be granted to conform to the recommendations made by the Eskom SHE representative, and must be resubmitted within seven days for approval. Should the Project Specific Safety File fail upon resubmission the works will be allocated to another Contractor.

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

The Contractor will compile a Risk Register as per the terms and conditions of the ECC for discussion at regular Risk Reduction Meetings or as per agreement with the Project Manager.

It is expected from the Contractor to do the whole of the work as per timeframe set in the Task Order, Project Specific Agreement, and agreed Program of the Works.

The Contractor will be responsible for the collection and transporting of all necessary material from any and/or all Eskom warehouses and delivery of the material to site as well as return any material to Eskom stores from the site upon instruction from the Project Manager. Payments will be made based on the distance from the site to the relevant Eskom store and back to site.

Minimum recommended working hours to be observed site are from 07h30 to 16h00 and these hours constitute normal working hours in terms of this contract.

The contractor is to ensure that all required documentation prescribed by Law is kept on file at the site office. All OHS and Construction Regulation requirements are to be adhered to by the contractor.

The Contractor will also ensure that all plant, equipment and resources dedicated to the project will not be removed from site until there is no use for the intended plant and equipment. No moving of equipment and resources between projects will be allowed without *Project Manager* approval as it will have impact on completion of the project and lead to delays in completion.

The Contractor is to ensure that all Site Managers are competent, and trained in the use of the ECC and are fully conversant and familiar with the usage and procedures thereof. Adherence to the terms and conditions of the ECC are essential and a requirement of all Contractor Site Managers dedicated to each project as per the Construction Regulations.

Payment Assessments will only be done for work done to date. No material on site will be paid for. Records of defined costs are to be kept on file on site whereby the *Project Manager* has access to this file at all times.

All excavation activities shall be inclusive of excavation or drilling or blasting, backfilling, compacting and disposal of surplus excavated materials including boulders to a registered dumping site and the Contractor shall retain records of disposal.

1.3 Interpretation and terminology

1.3.1 Abbreviations

The following abbreviations are used in the Works Information:













Abbreviation	Description
ECOU	Eastern Cape Operating Unit
TBA	To be announced
PM	Project Manager
QS	Quantity Surveyor
BBBEE	Broad Based Black Economic Empowerment
PPPFA	Procurement Preferential Policy Framework Act

1.3.2 Acceptance of Eskom SHEQ Policies and Procedures







The attached documents form part of this legal binding contract, the *Contractor* confirms that he has familiarized himself with all the embedded documents from 1 to 25 as indicated

NO	UNIQUE IDENTIFIER	REVISION	DOCUMENT TITLE
----	-------------------	----------	----------------

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

1	32 - 727	0	SAFETY, HEALTH, ENVIRONMENT AND QUALITY (SHEQ) POLICY 32-727  32-727 Feb 2014.pdf
2	32 - 136	0	CONSTRUCTION SAFETY HEALTH AND ENVIRONMENTAL MANAGEMENT  2_Construction Safety Health and En
3	32-524	0	DEVELOPING A SAFETY, HEALTH AND ENVIRONMENTAL SPECIFICATION  3_Developing a Safety, Health and En
4	34 - 333	1	HEALTH AND SAFETY REQUIREMENTS TO BE MET BY PRINCIPAL CONTRACTORS EMPLOYED BY ESKOM DISTRIBUTION 34-333  4_Health and Safety Requirements to be n
5	ESKOM LIFE SAVING RULES	1	ESKOM LIFE SAVING RULES 240-62196227  Eskom life-saving rules.pdf
6	CONSTRUCTION REG 3		NOTIFICATION OF CONSTRUCTION WORK TO DEPARTMENT OF LABOUR  6_Notification of Construction Work to
7	CONSTRUCTION REG 4 & 5		APPOINTMENT LETTERS FOR CLIENT REPRESENTATIVE, PRINCIPAL CONTRACTOR & CONTRACTOR  7_Appointment letters for Client repr
8 & 9	OHS ACT	1	WRITTEN AGREEMENT ON OHS ACT SECTION 37(2) & STANDARD CLAUSE  37 2 Jan 2014.doc
10, 11 & 12	34 - 1063	0	EXPANDED PUBLIC WORKS REPORT 34-1063.  10_34-1063 EPWP Works Instruction.pdf  11_EPWP Guidelines Second edition 2005.  Eskom EPWP report template rev 7.xlsx
13	<u>DST 34-961</u>	0	LEGAL APPOINTMENTS AND AUTHORIZATIONS  13_Legal Appointments and Au
14	TPC 41-55		TRANSPORTING PERSONS ON BACK OF VEHICLES

