Eskom

NEC3 Engineering and Construction

Short Contract (ECSC3)

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

and **……..**

for **The Provision of Minor Reticulation work for the Connection of New and Upgraded Customers to the Electrical Networks on "as and when required basis" in Cape Coastal Cluster – Eastern Cape**

Contents: Compiled in accordance with CIDB Standard for Uniformity in Construction Procurement (May 2010 amendments) **Page No.**

Documentation prepared by: **CONTRACTS MANAGEMENT**

C1 Agreements & Contract Data

C1.1 Form of Offer and Acceptance

Offer

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

The Provision of Minor Reticulation work for the Connection of New and Upgraded Customers to the Electrical Networks on "as and when" required basis in Cape Coastal Cluster – Eastern Cape

The tenderer, identified in the signature block below, having examined the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, 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.

The offered total of the Prices exclusive of VAT is	**Rates based Contract**
Value Added Tax @ 15% is	**Rates based Contract**
The offered total of the Prices inclusive of VAT is	**Rates based Contract**
(in words) **Rates based Contract**	

This Offer may be accepted by the Employer by signing the form of Acceptance overleaf 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: .....

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

Part 2 Pricing Data

Part 3 Scope of Work: Works Information

Part 4 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 Tender 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, which must be signed by the duly authorised representative(s) for both parties.

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

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the tenderer receives one fully completed and signed copy of this document, including the Schedule of Deviations (if any) together with all the terms of the contract as listed above.

Signature(s) .....

Name(s) Aron Rondganger .....

Capacity Senior Manager – Asset Creation(Acting) .....

(Insert name and address of organisation)

for the Employer

ESKOM HOLDINGS SOC LIMITED
PRIVATE BAG X1
BEACON BAY
5205

Name & signature of witness .....

Date .....

Note: If a tenderer wishes to submit alternative tender offers, further copies of this document may be used for that purpose, duly endorsed, 'Alternative Tender No. _____ '

Schedule of Deviations

Note:

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

No.	Subject	Details
1	**[•]**	**[•]**
2	**[•]**	**[•]**
3	**[•]**	**[•]**
4	**[•]**	**[•]**
5	**[•]**	**[•]**
6	**[•]**	**[•]**
7	**[•]**	**[•]**

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

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

	For the tenderer:	**For the Employer**
Signature	.....	.....
Name	.....	**Aron Rondganger**
Capacity	.....	Senior Manager – Asset Creation(Acting)
On behalf of	..... *(Insert name and address of organisation)*	..... *(Insert name and address of organisation)* **ESKOM HOLDINGS SOC LIMITED PRIVATE BAG X1 BEACON BAY 5205**
Name & signature of witness	.....	.....
Date	.....	.....

C1.2 Contract Data

Data provided by the *Employer*

Completion of the data in full is essential to create a complete contract.

Clause	Statement	Data
	General	
10.1	The *Employer* is (Name):	**Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa**
	Address	**Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg**
10.1 & 14.4	The *Employer*'s representative to whom the *Employer* in terms of clause 14.4 delegates his actions[1] is (Name):	**Mpezo Ntsunguzi**
	Address	**ESKOM HOLDINGS SOC LIMITED** **PRIVATE BAG X1** **BEACON BAY** **5214**
	Tel No.	**043 703 2133**
	Fax No.	
	E-mail address	**NtsunguM@eskom.co.za**
11.2(11)	The *works* are	**The Provision of Minor Reticulation work for the Connection of New and Upgraded Customers to the Electrical Networks on "as and when required basis" in Cape Coastal Cluster – Eastern Cape**
11.2(13)	The Works Information is in	**the document called 'Works Information' in Part 3 of this contract.**
11.2(12)	The Site Information is in	**the document called 'Site Information' in Part 4 of this contract.**
11.2(12)	The *site* is	**Various Zones within the ECOU**
30.1	The *starting date* is.	**01 May 2023**
11.2(2)	The *completion date* is.	**30 April 2025**
13.2	The *period for reply* is	**2 (two) Working days**
40	The *defects date* is	**52 (fifty two) weeks from date of acceptance of Handover Documentation**
41.3	The *defect correction period* is	**5 (five) working days**
50.1	The *assessment day* is the	**On completion of the *works* as defined by the Task Instruction / NEC .**

[1] Except those actions which can only be done by the *Employer* as a Party to the contract.

50.5	The *delay damages* are	**R 300.00 per day/Task Instruction** **R 400.00 per late outage (starting or ending)** **R 2000.00 per additional site inspection required** **due to defects or non-completion of task advised** **as complete**
50.6	The retention is	**0%**
51.2	The interest rate on late payment is	**0.5 % per complete week of delay.**
80.1	The *Contractor* is not liable to the *Employer* for loss of or damage to the *Employer*'s property in excess of	the amount of the deductibles relevant to the event described in the applicable "Format ECSC3" policy available on http://www.eskom.co.za/Tenders/InsurancePoliciesProcedures/Pages/EIMS_Policies_From_1_April_2014_To_31_March_2015.aspx
80.2	The minimum amount of cover for the fourth insurance stated in the Insurance Table is	**As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 and the Contractor's 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)**
	Does the United Kingdom Housing Grants, Construction and Regeneration Act (1996) apply?	**No**
93.1	The *Adjudicator* is	**the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).**
	Address	**To be appointed when dispute arise**
	Tel No.	

	Fax No.	
	e-mail	
93.2(2)	The *Adjudicator nominating body* is:	**the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See www.ice-sa.org.za) or its successor body**
93.4	The *tribunal* is:	**Arbitration.**
	The *arbitration procedure* is	**the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.**
	The place where arbitration is to be held is	**East London, Eastern Cape, South Africa**
	The person or organisation who will choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	**the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.**

The *conditions of contract* are the NEC3 Engineering and Construction Short Contract (April 2013)[2][3] and the following additional conditions Z1 to Z11 which always apply:

Z1 Cession delegation and assignment

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

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

Z2 Change of Broad Based Black Economic Empowerment (B-BBEE) status

Z2.1 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.

Z2.2 The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Employer* within thirty days of the notification or as otherwise instructed by the *Employer*.

Z2.3 Where, as a result, the *Contractor's* B-BBEE status has decreased since the *starting date* the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor*'s obligation to Provide the Works.

Z2.4 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 those stated in Clause 91.1 and the amount due on termination

[2] If June 2005 Edition applies, delete April 2013 and insert June 2005
[3] State whether attached as a 'PDF' file in terms of Eskom's licence, or to be obtained from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za.

includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the *Employer* of completing the *works*.

Z3 Confidentiality

Z3.1 The *Contractor* does not disclose or make any information arising from or in connection with this contract available to others except where required by this contract. 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 where required by this contract the *Contractor* ensures that the provisions of this clause are complied with by the recipient.

Z3.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Employer*.

Z3.3 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.

Z3.4 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 *Employer*. All rights in and to all such images vests exclusively in the *Employer*.

Z3.5 The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause.

Z4 Waiver and estoppel: Add to clause 12.2:

Z4.1 Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties or their delegates 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.

Z5 Health, safety and the environment

Z5.1 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.

Z5.2 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.

Z6 Provision of a Tax Invoice and interest. Add to clause 50

Z6.1 The *Contractor* provides the *Employer* with a tax invoice in accordance with the *Employer*'s procedures stated in the Works Information, showing the correctly assessed amount due for payment.

Z6.2 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 clause 51.2 is then calculated from the delayed date by when payment is to be made.

Z6.3 The *Contractor* is required to comply with the requirements of the Value Added Tax Act, no 89 of 1991 (as amended) and to include the *Employer*'s VAT number 4740101508 on each invoice he submits for payment.

Z7 Notifying compensation events

Z7.1 Delete from the last sentence in clause 61.1, "unless the event arises from an instruction of the *Employer*."

Z8 *Employer's* limitation of liability; Add to clause 80.1

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

Z9 Termination: Add to clause 90.2, after the words "or its equivalent":

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

Z10 Addition to Clause 50.5

Z10.1 If the amount due for the *Contractor*'s payment of *delay damages* reaches the limits stated in this Contract Data (if any), the *Employer* may terminate the *Contractor*'s obligation to Provide the Works.

If the *Employer* terminates in terms of this clause, the procedures on termination are those stated in Clause 91.1 and the amount due on termination includes amounts listed in Clause 92.1 less a deduction of the forecast additional cost to the *Employer* of completing the *works*.

Z11 Ethics

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

Affected Party means, as the context requires, any party, irrespective of whether it is the *Contractor* or a third party, such party's employees, agents, or Subconsultants 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 Subcontractors 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.

Z11.1 A Committing Party may not take any Prohibited Action during the course of the procurement of this contract or in execution thereof.

Z11.2 The *Employer* may terminate the *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.

Z11.3 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.

Z11.4 A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the *Employer* does not have a contractual bond with the Committing Party, the *Contractor* ensures that the Committing Party co-operates fully with an investigation.

Z12 Insurance

Z _12.1 Replace core clause 82 with the following:

Insurance cover 82

82.1 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.

82.2 The *Contractor* provides the insurances stated in the Insurance Table A, from the *starting date* until the earlier of Completion and the date of the termination certificate.

INSURANCE TABLE A

Insurance against	Minimum amount of cover or minimum limit of indemnity	Cover provided until
Loss of or damage to the *works*	The replacement cost where not covered by the *Employer*'s insurance	The *Employer*'s certificate of Completion has been issued

	The *Employer*'s policy deductible as at contract date, where covered by the *Employer*'s insurance	
Loss of or damage to Equipment, Plant and Materials	The replacement cost where not covered by the *Employer*'s insurance The *Employer*'s policy deductible as at contract date, where covered by the *Employer*'s insurance	The Defects Certificate has been issued
The *Contractor*'s liability for loss of or damage to property (except the *works*, Plant and Materials and Equipment) and for bodily injury to or death of a person (not an employee of the *Contractor*) arising from or in connection with the *Contractor*'s Providing the Works	**Loss of or damage to property** *Employer*'s property The replacement cost where not covered by the *Employer*'s insurance The *Employer*'s policy deductible as at contract date where covered by the *Employer*'s insurance Other property The replacement cost **Bodily injury to or death of a person** The amount required by the applicable law	
Liability for death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law	

82.3 The *Employer* provides the insurances as stated in the Insurance Table B

INSURANCE TABLE B

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

Z13 Nuclear Liability

Z13.1 The *Employer* is the operator of the Koeberg Nuclear Power Station (KNPS), a nuclear installation, as designated by the National Nuclear Regulator of the Republic of South Africa, and is the holder of a nuclear licence in respect of the KNPS.

Z13.2 The *Employer* is solely responsible for and indemnifies the *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*.

Z13.3 Subject to clause Z13.4 below, the *Employer* waives all rights of recourse, arising from the aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *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*.

Z13.4 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.

Z13.5 The protection afforded by the provisions hereof shall be in effect until the KNPS is decommissioned.

Z14 Asbestos

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

AAIA means approved asbestos inspection authority.

ACM means asbestos containing materials.

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

OEL.

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.

Z14.1 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.

Z14.2 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 Z14.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.

Z14.3 The *Employer* manages asbestos and ACM according to the Standard.

Z14.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.

Z14.5 The *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.

Z14.6 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.

Z14.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the *Employer* at the *Employer*'s expense, and conducted in line with South African legislation.

Data provided by the *Contractor* (the *Contractor*'s Offer)

The tendering contractor is advised to read both the NEC3 Engineering and Construction Short Contract (April 2013) and the relevant parts of its Guidance Notes (ECSC3-GN)[4] 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 page 31 of the ECSC3 April 2013 Guidance Notes.

Completion of the data in full is essential to create a complete contract.

10.1	The *Contractor* is (Name):	**[•]**
	Address	**[•]**
	Tel No.	**[•]**
	Fax No.	**[•]**
	E-mail address	**[•]**
63.2	The percentage for overheads and profit added to the Defined Cost for people is	**%**
63.2	The percentage for overheads and profit added to other Defined Cost is	**%**
11.2(9)	The Price List is in	**the document called 'Price List' in Part 2 of this contract.**
11.2(10)	The offered total of the Prices is [Enter the total of the Prices from the Price List]:	**Rates excluding VAT [in words]** **Rates excluding VAT**

[4] Available from Engineering Contract Strategies Tel 011 803 3008, Fax 086 539 1902 or www.ecs.co.za.

C2 Pricing Data

C2.1 Pricing assumptions

Entries in the first four columns in the Price List are made either by the *Employer* or the tendering contractor

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tenderer enters the amount in the Price column only; the Unit, Quantity and Rate columns being left blank.

If the *Contractor* is to be paid an amount for the item of work which is the rate for the work multiplied by the quantity completed, the tenderer enters the rate which is then multiplied by the expected quantity to produce the Price, which is also entered.

All Prices are to be shown excluding VAT unless instructed otherwise by the *Employer* in Tender Data or in an instruction the *Employer* has given before the tenderer enters his Prices.

If there is insufficient space in the Price List which follows, state in which document the Price List is contained.

C2.2 Price List

The Price List is as follow

Minor Works										RATES
Rates to be applied for all Distribution Technology Drawings										2022 to 2025
Job Number :			###	GTX / K2 Nº :	###					
Project Name:			###	Estimated Value :	###					
CONTRACTOR :			###							
DRG.D-DT-	Sht	REV.	DESCRIPTION All structure prices Exclude the big 5 (Conductor, Transformers, Poles and Wooden X-Arms, Metering Kiosks)	UNIT	Work Done MAT	Work Done LAB	MATERIAL	LABOUR	TOTAL WORK DONE	
									2022 to 2025	
MATERIALS AND LABOUR							R	- R 547 419		
3000 Series										
(Supply and install stays, flying stays, struts. 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)										
0341	1 of 5	17	LV-STAY ASSEMBLY (LV - 35kN) WOOD OR CONCRETE POLES	Nº			R -	R 506.00	R -	
	2 of 5	17	MV-STAY ASSEMBLY (MV - 97kN) WOOD POLES	Nº			R -	R 562.00	R -	
	3 of 5	17	MV-STAY ASSEMBLY (MV - 97kN) WOOD OR CONCRETE POLES	Nº			R -	R 562.00	R -	
0342		3	LV/MV - STRUT ASSEMBLY FLAT 45 DEG. BRACKET FOR 9m WOOD POLES (not for MV Line)	Nº			R -	R 1 161.00	R -	
0343		4	LV - FLYING STAY ARRANGEMENT	Nº			R -	R 1 367.00	R -	
		4	MV - FLYING STAY ARRANGEMENT	Nº			R -	R 1 464.00	R -	
0342.	1 of 2	4	MV-STRUT ASSEMBLY - SWIVEL BRACKET - 11m & 12m POLES	Nº			R -	R 1 236.00	R -	
	2 of 2	4	MV-STRUT ASSEMBLY - SWIVEL BRACKET - H POLES	Nº			R -	R 1 236.00	R -	
0357	2 of 3	7	MV-ROCK ANCHOR INSTALLATION (2 EYED ROD & PIN TYPE)	Nº			R -	R 644.00	R -	
			LV-ROCK ANCHOR INSTALLATION (2 EYED ROD & PIN TYPE)	Nº			R -	R 554.00	R -	
4000 Series										
0400		3	MV SWER - INTERMEDIATE 0 DEG. DEVIATION - excl BIL	Nº			R -	R 166.00	R -	
0401		4	MV SWER - INTERMEDIATE SMALL ±1-10 DEG. DEVIATION	Nº			R -	R 91.00	R -	
0403		3	MV SWER - STRAIN SMALL 0 DEG. DEVIATION	Nº			R -	R 195.00	R -	
0404		5	MV SWER - STRAIN SMALL 1-30 DEG. DEVIATION	Nº			R -	R 195.00	R -	
0406		5	MV SWER - STRAIN LARGE 30-90 DEG. DEVIATION	Nº			R -	R 195.00	R -	
0407		6	MV SWER - TERMINAL	Nº			R -	R 97.00	R -	
			Measured Complete							
0410		4	MV SWER - INTERMEDIATE WITH EARTH WIRE 0 DEG. DEVIATION	Nº			R -	R 239.00	R -	
0411		5	MV SWER - INTERMEDIATE WITH EARTH WIRE SMALL ±1-10 DEG. DEVIATION.	Nº			R -	R 164.00	R -	
0413		5	MV SWER - STRAIN WITH EARTH WIRE 0 DEG. DEVIATION	Nº			R -	R 339.00	R -	
0414		5	MV SWER - STRAIN WITH EARTH WIRE SMALL 1-30 DEG. DEVIATION	Nº			R -	R 302.00	R -	
0416		5	MV SWER - STRAIN WITH EARTH WIRE LARGE 30-90 DEG. DEVIATION	Nº			R -	R 339.00	R -	
0417		5	MV SWER - TERMINAL WITH EARTH WIRE	Nº			R -	R 170.00	R -	
0418		5	MV SWER - EARTH WIRE TERMINAL [Understrung Only]	Nº			R -	R 72.00	R -	
			Excluding Main Str - Claim separately.							
0450	1 & 2 of 2	5	MV SWER - TAKE-OFF FROM INTERMEDIATE AND FROM STRAIN [excluding Main Str], - TAKE-OFF FROM INTERMEDIATE POST INSULATOR ON TOP [excluding Main Str]	Nº			R -	R 172.00	R -	
0451	1 or 2 of 2	5	MV SWER - TAKE-OFF WITH EARTH WIRE FROM INTERMEDIATE AND FROM STRAIN	Nº			R -	R 172.00	R -	
0462		3	MV SWER - SINGLE SWER DISTRIBUTION TRANSFORMER 16 TO 32kVA (incl. earthing of TRFR)	Nº			R -	R 1 933.00	R -	
0463		3	MV SWER - BACK TO BACK 64kVA DUAL PHASE SUPPLY FROM A 19kVA SWER BACKBONE (incl. earthing)	Nº			R -	R 3 461.00	R -	
0464		4	MV SWER - SINGLE PHASE RECLOSER ON A SINGLE POLE (incl.earthing)	Nº			R -	R 2 165.00	R -	
0465		2	MV SWER - RETICULATION SWER CUT-OUT	Nº			R -	R 225.00	R -	
6000 Series										
0627	1 of 2 MV	7	TRANSFORMER SINGLE POLE MOUNTING (MV p= 300 for 30ohm ELECTRODE AT TRANSFORMER) Only for use as per Project Engineers request. Example for the upgarding of an existing Trfr	EA			R -	R 3 124.00	R -	
	2 of 2 LV	7	TRANSFORMER SINGLE POLE MOUNTING (LV p= 300 for 30ohm ELECTRODE AT TRANSFORMER) Only for use as per Project Engineers request. Example for the upgarding of an existing Trfr	EA			R -	R 2 614.00	R -	

