NEC3 Engineering & Construction Contract

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

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

for **Provision of Major Distribution Networks for contractors within Gauteng Cluster to establish multiple contracts on "an as and when required" basis**

Contents:		**No of pages**
Part C1	**Agreements & Contract Data**	**[•]**
Part C2	**Pricing Data**	**[•]**
Part C3	**Scope of Work**	**[•]**
Part C4	**Site Information**	**[•]**

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

Part C1: Agreements & Contract Data

Contents:

C1.1 Form of Offer & Acceptance

Offer

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

Provision of Major Distribution Networks for contractors within Gauteng Cluster to establish multiple contracts on "an as and when required" basis

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

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

Options B	The offered total of the Prices exclusive of VAT is	**Rates Only**
	Sub total	**Rates Only**
	Value Added Tax @ 15% is	**Rates Only**
	The offered total of the amount due inclusive of VAT is[1]	**Rates Only**
	Rates Only Total of which is the value of all Purchase Orders Issued	

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

Signature(s)

Name(s)

Capacity

For the tenderer:

(Insert name and address of organisation)

Name & signature of witness

Date

Tenderer's CIDB registration number (if applicable)

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

Acceptance

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the tenderer's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due inaccordance 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 inthis agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

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

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

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

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

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

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

Signature(s) .....

Name(s) .....

Capacity .....

for the Employer

.....

(Insert name and address of organisation)

Name & signature of witness .....

Date .....

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

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

Note:

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

No.	Subject	Details
	Clause 26 Subcontracting	
1	26.1 If the Contractor subcontracts work, he is responsible for Providing the Service as if he had not subcontracted. This contract applies as if a Subcontractor's employees and equipment were the Contractor's.	***Add …***The Subcontractor may not further subcontract any portion of the works that they have been subcontracted to perform. Should the Subcontractor require to further subcontract any portion of the works that they have been subcontracted to perform, they will be deemed to be incapable of providing the subcontracted service. The Contractor is responsible to verify that the Subcontractor will not further subcontract any portion of the works. The Project Manager may then reject the proposed subcontractor should they be deemed incapable of providing the proposed subcontracted service.
2	26.2 The Contractor submits the name of each proposed Subcontractor to the Service Manager for acceptance. A reason for not accepting the Subcontractor is that his appointment will not allow the Contractor to Provide the Service. The Contractor does not appoint a proposed Subcontractor until the Service Manager has accepted him.	***Add …*** Should it be found that after the appointment of the Subcontractor that they are further subcontracting the subcontracted works, the Project Manager is to issue an instruction to the Contractor to immediately terminate the services of the Subcontractor and appoint a capable Subcontractor within 4 weeks of the instruction. No extension for delay will be awarded to the Contractor. The amount due to the Subcontractor by the Contractor will be for the work done to date.
3	The Contractor submits the proposed conditions of contract for each subcontract to the Service Manager for acceptance unless • an NEC contract is proposed or • the Service Manager has agreed that no submission is required. The Contractor does not appoint a Subcontractor on the proposed subcontract conditions submitted until	***Add….*** The Contractor may be required to appoint a Named Subcontractor and is defined as a sub-contractor who is named by the employer in the specification, or employer's requirements or later identified as required. The contractor bears the risk of the named sub-contractor's procurement, design and works as required. SMME's from local communities will be deemed to be Named Subcontractors.

	the Service Manager has accepted them. A reason for not accepting them is that • they will not allow the Contractor to Provide the Service or • they do not include a statement that the parties to the subcontract shall act in a spirit of mutual trust and co-operation.

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

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

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

C1.2 ECC3 Contract Data

Part one - Data provided by the *Employer*

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

Clause	Statement	Data
1	**General**	
	The *conditions of contract* are the core clauses and the clauses for main Option	
		B: Priced contract with bill of quantities
	dispute resolution Option	**W1: Dispute resolution procedure**
	and secondary Options	
		X1: Price adjustment for inflation
		X2 Changes in the law
		X7: Delay damages
		X5: Sectional Completion
		X16: Retention
		X18: Limitation of liability
		Z: *Additional conditions of contract*
	of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)	
10.1	The *Employer* is (Name):	**Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa**
	Address	**Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg**
10.1	The *Project Manager* is: (Name)	**[•]**
	Address	**[•]**
	Tel	**[•]**
	Fax	**[•]**
	e-mail	**[•]**
10.1	The *Supervisor* is: (Name)	**The supervisor will be the Clerk of Works appointed for a particular project and will be specified in the project specific agreement.**
	Address	**[•]**