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

			 14_Transporting of Passengers on the ba
15	LTIR	MASTER	 LTIR Master.xls
16	1. Contractor Performance Evaluation	MASTER	 Single Evaluator Template for Contrac
17	2. Supplier Contract Quality Requirements	MASTER	 QM-58 Supplier Contract Quality Req
18	3. Hard Hat Specifications OHS 01/12/	MASTER	 OHS 01 12 Hard Hat Specifications.pdf
19	4. Identifying, Analysing, Documenting and Observing Tasks according to Criticality.	REV 1	 DPC_34-380.pdf
20	5. Health & Safety Representatives inspection reports and guidelines	REV 1	 DPC_34-228Health_ Safety_REp.pdf
21	6. Work at Heights Procedure	REV 1	 32-418 Work at Height Procedure.pdf
22	7. SHE Requirements for the Eskom Commercial Process	REV 1	 32-726 SHE Requirements for the
23	8. Vehicle Safety	REV 0	 Vehicle Safety 32 345.pdf
24	9. 32-95 Environmental Occupational Health and Safety Incident Management Procedure	REV 5	 32-95 Environmental Occupational Health &
25	10.Risk Audit System Template	REV 0	 Audit Input Form Contractor RM 29 Sep

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

Acknowledgement by *Contractor*

I/WE, DO HEREBY ACKNOWLEDGE HAVING READ AND UNDERSTOOD THE ABOVE ANNEXED DOCUMENTS FROM 1 TO 25 IN SECTION 1.3.2 OF THIS CONTRACT.

I/WE UNDERTAKE TO STUDY AND ABIDE BY THESE REQUIREMENTS AT ALL TIME.

SIGNED AT: ON THE DAY OF20.....

Note: Please return the above pages with the other tender returnables to the Eskom office that issued this enquiry after complying with the above.

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:
Pre-introductory meeting	Upon request of the Project Manager at an agreed date by all parties	Site	PM, QS, Site Supervisor, Safety and Environmental Representatives and the Contractor.
Introductory meeting	After safety and environmental files have been assessed and approved.	Site	PM, QS, Site Supervisor, Safety and Environmental Representatives and the Contractor.
Toolbox talk and risk assessment	Daily before work begins.	Site	Contractor and Site Supervisor.
Risk register and compensation events CONCESSIONS	As necessary.	Site	PM, Contractor and Site Supervisor.
Overall contract progress and feedback	On a regular basis as agreed with the Project Team and the Contractor	Site	PM, QS, Contractor, Site Supervisor, and Safety and Environmental Representatives.

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.

All project instructions are to be issued by the Project Manager only. Instructions given relating to quality of work to be issued by Supervisor (Clerk of works).

2.2 Documentation Control

All correspondence is to be addressed to the *Project Manager* with a chronological numbering system.

2.3 Health and Safety Risk Management

The Contractor shall control his activities and processes in accordance with the Occupational Health & Safety Act, No. 85 of 1993 and Eskom's Construction Safety, Health and Environmental Management 32-136, Safety, Health, Environment and Quality Policy, EPC32-727 and SHE Requirements for the Eskom Commercial Process, ST32-726. The *Contractor* shall comply with the health and safety requirements contained in Section 1.3.2 of this Works Information.

The Contractors Project SHEQ File is to be updated on a continuous basis. The Contractor is to ensure that all relevant documentation and authorisations are contained in the file pertaining to the project. Upon completion of the project, the Contractor is to convert all documentation contained in the SHEQ file into electronic format and save it as a PDF File. The file name should contain the name of the Contractor and the project. The file should then be saved onto a disk or removal storage device and handed over to the Project Coordinator or Project Manager upon completion of the project.

The Contractor should adhere to the Life Saving Rules at all times.

Due to the importance to save lives' and apparatus of Eskom it is recommended that if the contractor contravene any Life Saving Rules, all work allocated to the contractor will immediately be put on hold until final outcome with investigation. Safety is the combined responsibility of the team and therefore team leader or team must adhere to life saving rules. There are five cardinal rules that may not be broken by the Team Leader and his/her team.