8000 Series											
0831	1 of 6	1		LV OUTDOOR CABLE TERMINATION TO ABC LINE (UNFUSED) **≤ 25mm² 4** CORE INTERMEDIATE STRUCTURE	N°			R -	R 468.00	R -
	2 & 5 of 6	1		LV OUTDOOR CABLE TERMINATION TO ABC LINE (UNFUSED) **≤35mm² 4** CORE INTERMEDIATE STRUCTURE	N°			R -	R 655.00	R -
	3 of 6	1		LV OUTDOOR CABLE TERMINATION TO ABC LINE (UNFUSED) **70mm² 4** CORE INTERMEDIATE STRUCTURE	N°			R -	R 655.00	R -
	4 of 6	1		LV OUTDOOR CABLE TERMINATION TO ABC LINE (UNFUSED) **≤ 25mm² 4** CORE TERMINAL STRUCTURE	N°			R -	R 468.00	R -
	6 of 6	1		LV OUTDOOR CABLE TERMINATION TO ABC LINE (UNFUSED) **70mm² 4** CORE TERMINAL STRUCTURE	N°			R -	R 655.00	R -
0832	1 of 3	1		LV OUTDOOR CABLE TERMINATION TO OPEN WIRE LINE (UNFUSED) **≤ 25mm² 4** CORE INTERMEDIATE OR TERMINAL STRUCTURE	N°			R -	R 655.00	R -
	2 of 3	1		LV OUTDOOR CABLE TERMINATION TO OPEN WIRE LINE (UNFUSED) **35mm² 4** CORE INTERMEDIATE OR TERMINAL STRUCTURE	N°			R -	R 655.00	R -
	3 of 3	1		LV OUTDOOR CABLE TERMINATION TO OPEN WIRE LINE (UNFUSED) **70mm² 4** CORE INTERMEDIATE OR TERMINAL STRUCTURE	N°			R -	R 843.00	R -
0833	1 of 3			LV OUTDOOR CABLE TERMINATION TO TRANSFORMER (UNFUSED) **≤ 25mm² 4** CORE	N°			R -	R 468.00	R -
	2 of 3			LV OUTDOOR CABLE TERMINATION TO TRANSFORMER (UNFUSED) **1 x 70mm 4** CORE	N°			R -	R 655.00	R -
	3 of 3			LV OUTDOOR CABLE TERMINATION TO TRANSFORMER (UNFUSED) **2 x 150mm² 4** CORE	N°			R -	R 2 060.00	R -
0834	1 of 6	1		LV OUTDOOR CABLE TERMINATION TO ABC LINE (FUSED) **≤25mm² 4** CORE INTERMEDIATE STRUCTURE	N°			R -	R 468.00	R -
	2 of 6	1		LV OUTDOOR CABLE TERMINATION TO ABC LINE (FUSED) **35mm² 4** CORE INTERMEDIATE STRUCTURE	N°			R -	R 468.00	R -
	3 & 6 of 6	1		LV OUTDOOR CABLE TERMINATION TO ABC LINE (FUSED) **70mm² 4** CORE INTERMEDIATE STRUCTURE	N°			R -	R 655.00	R -
0835	1 of 4	1		LV OUTDOOR CABLE TERMINATION TO OPEN WIRE LINE (FUSED) **≤25mm² 4** CORE INTERMEDIATE OR TERMINAL STRUCTURE	N°			R -	R 655.00	R -
	2 of 4	1		LV OUTDOOR CABLE TERMINATION TO OPEN WIRE LINE (FUSED) **≤35mm² 4** CORE INTERMEDIATE OR TERMINAL STRUCTURE	N°			R -	R 655.00	R -
	3 of 4	1		LV OUTDOOR CABLE TERMINATION TO OPEN WIRE LINE (FUSED) **70mm² 4** CORE INTERMEDIATE OR TERMINAL STRUCTURE	N°			R -	R 843.00	R -
	4 of 4	1		LV OUTDOOR CABLE TERMINATION TO OPEN WIRE LINE (FUSED) **150mm² 4** CORE INTERMEDIATE OR TERMINAL STRUCTURE	N°			R -	R 843.00	R -
0836	1 of 4			LV OUTDOOR CABLE TERMINATION TO TRANSFORMER (FUSED) **≤ 25mm² 4** CORE	N°			R -	R 468.00	R -
	2 of 4			LV OUTDOOR CABLE TERMINATION TO TRANSFORMER (FUSED) **1x70mm² 4** CORE	N°			R -	R 655.00	R -
0840		1		LV DISTRIBUTION KIOSK ASSEMBLY STRUCTURE	N°			R -	R -	R -
0851	1 of 4	13		CABLE TERMINATION ONTO OVERHEAD LINE WITH FUSE-CUT-OUT ASSEMBLY GENERAL ARRANGEMENT	N°			R -	R 5 524.00	R -
	4 of 4	13		CABLE TERMINATION ONTO H-POLE STRUCTURE GENERAL ARRANGEMENT	N°			R -	R 7 427.00	R -
0852	1 of 4	4		OVERHEAD CABLE SUPPORT BRACKET FOR STATION CLASS S.A.'S	N°			R -	R 2 154.00	R -
	4 of 4	4		OVERHEAD H-POLE CABLE SUPPORT BRACKET FOR STATION CLASS S.A.'S	N°			R -	R 2 184.00	R -
9000 Series											
0920		5		LV BARE WIRE SYSTEMS - 3 PHASE INTERMEDIATE ASSEMBLY 0 DEG.	N°			R -	R 258.00	R -
0921		5		LV BARE WIRE SYSTEMS - 3 PHASE IN-LINE STRAIN ASSEMBLY	N°			R -	R 517.00	R -
0922		5		LV BARE WIRE SYSTEMS - 3 PHASE ANGLE ASSEMBLY 1-100 DEG.	N°			R -	R 352.00	R -
0924		5		LV BARE WIRE SYSTEMS - 3 PHASE TERMINAL ASSEMBLY	N°			R -	R 352.00	R -
0925		5		LV BARE WIRE SYSTEMS - 3 PHASE T-OFF ASSEMBLY FROM INTERMEDIATE	N°			R -	R 352.00	R -
0926		5		LV BARE WIRE SYSTEMS - 3 PHASE INTERMEDIATE RIGHT ANGLE CROSSING	N°			R -	R 408.00	R -
0927		5		LV BARE WIRE SYSTEMS - 3 PHASE T-OFF ASSEMBLY FROM STRAIN (PG clamp)	N°			R -	R 352.00	R -
0928		4		LV BARE WIRE SYSTEMS - THREE PHASE CABLE CONNECTION (PG Clamps)	N°			R -	R 352.00	R -
0929		6		LV BARE WIRE SYSTEMS - SERVICE DISTIBUTION BOX CONNECTION	N°			R -	R 300.00	R -
0932		3		LV BARE WIRE SYSTEMS - 3 PHASE OPEN WIRE / ABC CONNECTION	N°			R -	R 352.00	R -
0934		3		LV BARE WIRE SYSTEMS - 3 PHASE INTERMEDIATE STRAIN CROSSING	N°			R -	R 682.00	R -
0935		3		LV BARE WIRE SYSTEMS - 3 PHASE STRAIN - STRAIN CROSSING	N°			R -	R 846.00	R -
0940		1		LV BARE WIRE SYSTEMS - 2 PHASE INTERMEDIATE ASSEMBLY 0 DEG.	N°			R -	R 194.00	R -
0941		1		LV BARE WIRE SYSTEMS - 2 PHASE IN-LINE STRAIN ASSEMBLY	N°			R -	R 388.00	R -
0942		1		LV BARE WIRE SYSTEMS - 2 PHASE ANGLE ASSEMBLY 1-100 DEG.	N°			R -	R 264.00	R -
0944		1		LV BARE WIRE SYSTEMS - 2 PHASE TERMINAL ASSEMBLY	N°			R -	R 352.00	R -
0945		1		LV BARE WIRE SYSTEMS - 2 PHASE T-OFF ASSEMBLY FROM INTERMEDIATE	N°			R -	R 264.00	R -
0946		1		LV BARE WIRE SYSTEMS - 2 PHASE INTERMEDIATE RIGHT ANGLE CROSSING	N°			R -	R 306.00	R -
0947		1		LV BARE WIRE SYSTEMS - 2 PHASE T-OFF ASSEMBLY FROM STRAIN	N°			R -	R 264.00	R -
0948		1		LV BARE WIRE SYSTEMS - 2 PHASE CABLE CONNECTION	N°			R -	R 264.00	R -
0949		2		LV BARE WIRE SYSTEMS - 2 PHASE SERVICE DISTRIBUTION BOX CONNECTION	N°			R -	R 225.00	R -
0950		2		LV BARE WIRE SYSTEMS - 2 PHASE OPEN WIRE / ABC CONNECTION	N°			R -	R 264.00	R -
0951		1		LV BARE WIRE SYSTEMS - 2 PHASE INTERMEDIATE STRAIN CROSSING	N°			R -	R 512.00	R -
0952		1		LV BARE WIRE SYSTEMS - 2 PHASE STRAIN - STRAIN CROSSING	N°			R -	R 635.00	R -
0960		1		LV BARE WIRE SYSTEMS - 1 PHASE INTERMEDIATE ASSEMBLY 0 DEG.	N°			R -	R 130.00	R -
0961		1		LV BARE WIRE SYSTEMS - 1 PHASE IN-LINE STRAIN ASSEMBLY	N°			R -	R 258.00	R -
0962		1		LV BARE WIRE SYSTEMS - 1 PHASE ANGLE ASSEMBLY 1-100 DEG.	N°			R -	R 176.00	R -
0964		1		LV BARE WIRE SYSTEMS - 1 PHASE TERMINAL ASSEMBLY or Take off ASSEMBLY	N°			R -	R 352.00	R -
0965		1		LV BARE WIRE SYSTEMS - 1 PHASE T-OFF ASSEMBLY FROM INTERMEDIATE	N°			R -	R 176.00	R -
0966		1		LV BARE WIRE SYSTEMS - 1 PHASE INTERMEDIATE RIGHT ANGLE CROSSING	N°			R -	R 204.00	R -
0967		1		LV BARE WIRE SYSTEMS - 1 PHASE T-OFF ASSEMBLY FROM STRAIN	N°			R -	R 176.00	R -
0968		1		LV BARE WIRE SYSTEMS - 1 PHASE CABLE CONNECTION	N°			R -	R 176.00	R -
0969		1		LV BARE WIRE SYSTEMS - 1 PHASE SERVICE DISTRIBUTION BOX CONNECTION	N°			R -	R 150.00	R -
0970		1		LV BARE WIRE SYSTEMS - 1 PHASE OPEN WIRE / ABC CONNECTION	N°			R -	R 176.00	R -
0971		1		LV BARE WIRE SYSTEMS - 1 PHASE INTERMEDIATE STRAIN CROSSING	N°			R -	R 341.00	R -
0972		1		LV BARE WIRE SYSTEMS - 1 PHASE STRAIN - STRAIN CROSSING	N°			R -	R 423.00	R -

1100 Series													
1100		4		LV - 3 PHASE BARE NEUTRAL ABC SUSPENSION ASSEMBLY 0-30 DEG.	Nº			R	-	R	94.00	R	-
1120		5		LV - 3 PHASE BARE NEUTRAL ABC TERMINAL ASSEMBLY	Nº			R	-	R	187.00	R	-
1121		5		LV - 3 PHASE BARE NEUTRAL ABC STRAIN ASSEMBLY 0-60 DEG.	Nº			R	-	R	187.00	R	-
1122		5		LV - 3 PHASE BARE NEUTRAL ABC STRAIN ASSEMBLY 60-90 DEG.	Nº			R	-	R	187.00	R	-
1140		5		LV - 3 PHASE BARE NEUTRAL ABC T-OFF ASSEMBLY FROM INTERMEDIATE	Nº			R	-	R	187.00	R	-
1141		5		LV - 3 PHASE BARE NEUTRAL ABC CROSS INTERMEDIATE - INTERMEDIATE ASSEMBLY (rare occasions)	Nº			R	-	R	94.00	R	-
1142		5		LV - 3 PHASE BARE NEUTRAL ABC T-OFF ASSEMBLY FROM STRAIN	Nº			R	-	R	187.00	R	-
1143		5		LV - 3 PHASE BARE NEUTRAL ABC CROSS INTERMEDIATE - STRAIN ASSEMBLY	Nº			R	-	R	187.00	R	-
1145		1		LV - 2 PHASE BARE NEUTRAL ABC SUSPENSION ASSEMBLY 0-30 DEG.	Nº			R	-	R	94.00	R	-
1146		1		LV - 2 PHASE BARE NEUTRAL ABC TERMINAL ASSEMBLY	Nº			R	-	R	187.00	R	-
1147		1		LV - 2 PHASE BARE NEUTRAL ABC STRAIN ASSEMBLY 0-60 DEG. (Please check with 3 phase)	Nº			R	-	R	187.00	R	-
1148		1		LV - 2 PHASE BARE NEUTRAL ABC STRAIN ASSEMBLY 60-90 DEG.(Please check with 3 phase)	Nº			R	-	R	187.00	R	-
1149		1		LV - 2 PHASE BARE NEUTRAL ABC T-OFF ASSEMBLY FROM INTERMEDIATE (Please check with 3 phase)	Nº			R	-	R	187.00	R	-
1150		1		LV - 2 PHASE BARE NEUTRAL ABC CROSS INTERMEDIATE - INTERMEDIATE ASSEMBLY (Please check with 3 phase)	Nº			R	-	R	94.00	R	-
1151		1		LV - 2 PHASE BARE NEUTRAL ABC T-OFF ASSEMBLY FROM STRAIN (Please check with 3 phase)	Nº			R	-	R	187.00	R	-
1152		1		LV - 2 PHASE BARE NEUTRAL ABC T-OFF ASSEMBLY FROM STRAIN(Please check with 3 phase)	Nº			R	-	R	187.00	R	-
1153		1		LV - 1 PHASE BARE NEUTRAL ABC SUSPENSION ASSEMBLY 0-30 DEG.(Please check with 3 phase)	Nº			R	-	R	94.00	R	-
1154		1		LV - 1 PHASE BARE NEUTRAL ABC TERMINAL ASSEMBLY(Please check with 3 phase)	Nº			R	-	R	187.00	R	-
1155		1		LV - 1 PHASE BARE NEUTRAL ABC STRAIN ASSEMBLY 0-60 DEG.(Please check with 3 phase)	Nº			R	-	R	187.00	R	-
1156		1		LV - 1 PHASE BARE NEUTRAL ABC STRAIN ASSEMBLY 60-90 DEG.(Please check with 3 phase)	Nº			R	-	R	187.00	R	-
1157		1		LV - 1 PHASE BARE NEUTRAL ABC T-OFF ASSEMBLY FROM INTERMEDIATE(Please check with 3 phase)	Nº			R	-	R	187.00	R	-
1158		1		LV - 1 PHASE BARE NEUTRAL ABC CROSS INTERMEDIATE - INTERMEDIATE ASSEMBLY(Please check with 3 phase)	Nº			R	-	R	94.00	R	-
1159		1		LV - 1 PHASE BARE NEUTRAL ABC T-OFF ASSEMBLY FROM STRAIN(Please check with 3 phase)	Nº			R	-	R	187.00	R	-
1160		1		LV - 1 PHASE BARE NEUTRAL ABC CROSS INTERMEDIATE - STRAIN ASSEMBLY(Please check with 3 phase)	Nº			R	-	R	187.00	R	-
1300 Series													
1310		3		PHASE / PHASE - STAGGERED VERTICAL (800mm SPACING) - INTERMEDIATE - 0° DEVIATION - Incl Bonding	Nº			R	-	R	335.00	R	-
1311		3		PHASE / PHASE - VERTICAL (800mm SPACING) - INTERMEDIATE - SMALL (1°-±10°) DEVIATION	Nº			R	-	R	252.00	R	-
1312		4		PHASE / PHASE - VERTICAL (800mm SPACING) - INTERMEDIATE - MEDIUM(±10°-30°) DEVIATION	Nº			R	-	R	245.00	R	-
1313		3		PHASE / PHASE - VERTICAL (800mm SPACING) - STRAIN - 0° DEVIATION	Nº			R	-	R	509.00	R	-
1314		3		PHASE / PHASE - VERTICAL (800mm SPACING) - STRAIN - SMALL(1°-30°) DEVIATION	Nº			R	-	R	509.00	R	-
1315		3		PHASE / PHASE - VERTICAL (800mm SPACING) - STRAIN - LARGE (30°-90°) DEVIATION	Nº			R	-	R	390.00	R	-
1316		3		PHASE / PHASE - VERTICAL (800mm SPACING) - STRAIN - TERMINAL	Nº			R	-	R	270.00	R	-
1320 or 1330		3		PHASE / PHASE - DELTA (450mm STUD) - INTERMEDIATE - 0° DEVIATION	Nº			R	-	R	245.00	R	-
1333		3		PHASE / PHASE - DELTA / 1,3m STEEL X-ARM - STRAIN - 0° DEVIATION	Nº			R	-	R	504.00	R	-
1334		3		PHASE / PHASE - DELTA / 1,3m STEEL X-ARM - STRAIN - MEDIUM (1°-60°) DEVIATION	Nº			R	-	R	504.00	R	-
1335		3		PHASE / PHASE - DELTA / 1,3m STEEL X-ARM - STRAIN - LARGE (60°-90°) DEVIATION	Nº			R	-	R	504.00	R	-
1336		3		PHASE / PHASE - DELTA / 1,3m STEEL X-ARM - STRAIN - TERMINAL	Nº			R	-	R	382.00	R	-
1340		3		PHASE / PHASE - DELTA / 2,5m WOOD X-ARM - INTERMEDIATE - 0° DEVIATION	Nº			R	-	R	545.00	R	-
1343		2		PHASE / PHASE - DELTA / 2,5m WOOD X-ARM - STRAIN - 0° DEVIATION	Nº			R	-	R	639.00	R	-
1344		2		PHASE / PHASE - DELTA / 2,5m WOOD X-ARM - STRAIN - MEDIUM(1°-60°) DEVIATION	Nº			R	-	R	639.00	R	-
1346		2		PHASE / PHASE - DELTA / 2,5m WOOD X-ARM - STRAIN - TERMINAL	Nº			R	-	R	479.00	R	-
1370		3		PHASE / PHASE - H-POLE / 4,5m WOOD X-ARM - INTERMEDIATE - 0° DEVIATION	Nº			R	-	R	814.00	R	-
1371		3		PHASE / PHASE - H-POLE / 4,5m WOOD X-ARM - INTERMEDIATE - SMALL (1°-±10°) DEVIATION	Nº			R	-	R	717.00	R	-
1373		3		PHASE / PHASE - H-POLE / 4,5m WOOD X-ARM - STRAIN - 0° DEVIATION	Nº			R	-	R	764.00	R	-
1374		3		PHASE / PHASE - H-POLE / 4,5m WOOD X-ARM - STRAIN - MEDIUM (1°-60°) DEVIATION	Nº			R	-	R	764.00	R	-
1376		3		PHASE / PHASE - H-POLE / 4,5m WOOD X-ARM - STRAIN - TERMINAL	Nº			R	-	R	631.00	R	-
1377		3		PHASE/ PHASE - H-POLE / 2 X 4,5m WOOD CROSS ARM - STRAIN - 0 DEG. DEVIATION	Nº			R	-	R	1 109.00	R	-
1378		3		H-POLE / 2 x 4,5m WOOD CROSS ARM - STRAIN - MEDIUM (0-60) DEG. DEVIATION	Nº			R	-	R	1 109.00	R	-