	Tel No.	**[●]**
	Fax No.	**[●]**
	e-mail	**[●]**
11.2(13)	The *works* are	**Construction of Major Distribution Networks with Gauteng Cluster**
11.2(14)	The following matters will be included in the Risk Register	• **Cost overruns due to unpredictable surface conditions.** • **The possibility of existing services which might not be indicated on the wayleave.** • **Completion Date** • **Late material Date** • **Theft of un-energised cables** • **Vandalism of un-energised primary plant** • **Armed robberies on site**
11.2(15)	The *boundaries of the site* are	**All projects to be executed in terms of this contract will be executed at various sites within the Gauteng Cluster, Gauteng Province**
11.2(16)	The Site Information is in	**Part 4: Site Information**
11.2(19)	The Works Information is in	**Part 3: Scope of Work and all documents and drawings to which it makes reference.**
12.2	The *law of the contract* is the law of	**the Republic of South Africa**
13.1	The *language of this contract* is	**English**
13.3	The *period for reply* is	**1 week**
2	**The *Contractor's* main responsibilities**	**Data required by this section of the core clauses is provided by the *Contractor* in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.**
3	**Time**	
11.2(3)	The *completion date* for the whole of the *works* is	**TBA**

11.2(9)	The *key date*s and the *condition*s to be met are:	***Condition* to be met**		***key date***
		1	**Any key date and conditions will be specified in the Project Specific Agreement for any project executed in terms of this contract**	**[●]**
30.1	The *access dates* are:	**Part of the Site**		**Date**
		1	**Access dates will be specified in the Project**	**[●]**

		Specific Agreement for any project executed in terms of this contract.
31.1	The *Contractor* is to submit a first programme for acceptance within	**4 weeks of the Contract Date.**
31.2	The *starting date* is	**TBA**
32.2	The *Contractor* submits revised programmes at intervals no longer than	**4 weeks.**
35.1	The *Employer* is not willing to take over the *works* before the Completion Date.	[No data needed if this statement is included]
4	**Testing and Defects**	
42.2	The *defects date* is	**52 weeks after Completion of the whole of the *works*.**
43.2	The *defect correction period* is	**Within 1 week of Notification of defect**
5	**Payment**	
50.1	The *assessment interval* is	**This will be as per agreement between the Contractor and Project Coordinator for each project**
51.1	The *currency of this contract* is the	**South African Rand.**
51.2	The period within which payments are made is	**4 weeks upon submission of Tax Compliant Invoice and Goods Receipt issued by Eskom**
51.4	The *interest rate* is	**the publicly quoted prime rate of interest (calculated on a 365 day year) charged from time to time by the Standard Bank of South Africa Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and**
6	**Compensation events**	
60.1(13)	The place where weather is to be recorded is:	**Gauteng Cluster Various Sites**
	The *weather measurements* to be recorded for each calendar month are,	**the cumulative rainfall (mm)** **the number of days with rainfall more than 10 mm** **the number of days with minimum air temperature less than 0 degrees Celsius** **the number of days with snow lying at 09:00 hours South African Time** **and these measurements:**
	The *weather measurements* are supplied by	**Contractors to take pictures of the measurement after each day rainfall event and date tag each picture. Contractor to request the Supervisor to verify all measurements**

	The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at:	**The nearest weather station of the South African Weather Service to the site**
	and which are available from:	**the South African Weather Bureau and the Employer will provide them when required.**
7	**Title**	**There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.**
8	**Risks and insurance**	
80.1	These are additional *Employer*'s risks	**1. None**
9	**Termination**	**There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.**
10	**Data for main Option clause**	
B	**Priced contract with bill of quantities**	
60.6	The *method of measurement* is	**amended as stated in Part C2.1, Pricing Assumptions.**
11	**Data for Option W1**	
W1.1	The *Adjudicator* is	**the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).**
	Address	**[•]**
	Tel No.	**[•]**
	Fax No.	**[•]**
	e-mail	**[•]**
W1.2(3)	The *Adjudicator nominating body* is:	**the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See www.ice-sa.org.za) or its successor body.**
W1.4(2)	The *tribunal* is:	**arbitration.**
W1.4(5)	The *arbitration procedure* is	**the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.**

	The place where arbitration is to be held is	**Midrand 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 nomineeof the Association of Arbitrators (Southern Africa) or its successor body.**