The five Eskom Life Saving Rules are as follows:

Rule 1:*Open, isolated, tests, earth, and bond and/or insulate before touch*

Rule 2:*Hook up at height*

Rule 3:*Buckle Up*

Rule 4*Be Sober*

Rule 5:*Ensure that you have a permit to work*

2.4 Environmental Constraints and Management

The *Contractor* shall control his activities and processes in accordance with Environmental Requirements for the Procurement of Assets, Goods and Services, TST41-120 Rev. 2. The Eskom Environmental Management Plan provides the aspects and impacts that will require management and must be followed strictly. The *Contractor* is to prepare a site/factory specific separate EMP for all environmental concerns that might arise and any changes to the approved plan shall be reported and be approved by the *Eskom Environmental Representative* and *Project Manager* prior to the commencement of work.

In addition, the *Contractor* is required to ensure that all goods, services or works supplied in terms of this *Works Information* also conform to all applicable environment legislation(s), Safety, Health, Environment and Quality Policy, EPC32-727; SHE Requirements for the Eskom Commercial Process, ST32-726; (and additional requirements). The *Contractor* shall comply with the environmental criteria and constraints stated in Section 1.3.2.

When required, the *Contractor* must ensure that all *Subcontractors'* EMP comply with legal and other requirements and also includes all the environmental risks associated with the scope of work. The *Main (Principal) Contractor* shall define the specific risks applicable to the *Subcontractor's* scope of work or supply of kiosks.

The *Contractor* is to send a flash report for any environmental incidents that have occurred on site as soon as possible or within 24 hours to the *Eskom Environmental Representative* and *Project Manager* clearly stating any impact to the environment.

No environmental records shall be destroyed or discarded by the *Contractor*. Eskom as the *Employer* and the *Contractor* shall agree that the *Contractor* retains certain environmental records. Waste generated during the course of the project must be disposed at a registered site and the *Contractor* shall retain records of disposal.

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

Deviations from these requirements will be regarded as a non-conformance. Should there be concerns regarding environmental performance and non-conformance to environmental requirements, management engagements and interventions will be introduced to determine a means to addressing the shortfalls. Once these interventions have been explored and exhausted, then the *Eskom Supplier Disciplinary Process* will be followed.

The cost to the Contractor to obtain permits should it become necessary to cut a protected tree, ensure that waste is disposed of on a permitted, legal waste site and all relevant costs payable to dumping site as well as safe storage of all equipment which will be removed and replaced from site which will be transported upon instruction to the nearest designated disposal site within the Eastern Cape Operating Unit.

2.5 Quality Assurance Requirements

Quality Assessment Criteria, Forms A and Form B of the QM-58 specification will be selected and completed by Eskom Representative who will identify the applicable *Contractor* quality requirements to be met. Form A and Form B of the QM-58 specification shall be signed by the *Contractor* responding to an Eskom Enquiry.

2.5.1 *Contractor and Subcontractor* Quality Management System Requirements

- The *Contractor* and *Subcontractor* shall have formal Quality Management System in place in accordance with the requirements of the QM-58 specification.
- Such formal system shall consist of the appropriate documentations such as work procedures, work instructions, method statements, work flow documentation etc. as the case may be. This requirement constitutes the most basic Quality Management System requirements.
- Unless specifically excluded in the Quality Assessment Criteria, as per the Level of Quality Requirements (Level 1, 2, 3 or 4). The *Contractor* shall have a fully documented, implemented and maintained Quality Management System that complies with ISO-9001 standard. In the event that the *Contractor* invariably requires the assistance of some *Subcontractor* in order to realise its own supply obligations. The aforementioned requirement applies equally in all cases where any such *Subcontractor's* scope of responsibility includes the provision of any of the following activities viz. Design & Development, Manufacturing, Testing, Storage, Delivery, Installation, Commissioning, and Project Management.
- Unless specifically excluded in Quality Assessment Criteria, such Quality Management System shall carry valid ISO-9001 certification from an accredited certification body, as indicated in the applicable Eskom invitation (This requirement applies equally to both the *Contractor* and any/all manufacturing third party organizations mentioned above).
- Eskom reserves the right to request and perform necessary assessments at *Subcontractor* facilities.
- The *Contractor* shall be responsible for defining the specific quality control elements applicable to the respective *Subcontractor's* scope of work/supply, and ensure that their *Subcontractor(s)* quality programmes support Eskom requirements.
- The *Contractor* shall inform Eskom of any proposed changes to the Quality Management System or staff that will affect the Quality System prior to implementation of these changes.