1700 Series (excluding stringing and tensioning, excavation i.e. intr)										
1700 or 1710		3		3 PHASE - STAGGERED VERTICAL (450-600mm SPACING) - INTERMEDIATE - 0° DEVIATION	Nº			R -	R 457.00	R -
1701 or 1711		3		3 PHASE - VERTICAL (450-600mm SPACING) - INTERMEDIATE - SMALL (1°-±10°) DEVIATION	Nº			R -	R 375.00	R -
1702 or 1712		4		3 PHASE - VERTICAL (450-600mm SPACING) - INTERMEDIATE - MEDIUM (±15°-30°) DEVIATION	Nº			R -	R 367.00	R -
1703 or 1713		2		3 PHASE - VERTICAL (450-600mm SPACING) - STRAIN - 0° DEVIATION	Nº			R -	R 764.00	R -
1704 or 1714		3		3 PHASE - VERTICAL (450-600mm SPACING) - STRAIN - SMALL (1°-30°) DEVIATION	Nº			R -	R 764.00	R -
1705 or 1715		3		3 PHASE - VERTICAL (450-600mm SPACING) - STRAIN - LARGE (30°-90°) DEVIATION	Nº			R -	R 584.00	R -
1706 or 1716		3		3 PHASE - VERTICAL (450-600mm SPACING) - STRAIN - TERMINAL	Nº			R -	R 404.00	R -
1720		4		3 PHASE - DELTA (450-600mm STUD) - INTERMEDIATE - 0° DEVIATION	Nº			R -	R 367.00	R -
1733		4		3 PHASE - DELTA / 1,3m STEEL CROSS ARM - STRAIN - 0° DEVIATION	Nº			R -	R 757.00	R -
1734		4		3 PHASE - DELTA / 1,3m STEEL CROSS ARM - STRAIN - MEDIUM (1°-60°) DEVIATION	Nº			R -	R 757.00	R -
1735		3		3 PHASE - DELTA / 1,3m STEEL CROSS ARM - STRAIN - LARGE (60°-90°) DEVIATION	Nº			R -	R 757.00	R -
1736		3		3 PHASE - DELTA / 1,3m STEEL CROSS ARM - STRAIN - TERMINAL	Nº			R -	R 517.00	R -
1740	2	5		3 PHASE - DELTA / 2,5m WOOD CROSS ARM - INTERMEDIATE - 0° DEVIATION (Sht 2)	Nº			R -	R 667.00	R -
1743	1 or 2 of 2	7		3 PHASE - DELTA / 2,5m WOOD CROSS ARM - STRAIN - 0° DEVIATION	Nº			R -	R 854.00	R -
1744		4		3 PHASE - DELTA / 2,5m WOOD CROSS ARM - STRAIN - 1-60° DEVIATION	Nº			R -	R 854.00	R -
1746		3		3 PHASE - DELTA / 2,5M WOOD CROSS ARM - STRAIN - TERMINAL	Nº			R -	R 614.00	R -
1747	1 or 2 of 2	8		3 PHASE - DELTA / 2 x 2,5m WOOD CROSS ARM - STRAIN - 0° DEVIATION	Nº			R -	R 1 056.00	R -
1748		5		3 PHASE - DELTA / 2 x 2,5m WOOD CROSS ARM - STRAIN - MEDIUM (1°-60°) DEVIATION	Nº			R -	R 1 056.00	R -
1749		3		3 PHASE - DELTA / 2 x 2,5m WOOD CROSS ARM - STRAIN - TERMINAL	Nº			R -	R 816.00	R -
1750		3		3 PHASE - DELTA / 4,5m WOOD CROSSARM - INTERMEDIATE	Nº			R -	R 1 139.00	R -
1753		3		3 PHASE - DELTA / 4,5m WOOD CROSS ARM - STRAIN - 0° DEVIATION	Nº			R -	R 1 169.00	R -
1754	1 of 2	5		3 PHASE - DELTA / 4,5m WOOD CROSS ARM - STRAIN - MEDIUM(1°-60°) DEVIATION	Nº			R -	R 1 169.00	R -
	2 of 2	5		3 PHASE - DELTA / 2 x 4,5m WOOD CROSS ARM - STRAIN - MEDIUM (1°-60°) DEVIATION	Nº			R -	R 1 745.00	R -
1760		3		3 PHASE - H-POLE / 3,5m WOOD CROSS ARM - INTERMEDIATE - 0° DEVIATION	Nº			R -	R 1 131.00	R -
1766		3		3 PHASE - H-POLE / 3,5m WOOD CROSS ARM - STRAIN - TERMINAL	Nº			R -	R 772.00	R -
1767		2		3 PHASE - H-POLE / 2 x 3,5m WOOD CROSS ARM - STRAIN - 0° DEVIATION	Nº			R -	R 1 288.00	R -
1768		4		3 PHASE - H-POLE / 2 x 3,5m WOOD CROSS ARM - STRAIN - MEDIUM (1°-60°) DEVIATION	Nº			R -	R 1 288.00	R -
1770		3		3 PHASE - H-POLE / 4,5m WOOD CROSS ARM - INTERMEDIATE - 0° DEVIATION	Nº			R -	R 936.00	R -
1771		3		3 PHASE - H-POLE / 4,5m WOOD CROSS ARM - INTERMEDIATE - SMALL (1°-±10°) DEVIATION	Nº			R -	R 839.00	R -
1773		3		3 PHASE - H-POLE / 4,5m WOOD CROSS ARM - STRAIN - 0° DEVIATION	Nº			R -	R 959.00	R -
1774		3		3 PHASE - H-POLE / 4,5m WOOD CROSS ARM - STRAIN - MEDIUM(1°-60°) DEVIATION	Nº			R -	R 959.00	R -
1776		3		3 PHASE - H-POLE / 4,5m WOOD CROSS ARM - STRAIN - TERMINAL	Nº			R -	R 779.00	R -
1777		3		3 PHASE - H-POLE / 2 X 4,5m WOOD CROSS ARM - STRAIN - 0 DEG. DEVIATION	Nº			R -	R 1 326.00	R -
1778		3		H-POLE / 2 x 4,5m WOOD CROSS ARM - STRAIN - MEDIUM (0-60) DEG. DEVIATION	Nº			R -	R 1 326.00	R -
1783		3		3 PHASE - TRIPS - STRAIN - 0° DEVIATION	Nº			R -	R 914.00	R -
1784		3		3 PHASE - TRIPS - STRAIN - LARGE (1°-90°) DEVIATION	Nº			R -	R 914.00	R -

1800 Series											
1800 or 1801		4		3 PHASE TAKE-OFF - VERTICAL (450-600mm SPACING) TAKE-OFF - FROM THE BACK OF AN EXISTING X-ARM (Non Road Crossing)	Nº			R -	R 404.00	R -
1803		2		TAKE-OFF - FROM THE BACK OF AN EXISTING X-ARM (Non Road Crossing)	Nº			R -	R 517.00	R -
1804		3		3 PHASE TAKE-OFF - 2.5m WOODEN CROSS ARM	Nº			R -	R 614.00	R -
1805		3		3 PHASE TAKE-OFF - 2 x 2.5m WOODEN CROSS ARM	Nº			R -	R 816.00	R -
1806		3		3 PHASE TAKE-OFF - H-POLE 3.5m WOODEN CROSS ARM	Nº			R -	R 772.00	R -
1810 or 1811		3 / 4		PHASE / PHASE TAKE-OFF - VERTICAL 600mm SPACING	Nº			R -	R 270.00	R -
1813		2		PHASE / PHASE TAKE-OFF - DELTA / 1.3m STEEL CROSS ARM	Nº			R -	R 382.00	R -
1814		2		PHASE / PHASE TAKE-OFF - 2.5m WOODEN CROSS ARM	Nº			R -	R 417.00	R -
1815		4		PHASE / PHASE TAKE-OFF - 2 x 2.5m WOODEN CROSS ARM	Nº			R -	R 682.00	R -
1816		3		PHASE / PHASE TAKE-OFF - H-POLE 3.5m WOODEN CROSS ARM	Nº			R -	R 524.00	R -
1825	1 of 2	2		3 PHASE MV RECLOSER STRUCTURE (GENERAL ARRANGEMENT) (Including Earthing and Excluding Str & Cut out switches)	Nº			R -	R 6 005.00	R -
1840	1 of 2	3		3 Phase - CT/VT METERING BULK TARIFF (GENERAL ARRANGEMENT)	Nº			R -	R 1 479.00	R -
1840	1 of 2	3		Phase / Phase - CT/VT METERING BULK TARIFF (GENERAL ARRANGEMENT)	Nº			R -	R 1 392.00	R -
1847		1		3 Phase - SECTION LINKS CUT/OUTS OR DISCONNECTORS 3.5/4.5m WOOD CROSS ARM / H-POLE	Nº			R -	R 1 819.00	R -
				Dual Phase - SECTION LINKS CUT/OUTS OR DISCONNECTORS 3.5/4.5m WOOD CROSS ARM / H-POLE	Nº			R -	R 1 368.00	R -
1848		1		3 Phase - SECTION LINKS CUT/OUTS OR DISCONNECTORS 2.5m WOOD CROSS ARM / SINGLE POLE	Nº			R -	R 1 655.00	R -
				Dual Phase - SECTION LINKS CUT/OUTS OR DISCONNECTORS 2.5m WOOD CROSS ARM / SINGLE POLE	Nº			R -	R 1 233.00	R -
1849		1		3 Phase - EQUIPMENT LINKS CUT-OUTS OR DISCONNECTORS 2.5m WOOD CROSS ARM / SINGLE POLE	Nº			R -	R 1 475.00	R -
				Dual Phase - EQUIPMENT LINKS CUT-OUTS OR DISCONNECTORS 2.5m WOOD CROSS ARM / SINGLE POLE	Nº			R -	R 1 083.00	R -
1850		1		3 Phase - SECTION / EQUIPMENT LINKS OR DISCONNECTORS 1.3m STEEL CROSS ARM / SINGLE POLE	Nº			R -	R 1 378.00	R -
				Dual Phase - SECTION / EQUIPMENT LINKS OR DISCONNECTORS 1.3m STEEL CROSS ARM / SINGLE POLE	Nº			R -	R 1 315.00	R -
1851		1		3 Phase - EQUIPMENT LINKS - CUT-OUTS OR DISCONNECTORS - 2.5m WOOD CROSS ARM / H-POLE	Nº			R -	R 1 475.00	R -
				Dual Phase - EQUIPMENT LINKS - CUT-OUTS OR DISCONNECTORS - 2.5m WOOD CROSS ARM / H-POLE				R -	R 1 083.00	R -
1852		2		3 Phase - EQUIPMENT LINKS - CUT-OUTS OR DISCONNECTORS - 3.5/4.5m WOOD CROSS ARM / H-POLE	Nº			R -	R 1 625.00	R -
				Dual Phase - EQUIPMENT LINKS - CUT-OUTS OR DISCONNECTORS - 3.5/4.5m WOOD CROSS ARM / H-POLE				R -	R 1 625.00	R -
1853		1		3 Phase - EQUIPMENT ISOLATING (IN-OUT) LINKS - CUT-OUTS OR DISCONNECTORS - 2 x 2.5m WOOD CROSS ARM / H-POLE	Nº			R -	R 2 741.00	R -
				Dual Phase - EQUIPMENT ISOLATING (IN-OUT) LINKS - CUT-OUTS OR DISCONNECTORS - 2 x 2.5m WOOD CROSS ARM / H-POLE				R -	R 2 741.00	R -
				Transformers Rates for Transformer Structures shall be all inclusive of Transformer installation, MV and LV S/A's, and installation of Earthing, Labels, Earthing Tests & Certificates. The Cut Out required for the Structure is claimed separately. [Transformer Electrode Standard Earth for P=300 (30 ohm) to be included. Cut Outs need to measured separately]. Earthing Trench Excavation, Backfilling of Trench and Compaction of Trench to be measured separately.						
1860	1 & 2 of 2	4		3 Phase - Tranformer - 15-100kVA / Single Pole Mounted Transformer.	Nº			R -	R 3 768.00	R -
				Phase - Phase - Tranformer - 5-64kVA / Single Pole Mounted Transformer	Nº			R -	R 3 658.00	R -
1861	1 & 2 of 2	2		3 Phase - Transformer - 100-200kVA / 2-Pole Platform Mounted (H-Pole)	Nº			R -	R 4 517.00	R -
1862 or 1864		4 / 1		3 phase - Transformer 300-500kVA - 5-Pole Double Platform Mounted	Nº			R -	R 6 300.00	R -
1863		3		3 Phase - Transformer 100-200kVA - 2-Pole Platform Mounted (In-Line)	Nº			R -	R 4 517.00	R -
D-DT 1865 SHEET 3 (KZN Area)	3			3Phase - Transformer 100-200kVA - 2 Pole Platform Mounted (Out of Line)	Nº			R -	R 7 505.00	R -
D-EC 1865A		4		3 Phase - Transformer 100-200kVA - 2-Pole Platform Mounted (Out of Line)	Nº			R -	R 6 134.00	R -
3086				3085 3 Ph Cut out Switches Only (inclusive of jumpers, bimetal lugs, T crimps) Fitted to a take-off X-arm for example.	Nº			R -	R 538.00	R -
				3086 Ph/ Ph Cut out Switches Only (inclusive of jumpers, bimetal lugs, T crimps) Fitted to a take-off X-arm for example.	Nº			R -	R 388.00	R -
D-DT 1866 SHEET 4 (KZN Area)	1 & 2 of 4			3 Phase - Transformer - 15 -100kVA / Single Pole Mounted (Out of Line)	Nº			R -	R 6 029.00	R -
				Phase - Phase - Transformer - 5 -64kVA / Single Pole Mounted (Out of Line)	Nº			R -	R 5 762.00	R -
D-EC 1866 A				Trfr - 25 -50kVA / Single Pole Mounted (Out of Line) D-EC 1866A 3 Ph	Nº			R -	R 6 029.00	R -
				Trfr - 5 -64kVA / Single Pole Mounted (Out of Line) D-EC 1866A Ph/Ph	Nº			R -	R 5 402.00	R -
1867				Dual Phase - Transformer - Back to Back 64kVA Dual Phase Supply.	Nº			R -	R 5 431.00	R -