12 Data for secondary Option clauses

X1	**Price adjustment for inflation**			
X1.1(a)	The *base date* for indices is	**June 2024**		
X1.1(c)	The proportions used to calculate the Price Adjustment Factor are:	proportion	**linked to index for**	**Index prepared by**
	1. Labour		**Table C3 Labour**	**SEIFSA**
		0. 65	**Table G-I Electrical**	**SEIFSA**
		0. 20	**Eningeering input**	
	2 Transport		**non-adjustable**	
		0.15		**SEIFSA**
		Total 1.00	**Table L2 Road Freight Cost**	
		0,85	**Non-adjustable**	
		0,15		
		Total 1.00		

Prices will be fixed and firm for the first 12 months of the contract thereafter CPA will apply

X2	**Changes in the law**	**There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.**
X5	**Sectional Completion**	

X5.1	The *completion date* for each *section* of the *works* is:	***Section***	**Description**	***Completion date***
		1	**The completion date for each section of the work will be specified in the Project Specific Agreement for any project executed in terms of this contract.**	**[●]**

	Delay damages for late Completion of the *section*s of the *works* are:	**The delay damage for each section of the work will be specified in the Project Specific Agreement for any project executed.**
	The total delay damages payable by the *Contractor* does not exceed:	**10% of the Purchase Order Value**
X16	**Retention (not used with Option F)**	
X16.1	***retention free amount* is**	**Specified as per Project Specific Agreement i.e Security, Transport and Material Supplied by contractor**
	***retention percentage* is**	**5% of Remaining Value (Labour and Ps & Gs)** **2,5% for SDL & I when a report is not submitted, On affected projects.**

X18	**Limitation of liability**	
X18.1	The *Contractor*'s liability to the *Employer* for indirect or consequential loss is limited to:	**Total of Purchase Orders Issued**
X18.2	For any one event, the *Contractor*'s liability to the *Employer* for loss of or damage to the *Employer*'s property is limited to:	**the amount of the deductibles relevant to the event as per the Eskom Annual Construction All Risk Insurance Policy Annexure A, the policy is revised annually and to be requested from the PC**
X18.3	The *Contractor*'s liability for Defects due to his design which are not listed on the Defects Certificate is limited to	**The greater of** • **the total of the Prices at the Contract Date and** • **the amounts excluded and unrecoverable from the *Employer*'s assets policy for correcting the Defect (other than the resulting physical damage which is not excluded) plus the applicable deductible as at contract date.**
X18.4	The *Contractor*'s total liability to the *Employer* for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	**the total of the Prices other than for the additional excluded matters.** **The *Contractor's* total liability for the additional excluded matters is not limited.** **The additional excluded matters are amounts for which the *Contractor* is liable under this contract for** • **Defects due to his design which arise before the Defects Certificate is issued,** • **Defects due to manufacture and fabrication outside the Site,** • **loss of or damage to property (other than the *works*, Plant and Materials),** • **death of or injury to a person and** • **infringement of an intellectual property right.**
X18.5	The *end of liability date* is	**(i) 5 years after the *defects date* for latent Defects and** **(ii) the date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of any replacement legislation) for any other matter.**

		A latent Defect is a Defect which would not have been discovered on reasonable inspection by the *Employer* or the *Supervisor* before the *defects date*, without requiring any inspection not ordinarily carried out by the *Employer* or the *Supervisor* during that period. If the *Employer* or the *Supervisor* do undertake any inspection over and above the reasonable inspection, this does not place a greater responsibility on the *Employer* or the *Supervisor* to have discovered the Defect.
Z	**The *Additional conditions of contract* are**	**Z1 to Z15 always apply.**

Z1 Cession delegation and assignment

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

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

Z2 Joint ventures

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

Z2.2 Unless already notified to the *Employer*, the persons or organisations notify the *Project Manager* within two weeks of the Contract Date of the key person who has the authority to bind the *Contractor* on their behalf.

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

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

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

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

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

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

Z4 Confidentiality

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

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

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

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

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

Z5 Waiver and estoppel: Add to core clause 12.3:

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

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

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

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

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

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

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

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

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

Z8 Notifying compensation events

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

Z9 *Employer's* limitation of liability

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

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

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

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

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

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

Z12 Ethics

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

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

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

Affected Party to act unlawfully or illegally,

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

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

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

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

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

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

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

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

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

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

Z13 Insurance

Z 13.1 Replace core clause 84 with the following:

Insurance cover

84

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

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

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

INSURANCE TABLE A

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

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

INSURANCE TABLE B

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

Z14 Nuclear Liability

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

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

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

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

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

Z15 Asbestos

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

AAIA means approved asbestos inspection authority.

ACM means asbestos containing materials.

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

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

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

OEL means occupational exposure limit.

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

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

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

Containing Material, Equipment and Articles.