2.5.2 Quality Plan

The information in this section constitutes the minimum requirements for a Quality Plan:

- All individual products and processes shall have a documented, implemented and maintained Contract Quality Plan and/or Quality Control Plan (Inspection and Test Plan).
- All production and/or service provision shall be carried out in accordance with documented Contract Quality Plan (CQP) and/ or Quality Control Plan (QCP)/ Inspection and Test Plan (ITP).
- The *Contractor* shall plan for the required Quality related activities and interfaces within the *Contractor's* Quality system, in order to demonstrate its ability towards both controlling and meeting specified Eskom requirements

2.5.3 Contract Quality Plan

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

Contractor shall require *Subcontractors* to submit Contract Quality Plan (CQP) and associated documentation in accordance with requirements of Project Quality Management System processes applicable to *Subcontractor* Scope of Work.

Contractor shall, where applicable based on Scope of Work Criticality, ensure Procurement documents clearly and unambiguously require *Subcontractor* submission of a *Subcontractor* CQP for *Contractor* and Eskom review.

Contractor and *Subcontractor* CQP shall comply with Eskom "Quality Requirements Specifications" and shall be submitted prior to the initial Scope of Work Kick-off or initial Pre-fabrication meeting and prior to commencement of manufacturing, whichever is earlier.

2.5.4 Quality Control Plan

Contractor shall develop and implement processes and procedures which efficiently and effectively monitor, verify and document Quality of Scope of Work deliverables. *Contractor* shall ensure that *Subcontractor* QCP/ITP's are prepared at a level of detail sufficient to address all Quality Control related activities in chronological order, from contract review through materials verification, manufacturing, fabrication, assembly, final testing, documentation, and certification.

Where activities subject to Inspection and Test procedures are to be undertaken by a *Subcontractor*, the QCP/ITP shall make reference to this fact and shall include descriptive details of *Subcontractors* involvement. A separate QCP/ITP shall be required for each *Subcontractor* Scope of Work.

Contractor may authorise use of *Subcontractor* QCP/ITP format providing it is in compliance with the above. *Contractor* shall be ultimately responsible for the development and proper implementation of all *Subcontractor* QCP/ITPs, including those reviewed or developed by *Subcontractors*.

Eskom reserves the right to select witness and hold points within all developed *Subcontractor* QCP/ITPs for Eskom oversight of selected functions and to perform surveillance or audits of the Work.

Contractor shall establish processes and procedures for formal assessment of *Subcontractor* inspection and testing programs. These shall include review of *Subcontractor* inspection reports and other Quality Control documentation. Additional formal assessment of manufacturing, fabrication and assembly facility operations shall be conducted by *Contractor* to ensure continuing suitability, adequacy and effectiveness of the *Subcontractor* inspection and testing programs. Assessment frequency shall be established in consideration of *Subcontractor* Scope of Work, Criticality of Scope of Work deliverables and performance information. Assessment scope and schedule shall be developed in consultation with Eskom.

Mandatory pre-inspection meetings will be convened by Eskom or its Inspection Agency or AIA to be attended by the *Contractor* and *Subcontractors* representatives, including their Quality representatives who will be involved with the Works and records to be kept.

Eskom reserves the right to appoint resident quality inspectors that can be based at the *Contractor* or *Subcontractor's* premises and on site where the work is being performed. The *Contractor* is expected to provide work space at no cost to Eskom, for the inspector as required.

2.6 Programming constraints

A comprehensive and fully detailed programme is to be submitted within the seven (7) days after the introductory meeting and should indicate all milestones and critical dates. This programme must first be approved by the *Project Manager* and must be updated on an as and when required basis by the *Project Manager*.

The following dates shall be clearly reflected on the programme:

- Starting and completion dates for all activities as well as relevant key dates for hold or witness points. All relevant significant activities shall be shown in order to monitor the progress of the project.
- The programme shall also reflect a 2-week period for inspection and correcting of Defects before the completion date.

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

Updated programmes must be available at all meetings reflecting progress to date and the date when delivery will take place through the use of task orders.