Miscellaneous

				MV Structures							
				Excavations and Poles measured elsewhere. Backfilling of holes must be included in rate.							
D-EC-2063				3 Phase - Steel A-frame non road crossing (complete, Isulator, spindle, ties, etc.)	N°			R -	R 479.00	R -
				Phase - Phase Steel A-frame non road crossing (complete, Isulator, spindle, ties, etc.)	N°			R -	R 419.00	R -
				3 Phase - Steel A-frame road crossing (complete, Isulator, spindle, ties, etc.)	N°			R -	R 479.00	R -
				Phase - Phase Steel A-frame road crossing (complete, Isulator, spindle, ties, etc.)	N°			R -	R 419.00	R -
MV-01				Raptor Perch - DEC 2063 For Existing Phase/ Phase Structures being upgraded to 3 phase only!	N°			R -	R 232.00	R -
MV-02				Installation of pistol grip (as Request by Project Engineering).	N°			R -	R 285.00	R -
MV-03				Installation of additional single link (as Request by Project Engineering)	N°			R -	R 391.00	R -
MV-04				Installation of "Spark Gap Device" - (Bil wire priced separately)	N°			R -	R 150.00	R -
MV-05				Replace Insulators [per insulator]. Post, Post R/C, Longrod, Longrod R/C.	N°					
MV-05 1				Post	N°			R -	R 262.00	R -
MV-05 2				Post R/C	N°			R -	R 262.00	R -
MV-05 3				Longrod	N°			R -	R 277.00	R -
MV-05 4				Longrod R/C	N°			R -	R 277.00	R -
MV-06				Replace 2.4m Cross-arm Intermediate (Including Bracing/ Tie straps, bonding, Clips & threaded rods)	N°			R -	R 742.00	R -
MV-07				Replace Cross-arm Strain (Including Bracing/ Tie straps, bonding, Clips & threaded rods)	N°			R -	R 1 146.00	R -
MV-08				**Mini Substation (Inclusive of MV, LV (straight 5 rod), Equipotential Earth Electrodes, Plinth)**						
				MV compartment - joints & trminations of cables not included. **LV Compartment** circuit breakers not included - Eskom will provide as free issue. LV Cables need to be claimed separately, including terminations. Earthing - Standard earth has been included in the form of trench earths have been included. Eqi-potential earthing has been included. The installation of the pre-cast plinth included.						
0855 0858 0869	1 to 4 1 to 13 1 to 6	2 13 7		Type A - **315kVA** - 22 or 11 kV Mini Sub	N°			R -	R 23 368.00	R -
				Type B - **315kVA** - 22 or 11 kV Mini Sub	N°			R -	R 23 555.00	R -
				Type A - **500kVA** - 22 or 11 kV Mini Sub	N°			R -	R 23 368.00	R -
				Type B - **500kVA** - 22 or 11 kV Mini Sub	N°			R -	R 23 555.00	R -
				Type A - **1 MVA** - 22 or 11 kV Mini Sub	N°			R -	R 23 368.00	R -
				Type B - **1 MVA** - 22 or 11 kV Mini Sub	N°			R -	R 23 555.00	R -
MV-09				Minisub Earthing - Only for replacement of an existing	N°			R -	R 3 745.00	R -
MV-10				Supply of CONCRETE PLINTH (Refer to D-DT 0859). Installation has been inlced into Minisub Price						
MV-10.1				Installation of PLINTH,PRE-CAST Type A Minisub - Only for replacement of an existing plinth	N°			R -	R 4 494.00	R -
MV-10.2				Installation of PLINTH,PRE-CAST Type B Minisub - Only for replacement of an existing plinth	N°			R -	R 4 494.00	R -
MV-11				**MV Cables - All Inclusive (Cable slabs & route markers priced separately)** **22kV - 50mm² 3c, 95mm² 3c XLPE,** **11kV - 50mm² 3c, 95mm² 3c , 185mm² 3c XLPE.**						
				The cables will be issued as part of free issue materials. Contractor are to allow for laying, warning tape, selected backfilling and compaction. Including cable warning tape, markers and concrete slabs.						
8000				**22kV - individualty screened.**						
MV-11 1				**50mm² 3c XLPE**	N°			R -	R 494.00	R -
MV-11 2				**95mm² 3c XLPE**	N°			R -	R 531.00	R -
8001				**11kV - unscreened.**						
MV-11 3				**50mm² 3c XLPE**	N°			R -	R 494.00	R -
MV-11 4				**95mm² 3c XLPE**	N°			R -	R 531.00	R -
MV-11 5				**185mm² 3c XLPE**	N°			R -	R 531.00	R -
MV-12				**MV Cable Terminations - All Inclusive** **22kV - individ. screened - 50mm² 3c, 95mm² 3c XLPE,** **11kV - unscreened - 50-95mm² 3c, 120-185mm² 3c ID & OD XLPE.**						
				Contractors are to allow for the Terminations of cable in accordance with DT Standard. Allow for everything necessarry.						
8017				**22kV - screened.**						
MV-12.1				CONNECTOR,SEP SCR CBL 1 22kV 25-50 D8017	N°			R -	R 3 464.00	R -
MV-12.2				CONNECTOR,SEP SCR CBL 1 22kV 70-185 D8017	N°			R -	R 4 213.00	R -
8006				**11kV - unscreened.**						
MV-12.3				TERM KIT 3C 11kV 50-95SQ ID XLPE D8006	N°			R -	R 3 689.00	R -
MV-12.4				TERM KIT 3C 11kV 50-95SQ OD XLPE D8006	N°			R -	R 4 438.00	R -
MV-12.5				TERM KIT 3C 11kV 120-185SQ ID XLPE D8006	N°			R -	R 4 438.00	R -
MV-12.6				TERM KIT 3C 11kV 120-185SQ OD XLPE D8006	N°			R -	R 4 438.00	R -
MV-13				**MV Cable XLPE Joints - All Inclusive - (Excavate/ backfill joint bay inclusive)** **22kV - individ. screened - 50mm² 3c, 95mm² 3c XLPE,** **11kV - unscreened - 50mm² 3c, 95mm² 3c , 185mm² 3c XLPE.**						
				Contractors are to allow for the Terminations of cable in accordance with DT Standard. Allow for everything necessarry.						
				22kV - individualty screened.						
MV-13.1				**50mm² 3c XLPE**	N°			R -	R 6 891.00	R -
MV-13.2				**95mm² 3c XLPE**	N°			R -	R 7 266.00	R -
				11kV - individualty screened.						
MV-13.3				**50mm² 3c XLPE**	N°			R -	R 6 891.00	R -
MV-13.4				**95mm² 3c XLPE**	N°			R -	R 7 266.00	R -
MV-13.5				**185mm² 3c XLPE**	N°			R -	R 7 266.00	R -
MV-14				Equi-Potential Earthing - ONLY for Existing Mini sub or RMU.	N°			R -	R 2 013.00	R -
MV-15				SUPPLY INSTALLATION OF CABLE MARKER (D-DT 8012)	N°			R -	R 375.00	R -
MV-16				CONCRETE CABLE SLABS	N°			R -	R 8.00	R -

MV-17				**Installation of BIL per Structure including Gap Device, fixings staples and bonding clipsas per DT Spec.** Bonding is included in the Str.							
MV-17.1				BIL for 12-14m Pole length.	Nº			R	-	R 105.00	R -
MV-17.2				BIL for 10-11m Pole length.	Nº			R	-	R 82.00	R -
MV-17.3				BIL for 8-9m Pole length.	Nº			R	-	R 67.00	R -
				LV Section							
0309				**LV Mosdorfer Fuses (Mosdorf) c/w Bracket and mounting. Installation of 3, 2, 1 Phase**							
309.1	1 to 5 of 5	12		Installation of 3 Phase LV Fuse .	Nº			R	-	R 262.00	R -
309.2				Installation of 2 Phase LV Fuse	Nº			R	-	R 175.00	R -
309.3				Installation of 1 Phase LV Fuse	Nº			R	-	R 88.00	R -
LV-01				LV Feeder Labels	Nº			R	-	R 45.00	**R -**
LV-02				LV Maximum Fuse Labels	Nº			R	-	R 45.00	**R -**
LV-03				**Relocating existing LV Feeders - Upgrading Trfr.** [needed when uprating Trfr and there is clearance issues]							
LV-03.1				2 Wire LV Feeder.	Nº			R	-	R 899.00	**R -**
LV-03.2				3 Wire LV Feeder.	Nº			R	-	R 1 348.00	**R -**
LV-03.3				4 Wire LV Feeder.	Nº			R	-	R 1 798.00	**R -**
				LV Kiosks excl cable							
LV-04				LV Kiosks excl cable Single Pole mounted Kiosk (16-100kVA)	Nº			R	-	R 327.00	**R -**
LV-05				**Ground Mounted Kiosks** **16kVA (2-6 WAY), 25kVA (2-4 WAY), 50kVA (2-4 WAY), 100kVA, 200kVA, 315kVA & 500kVA.**							
D-DT 1020		2		16kVA (2-6 WAY)	Nº			R	-	R 2 472.00	**R -**
D-DT 1018		3		25kVA (2-4 WAY)	Nº			R	-	R 2 472.00	**R -**
D-DT 1018		3		50kVA (2-4 WAY)	Nº			R	-	R 2 472.00	**R -**
D-DT 1003		7		100kVA	Nº			R	-	R 2 472.00	**R -**
D-DT 1023				200kVA	Nº			R	-	R 2 597.00	**R -**
D-DT 1023				315kVA	Nº			R	-	R 4 745.00	**R -**
D-DT 1023				500kVA	Nº			R	-	R 5 057.00	**R -**
				Service Connections / Metering							
3140				**Supply and Install Conductor - Cable 1kV 2C - Concentric/ Airdac Cu D3140**							
3140.1	1 of 2	9		4mm², 10mm²	m			R	-	R 4.00	**R -**
3140.2	2 of 2	9		10mm² D3140	m			R	-	R 6.00	**R -**
0360				**20Amp & 60 Amp Prepaid Split Meter (PLC) without Kicker Pole (Pig Tail Bolt)**							
0360.1	1 & 4 of 5	14		20Amp Prepaid Meter to Brick Wall without Kicker Pole	Nº			R	-	R 337.00	**R -**
0360.2				20Amp Prepaid Meter to Tin Wall without Kicker Pole	Nº			R	-	R 375.00	**R -**
0360.3				20Amp Prepaid Meter to Mud Wall without Kicker Pole	Nº			R	-	R 375.00	**R -**
0360.4				60Amp Prepaid Meter to Brick Wall without **Kicker Pole**	Nº			R	-	R 487.00	**R -**
0360.5				60Amp Prepaid Meter to Tin Wall without **Kicker Pole**	Nº			R	-	R 524.00	**R -**
0360.6				60Amp Prepaid Meter to Mud Wall without **Kicker Pole**	Nº			R	-	R 524.00	**R -**
0361-A				**20, 60Amp Prepaid Meter - with Shack Pole - [5m Pole], excl. supply of pole, treat as Buy Out if Supplied by Contractor [approval sort before installation].**							
0361-A.1				20Amp Prepaid to Brick wall	Nº			R	-	R 618.00	**R -**
0361-A.2				20Amp Prepaid to Tin wall	Nº			R	-	R 655.00	**R -**
0361-A.3				20Amp Prepaid Meter to Mud wall	Nº			R	-	R 655.00	**R -**
0361-A.4				60Amp Prepaid Meter to Brick wall	Nº			R	-	R 768.00	**R -**
0361-A.5				60Amp Prepaid Meter to Tin wall	Nº			R	-	R 805.00	**R -**
0361-A.6				60Amp Prepaid Meter to Mud wall	Nº			R	-	R 805.00	**R -**
0361-B				**20, 60Amp Prepaid Split Meter (PLC) - with Intermediate Kicker Pole [7m Pole], excl. supply of pole, treat as Buy Out if Supplied by Contractor [approval sort before installation].**							
0361-B.1				20Amp Prepaid to Brick wall.	Nº			R	-	R 712.00	**R -**
0361-B.2				20Amp Prepaid to Tin wall.	Nº			R	-	R 749.00	**R -**
0361-B.3				20Amp Prepaid Meter to Mud wall.	Nº			R	-	R 749.00	**R -**
0361-B.4				60Amp Prepaid Meter to Brick wall.	Nº			R	-	R 861.00	**R -**
0361-B.5				60Amp Prepaid Meter to Tin wall.	Nº			R	-	R 899.00	**R -**
0361-B.6				60Amp Prepaid Meter to Mud wall.	Nº			R	-	R 899.00	**R -**
HS-01				**Installation of 60Amp Prepaid Split Meter (PLC) only**	Nº			R	-	R 337.00	R -
HS-02				**60Amp Prepaid Split Meter (PLC) in an existing meter kiosk (Inclusive of the 80amp Mcb & Live, Neutral jumper, terminal block)**	Nº			R	-	R 375.00	R -
HS-03				**Installation of Pole Top Box Only (Refer to D-DT 0363)**							
HS-03.1				2-4 Way 50A Pole Box	Nº			R	-	R 75.00	R -
HS-03.2				5-8 Way 50A Pole Box	Nº			R	-	R 75.00	R -
HS-04				**Remove MCB and replace with 63 Amp. (incl. wire)**	Nº			R	-	R 112.00	R -
				Minor Works Allowance [materials only]				10%			**R -**
				Note:							
				Labels to be included in Trfr, Switching Points and LV Fuses package.							
				All Trfr Earth resistance test to included in cost of package							

			LABOUR ONLY						R 76 373.00		
			Preliminaries & General (Exclude SHEQ, %) Inclusive of Site Establishment - If required (This activity includes the establishment of all resources (tools, plant & equipment) on site, the maintenance of facilities on site and the removal of the said facilities and refuse upon the completion of the task/project) SHEQ (CNC)	%				10%		
			SHEQ (% of Transport & Labour per task order)	%				8%		
LV-01			**Bush/Tree Trimming**							
L-01.1			Bush Clearing - Scattered Bush / Light density (Max. 4²m) get approval from consultant	m²				R 7.00	R -	
L-01.2			Bush Clearing - Thick Bush (Max. 4²m) get approval from consultant	m²				R 15.00	R -	
L-01.3			Treefell & Remove Dia >200mm <500mm	Each				R 936.00	R -	
L-01.4			Treefell & Remove Dia >=500mm	Each				R 1 873.00	R -	
			Excavated Holes							
LV-02			**Depth : 0,8 to 1,0m**							
L-02.1			Pickable Soil	Each				R 187.00	R -	
L-02.2			Pickable Rock	Each				R 330.00	R -	
L-02.3			Compressor Rock (Inc. Inv. for Comp, Hose, Moils, Hammers, Fuel, etc.) excl Transport.	per/hole				R 562.00	R -	
LV-03			**Excavated Holes Depth : 1,3 to 1,5m**							
L-03.1			Pickable Soil	Each				R 281.00	R -	
L-03.2			Pickable Rock	Each				R 517.00	R -	
L-03.3			Compressor Rock (Inc. Inv. for Comp, Hose, Moils, Hammers, Fuel, etc.) excl Transport.	per/hole				R 1 251.00	R -	
LV-04			**Excavated Holes Depth : 1,8 to 2,0m**							
L-04.1			Pickable Soil - Shoring	Each				R 449.00	R -	
L-04.2			Pickable Rock - Shoring	Each				R 674.00	R -	
L-04.3			Compressor Rock (Inc. Inv. for Comp, Hose, Moils, Hammers, Fuel, etc.) excl Transport	per/hole				R 1 685.00	R -	
LV-05			**Excavated Holes Depth : 2,0 to 2.5m**							
L-05.1			Pickable Soil.	Each				R 524.00	R -	
L-05.2			Pickable Rock.	Each				R 749.00	R -	
L-05.3			Compressor Rock (Inc. Invoice of Comp, Hose, Moils, Hammers, Fuel, etc.) excl. Transport.	per/hole				R 2 105.00	R -	
LV-06			**Excavated Holes Stay Hole - MV**							
L-06.1			Pickable Soil,	Each				R 449.00	R -	
L-06.2			Pickable Rock,	Each				R 674.00	R -	
L-06.3			Compressor Rock (Inc. Invoice of Comp, Hose, Moils, Hammers, Fuel, etc.) excl transport	per/hole				R 1 685.00	R -	
LV-07			**Excavated Holes Stay Hole - LV**							
L-07.1			Pickable Soil,	Each				R 281.00	R -	
L-07.2			Pickable Rock,	Each				R 517.00	R -	
L-07.3			Compressor Rock (Inc. Invoice of Comp, Hose, Moils, Hammers, Fuel, etc.) excl transport	per/hole				R 1 251.00	R -	
			Excavations & Backfilling of Trenches only applicable in urban areas, LV or MV cabling.							
LV-08			**Importing Soil from with in - 100m radius (Only for use where trenching takes place in Rock)**	m³				R 375.00	R -	
LV-09			**Trench [0.6m deep] Including Backfill/ Compact, Sieving, Import bedding/ blanket soil & installation of warning tape**							
			Trench/hand .45m wide applicable in urban areas, LV cabling							
L-09.1			Pickable Soil	m				R 162.00	R -	
L-09.2			Pickable Rock	m				R 248.00	R -	
L-09.3			Compressor Rock - excl transport of compressor.	m				R 635.00	R -	
LV-10			**Trench [1.0m deep] Including Backfill/ Compact, Sieving, Import bedding/ blanket soil & installation of warning tape (Only for use where LV cables are to be at 1m depth. "PE" request)**							
			Trench/hand .50m wide applicable in urban areas, MV cabling							
L-10.1			Pickable Soil	m				R 205.00	R -	
L-10.2			Pickable Rock	m				R 339.00	R -	
L-10.3			Compressor Rock - excl transport of compressor.	m				R 840.00	R -	
L-11			**36m MV & LV Earthing trenching [0.5m deep] including excavation, backfilling and compaction**							
			Trench/hand .45m wide applicable in urban areas, normal Tfr earthing eg. D-DT 1860 series							
L-11.1			Pickable Soil	Each				R 3 394.00	R -	
L-11.2			Pickable Rock	Each				R 4 545.00	R -	
L-11.2			Compressor Rock - excl transport of compressor.	Each				R 5 696.00	R -	
			Erect Single Poles/Struts (Plant, erect, compact, backfill & BIL Wiring)							
L-12			**MV STRUT** (only claimed when relocating existing strut pole)	Each				R 524.00	R -	
L-12.1			**LV STRUT** (only claimed when relocating existing strut pole)	Each				R 512.00	R -	
L-13			**Vehicle Accessible, - 5-7m Wood, - 8-9m Wood, - 11-12m Wood, - 14m Wood, & 16m Wood.**							
L-13.1			5-7m Wood	Each				R 262.00	R -	
L-13.2			8-9m Wood	Each				R 337.00	R -	
L-13.3			11-12m Wood	Each				R 449.00	R -	
L-13.4			14m Wood	Each				R 524.00	R -	
L-13.5			16m Wood	Each				R 599.00	R -	
L-14			**Vehicle Inaccessible, - 5-7m Wood, - 8-9m Wood, - 11-12m Wood, - 14m Wood, & 16m Wood.**							
L-14.1			5-7m Wood.	Each				R 375.00	R -	
L-14.2			8-9m Wood.	Each				R 524.00	R -	
L-14.3			11-12m Wood.	Each				R 674.00	R -	
L-14.4			14m Wood.	Each				R 824.00	R -	
L-14.5			16m Wood.	Each				R 974.00	R -	
			Erect H-Poles, (Plant, erect, compact, backfill & BIL Wiring)							
L-15			**Vehicle Accessible, - H Poles - 11-12m Wood & 13-14m Wood**							
L-15.1			11m Structure	Each				R 899.00	R -	
L-15.2			12m Structure	Each				R 936.00	R -	
L-16			**Vehicle Inaccessible, - H Poles - 11-12m Wood & 13-14m Wood**							
L-16.1			11m Structure.	Each				R 1 273.00	R -	
L-16.2			12m Structure.	Each				R 1 311.00	R -	
L-17			**Stringing & Tensioning (MV & LV) - Bare Conductor, ABC 35mm², ABC 70mm², Additional Crimping per Lug / T-joint / Non tension joint. As requested by the Designer**							
L-17.1			**Bare Conductor**	Ph/m				R 5.00	R -	
L-17.2			ABC 35mm²	m				R 4.00	R -	
L-17.3			ABC 70mm²	m				R 6.00	R -	