SANAS means the South African National Accreditation System.

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

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

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

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

Z15.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.

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

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

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

C1.2 Contract Data

Part two - Data provided by the *Contractor*

Notes to a tendering contractor:

1. Please read both the NEC3 Engineering and Construction Contract (April 2013) and the relevant parts of its Guidance Notes (ECC3-GN)[1] in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 156 to158 of the ECC3 (April 2013) Guidance Notes.
2. The number of the clause which requires the data is shown in the left hand column for each statement however other clauses may also use the same data
3. Where a form field like this [ ] appears, data is required to be inserted relevant to the option selected. Click on the form field ***once*** and type in the data. Otherwise complete by hand and in ink.

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

Clause	Statement	Data
10.1	The *Contractor* is (Name): Address Tel No. Fax No.	
11.2(8)	The *direct fee percentage* is The *subcontracted fee percentage* is	**7%** **10%**
11.2(18)	The *working areas* are the Site and	
24.1	The *Contractor's* key persons are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job Responsibilities: Qualifications: Experience:	**CV's (and further key persons data including CVs) are appended to Tender Schedule entitled**

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

11.2(3)	The *completion date* for the whole of the *works* is	TBA		
11.2(14)	The following matters will be included in the Risk Register			
31.1	The programme identified in the Contract Data is			
B	**Priced contract with bill of quantities**			
11.2(21) 11.2(31)	The *bill of quantities* is in The tendered total of the Prices is	**Pricing Data** **Rates Only** **Rates Only total of which will be the total value of Purchase Orders issued , excluding VAT**		
	Data for Schedules of Cost Components	*Note "SCC" means Schedule of Cost Components starting on page 60, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC3 (April 2013).*		
B	**Priced contract with bill of quantities**	**Data for the Shorter Schedule of Cost Components**		
41 in SSCC	The percentage for people overheads is:	**7%**		
21 in SSCC	The published list of Equipment is the last edition of the list published by The percentage for adjustment for Equipment in the published list is	**Minus %**		
22 in SSCC	The rates of other Equipment are:	**Equipment**	**Size or capacity**	**Rate**
61 in SSCC	The hourly rates for Defined Cost of design outside the Working Areas are **Note: Hourly rates are estimated 'cost to company of the employee' and not selling rates.** **Please insert another schedule if foreign resources may also be used**	**Category of employee**	**Hourly rate**	

PART 2: PRICING DATA
ECC3 Option B

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

C2.1 Pricing assumptions: Option B

1. How work is priced and assessed for payment

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

Identified and defined terms 11 11.2

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

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

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

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

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

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

2. Function of the Bill of Quantities

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

3. Guidance before pricing and measuring

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

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

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

plus Fee is used.

4. Measurement and payment

4.1. Symbols

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

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

4.2. General assumptions

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

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

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

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

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

4.3. Departures from the *method of measurement*

4.4. Amplification of or assumptions about measurement items

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

C2.2 the *bill of quantities*

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

Item	Reference Drawing	Description	Unit	Labour Quantity	Labour Rate	Labour Total	Total
A		**Preliminaries & General**					
	NOTE:	**Programme Manager or Project Manager to authorise truck usage. Contractor to submit Invoice with a written task order from Programme Manager or Project Manager stating the duration of truck usage.**					
		Every Invoice to be signed and verified by Quantity Surveyor for payment.					
		Contractor to submit list of names and certified ID copies of permanent staff that will be working on site.					
		Staff food and accommodation is for permanent staff only.					
1		**Site Establishment**					
1.2		Risk Assessment Procedure,Quality Management System, Health and Safety Management, Safety Inspections, PPE,Environmental Management and Site Maintenance, OHSA appointments, Non-Conformance Process to be available in project file. Total Labour Value	%				
1.3		Overheads for project (This includes site establishment, office overheads, administration cost, etc) Total Labour Value	%				
1.5		De-establishment & Rehabilitation of Site	Sum				
1.6		CLO	Month				
1.7		Parttime Health and Safety Officer as per Construction Regulations, registered with SACPMP	Per/day				
1.8		Responsible person	Per/day				
1.9		Security	Per Guard / per week		Cost plus fee		
SUB-TOTAL A							
B		**Bush Clearing and Tree Felling**	**Unit**	**LQty**	LRate		**Total**
1		**Bush Clearing and Tree Felling (Scattered Formation)**	m				
2		**Bush Clearing and Tree Felling (Dense Formation)**	m^2				
SUB-TOTAL B							
C		**Digging Holes**	**Unit**	**LQty**	LRate		**Total**
1		**Stays and Struts**					
1.1	D-DT-0350	LV Stay Back-Actor or Hand	Each				
1.2	D-DT-0350	LV Stay Compressors	Each				
1.3	D-DT-0350	LV Strut Back-Actor or Hand	Each				
1.4	D-DT-0350	LV Strut Compressors	Each				
1.1	D-DT-0337	LV Short Strut Back-Actor or Hand	Each				
1.2	D-DT-0337	LV Short Strut Compressors	Each				
1.5	D-DT-0350	MV Stay Back-Actor or Hand	Each				
1.6	D-DT-0350	MV Stay Compressors	Each				
1.7	D-DT-0350	MV Strut Back-Actor or Hand	Each				
1.8	D-DT-0350	MV Strut Compressors	Each				
SUB-TOTAL							
2		**Wood Poles**					