FORMAT OF THE PROGRAM

- The *Contractor* shall submit his construction program in terms of the conditions of contract.
- The *Contractor* is to submit a revised programme for acceptance at each site meeting.
- This program shall be in the form of an approved Gantt Chart containing the following information:
 - All construction activities, including milestones, initial tasks, critical path, required Outages, and target *Dates*. All potential risk activities should be clearly indicated on the critical path.
 - Every activity on the programme will be clearly linked to labour resources and equipment required to perform the specific activity.
 - Projected weekly progress on *site* for the entire duration of the contract.
 - Completion and hand-over *Dates* for formal inspection by the site supervisor must be indicated.
 - A column showing the daily tempo of all the construction activities must be indicated next to the activity on the programme.
 - Project expenditure on a monthly basis for the entire duration of the contract.
 - The following project phases and activities are minimum requirements for the programme:
 - Site Establishment and Material Delivery – Lead times to be specified.
 - Preparation work – Work that can be completed without the necessity of power outages
 - Outage work – Work that must be completed under outage conditions
 - Planned outages to be included in the programme
 - *Contractors* float to be included in the programme
 - The Contract Program will be on display in the *Contractors* Site Offices and will be updated weekly. In addition to the maintaining of this programme, the *Contractor* will report progress to the *Project Manager* at each site meeting or at request of the *Project Manager*.
 - The *Contractor* shall also provide an organisation chart showing the personnel to be employed for the *works*, along with a detailed CV of all key personnel.
 - Should any deviations to the program be found the *Contractor* shall submit a revised program to the *Project Manager* within one week of such deviations being brought to the *Contractor's* attention.
 - The Outages must be arranged with *Employer* via the Outage arrangement procedures, as a pre-requisite for the acceptance of the programme by the *Project Manager*.
 - Acceptance of any program by the *Project Manager* shall have no contractual status other than an indication that the *Project Manager* is satisfied as to the order in which the work is to be carried out, and that the *Contractor* undertakes to perform all work in accordance with the accepted program.
 - The *Project Manager* retains the right to alter the accepted program should circumstances on *site* necessitate such a change.

OTHER INFORMATION TO BE SHOWN ON THE PROGRAM.

The following Statutory non-working days are included within the contract period:

- All Public Holidays for the duration of the contract.
- The programme must clearly indicate the non-working days for the entire construction period.

2.7 *Contractor's* Management, Supervision and Key People

The *Contractor* is to submit an organogram showing all key people involved in the contract 7 days after contract award. All key personnel must be appointed in writing, must be current for the specific site and area of work and must be kept on file. This would be essential if the *Contractor* is a Joint Venture.

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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.

The *Contractor* shall address the tax invoice to:

Eskom Holdings SOC Limited
ECOU Operating Unit
Private Bag X1
Beacon Bay
East London
5201

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.

Z.....

Procedures for Invoice Submission and Payment (e. g. Electronic Payment Instructions)

General Information	X
- No Pro-forma Invoice	
- Check Vendor number against the Address and name on Tax invoice	
- Insert the Vendor number on Tax invoice (Top right hand corner)	
- Bank details must be on the invoice or on a attach sheet, but it does not require a bank stamp just a letter)	
- Check banking details on invoice against SAP system. If more than one banking account check bank account against banking details on invoice. If banking details not on invoice, write the bank code next to the vendor account (bank code 0002)	
- Check Vendor VAT number against the vendor master. (FK03) If VAT number not on master records, prepare a list and forward to Vendor Management to check and update the vendor master records	
- No fax copies of Tax invoices allowed	
- No copies of Tax invoices allowed unless originally printed by the Vendor if a photocopy tax invoice, it must be an original "certified copy" (i.e. not a copy of a "certified copy" invoice) from the vendor and check in system if not previously be paid. Put stamp "not previously paid" on invoice and sign.	
- Ensure that date received stamp is clear on invoice	
- Stamp all Invoices with the Vat stamp, complete and sign (only when VAT is applicable)	
- The stamp should not be stamped over any written information	
- When scanning invoice, check the quality before linking in SAP (inboxes)	
With Reference Invoices	X
- Goods receipt must be done (payment with reference)	
- Ensure that the SAP purchase order number is clear and correct on the invoice	
- GR number to be written on the Invoices	
- If multiple lines on invoice write the line number of the order against the line to ensure that the processors match the correct lines (to ensure that 191100 is matched correctly)	

2.9 Insurance provided by the *Employer*

As stated for "Format Dx" available from 01 April 2015 to 31 March 2016 on

http://www.eskom.co.za/Tenders/InsurancePoliciesProcedures/Pages/EIMS_Policies.aspx (See Annexure B

for basic guidance). Contact any of the Insurance Advisors from ESCAP.

2.10 Training workshops and technology transfer

The obligation for technology transfer being included as part of this contract on Completion of the *Works* is to train Eskom Staff and/or other *Contractors* on the use of the access control and remote monitoring system, secure kiosks installation and commissioning, as well as training on maintenance of the secure meter kiosks.

3 Engineering and the *Contractor's* design

3.1 *Employer's* design

The Employer will supply Contractor with a final design document compiled by the Project Engineer detailing the scope of work to be executed on the project as well as Project Drawings.