L-17.4				Additional Crimping per lug / T-joint / Non-Tension joint	Each				R 112.00	R -
L-18				**Installation of Cable & Kiosk (Up or Down Grade),** **16 - 50kVA Kiosk, 64 - 100kVA Kiosk, 200kVA Kiosk & 315 - 500kVA Kiosk.**						
				Install SUPPLY/SOURCE Cable Connection and Kiosk, inclusive of cabling & Strapping						
L-18.1				16 - 50kVA Kiosk	Each				R 797.00	R -
L-18.2				64 - 100kVA Kiosk	Each				R 797.00	R -
L-18.3				200kVA Kiosk	Each				R 951.00	R -
L-18.4				315 - 500kVA Kiosk	Each				R 951.00	R -
				When Upgrading or Down Grading Transformers **MV - Equipment Mounting Assembly Anti-Climbing Device [Barbed Wire]** **D-DT0399**						
L-19				MV - Equipment Mounting Assembly Anti-Climbing Device [Barbed Wire]	Pole				R 187.00	R -
L-20				**Install Equipment**						
				Cable Termination into Kiosk and onto Bus Bar (for loop through of cable) incl. Slack cable as per DT. **16 to 70mm Cable & 95 to 150mm Cable, - .**						
L-20.1				95 to 150mm Cable	Each				R 562.00	R -
L-20.2				16 to 70mm Cable	Each				R 375.00	R -
L-21				**Laying of LV Cables,** **Up to & including 70mm², above 70mm and including 95mm².**						
				Laying of Cables, Inc. Danger Tape & Bedding)						
L-21.1				Laying of cable LV < 70mm	m				R 77.00	R -
L-21.2				Laying of cables LV >70mm	m				R 155.00	R -
L-21.3				MV Cables 50mm²	m				R 599.00	R -
L-22				**"Additional Earthing (MV & LV) + Testing** **Lay 5m Bare Copper Wire and 1 earth spike. (Additional material - buy out)** **Additional Earth Resistance Test (As requested by Project Engineering)"**						
L-22.1				Earthing and Backfilling	m				R 178.00	R -
L-22.2				Test earth electrode resistance	Each				R 749.00	R -
L-23				**Re-tensioning of Conductor - Loosening of Conductor MV/ SWER Stuctures: - 1 Phase, - 2 Phase, - 3 Phase, - Strain - Tensioning and Regulating, only applicable when retensioning & Binding In of Conductor/phase/Suspension.**						
L-23.1				Loosening of Conductor - 1 Phase	No/Struc				R 60.00	R -
L-23.2				Loosening of Conductor - 2 Phase	No/Struc				R 75.00	R -
L-23.3				Loosening of Conductor - 3 Phase	No/Struc				R 90.00	R -
L-23.4				Strain - Tensioning and Regulating, only applicable when retensioning	per Insul				R 187.00	R -
L-23.5				Binding In of Conductor/phase/Suspension	per Insul				R 120.00	R -
L-24				**Re-tensioning of Stay - Loosening of Stay wire on Strain Stuctures: - Strain - Tensioning and Regulating, only applicable when replacing a Strain structure bringing down each stay, reinstall, retensioning & Binding In of each stay.**						

L-24.1			LV Stay - Tensioning and Regulating. Only applicable when replacing a Strain structure	per Stay				R	122.00	R -
L-24.2			MV Stay - Tensioning and Regulating. Only applicable when replacing a Strain structure	per Stay				R	128.00	R -
L-25			**Sundries as per FDP**							
L-25.1			Fit Bird Flappers / Diverters	Each				R	75.00	R -
L-25.2			Aviation Spheres	Each				R	150.00	R -
L-25.3			Vibration Damper	Each				R	30.00	R -
L-25.4			Pole Re-Numbering	Each				R	45.00	R -
L-25.5			Strapping (Buckle Strap)	Each				R	22.00	R -
L-26			**Install circuit breaker** **Install circuit breaker single phase, - three phase up to 80 AMP, three phase up to 225 AMP & three phase up to 800 AMP**							
L-26.1			Install circuit breaker single phase	Each				R	75.00	R -
L-26.2			three phase up to 80 AMP	Each				R	225.00	R -
L-26.3			three phase up to 225 AMP	Each				R	562.00	R -
L-26.4			three phase up to 800 AMP	Each				R	936.00	R -
			STREETLIGHT MAINTENANCE							
L-27			Replacement of bulb	Each				R	180.00	R -
L-28			Replacement of MCB	Each				R	180.00	R -
L-29			Replacement of day-night switch	Each				R	247.00	R -
L-30			Replacement of street light fitting	Each				R	562.00	R -
L-31			Replacement of complete street light (including all activities involved)	Each				R	1 124.00	R -
L-32			Replacement of street light cover	Each				R	202.00	R -
			Sunday - Maintenance Outages							
			The Contractor is expected to shift from normal to overtime to coincide with a maintenance							
L-33			Additional Time / Team	Day/Team				R	5 992.00	R -
L-34			**Lost time for Approved Outages**							
			The Contractor is allowed to claim for lost time due to cancellation of Approved Outages when							
L-34.1			Time Lost / Team	Day/Team				R	5 992.00	R -
L-34.2			Time Lost / Crane Truck	Day/Crane				R	2 622.00	R -
L-35			**Inspection - Clerk of Works**							
			Should the Project be inspected by an authorised external Clerk of Works and he signes the handover and produces a							
L-35.1			(Type 1 Connection)	Inspection				R	330.00	R -
L-35.2			(Type 2 Connection)	Inspection /				R	660.00	R -
L-35.3			(Type 3-6 Connection)	Outage				R	991.00	R -
L-36			**Operating / Switching (Module 1-10) excl. Transport**							
L-36.1			Low Voltage (Type 1)	Outage				R	500.00	R -
L-36.2			Low Voltage (Type 2)	Outage				R	749.00	R -
L-36.3			Medium Voltage	Outage				R	2 197.00	R -
			Total for Labour only							**R -**
			Site Visit Assessment (incl. Transport) Check FDP, take-off, spanning sheet, pegs and clearance (Guidance to be provided)							
SA-1			Type 1 to 6	per/job				R	2 516.39	R -

			TRAVEL EXPENSES		**CNC:**				**Rate**		**Total [Work Done]**
			- Enter kilo's in colum "AD" and the projects shared in Column "AE" if you need to apportion cost between projects,		**Return Trip Distance**	**Shared Projects**					
T-01			**LDV**								
T-01.01			**Contractor Base - Stores - Site** (Work allocated within the nominated Sector)	km					R	5.72	R -
T-01.02			**Contractor Base - Site** (Work allocated within the nominated Sector)	km					R	5.72	R -
T-01.03			**Site - Contractor Base** (Work allocated within the nominated Sector)	km					R	5.72	R -
T-01.04			**Sector office - Stores - Site** (Work allocated outside the nominated Sector)	km					R	5.72	R -
T-01.05			**Sector office - Site** (Work allocated outside the nominated Sector)	km					R	5.72	R -
T-01.06			**Site - Sector office** (Work allocated outside the nominated Sector)	km					R	5.72	R -
T-01.07				km					R	5.72	R -
T-01.08				km					R	5.72	R -
T-01.09				km					R	5.72	R -
T-01.10				km					R	5.72	R -
T-01.11				km					R	5.72	R -
T-01.12				km					R	5.72	R -
T-01.13				km					R	5.72	R -
T-01.14				km					R	5.72	R -
T-01.15				km					R	5.72	R -
				sum						Sub Total	R -
T-02			8 Ton Truck (with Crane)								
T-02.01			**Contractor Base - Stores - Site** (Work allocated within the nominated Sector)	km					R	21.99	R -
T-02.02			**Contractor Base - Site** (Work allocated within the nominated Sector)	km					R	21.99	R -
T-02.03			**Site - Contractor Base** (Work allocated within the nominated Sector)	km					R	21.99	R -
T-02.04			**Sector office - Stores - Site** (Work allocated outside the nominated Sector)	km					R	21.99	R -
T-02.05			**Sector office - Site** (Work allocated outside the nominated Sector)	km					R	21.99	R -
T-02.06			**Site - Sector office** (Work allocated outside the nominated Sector)	km					R	21.99	R -
T-02.07				km					R	21.99	R -
T-02.08				km					R	21.99	R -
T-02.09				km					R	21.99	R -
T-02.10				km					R	21.99	R -
T-02.11				km					R	21.99	R -
T-02.12				km					R	21.99	R -
T-02.13				km					R	21.99	R -
T-02.14				km					R	21.99	R -
T-02.15				km					R	21.99	R -
				sum						Sub Total	R -
T-03			20 Ton Truck								
T-03.01			**Contractor Base - Stores - Site** (Work allocated within the nominated Sector)	km					R	29.10	R -
T-03.02			**Contractor Base - Site** (Work allocated within the nominated Sector)	km					R	29.10	R -
T-03.03			**Site - Contractor Base** (Work allocated within the nominated Sector)	km					R	29.10	R -
T-03.04			**Sector office - Stores - Site** (Work allocated outside the nominated Sector)	km					R	29.10	R -
T-03.05			**Sector office - Site** (Work allocated outside the nominated Sector)	km					R	29.10	R -
T-03.06			**Site - Sector office** (Work allocated outside the nominated Sector)	km					R	29.10	R -
T-03.07				km					R	29.10	R -
T-03.08				km					R	29.10	R -
T-03.09				km					R	29.10	R -
				sum						Sub Total	R -
			Total for Transport								**R -**
			NEGOTIATED - Rates to be negotiated								
N-1			**Excavation**								
			Drilled Pole Hole - 385mm Dia							REFER BULK CONTRACT	
N-01.1			Up to and including 1,5m deep	Each							R -
N-01.2			Exceeding 1,5m to 2,6m	Each							R -
N-01.3			Stay Holes (1.5)	Each							R -
N-01.4			150mm Dia Swer earthing borehole	Each							R -
N-2			**POLES/STRUTS**								
			Permit to Transport								
N-02.1			>12M WOOD	Each						**rate**	R -
N-3			**ERECT H-POLES**								
			VEHICLE ACCESSIBLE								
N-03.1			>12M WOOD Structure (Permit to Transport)	Each						**rate**	R -
			VEHICLE INACCESSIBLE								
N-03.2			>12M WOOD Structure (Permit to Transport).	Each						**rate**	R -
N-4			SUPPLY & INSTALL ACCESS GATES (NEG SIZE) Complete as per Spec.	Each						**neg**	R -
			Total for Negotiated Items								**R -**

DECOMMISSIONING — R 19 569.00

		DISMANTLING							
D-01		**Loosening of MV conductor 1, 2 & 3 Phases.**							
D-01.1		1 PHASE	N°/Str				R	30.00	R -
D-01.2		2 PHASE	N°/Str				R	75.00	R -
D-01.3		3 PHASE	N°/Str				R	90.00	R -
D-02		**Rolling UP/CUT-UP & Removal of conductor from Site**	Ph/m				R	7.00	R -
D-03		**Removal of circuit breaker**							
D-03.1		Single phase	Each				R	75.00	R -
D-03.2		Three phase up to 80 AMP.	Each				R	150.00	R -
D-03.3		Three phase up to 225 AMP.	Each				R	187.00	R -
D-03.4		Three phase up to 800 AMP.	Each				R	337.00	R -
D-04		**Removal of under ground cable - 16-70mm, - >70mm.**							
D-04.1		16-70mm	m				R	10.00	R -
D-04.2		>70mm	m				R	18.00	R -
D-05		**BRINGING DOWN OF STRUCTURES - STAYS (CUT-OFF), - (TOTAL REMOVAL), - WOODEN POLES & H - POLES.**							
D-05.1		STAYS (CUT-OFF)	Each				R	187.00	R -
D-05.2		STAYS (TOTAL REMOVAL)	Each				R	225.00	R -
D-05.3		WOODEN POLES	Each				R	375.00	R -
D-05.4		H - POLES	Each				R	412.00	R -
D-06		**DISASSEMBLE STRUCTURES - CROSS-ARMS, - A - FRAMES, - MV SA / INSULATORS & LV INSULATORS / ABC ATTACHMENTS.**							
D-06.1		CROSS-ARMS	Each				R	150.00	R -
D-06.2		A - FRAMES	Each				R	112.00	R -
D-06.3		MV SA / INSULATORS	Each				R	37.00	R -
D-06.4		LV INSULATORS / ABC ATTACHMENTS	Each				R	37.00	R -
D-07		**REMOVAL OF TRFR. - 16 - 100 KVA (SINGLE POLE), - 100 - 200 KVA (PLATFORM MOUNTED) & 315 - 500 KVA (5 POLE STRUCTURE).**							
D-07.1		16 - 100 KVA (SINGLE POLE)	Each				R	337.00	R -
D-07.2		100 - 200 KVA (PLATFORM MOUNTED)	Each				R	674.00	R -
D-07.3		315 - 500 KVA (5 POLE STRUCTURE)	Each				R	1 199.00	R -
D-08		**REMOVAL 0F EQUIPMENT - Remove of LV Fuse (Mosdorf) & Remove of pistol grip (as Request by Project Engineering).**							
D-08.1		Remove of LV Fuse (Mosdorf)	Each				R	225.00	R -
D-08.2		Remove of pistol grip (as Request by Project Engineering)	Each				R	117.00	R -
D-09		**Removal of Supply/Source Cable connection and Kiosk, inclusive of cabling & Strapping 16 - 50kVA Kiosk, 64 - 100kVA Kiosk, 200kVA Kiosk & 315 - 500kVA Kiosk.**							
D-09.1		16KVA - 50KVA Kiosk	Each				R	375.00	R -
D-09.2		64KVA - 100KVA Kiosk	Each				R	524.00	R -
D-09.3		200KVA Kiosk.	Each				R	588.00	R -
D-09.4		315KVA - 500KVA Kiosk	Each				R	899.00	R -
D-10		**GROUND MOUNTED KIOSK. - 16kVA (2-6 WAY), - 25kVA (2 Way), - 50kVA (2 Way), - 100kVA, - 200kVA, - 315kVA.**							
D-10.1		16kVA (2-6 WAY)	Each				R	1 199.00	R -
D-10.2		25kVA (2 Way)	Each				R	1 199.00	R -
D-10.3		50kVA (2 Way)	Each				R	1 199.00	R -
D-10.4		100kVA.	Each				R	1 199.00	R -
D-10.5		200VA	Each				R	1 324.00	R -
D-10.6		315kVA.	Each				R	1 648.00	R -
D-11		**Removal of Equipment - CONCRETE PLINTH (Determined on size), - Conventional meter, - Prepaid meter, - Pole top box, - S1 Airdac, LV Fuseholder (per Set).**							
D-11.1		CONCRETE PLINTH (Determined on size)	Each				R	3 371.00	R -
D-11.2		Conventional meter	Each				R	249.00	R -
D-11.3		Prepaid meter	Each				R	375.00	R -
D-11.4		Pole top box	Each				R	125.00	R -
D-11.5		S1 Airdac	p/m				R	4.00	R -
D-11.6		LV Fuse	Each				R	225.00	R -
									R -
									R -
		Total for Decommissioning							R -

BUY OUTS (Separate material and Labour items, ie one item per Buy Out). (Only Material is subject to mark-up) — 10%

BO-1		Drilling of earth spikes holes - compressor	Each			R 215.00	incl		R -
	Invoice No	**Description**		**Quantity**		**Unit Price**	**plus 10% [Materials only]**		**TOTAL WORK DONE**
BO-2			Each				R	-	R -
BO-3			Each			R -	R	-	R -
BO-4			Each			R -	R	-	R -
BO-5			Each			R -	R	-	R -
BO-6			Each			R -	R	-	R -
BO-7			Each			R -	R	-	R -
BO-8			Each			R -	R	-	R -
BO-9			Each			R -	R	-	R -
BO-10			Each			R -	R	-	R -
BO-11			Each			R -	R	-	R -
		Total for Buy Outs							R -

C3.1 Works Information

The Provision of Supervision, Labour, Equipment, Materials and Transport to support the EC Operating Unit for the connection of new Type 1 to Type 6 customers to the electrical networks on an 'as and when' required basis.
In general, the work covered by the construction of MV and LV infrastructure up to the installation of a meter for the house connection as per the description of a minor works connection. Some of the works will include the dismantling, upgrading of existing infrastructure and line moves as per the customer's needs.

1. Description of the *works*

The partial supply and construction of MV & LV works/infrastructure on an as and when required basis for MV (11KV , 22kV & 22kV) and LV (400V/230V) reticulation inclusive of overhead line, LV & MV cable and equipment in all the areas as identified in table 1 above.
Activities under this contract will include:

- Excavations and planting poles
- Assembly and Erection of structures for MV 3 phase, Phase/Phase and SWER conductor.
- Assembly and erection of structures for LV single phase, two phase, and three phase Aerial Bundle Conductor.
- Mini-substations and Transformer Plinths.
- Installation of Transformer & Mini- Substations.
- Installation of Junction boxes, Ring Main Unit Switching devices.
- Installation of SPU and LPU metering kiosks and panels.
- Earth electrode installations
- Laying of MV and LV cables.
- MV and LV cables terminations and joints.
- Stringing MV and LV conductors
- LV services connections to dwellings.
- Replacement of line hardware
- Dismantling of damaged infrastructure.
- Repair driveways (asphalt, paving or concrete)
- Indicate "as built drawings.
- Capturing of customer and meter date.

INCLUDE SCOPE FOR SHORT MAJORS AND RECOVERABLES.

 Base – Contractors will be required to have a base in their nominated Sector in which they want to work. The base will need to be supported by proof of residence and this will affect works being allocated.

Authorisation –Contractors are required to have an ECOU authorised staff member for their company. The contractor is responsible for ensuring that these persons are approved to operate/work in the area of work, for the duration of the contract. [Please remember that staff may not be shared across Contracting Companies.]

 Staff – the contractor will be required to nominate staff to work in ECOU. It would be the Contractors responsibility to announce the change of staff since the safety documentation is completed accordingly. Ensure this happens before it takes place and work commences on site.

 Activity Costing – Eskom will provide an activity costing for the scope of works detailed in the FDP in the form of a Bill of Quantities, BOQ. Based on the BOQ costing a Task Instruction / Order will be issued. It will be the responsibility of the Contractor to issue warnings to the Project Manager, before the work is completed, should this costing be insufficient to complete the work. The contractor is expected to stop all works if the above is encountered until the approval from the PM/PC is attained. This notification must take place and be approved by the Project Manager before the work is complete and the Payment Certificate is submitted for approval. [No works on site should be done without a Task Order and Purchase order number]. [Each CNC area has its own budget so early notification of any upward change would ensure hassle free payment].