3.2 As-built drawings, operating manuals and maintenance schedules

The *Contractor* is required to provide the necessary drawings, operating manuals, test certificates and training program details, as well as a commitment letter for providing ongoing product support.

4 Procurement

4.1 People

4.1.1 Minimum requirements of people employed on the Site

All people employed by the *Contractor* to perform supervision of installation and commissioning should have Police Clearance before work can commence. The *Contractor's* employees shall be sober when carrying out their duties and may be subjected to random breathalyser tests.

4.1.2 BBBEE and Preferencing Scheme

Special Conditions of Contract (Application of other criteria in terms of Section 2(1)(f) of PPPFA)

The objective criteria as follow:

- Transformation of this sector by the appointment of a Black Owned Firm(s) that meet the functionality requirements;
- Development of Black Owned steel fabrication companies;
- Appointment of companies located within the Republic of South Africa.

NB: The Joint Venture may be:

- Black Owned and Black Owned Company;
- Black Owned Company (Majority Shareholder) and Non-Black Owned Company;
- Black Women Owned Company and Black Owned Company, and;
- Black Women Owned (Majority Shareholder) and Non-Black Owned Company.

A 51% or more Black Owned Companies or Joint Venture where the lead company has 51% or more black ownership.

Procurement Preference Hierarchy

Preference for awarding this contract and/or subcontracting are in the following order:

- Companies with more than 51% Black Ownership

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

- Enterprises Owned by Black People Living with Disability (BPLwD)
- Black Youth Owned Enterprises (BYO)
- Black Women-Owned Enterprises (BWO)
- Black Owned Enterprises (BO)

4.1.3 Supplier Development and Localisation

An SD&L Compliance Matrix for the development of skills and/or the promotion of localised content applicable to the scope of work shall be provided at tender stage. Regular reporting on a monthly basis must be done and handed to the project manager to report on progress of compliance to the targets agreed upon at contract stage. This report must be handed over to the Project Manager on a monthly basis when submitting the assessment claim for payment.

4.1.4 Expanded Public Work Programme (EPWP)

- The *Contractor* must report all local/temporary labourers employed in a project
- The *Contractor* MUST submit a report on a monthly basis
- The *Contractor* must NOT wait until the end of a project in order to submit reports
- The *contractor* must submit the REV 7 report together with the assessment claim for payment.
- The *contractor* is responsible for assisting ESKOM in reporting all work done.
- Eskom's report feeds back to Parliament and non-reporting of *contractors* affects this report.
- No payment will be certified without the required report being submitted.

4.1.5 Lost Time Injury Report (LTIR)

- The *Contractor* must submit this report monthly with each payment assessment claim
- No payment will be certified unless this report is submitted.

4.2 Subcontracting

4.2.1 Preferred subcontractors

The *Contractor* to submit the names of each proposed subcontractor to the *Employer* for acceptance. The *Contractor* does not appoint a subcontractor until the *Employer* has accepted such subcontractor.

4.2.2 Subcontract documentation, and assessment of subcontract tenders

The *Contractor* to indicate the percentage of subcontracting, the proposed subcontractors together with their BBBEE statuses, and the sources of assets, goods or services when local content and production criteria are applicable. The proposed target will form part of the contractual obligation. The NEC system is compulsory for all subcontract documentation.

4.2.3 Limitations on subcontracting

The *Contractor* is not allowed to sub-contract more than 25% of the contract to another enterprise/supplier that does not have equal or higher BBBEE status, unless the intended subcontractor is an EME that has the capability and ability to execute the sub-contract, in order to claim the points for BBBEE.

4.2.4 Attendance on subcontractors

The *Contractor* is responsible for performing on the provided scope of work as if he had not subcontracted. The appointed *Contractor* will also be liable to the *Subcontractors'* employees, as he legally and liable to this contract.

4.3 Plant and Materials

4.3.1 Quality

The *Contractor* shall control his activities and processes in accordance with Eskom's Quality Requirements for Procurement of Assets, Goods & Services, QM-58 and ISO-9001.

4.3.2 *Contractor's* procurement of Plant and Materials

The *Employer* requires warranties from the *Contractor* to be in favour of the *Employer* and not just to the *Contractor* during the life of the contract.

4.4 Tests and inspections before delivery

The *Contractor* is required to confirm, that for contractor supplied material, at the time of purchase, materials comply to Eskom specifications and that the relevant test certification is available for inspection and verification. The *Contractor* shall make sure that regular quality control tests are carried out to ensure that good quality of the materials is maintained.

4.5 Accessibility to Eskom Technology Standards

The contractor is to confirm that accessibility to Eskom Technical Standards Website is secured prior to commencement of the project. The accessibility to the website may be acquired by contacting the following persons.

1. Brenda Morrison
Assistant Officer
Tel: 011 629 5266
Fax: 086 662 6387
Brenda.morrison@eskom.co.za
2. Kevin Layley
Document Controller
Technology
Power Delivery Engineering
Design Base Operating Unit Support
Tel +27 11 800 6181
E-mail Kevin.Layley@eskom.co.za

5 Construction

5.1 Completion, testing, commissioning and correction of Defects

5.1.1 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.

5.1.2 Use of the *works* before Completion has been certified

The *Contractor* will have to carry out the supervision of the installations, as per the instruction of the *Project Manager*.

5.1.3 Materials facilities and samples for tests and inspections

From time to time random sample test and inspections may be requested, to ensure good quality of the materials being supplied. In accordance with EI 048 MVL (or the latest revision thereof), the appointed COW for the project will be required to undertake an inspection of materials before project commencement for compliance with Eskom's technical standards when such materials are delivered to the site storage location. The COW for the project may be aided, as needed, for the inspection from time-to-time by a representative of Eskom's Standards Implementation Department for the material inspection. The material supplied to the project shall be items that have been previously and currently Eskom assessed items. Where items have no traceable record of prior approval in existence or where compliance to Eskom's specifications are in doubt, the contractor shall be given 30 (thirty) days to provide all valid certification (including but not only) test records as specified in SANS/IEC and Eskom standards to prove that the material in question complies with Eskom's requirements. Where such material is found to be in contravention of Eskom's standards, such material will be rejected and will be for the contractor's cost to replace and/or re-work.

On completion of the first transformer zone, the contractor is required to request the COW (aided by SI Dept representative as and when needed) to conduct a detailed inspection of the network constructed. Defects identified on the first transformer zone shall be corrected and will serve as the benchmark of quality to be expected on the remainder of the project.

5.1.4 Commissioning

Commissioning is to be done before or after Completion depending on the Programme from the *Project Manager*.

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

In order to put the *works* into operation the *Project Manager* may require the *Contractor* to either do this for him or be in attendance whilst he does it, depending on who is the responsible person.

5.1.5.1 Traveling Cost

Camp Site Establishment - The contractor will only be re-imbursed for 1 trip per vehicle from the contractor base to the Project Site, which must be pre-approved by the relevant Programme Manager.

Camp Site De-Establishment - The contractor will only be re-imbursed for 1 trip per vehicle from the Project Site to contractor base, which must be pre-approved by the relevant Programme Manager.

Travelling on the Project Site – An allowance of **30km** per day per vehicle will be made from Project Site Camp to the place of execution, however in order to claim, this must be supported by vehicle Tracker records, verified by the Eskom Clerk of Works. Should the daily allowance of **30km** be exceeded, pre-approval in writing by the Programme Manager must be obtained. Travelling costs to execute the Scope of work forms part of the labour rate for each activity on the BOQ.

5.1.5.2 Material Handling

5.1.5.2.1 Material Supplied by the Contractor – A (handling fee) direct fee equal to **5%** of the material cost paid, can be claimed by the contractor.

5.1.6 Take over procedures

Take-over is after or at the same time as Completion. The *Contractor* is to arrange an inspection before completion of the installation to inspect and identify any outstanding or any defects. The *Project Manager* may require the *Contractor* to provide assistance, on an as and when required basis.

5.1.7 Access given by the *Employer* for correction of Defects

The *Project Manager* arranges access for the *Contractor* to use a part of the *works* which has been taken over if needed to correct any Defects. After the *works* have been put into operation, the *Employer* may

PART 4: SITE INFORMATION

Document reference	Title	No of pages
C4	This cover page	1
	Site Information	02
	Total number of pages	02

PART 4: SITE INFORMATION

Core clause 11.2(16) states

“Site Information is information which

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

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

1. General description

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

Some of the existing infrastructure is indicated on substation layout drawings provided. Though it is the Contractor's responsibility, to familiarise himself with all existing infrastructure in and around the working place

3. Subsoil information

All excavations and associated soil information are described under the Works information and Bill of Quantities. Geotechnical study or report provided.

4. Hidden services

In the event of a discrepancy between physical condition and the information on a drawing, the Contractor shall notify the Project Manager immediately if the physical condition found on site is such that the deviation from the drawing requires a change in the design of the works.