 The *Employer* will supply the *Contractor* with a Task Instruction / Order, a Final Design Package (FDP), a Bill of Quantities (BOQ) and estimated travel costs for the works to be completed. The contractor is expected to cost the projects issued to them and compare the costs to the BOQ and estimated travel costs. This is to be completed within 3 days of the Task Instruction / order being issued to the contractor. Should there be a variance in costing; the contractor is required to inform the PM/PC/Consultant, by supplying the activity costings, before the commencement of work on site. The PM/PC will ensure the Purchase Order number and Task Instruction / Order is amended accordingly.

 Site Assessment - It is expected for the *Contractor* to do a site visit and verify the constructability of the scope of the *works*, access [either for himself or "Live Line"], the conditions on site [either for himself or "Live Line"], and get the Task Instruction / Order signed by the CNC – this must be done prior to execution of the said works. This inspection and signing of task instruction / orders should happen within 7 days of being issued the task order.
Site assessment requirements include verification but not be limited to:
1. Assess project costings based on site conditions and notify the PM/PC if there are changes to the original costings submitted E.g. Evidence of rock, spanning sheet does not match the network on site, etc.
2. Can the works be executed by "Live Line" – check things like site access, constructability of the scope by a "Live Line" team?
3. Whether the FDP requirements can be executed on site (problem areas are to be detailed in writing and where possible digital photo's supplied) to the relevant Project Manager

4. **Take-off structures** and/or the nearest strain structure [towards source] for the breaking of jumpers by "Live Line" and numbering is to be checked to ensure that this corresponds with the preliminary Single Line Diagram (SLD) in the FDP (discrepancies are to be noted and reports back to the relevant Project Manager). If a Cut Out does not exist, breaking jumpers at the source side will be a possibility and needs checking to confirm positions of strains complete with numbers. Also look at possibly making a strain structure of an intermediate for future cut out.
5. An assessment of bush clearing requirements, if applicable, and advice the relevant Project Manager. Bush clearing, if any, will be executed by a suitably qualified specialist contractor will be requested to do the bush clearing on your behalf. [No bush clearing may be undertaken without prior approval from the Employer or Employer's representative].
6. Customers or landowners' special concerns or requirements are to be discussed with them regarding the *works* to be executed. [Please ensure you announce yourself before commencing with the works]

7. **Metering** – the FDP will only cover the new works and it is important to know what is the status of the existing metering. Contractors should remember that the new meter reading is as important as the old when upgrading or downgrading since money changes hands accordingly. Both readings are of utmost importance and must therefore be taken when metering is changed for whatever reason. These reading should be accompanied by clear pictures of the meters and the MMF. Should the readings not be taken the Contractor shall return at his own expense.

8. **Live Line** – When Live Line is utilised on project, the onus is still with the Contractor in the absence of the COW. All defects will be the responsibility of the Contractor at the end of the day – defects will have the resultant Handover withheld. If a cross-arm gets defected for being skew, the Contractor will be held liable.
9. Consideration of terrain and checking if pegs are on site. [Accidental removal of any of these will be to the Contractors expense]
10. Identifying all possible risks.[The whole works must comply to the DT Standard after you have executed your part of the works]
11. Checking clearances. - It is a requirement that the *Contractor* give feedback to the project management team on the condition found on site (as part of the site assessment) and the duration, the works is likely to take, if these conditions change, the anticipated delivery period of the works].

 Risk Assessment - It is a requirement that the *Contractor* do a risk assessment according to the

Employers Performa.

 Timing - It is expected from the *Contractor* to do the whole of the *works* and as per the timeframe set in the **Task Instruction** / **Order**, which will include the completion of Outage request form [latest Rev], specifically focussing on the planning of the activities to be covered during implementation and the timing thereof. Contractors will be held responsible for timing during late or early outages.

 Rock Excavation - Where terrain necessitates the use of a compressor for rock excavation, prior approval needs to be obtained from the Employer or Employer's representative for such works
Drilling - Where terrain necessitates drilling, approval needs to be obtained from the Employer or Employer's representative for such works and resources will be allocated accordingly at the Employer's discretion.

 Specification and Standards - It is the *Contractor's* responsibility/accountability to ensure compliance with the latest DDT standards or revisions and implementation of Technical Instructions from the Employer with reference to the scope of works. No works should be undertaken on site if the final product will not be compliant in any way.

 Outages – the completion of the outage request documentation [ECOU] form will be the responsibility of the Contractor, specific attention must be paid to the duration of activities in the timing part of the document since the responsibility is the Contractor when late or early. **It** is responsibility of the Contractor to plan the outage, negotiate with the CNC, update the stakeholders and book the outage. Completion of the handover, the plant data form and the MMF will be contractor's responsibility.

1.2. MATERIALS AND TRANSPORTATION

 Reservation Numbers - Contractors will be issued with the list of materials per reservation number and they are to ensure that all materials per reservation number are available before receiving of materials [No partial drawings are allowed if the Project is one load].
 Warehousing Appointment – the Contractor will be responsible for making the necessary appointments with warehousing and check whether or not materials are available.
 Collection - It is the Contractors accountability/ responsibility for collection and transport of all necessary material provided by the Employer (Transformers, Poles & X arms, Conductor, Meters & Meter kiosk) from any and/or all Eskom warehouses, including stores at the nearest Customer Network Centre (CNC) and to deliver it to the relevant sites. [Materials should be collected as soon as appointments can be set up with warehousing [within 14days] to prevent Reservation Nº's being cancelled].
 Eskom reserves the right to deliver material to the Contractor's site closest CNC where the Task Order has been allocated.
 Material Reconciliation – The contractor is to provide the PC/PM with a material reconciliation the day after the collection or delivery of the Eskom supplied material. The material reconciliation is to be per project on the Task Instruction / Order to enable the identification of which projects can continue and which cannot.
 It is the *Contractors* accountability/ responsibility to purchase all XYZ items as per the latest Eskom Buyer's/ Material guide from approved Eskom Suppliers and to confirm on a **quarterly basis** that the *Contractor*'s purchased material complies with the Eskom Buyers Guide and the approved list of Eskom suppliers.]
 Contractor Materials - It is the *Contractors* accountability/ responsibility to carry out the erection, dressing, stringing, tensioning, making-off and all related works to complete minor extension electrical reticulation installations (MV and LV) in the Eastern Cape Operating Unit as per Final Design Package/ Task Instructions issued. The FDP shall be available on site during all stages of construction. All construction undertaken shall be compliant to the DT Standard.
 Return to Stores - It is the *Contractors* accountability/ responsibility to carry out from time to time dismantling and disassembling of Plant (MV & LV), The Contractor is to assume that the line to be dismantled is in a deteriorated condition and is to effect/ implement safety measures as required, and then return all unused or used/ scrap material to Eskom's warehouse where they collected the Eskom Supplied material for the Task Instruction / Order. [Note – when submitting a claim, the return to stores must be handed in to confirm all materials have been returned – no payment will be made without this information at hand.]. Any FDP inclusive of dismantling will require a Signed Return to Stores form.

 The lines to be constructed will be defined in terms of the FDP which will contain the relevant spanning sheets, issued with each Task Instruction. The work will be located in Eskom Eastern Cape Operating Unit area of supply.
 The **return to stores** form needs to be authorised in order that the warehousing staff will return any affected materials. The contractor must therefore get the form completed reflecting which materials are scrap or for re-use. This form must be authorised for return by a PC from the program prior to arranging return of materials. Re-use materials must be handed back complete – ensure all bushings are complete with nuts.
 Transport – Transport for work allocated in their nominated Sector/ Zone will be determined from their base to site and from their Base to the Eskom Warehouse. If work is allocated outside the nominated Sector, transport will be determined from the **Sector office and not the contractors Base.** The contractor will not be reimbursed for the transporting of his staff back to base on 'off weekends' or for additional vehicles required in transporting of staff if work is accepted outside the nominated sector.
 In line with the Price Lists contained in this contract, the *Contractor* will be reimbursed for all activities undertaken
 For work allocated within the nominated Sector, actual distances travelled can be claimed between base, the Eskom store and the site in order to arrive there, initially and return to base, or proceed to the next site at the completion of the relevant installation as per the Task Instruction.
· The *Contractor* is to ensure that where more than one Task Instruction has been issued within a reasonable time frame for work in a given geographical area that shared costs are claimed in terms of trips to stores for collection of Eskom big 5 materials.
· **Planning** - It is also expected that the *Contractor* will plan and execute the works cost effectively, including shared site visits, signing of Task instructions and movement from one site to the next, where possible.

1.3. ***SUBMISSION OF INFORMATION AND ADDITIONAL CONTRACTOR REQUIREMENTS***

 The contractor is to submit a clear picture of the new and old meters installed / removed from site with the MMF to the PC/PM within 1 day of energising the customer.
 Planned Task Observation - Each *Contractor* is required to submit one planned task observation per week to the employer.
 Man Hour Stats - The *Contractor* is required to supply monthly man hour statistics related to health and safety before the second working day of every month.
 Weekly Report - The *Contractor* is to submit a weekly report of projects and their current status every Monday to the relevant ***PM/PC.*** **The Weekly report is to include the construction schedule for all the projects on the Task Instruction / Order.**
 Contractor forums - The Contractor's relevant section 16.1/16.2, appointed and other responsible persons in terms of the Occupational Health and Safety Act and Construction Regulations are to attend the *Employer*'s Contractor forums.
 Work Inspections – Contractors are to submit a signed inspection report to the PC to initiate the Clerk of Works to be sent out to inspect the project.
 Invoice Time Frames - The *Contractor* is to submit invoices in line with the following maximum time frames unless otherwise agreed to: [failure to comply with this requirement might affect the future allocation of work for the duration of this contract.] Remember the Hand-over is a deliverable for the payment certificate and must be followed up by the contractor.
 For LV work, invoices are to be submitted to the relevant ***Project Manager*** within **10 working days of completion**.
 For MV work, invoices are to be submitted to the relevant ***Project Manager*** within **10 working days of completion**.
 Allocation of Works - Should the *Contractor* have **4 or more invoices outstanding**, it will be at the *Employer*'s discretion to determine whether further Task Instructions are to be issued to the *Contractor*.
 Partial payments will be allowed only on agreement between the contractor and the Programme Manager. When requesting a Partial Payment, the contractor is to submit the partial payment invoice with the Payment Certificate as stimulated in the Invoicing requirements. In addition, the payment certificate for the total completed project needs to accompany the partial payment invoice as an indication of the remaining amount to be claimed after energisation. A partial handover needs to be part of the documents submitted for the partial invoice to be processed.

1.4. PENALTIES

For network outages, where the *Contractor* is responsible or accountable for an outage starting or ending late, penalties as recorded and defined in the Contract Data of this contract will be levied.

 For defects, the *Contractor* should maintain a high quality of workmanship and check the respective *works* before confirming that the *works* are complete and constructed according to Eskom requirements and as set out in the Final Design Package. Defect penalties will be charged as defined and recorded in the Contract Data of this contract. The works will be inspected by a Clerk of Works and any repetitive defects will be recovered from the Contractor on the next payment received as part of this program.

1.5. INVOICE REQUIREMENTS

The following are the minimum documents required on completion of the *works*, all duly completed and signed by the *Contractor*, in respect of each Task Instruction in order for invoice payment to be processed: [the following documents shall be included in the electronic documentation submitted

Activity	Type 1	Type 2	Type 3-4	Type 5	Type 6
	Submitted to				
Payment Certificate – reflecting a summary of costs detailed on Annexure	Project Coordinator/ Project Manager				
Annexure – it is a detailed breakdown of the activities executed on site to complete the project and should be a repeat of the FDP scope. It envisaged that it will not be necessary to claim a multitude of items [all items except the holes excavations and structure's will be covered by the structures costs]. [Cummulative totals are indicated for the same financial year, if initial works were done in the previous year [different rates] 2 x Annexures need to be done indicating respective scopes individually].	Project Coordinator/ Project Manager				
MMF Form - Connection / Disconnection form/ Meter movement form. [both must be submitted if applicable]	Project Coordinator/ Project Manager				
Picture of meter – A clear picture of the old and new meter indicating the serial number of the meter – this must be legible	Project Coordinator/ Project Manager				
Deviation Approval Documentation - where applicable, should the invoice not coincide with the FDP	Project Coordinator/ Project Manager				
Return to Stores Form - Materials Listing of new or used materials returned to Eskom Warehouses where applicable. [This form must be signed by PC before return takes place then initialled by a Stores representative and /or be stamped by Eskom warehousing].	Project Coordinator/ Project Manager				
Signed Handover Certificate – handed in for every project [signature by COW and CNC].	Project Coordinator/ Project Manager				
Plant Data Certificate – completed for every project where applicable.	Project Coordinator/ Project Manager				
Test Results - Reading/s obtained when carrying out the required tests as detailed in TECHNICAL INSTRUCTION 01TI-04 (REV 0) MANDATORY COMMISSIONING TESTS FOR NEW INSTALLATIONS per installation	Project Coordinator/ Project Manager				
EPWP form – part of the payment **form.**	Project Coordinator/ Project Manager				
EMP - (Environmental Management Plan). [Remember a project specific EMP must be issued for all type 3 and above projects]	PC / PM – Generic Form		PC / PM – Project Specific Form		
Risk assessment for project issued per Task	Project Coordinator/ Project Manager				

Instruction					
Task Order (also signed by the TSC representative prior to work commencing)	Project Coordinator/ Project Manager				
Completion Certificate – needs to be submitted to the Project Manager confirming the items installed on site, the items on this certificate should be similar to the claim submitted. The confirmation of the items installed would therefore assist with preparation of the claim, if omitted from the certificate it **cannot** be claimed. This form must be signed off by the COW	Project Coordinator/ Project Manager				
Signed Sag & Tension Chart (as per FDP).	N/A	Project Coordinator/ Project Manager			
Activity	Type 1	Type 2	Type 3-4	Type 5	Type 6
Earthing Test Result – to conform compliance with Earthing Standard as per SCSASAAL9 Rev.2. (Annex E – E2, page 61 and 62) per Transformer installation	N/A	Project Coordinator/ Project Manager			
Annex A – Cable Test Certificate - TECHNICAL INSTRUCTION : 04TI-20 [Rev 0] __COMMISSIONING TESTS FOR NEWLY INSTALLED MV, IV AND LV CABLES per installed cable "run"	N/A	Project Coordinator/ Project Manager			

.□ The contractor is to submit a Payment certificate with the relevant accompanying documentation for verification and approval by the Employer or Employer's representative.
The contractor is to submit a Payment Certificate for approval to Minor Works, who will issue a Grn Nº for inclusion on the Tax Invoice to be submitted to finance.
o **Tax Invoice** – shall consist of an original Tax Invoice together with a copy of approved payment certificate complete with Grn Nº [to be submitted to finance], these total figures need to match. Be very careful **not** to submit duplicate invoices.
□ **Approved Payment Certificate** – reflecting a summary of costs detailed on Annexure. Shall be signed and approved and include the GR Nº issued when approved at Minor Works.
□ **Tax Invoice** – shall include the GR Nº [typed on] issued with payment certificate and signed after date if issue of GR Nº. [The approved payment certificate amount must match the Tax Invoice.]
Electronic documentation required per project to be submitted to Project Services when submitting the payment certificate to the Project Manager.
o Directory named Gtx Nº - inclusive of all related contract documentation. The documentation shall include the following [handover certificate, MMF [both new and old], photo of the meter [Old and New], tailgate talks, signed task order and signed return to stores forms, if any

Material:

10% handling fee will be paid for material purchased by *Contractor. .*

Work Allocation Instruction:

A contractor will be afforded 2 (two) working days to advise the employer of acceptance or rejection of a Work Allocation Instruction.
Failure to advise the employer of acceptance/rejection will be deemed to mean rejection of the *works* and the Work Allocation Instruction will be allocated to another *Contractor.*

Price adjustment for inflation:

The prices will be fixed and firm rates for the first 12 months of the contract. At the anniversary date of the contract the prices will be adjusted by Contracts Management team for inflation using CPA. The relevant publications to be used are published by the SIEFSA.

The base date for indices is:

1 month prior to Tender Closing Date

The proportions used to calculate the Price Adjustment Factor are:

15% non-adjustable SIEFSA
85% Labour (Table C-3a for labour rates) SIEFSA

Financial Breakdown – for budget purposes the province has been split into zones and the following will be financial applicable

Zone	CNC
Port Elizabeth	Adelaide
	Albany
	Alexandria
	Craddock
	Uitenhage
	Humansdorp
	Joubertina
	Graaff Reinet
East London	Dutywa
	Butterworth
	Toleni
	King Williamstown
	Coastal
	Alice
	Peddie
Aliwal North	Matatiele
	Mount Ayliff
	Bizana
	Lusikisiki
	Tsolo
	Elliot
	Sterkspruit
	Aliwal
Mthatha	Port St Johns
	Mthatha North / South [both]
	Mqanduli
	Elliotdale
	Ngcobo
	Cofimvaba
	Cala
	Lady Frere
	Queenstown

Project Management Breakdown – for project management purposes the Eastern Cape Operating Unit has been split into Sectors, which have been further broken down in sub areas.