The Provision of Construction and upgrade of MV & LV overhead and Underground Lines in Cape Coastal Cluster (CCC)

PART 5: ANNEXURES

C5 Annexures

The Provision of Construction and upgrade of MV & LV overhead and
Underground Lines in Cape Coastal Cluster (CCC)
GENERAL SPECIFICATIONS

NO	REFERENCE NUMBER	R E V.	TITLE	TYPE *SPEC/PF	ATTACHED YES/NO
A1	PFMA 1 of 1999		Public Finance Management Act		No
			<u>Integrated Risk Management - Safety</u>		
A2	OHS Act. 85 of 1993		Occupational Health and Safety Act	SPEC	No
A3	COID 130 of 1993		Compensation Health and Safety Act		
A4	SCSAMAAE4	0	Safety Risk Management Process Manual	Manual	No
A5	SCSPVABM9	0	Co-Ordination of safety on capital projects	Procedure	No
A6	SCSASAAW8	4	Standards applicable for Contractors working in close proximity to live apparatus	Standard	No
A7	DPC34-333	0	OHS Act requirements to be met by principal contractors employed by Eskom Distribution	Procedure	YES Contractor Must sign
A8	SCSPVACK0	0	Identifying, analyzing, documenting and observing dangerous/hazardous tasks.	Procedure	No
A9	SCSPVACU1	1	Pres-Task Planning and Feedback process	Procedure	No
A10	SCSPVABP6	1	Procedure for refusal to work on the grounds of health, safety and environmental concerns.	Procedure	No
A11	34-350	0	Reporting, recording, investigating, costing and follow-up of incident/accidents.	Procedure	No
A12	34-332	0	First Aid Standard	Standard	No
A13	ESKPVAEY6	0	Operating Regulations for High Voltage Systems	Procedure	No
A14	34-163	1	Portfolio of evidence for Authorisation	Guide	No
A15	NWS 1494		Fire Prevention and Protection of Contractor's Premises on New Work Sites	SPEC	No
			<u>Operational</u>		
A16	ESKARAAG4	6	Operating Regulations for High Voltage Systems	Procedure	No
A17	SCSPVABN2	0	Training, Testing and Authorization of persons for the operating and maintenance of the Power System	SPEC	No
A18	SCSAMAAE5	1	The training logbooks for Authorization of persons working on high voltage systems.	SPEC	No
A19	SCSAAAR0		GUIDE FOR THE STORAGE, TRANSPORT AND HANDLING OF COMPOSITE INSULATORS	Guide	No
A20	ESKASAAU7	0	Quality Requirements for the procurement of Assets, Goods and Services.	Standard	No
A21	SCSAGAAW2	0	Building line restrictions, servitudes widths, line separations and clearances from power lines	Guide	No
A22	DISPVABY3	0	Procedure for handling Auditing and stacking of new wooden poles	Procedure	No.
A23	DISPVAB17	1	Procedure for manual handling of rural line poles.	Standard	No
A24	ESKASABG3	1	Standards for bush clearance and maintenance within overhead powerline servitudes	Standard	No
A25	SCSSCAAY5	2	Specifications for phase conductor for distribution lines (See 4.6 Conductor markings)	SPEC	No
A26	DISADABQ9		Access to farms	Guide	No.
			<u>Contractor Site Requirements</u>		
A27	STR103/2006 10 TI-012		Transporting person on back of vehicles Prohibition of transportation of employees in crew cabs mounted on the back of trucks	Technical Instr.	No
A28	Work Instruction		Expanded Public Works Report – Divisional Capital Programme & Manhour Report		No
A29			Eskom Distribution Standard including all Technical Bulletins issued till Tender Issue date	SPEC	No
A30			Electrical Clearances and Safe Working Clearances	SPEC	No
A31			Tax Declaration and Tax Clearance	SPEC	No

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A32			Section 28 of the National Environmental Management Act 10 of 1998	SPEC	No
			Project Specific Documentation:		
A33		0	Final Design Package	FDP	Yes
A34		0	Environmental Documents: <ul style="list-style-type: none"> ENVIRONMENTAL MANAGEMENT PLAN - ENVIRONMENTAL AUTHORISATION ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FINAL BASIC ASSESSMENT REPORT 	SPEC	Yes
A35		0	SHE SPECIFICATION FOR SUB TRANSMISSION PROJECTS	SPEC	Yes

Eskom Holdings Limited's Standard and Specifications are available at www.eskom.co.za and all Procurement offices.