Zone	Sector	CNC
Port Elizabeth	Grahamstown	Adelaide
		Albany
		Alexandria
		Craddock
	Uitenhage	Graaff Reinet
		Humansdorp
		Joubertina
		Kirkwood
		Uitenhage
East London	Butterworth	Butterworth
		Dutywa
		Toleni
	East London	Alice
		Bulembu
		Coastal
		King Williams town
Aliwal North	Matatiele	Bizana
		Flagstaff
		Lusikisiki
		Matatiele
		Mount Ayliff
		Mount Frere
	Aliwal North	Aliwal North
		Elliot
		Sterkspruit
		Tsolo
Mthatha	Lukhanju	Cala
		Cofimvaba
		Lady Frere
		Ngcobo
		Queenstown
	Mthatha	Elliotdale
		Mathatha North
		Mqanduli
		Mthatha South
		Port St Johns

2. Drawings

Drawing number	Revision	Title
		As included in Work Instruction and discussed with relevant Eskom stakeholders

3. Specifications

Title	Type *Spec/PF	Date or revision	Tick if publicly available
General Specifications:			
Health and Safety requirements		**latest**	
Environmental requirements		**latest**	
Site regulations and access control		**latest**	
Section 37(2) Agreement between Eskom and Contractor		**latest**	
Generic Distribution Environmental Management Program for power Lines and Substation		**latest**	
Public Finance Management Act		**latest**	No
Occupational Health and Safety Act	**Spec**	**latest**	**No**
Compensation for Occupational Injuries and Disease		**latest**	
Safety Risk Management Process Manual	**Manual**	**latest**	**No**
Co-Ordination of safety on capital projects	**Procedure**	**latest**	No
OHS Act requirements to be met by principal contractors employed by Eskom Distribution	**Procedure**	**latest**	**Yes** [Contractor Must sign]
Identifying, analyzing, documenting and observing dangerous/hazardous tasks.	**Procedure**	**latest**	No
Pre-Task Planning and Feedback process	**Procedure**	**latest**	No
Procedure for refusal to work on the grounds of health, safety and environmental concerns.	**Procedure**	**latest**	No
Reporting, recording, investigating, costing and follow-up of incident/accidents.	**Procedure**	**latest**	No
Quality Requirements for the procurement of Assets, Goods and Services.	**Standard**	**latest**	No
Access to farms	**Guide**	**latest**	No
Transporting person on back of vehicles	**Bulletin**	**latest**	Yes
Expanded Public Works Report – Divisional Capital Programme	**Spec**	**latest**	Yes

Technical specifications:		
NWS 1058 - SAFETY AT CONSTRUCTION SITES: REQUIREMENTS TO BE MET BY CONTRACTORS	**latest**	YES
NWS 1494 - FIRE PREVENTION AND PROTECTION OF CONTRACTOR'S PREMISES ON NEW WORK SITES	**latest**	YES
HV REGS - HV REGULATIONS FOR HV SYSTEMS	**latest**	YES
ESK PVAAL7 - ENVIRONMENTAL IMPACT ASSESSMENT	**latest**	YES
DPC 34-227/SCSPVABB2 - - RISK ANALYSIS / JOB PLANNING	**latest**	YES
34-1192 22KV OVERHEAD RETICULATION	**latest**	YES
SCSASABB6 - 19KV SWER RETICULATION PLEASE REVIEW NOT FOUND	**latest**	YES
SCSASABL6 - GENERAL INFORMATION AND REQUIREMENTS FOR MEDIUM-VOLTAGE	**latest**	YES
SCSSCAAX8 - CABLE JOINTING KITS FOR POWER AND CONTROL CABLE WITH RATED VOLTAGE 600/1000 V	**latest**	YES
ESKPVAAZ1 ENVIRONMENTAL MANAGEMENT PLAN PROCEDURE.	**latest**	YES
SCSASAAW8 STANDARDS APPLICABLE WHEN WORKING IN CLOSE PROXIMITY TO LIVE LINE WORK	**latest**	YES
ALL RELEVANT DISTRIBUTION TECHNOLOGY STANDARDS FOR SPECIFICATIONS, DRAWINGS, TECHNICAL BULLETINS & SOUTHERN REGION STANDARDS FOR MV & LV WORK E.G. DISTRIBUTION STANDARD PART 2: EARTHING SECTION 1: MV & LV RETICULATION EARTHING	**latest**	YES
SCSPVABN2 TRAINING, TESTING AND AUTHORIZATION FOR OPERATION & MAINTENANCE.	**latest**	YES
DISASAAM2 - DISTRIBUTION STANDARD PART 3: LOW-VOLTAGE RETICULATION SECTION 1: LOW-VOLTAGE OVERHEAD RETICULATION	**latest**	
DST_34-1191 - GENERAL INFORMATION AND REQUIREMENTS FOR OVERHEAD LINES UP TO 33KV.	**latest**	
DST_34-1192 - LIGHT CONDUCTORS PARTICULAR REQUIREMENTS FOR OVERHEAD LINES UP TO 33KV WITH CONDUCTORS UP TO HARE CONDUCTOR.	**latest**	
DST_34-225 - PARTICULAR REQUIREMENTS FOR AUXILIARY EQUIPMENT AND STRUCTURES UP TO 33KV.	**latest**	
DST_34-453 - DISTRIBUTION STANDARD PART 4: MEDIUM VOLTAGE RETICULATION SECTION 4: SWER PARTICULAR REQUIREMENTS FOR 19KV SINGLE WIRE EARTH RETURN (SWER) OVERHEAD RETICULATION	**latest**	
DISASAAS3 - DISTRIBUTION STANDARD PART 8: LOW-VOLTAGE SERVICES SECTION 1: ELECTRIFICATION	**latest**	
DISASAAQ5 - DISTRIBUTION STANDARD PART 8: SERVICES SECTION 2: SCHOOLS.	**latest**	
DST_34-305 - DISTRIBUTION STANDARD PART 8: SERVICES SECTION 3: OUTDOOR LOW-VOLTAGE SERVICES FOR SMALL POWER USERS AND LARGE POWER USERS	**latest**	

DST 34-1175 - GENERAL INFORMATION AND REQUIREMENTS FOR MEDIUM-VOLTAGE CABLE SYSTEMS	**latest**	
DST 34-937 - INSULATION REQUIREMENTS FOR MEDIUM VOLTAGE CABLE-CONNECTED EQUIPMENT WITH AIR-FILLED ENCLOSURES	**latest**	
DST 34-1176 - DISTRIBUTION STANDARD PART 22: CABLES SECTION 0: GENERAL INFORMATION AND REQUIREMENTS FOR LOW-VOLTAGE CABLE SYSTEMS.	**latest**	
SCSASAAL9 & AMENDMENT 1 STANDARD: MV & LV EARTHING.	**latest**	
FIRST AID STANDARD LEVEL 2		NO
34-146 -OPERATING REGULATIONS FOR HIGH VOLTAGE SYSTEMS	LATEST	YES
34-164 - PORTFOLIO OF EVIDENCE FOR AUTHORISATION	LATEST	
BUILDING LINE RESTRICTIONS, SERVITUDES WIDTHS, LINE SEPARATIONS AND CLEARANCES FROM POWER LINES		
DISPVABY3 -PROCEDURE FOR HANDLING AUDITING AND STACKING OF NEW WOODEN POLES	LATEST	YES
PROCEDURE FOR MANUAL HANDLING OF RURAL LINE POLES.		
SCSASAAZ9 -STANDARDS FOR BUSH CLEARANCE AND MAINTENANCE WITHIN OVERHEAD POWERLINE SERVITUDES	LATEST	YES
SPECIFICATIONS FOR PHASE CONDUCTOR FOR DISTRIBUTION LINES (SEE 4.6 CONDUCTOR MARKINGS)		
SRTB007/2008 PREPAYMENT TOOLLESS TOOL	LATEST	
SCSASABZ1 – HANDING OVER DOCUMENTATION FOR MAJOR/MINOR RETICULATION PROJECTS	LATEST	YES
TECHNICAL INSTRUCTION : 04TI-20 [REV 0] - COMMISSIONING TESTS FOR NEWLY INSTALLED MV, IV AND LV CABLES		
TECHNICAL INSTRUCTION 01TI-04 [REV 0] - MANDATORY COMMISSIONING TESTS FOR NEW INSTALLATIONS		
SCSPVACP8 REV 0 - SAFETY PROCEDURE FOR PLANNED REFURBISHMENT/ DISMANTLEMENT OF MEDIUM & LOW VOLTAGE OVERHEAD WOOD POLE POWER LINES		
SCSPVACP7 REV 0 - PROCEDURE FOR THE DISMANTLING OF MEDIUM & LOW VOLTAGE POWER LINES ON WOOD POLE STRUCTURES		
DISPVAEH0 REV 0 - PROCEDURE FOR THE MANUAL REPLACEMENT OF A ROTTEN WOODEN POLE STRUCTURE	LATEST	YES
CUTTING AND REMOVING A SECTION OF DOWN- RUNNING EARTHWIRE ON WOOD POLE STRUCTURE TO INCREASE THE BIL USING LIVE WORK GLOVING METHOD	LATEST	
THE INSTALLATION OF ANTI- CLIMBING DEVICES AND THE WITHDRAWAL OF GALVANIZED STEEL ANTI – CLIMBING SPIKES	LATEST	
SABS STANDARDS APPLY TO QUALITY OF MATERIAL, PRODUCTS AND INSTALLATION & WORKMANSHIP	LATEST	

4. Constraints on how the *Contractor* Provides the Works

- All work and finishes are subjected to ESKOM's quality control and acceptance to all trades.
- All work is to be done as per specifications.
- The *Employer* will supply the *Contractor* with a Task Order.
- It expected from the *Contractor* to report to the CNC before starting work.
- It is expected from the *Contractor* to do a site visit and verify the scope of work and asses the conditions on site.
- It is expected from the *Contractor* to give feed back to the TSO on the condition found on site.
- It is expected from the *Contractor* to do a level risk assessment according to the Employer's Performance.
- It is expected from the *Contractor* to do the whole of the work as per timeframe set in the Task Order.
- It is expected from the *Contractor* to be responsible for the collection and transport of all necessary material e.g. (Transformers, Poles & X arms, Conductor, Meters & Meter kiosk etc) from any and /or all Eskom TSC's
- It is expected from the *Contractor* to take delivery of all necessary material (e.g. Transformers, Poles & X arms, Conductor, Meters & Meter kiosk etc) to the relevant sites.
- It is expected from the *Contractor* to do the erection, dressing, stringing, tensioning, and making-off, and complete maintenance or repair of electrical reticulation (MV and LV) in the ECOU as per Task Orders issued.
- This will from time to time include dismantling and disassembling (and the return of all material to Eskom's nearest warehouse) of specified lines and its attached equipment. Where necessary, servitude bush clearing and the installation of servitude gates will also have to be undertaken.
- The lines to be maintained or repaired will be defined in terms of the relevant spanning sheets which will be issued with each Task Order.
- The work will be located in Eskom ECOU area of supply.
- The *Contractor* will be reimbursed for all activities undertaken as well as the actual distances travelled between base, the Eskom TSC store and the site in order to arrive there initially and return to base or proceed to the next site at the completion of the relevant installation as per the Task Order.
- The distance travelled to be calculated from the Sector office to relevant CNC.
- The *Contractor* should have the necessary authorization to work on network unsupervised.

4.1 Meetings

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

4.1 Use of standard forms

Contracting parties must use NEC standard forms available in the Eskom Intranet for administration of the contract.

4.2 Invoicing and payment

In terms of core clause 50 the *Contractor* assesses the amount due and submit to the *Employer* for preparation of payment certificate. The *Contractor* submit the signed payment certificate with a tax invoice addressed to the *Employer* as follows:

ESKOM HOLDINGS SOC LIMITED

The *Contractor* includes the following information on each tax invoice:

- Name and address of the *Contractor*
- The contract number and title;
- *Contractor*'s VAT registration number;
- The *Employer*'s VAT registration number 4740101508;
- The total Price for Work Done to Date which the *Contractor* has completed;
- Other amounts to be paid to the *Contractor*;
- Less amounts to be paid by or retained from the *Contractor*;
- The change in the amount due since the previous payment being the invoiced amount - excluding VAT, the VAT and including VAT;
- (add other as required)

The *Contractor* attaches the detail assessment of the amount due to each tax invoice showing the Price for Work Done to Date for each item in the Price List for work which he has completed.

All material purchased by the *Contractor* will be paid once they have been installed.
10% handling fee will be paid for all material purchased by *Contractor*.

Financial records are to be kept by the Contractor on any additional items not included in the original Scope of Works/Activity List.

A Frequency Rate of Invoicing is to be submitted with the main offer.

4.4 Records of Defined Cost

In order to substantiate the Defined Cost of compensation events, the *Employer* may require the *Contractor* to keep records of amounts paid by him for people employed by the *Contractor*, Plant and Materials, work subcontracted by the *Contractor* and Equipment. A site diary will be required.

4.5 Accelerated Shared Growth Initiative – South Africa (ASGI-SA)

If the ASGI-SA requirements are to be included in this contract specify constraints which *Contractor* must comply with after contract award in regard to any ASGI-SA requirements. The ASGI-SA Compliance Schedule completed in the returnable tender schedules is reproduced here. If ASGI-SA does not apply, delete this paragraph.

The *Contractor* complies with and fulfils the *Contractor's* obligations in respect of the Accelerated and Shared Growth Initiative - South Africa in accordance with and as provided for in the *Contractor*'s ASGI-SA Compliance Schedule stated below

.
[Insert the agreed ASGI-SA Compliance Schedule here]

The *Contractor* shall keep accurate records and provide the *Employer* with reports on the *Contractor*'s actual delivery against the above stated ASGI-SA criteria. [Elaborate on access to and format of records and frequency of submission etc.]

The *Contractor*'s failure to comply with his ASGI-SA obligations constitutes substantial failure on the part of the *Contractor* to comply with his obligations under this contract.

4.6 BBBEE and preferencing scheme

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* before implementing any change that will affect their B-BBEE status.

4.7 Facilities to be provided by the *Contractor*

Underground services, other existing services, cable and pipe trenches and covers
The *Contractor* shall be liable for any damages caused during construction to existing services such as, underground water pipes, electrical cables, telecommunication cables, overhead lines, storm water pipes and existing roads.
Control of noise, dust, water and waste
4.8 Title to material from excavation and demolition

The *Contractor* has no such title. All equipment and materials dismantled to be stored inside the *Contractor's* site camp. Disposal of this equipment and materials to be liaise with the Officer Investment Recovery – Mr Roelof Venter at 043-7032290..

4. Requirements for the programme

Technique	Key issue	Requirement
Transformer mounting	Threaded rod and Clamps to be utilized.	Ensure that the transformer brackets are installed on the transformer as well as the threaded rod.
Customer earthing – SPU/LPU	No earth connection between electrode and meter cabinet.	Detailed connection, utilizing the cable neutral, which is split at the meter cubicle to become the neutral earth.
Transformer earthing.	Separation of electrodes.	MV earth lead connection, S/A to tank. - Tank to electrode. [ensure that path is direct from S/A's to earth and is not through the tank] LV earth lead connection, Details of bushing connection - Neutral to electrode. NE surge arrestor installation between Neutral and tank. Separation distance of electrodes. Earth connections to be as short and smooth as possible (No pig tails) Installation of stays or consumer cable which may compromise the earthing separation.
Preform helical product/conductor match	Identification of conductors in use to ensure correct preformed helical product is utilized.	Typical conductors used in SR in terms of the standard, inter alia, Squirrel, Fox, Mink, Hare. Identification of non-standard sizes, ex Tescor, viz. Gopher, Rabbit, Raccoon, etc. The differences between Magpie and Squirrel dead ends are to be highlighted.

Special Contractor Notes
Special reference is made of the standards
SANS 10198 – The Selection, Handling & Installation of Electric Power Cables of Rating not exceeding 33kV
DST_34-1175 Rev 0 - General Information and requirements for medium-voltage cable systems**.**
The following special conditions apply:
These documents are to apply where relevant
The contractor is to familiarize himself with the contents of the document's and of appropriateness of the

techniques to be used for the required task.
The contractor is to effect/ implement safety measures as required.
Phase Rotation - Is to be carried out as required prior to decommissioning and on commissioning / Recommissioning
of any plant.
Statutory requirements - The requirements of the Occupational Health and Safety Act, Act 85 of 1993, (OHS Act)
and all subsequent amendments and regulations shall be observed and adhered to except
where exemption has been obtained from the Chief Factories Inspector.
If any text or drawings in this standard/ Final Design Package are in conflict with the OHS Act and no exemption has been obtained, the OHS Act requirements shall take precedence over the standard.
SANS 10198-1 - The requirements of SANS 10198-1 shall be observed and adhered to except where exemption has
been obtained from the relevant authority.
Earthing philosophy - The general earthing philosophy for LV cable systems shall be in accordance with 34-1895 and
the following:
1 The TN-C-S system earthing philosophy (see 34-1895 and SANS 10292) shall be used for all LV underground
cable networks;
NOTE A separate earthing conductor is therefore not required up to the customers point of supply. The neutral
conductor serves as a combined protective earth and neutral (PEN) conductor.
2 The combined protective earth and neutral conductor (PEN) shall be earthed at the source MV/LV transformer;
3 The bonding and earthing at the mini-substation, distribution kiosks and meter kiosks shall be in accordance with
D-DT 0830;
4 The cable armouring shall be bonded to the earth bar or earth terminal by mechanical glands via the gland plate;
NOTE Lugging of the armour wires and connecting them to the earth bar or earth terminal may only be done in existing
installations where there are no gland plates provided. In this case, all the armour wires are to be used.
5 Continuity of the cable armouring shall be maintained at all cable joints by using a main earthing conductor (tinned copper braid) in accordance with 34-1626. The main earthing conductor shall be connected to the armour
wires at both sides of the joint using constant force springs or armour clamps;
NOTES Where distribution kiosks are installed, a service cable having a PEN conductor is used to supply the consumer. The service cable PEN is connected to the LV feeder cable PEN at the distribution kiosk.
Route selection
The cable trench shall be installed within the road reserve at a distance of 1 m from the property boundary
The excavation of trial holes shall be used to identify and to establish the positions of existing services on the cable
route that may affect the depth of burial or spacing of the cables.
Trenches
Where the surface to be excavated will require a permanent re-instatement by a local authority or contractor the surface
cut shall be made with an edged tool and shall be cut as cleanly and evenly as possible.
· LV cable trench details shall be in accordance with D-DT-0854
· The Project Engineer shall approve any variations from the depth specified in D-DT-0854.
· Where the presence of existing services makes it necessary to increase the depth of the trench, the trench shall be
returned to nominal depth as soon as is practical.
· For road or rail crossings, the depth of cable shall be increased in accordance with D-DT-0854.
· Where a change in trench level is necessary, the bottom of the trench shall rise or fall gradually and smoothly.
· Trenches shall be kept as straight as possible and the radius of bends shall be tight, however never less than the
minimum bending radius of the cable

Installation minimum bending radii for LV cables Installation minimum bending radii

1	2	3	4
Installation minimum bending radii			
16 – 50 mm2		≥ 70mm2	
8 × D		10 × D	

NOTE D refers to the overall diameter of the cable

The material excavated from the trench shall be placed adjacent to the trench leaving a walk-way of at least 500 mm on
both sides of the trench. This shall be done in such a manner as to prevent interference or damage to adjacent hedges,
trees, drains or other property along the cable route.
All surplus material, from whatever source, shall be disposed of by the Contractor.
If steel plates are to be used to allow vehicular access across a trench then they shall be in accordance with a design
done by a professional civil/structural engineer. The plates shall be either installed flush with the road and supported on
'I' beams or, if used as a plate across a trench, then the plate shall be pinned to the road surface with suitable spikes to prevent it moving. The plate shall provide a skid proof surface for motor vehicles.

Excavated trenches that are accessible to the public or that are adjacent to public roads or thoroughfares, or where the
safety of persons may be endangered, shall be adequately and effectively protected by a barrier or fence of at least one
metre in height and as close to the excavation as is practicable. Warning or danger tapes are not acceptable. Warning
illumination or any other clearly visible boundary indicators shall be provided at night or when visibility is poor.
Before installing bedding soil, the trench bottom shall be level, free of loose stones and lightly compacted.
A sieve having a mesh size of no larger than 12 mm may be used to sift the excavated soil.
The trench backfilling shall be in accordance with SANS 10198-8.
NOTE SANS 10198-5 contains descriptions of the various types of soils and their respective suitability for cable
Surround soil (bedding and blanket soil) and backfill material.
The bedding soil shall be installed and compacted prior to cable installation. Blanket soil shall be compacted using hand
Compaction tools. Backfill material shall be compacted in layers of maximum thickness 300 mm. The level of
compaction (see D-DT-0854) shall be measured at appropriate intervals using an approved method.
NOTE A dynamic cone penetrometer (DCP) may be used to measure the level of compaction.
Warning tape (see D-DT-8013) shall be installed directly above the cable at a depth of 300 mm below natural
Ground level in accordance with D-DT-0854.
The backfill requirements and required level of **compaction for road surface re-instatement shall be in accordance**
With the relevant road agency specification and shall take precedence over the requirements of D-DT-0854.
All pavements, roads and driveway crossings shall be re-instated to their original state.
Where re-instatement of surfaces cannot be done immediately, a 50 mm compacted crown shall be added above the
natural ground level (NGL) to allow for erosion.
Cable installation
Contractors installing cable shall be in possession of all parts of SANS 10198 and shall work according to that
Code of practice and this standard.

Where a situation arises that is not covered by SANS 10198 or this standard, the contractor shall consult the Project
Engineer.
The **LV cable depth and positioning within the trench** shall be in accordance with D-DT-0854 sheet 6.
NOTES
When trenching in rocky ground, a minimum of 150 mm should be kept between the cable and the trench side wall in
order to prevent damage to the cable when the trench is back-filled.
Cable laying and installation shall be in accordance with SANS 10198-2 and SANS 10198-8 and, unless otherwise
specified, shall be by direct burial in accordance with D-DT-0854.
NOTE The key objectives of correct cable installation are the following:
1) Cables are not over bent;
2) Cables outer sheaths are not damaged or scratched; and
3) Cable kinks or twists are prevented.
Cables running parallel to or crossing other services shall be installed in accordance with D-DT- 0854 sheet 7.
Cables shall be pulled either by hand (only where the conditions are suitable and by using a team and leader) or byusing a winch.

When a winch is used, it shall be fitted with a reliable and accurate dynamometer whether the cable is nose pulled or
bond pulled and it shall be monitored throughout the pull.
Cable rollers shall be carefully positioned in the trench in the line that the cable is to follow. The rollers shall be
spaced so that there is no appreciable cable sag between rollers. A spacing of 2 m is normally suitable but this
distance shall be reduced if appreciable sagging is seen to occur. Where appropriate, skid plates or corner rollers shall
be used.
Laid cable that is not immediately jointed or terminated (whether prior to being laid, already laid, still on the cable drum
or in transport) shall be sealed by means of cable end caps (see D-DT-8015).
Cable end caps shall be inspected for damage prior to and after cable laying. Damaged end caps shall be removed and
replaced.
Cable outer sheaths damaged during installation shall immediately be repaired using a cable repair sleeve (see D-DT-
8077).
Meter kiosks, meter panels and distribution kiosks
LV feeder cables shall be terminated in meter kiosks and distribution kiosks using mechanical glands with shrouds (see
D-DT-3070) and lugs (see D-DT-3102).
Where applicable, cable gland reducers (see D-DT-3229) shall be fitted. The size of cable gland and reducer (if
applicable) shall be in accordance with table 8.
LV feeder cables shall be terminated in meter panels using mechanical glands with shrouds (see D-DT-3070) and lugs (see D-DT-3102).

The size of cable gland shall be in accordance with the requirements of table 9 (see 34-305 for further details).

Table 9 – LV feeder cable gland requirements (meter panels)

1	2	3
LV feeder cable size [mm2] (Cu)	**Hole size**	**Mechanical gland size**
16 mm2 2-core	M25	No. 2
16, 25 mm2 4-core	M32	No. 3
70 mm2 4-core	M50	No. 5
150 mm2 4-core	M63	No. 6

Locks shall be fitted to meter kiosks, meter panels and distribution kiosks in accordance with 34-616.
NOTES
1) Meter kiosk front doors and meter panels shall be locked using "General" locks.
2) Meter kiosk rear doors (for access to the LV busbars) shall be locked using "Prohibited Area" locks.
3) Distribution kiosks shall be locked using "Prohibited Area" locks.

Installation of meter kiosks and distribution kiosks

1. Meter kiosks and distribution kiosks shall be positioned at least 0,5 m from all erf boundaries and at least
1 m from the road kerbing.

2. Meter kiosks shall be installed by direct burial at a depth of 300 mm. They shall be installed on the common boundary between adjacent customer properties.

3. Distribution kiosks shall be installed by direct burial so that the cable entry area is completely bured. They shall
be installed near the load centre of the customers being supplied.

4. After installation, the ground shall be levelled and compacted to 90 % MODAASHTO.

Construction

General construction shall be carried out in accordance with the new works production work instructions under Part
24 of the Distribution Standard.

Marking and labelling

General It is a requirement of the OHS Act that all controlling apparatus is permanently marked or labelled so as to
identify the system or part of the system on the electrical machinery that it controls. Where the control apparatus is
accessible from the front and back, these markings shall be on both the front and the back.

Construction

General construction shall be carried out in accordance with the new works production work instructions under Part 24
of the Distribution Standard.

4.17 Marking and labelling

4.17.1 General

It is a requirement of the OHS Act that all controlling apparatus is permanently marked or labelled so as to identify
the system or part of the system on the electrical machinery that it controls.
Where the control apparatus is accessible from the front and back, these markings shall be on both the front and the
back.

Labelling of equipment

1. The safety/warning labels of distribution kiosks, meter kiosks and meter panels shall be in accordance with the
pertinent clauses in the relevant Distribution specifications.

Meter kiosks shall be uniquely identified and labelled

A label indicating the customer's unique shall be included directly below the corresponding meter reading window on
the door of each kiosk.

Labelling of cables

1. All LV cables shall be labelled at both ends. The label shall be a flat aluminium plate of dimensions 150 mm × 25

mm × 0,9 mm (see D-DT-3049) tied to the cable with tinned copper binding wire onto which the information is
scribed/punched in a font size of 7 mm. The information on the cable label shall include the following:
1) cable voltage (e.g. '400 V');
2) cable size (e.g. '185') in mm2;
3) conductor material ('Cu' for copper and 'Al' for aluminium); and
2. LV feeder cable labels shall include the word either "TO" or "FROM" and the equipment (meter kiosk or distribution kiosk) connected to the other end of the LV cable.
3. LV service cable labels shall include the word either "TO" or "FROM" and the equipment (unique name that
identifies the customer (e.g. stand number; house number; customer name, etc) or the equipment supplying the
customer (i.e. mini-substation or distribution kiosk name)) connected to the other end of the LV cable.
4. LV customer cables supplied from meter kiosks shall be labelled at the end that terminates into the meter kiosk.
The label shall include the unique name that identifies the customer (e.g. stand number; house number; customer
name, etc) at the source end.

Inspection and testing

Visual inspections

A visual inspection checklist shall be compiled from the requirements of this standard and shall be used by the Clerk
of Works (COW) for routine inspections made during construction.
A checklist of the items to be inspected is provided on the Distribution Technology (IARC) website. The list is in the
form of questions and **the answer to these questions shall be in the affirmative before the system may be
energised**.

Electrical tests

All newly installed LV feeder cables shall be subjected to a 3 kV DC. (or 2 kV RMS AC.) test voltage in accordance
with table C-2 of SANS 1507-1. The contractor and person appointed to carry out the tests shall certify the new cable installation by completing a test certificate in accordance with Annex A.

1) The test voltage shall be applied between all three phase conductors in parallel and the metallic armour / neutral
conductor (to test the integrity of the insulation of each phase conductor to earth/neutral) and between each phase
conductor (to test the integrity of the insulation between phases).
2) The test voltage should be increased to the full appropriate value, and maintained at this value for 15 minutes –
unless a d.c. insulation tester is used.
3) A 1000 V d.c. insulation tester may be used if suitable equipment is not available to perform this test.
4) Where applicable, the LV feeder circuit breaker (MCCB) or vertical fuse holder and all the miniature circuit breakers (MCBs) installed in LV kiosks connected to the LV feeder cable being tested shall be open.
Cable fault location shall be done in accordance with SANS 10198-13.

Phasing conventions for LV equipment - The convention used for the phase order for three-phase LV equipment shall be as follows:
1. Horizontal LV busbars: RED, WHITE/YELLOW, BLUE and NEUTRAL from top to bottom.
2. Vertical LV busbars: RED, WHITE/YELLOW, BLUE and NEUTRAL from left to right (facing the busbars)
3. LV circuit breaker / vertical fuse holder terminals: RED, WHITE/YELLOW and BLUE from left to right (as seen
by the operator facing the front of the equipment)

Safety

Road safety precautions

When working within road reserves, the road safety precautions and requirements of the local road agency / authority shall be complied with at all times.
Where applicable, the guidelines as set out in the site manuals entitled "Safety at road works in urban areas" and
"Safety at road works in rural areas" issued by the Department of Transport.

Safety of foundations, buildings and structures

1. Care shall be taken to ensure that excavations do not endanger the foundations of adjacent buildings. All the necessary precautions shall be taken so as to prevent subsidence of soil which could result in damage to foundations.

2. Where excavations may unavoidably endanger the stability of fences or other structures, such structures shall be removed and replaced to the satisfaction of the owner(s).

Safety of other services

Where excavations may unavoidably endanger the stability of above ground services, such services shall be adequately and suitably supported and / or stayed.

Where excavations expose any underground services, such services will be adequately and suitably supported to avoid their subsidence and suitable protected against damage.

Barricading and lighting

In terms of the Construction Regulations of the Occupational Health and Safety Act 85 of 1993, every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, shall be :

a) adequately protected by a barrier or fence of at least one metre in height and as close to the excavation as is practicable; and

b) provided with warning illuminants or any other clearly visible boundary indicators at night or when visibility is poor.

Accommodation of traffic and access to properties

In addition to complying with the relevant requirements as applicable, where the work affects the operation or safety of public traffic, the following shall be applicable:

a) by-pass(es), as may be required to deviate traffic from portions of the road that are to be affected by the construction, shall be constructed and put in order; and

b) access ways, as may be required by persons requiring access to properties that fall within or adjoining the area where construction work is taking place, shall be provided. If, for any reason, such access has to be closed for certain periods during the construction period, the persons affected shall be given reasonable notice in writing of each construction period.

Official communication shall be issued by the relevant Communications Office to advise the affected public of all details regarding any traffic deviations and/or access restrictions that may be put in place during the construction period.

Working on and in the vicinity of live cables

1. Prior to working on a cable, it shall be positively identified and spiked in accordance with 34-1143.

2 When external damage to a cable has been located and exposed following a cable feeder protection operation (e.g. due to contractor damage / theft), the damaged cable shall be visually identified and spiked in accordance with 34-1143 before any work is carried out on the cable. This will ensure that a permanent fault is created and the possibility of the cable being incorrectly identified eliminated.

2. When working in close proximity to other live cables, it is recommended that the other cables be temporarily covered using a "cable flash blanket". This will greatly reduce the risk of an injury in the event of a flash due to a cable fault on one of the nearby cables.

Line re-routes/ dismantling

Phase Rotation is to be taken prior during and on completion of work on the line.

All work is to be carried out in strict accordance/ terms of Operating Regulations for High Voltage Systems - ESKARAAG4. With special reference to (5.03.6.3) & Prohibition Notice's
DMN_34-2120 - Title: DISMANTLING OF OVERHEAD LINES UP TO 132KV
DMN_34-92 - REPLACENENT OF A ROTTEN DAMAGED POLE MANUALLY
All stays - Of a Permanent or alternatively of a temporary nature shall conform as a minimum requirement to
D-DT 0341 Rev 16, - Stay assembly (MV - 97kN) wood poles and Stay assembly (MV - 35kN) wood or concrete
poles
D-DT 0312, Rev 10,- Stay attachments - Angles
DT 0313, Rev 5,- Stay Attachments - Terminals
Special Contractor Notes
Temporary MV &/or LV stay/s are to be installed/ applied as required during the decommissioning and construction
phases.
Special reference is made of the standards
DMN_34-2120 - Title: DISMANTLING OF OVERHEAD LINES UP TO 132KV
DMN_34-92 - REPLACENENT OF A ROTTEN DAMAGED POLE MANUALLY
The following special conditions apply:
These documents are to **apply where relevant the contractor is to familiarize himself with the contents of the**
documents and of appropriateness of the techniques to be used for the required task.
The contractor is to assume that the line to be dismantled is in a deteriorated condition and is to effect/implement

5. Requirements for the programme
The works are to be completed in according to specifications in all respects and ready for take – over by the Employer within the stipulated time frame

6. Services and other things provided by the *Employer*

Item	Date by which it will be provided
Safety Health & Environmental Specification (Performa)	As Per Task Order
Project Risk Analysis	As Per Task Order
Task Instruction	As Per Task Order
Final Design Package	As Per Task Order
The Employer will **supply (5) five main materials** (i.e. Transformers, Poles & X arms, Conductor, Meters & Meter kiosk) and the Contractor will supply the rest of the materials plus labour, unless indicated otherwise in the Task Instruction.	As Per Task Order

Any material shortages regarding free issue materials must be identified by the *Contractor* at least 3 weeks in advance. The *Contractor* will notify the *Project Manager* of such shortages within two days of the identification of a shortage.

C4: Site Information

C4.1: Information about the *site* at time of tender which may affect the work in this contract

1. Access limitations
This information shall be provided on the *Final Design Package* and forms part of this Contract.
2. Ground conditions in areas affected by work in this contract
This information shall be provided on the *Final Design Package* and forms part of this Contract.
3. Hidden and other services within the *site*
Existing Telecommunication exists but is not indicated on the drawings. 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*.
4. Details of existing buildings / facilities which *Contractor* is required to work on
Public services and infrastructures are limited and the *Contractor* shall arrange for the following:
Sanitation and accommodation on *site* for own use, and Supply of water with community leaders

Contract Details			
Starting Page Nº	Manually insert into Start Page Nº		
Enquiry Nº			
Project Title	Minor Works Contract		
Project Nº		WBS Nº	
Closing Time, Day, Date			
Document – Issue Date, Venue			
Document Issue Time, Day.			
Enquiries to			
Enquiry Fax, Tel, Ref			
Validity period			
Site Location / Town			
Date, Starting, Completion			
Period for reply			
Possession of Site			

Eskom	Occupational Health and Safety Act: Section 37(2) Agreement - Form	Template Identifier	240-43921804	Rev	5
		Document Identifier	240-77037682	Rev	5
		Effective Date	May 2016		
		Review Date	December 2021		

SECTION 37(2) AGREEMENT CONCLUDED BETWEEN
ESKOM HOLDINGS SOC LIMITED
(Hereinafter referred to as Eskom Holdings SOC Ltd)
AND
……..
(Name of contractor/supplier)
I, ……..*[name of contractor /supplier representative*] representing ……..... [*insert name of contractor/supplier*], do hereby acknowledge that

…….. [*insert name of contractor/supplier*] is an employer in his/her own right, with duties as prescribed in the Occupational Health and Safety Act No. 85 of 1993 ("the Act"), as amended, and agree to ensure that all work will be performed and/or machinery or plant used in accordance with the provisions of the Act.

I undertake that …… [*insert name of contractor/supplier*] shall strictly adhere to, and ensure that his/her employees adhere to, the provisions of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).

I have been provided with SHE specifications for project/service ……[*insert brief details of project/service, for example, name, contract/project number*] ……. and will comply with the requirements set out in these.

I accept and agree that the SHE specifications constitute arrangements and procedures between …….. (*insert name of contractor/supplier)* and Select the relevant entity, which will ensure compliance by …… [*insert name of contractor/supplier*] with the provisions of the Act, as contemplated in section 37(2) of the Act.
This agreement constitutes the sole agreement between the parties, and no variation, modification, or waiver of any of the provisions of this agreement or consent to any departure from these shall, in any manner, be of any force or effect, unless confirmed in writing and signed by both parties,
Annotation: The document contains the minimum statutory requirements in terms of the OHS Act. Do not alter the clauses when entering requisite details in the space provided.

Eskom	Occupational Health and Safety Act: Section 37(2) Agreement - Form	Template Identifier	240-43921804	Rev	5
		Document Identifier	240-77037682	Rev	5
		Effective Date	May 2016		
		Review Date	December 2021		

and such variation, modification, waiver, or consent shall be effective only in the specific instance and for the specific purpose and to the extent for which it was made or given.
This agreement is signed on behalf of the parties, each signatory to this warranting that he/she has the requisite authority to do so.
Signed this …….. day of ……..……..... 20 …… at

……..…… (*Place*)

(*Full name*)…… (*Signature*) ……on behalf of …….. **(supplier/contractor)**

Contractor Responsible Manager (*responsible for signing the* **Eskom Holdings SOC Ltd** *contract on behalf of the contractor*)

Witnesses
1. …… 2. ……

Signed this …… day of ……...20……

at ……..……..…… (*Place*)

(*Full name)*…….. (*Signature*)……on behalf of **Select the relevant entity**

(Contracts and/or Project Manager or Select the relevant entity representative)
Witnesses

1. …… 2. …….
Annotation: The document contains the minimum statutory requirements in terms of the OHS Act. Do not alter the clauses when entering requisite details in the spaces provided.