2.1	D-DT-0330	5m Pole Wood Back-Actor or Hand (1.0m Deep)	Each				
2.2	D-DT-0330	5m Pole Wood Compressors (1.0m Deep)	Each				
2.3	D-DT-0330	5m Pole Wood Hard Rock Drilling (1.0m Deep)	Each				
2.4	D-DT-0330	7m Pole Wood Back-Actor or Hand (1.3m Deep)	Each				
2.5	D-DT-0330	7m Pole Wood Compressors (1.3m Deep)	Each				
2.6	D-DT-0330	7m Pole Wood Hard Rock Drilling (1.3m Deep)	Each				
2.7	D-DT-1866	8m Wooden Pole/X-Arm 160-179 Top Diameter Back-Actor or Hand (1.3m Deep)	Each				
2.8	D-DT-1866	8m Wooden Pole/X-Arm 160-179 Top Diameter Compressor (1.3m Deep)	Each				
2.9	D-DT-1866	8m Wooden Pole/X-Arm 160-179 Top Diameter Hard Rock Drilling (1.3m Deep)	Each				
2.10	D-DT-0330	9m Pole Wood Back-Actor or Hand (1.5m Deep)	Each				
2.11	D-DT-0330	9m Pole Wood Compressors (1.5m Deep)	Each				
2.12	D-DT-0330	9m Pole Wood Hard Rock Drilling (1.5m Deep)	Each				
2.13	D-DT-0330	10m Pole Wood Back-Actor or Hand (1.7m Deep)	Each				
2.14	D-DT-0330	10m Pole Wood Compressors (1.7m Deep)	Each				
2.15	D-DT-0330	10m Pole Wood Hard Rock Drilling (1.7m Deep)	Each				
2.16	D-DT-0330	11m Pole Wood Back-Actor or Hand (1.7m Deep)	Each				
2.17	D-DT-0330	11m Pole Wood Compressors (1.7m Deep)	Each				
2.18	D-DT-0330	11m Pole Wood Hard Rock Drilling (1.7m Deep)	Each				
2.19	D-DT-0330	12m Pole Wood Back-Actor or Hand (2.0m Deep)	Each				
2.20	D-DT-0330	12m Pole Wood Compressors (2.0m Deep)	Each				
2.21	D-DT-0330	12m Pole Wood Hard Rock Drilling (2.0m Deep)	Each				
2.22	D-DT-0330	13m - 16m Pole Wood Back-Actor or Hand (2.2m Deep)	Each				
2.23	D-DT-0330	13m - 16m Pole Wood Compressors (2.2m Deep)	Each				
2.24	D-DT-0330	13m - 16m Pole Wood Hard Rock Drilling (2.2m Deep)	Each				
2.25	D-DT-0330	18m Pole Wood Back-Actor or Hand (2.4m Deep)	Each				
2.26	D-DT-0330	18m Pole Wood Compressors (2.4m Deep)	Each				
2.27	D-DT-0330	18m Pole Wood Hard Rock Drilling (2.4m Deep)	Each				
SUB-TOTAL							
3		**Concrete Poles**					
3.1	D-DT-0330	4m Concrete Pole back-actor or hand(0.8m Deep)	Each				
3.2	D-DT-0330	7m Wood/Concrete Pole back-actor or hand(1.3m Deep)	Each				
3.3	D-DT-0330	9m Wood/Concrete Pole back-actor or hand(1.5m Deep)	Each				
3.4	D-DT-0330	11m Pole Concrete Back-Actor or Hand (1.8m Deep)	Each				
3.5	D-DT-0330	11m Pole Concrete Compressors (1.8m Deep)	Each				
3.6	D-DT-0330	11m Pole Concrete Hard Rock Drilling (1.8m Deep)	Each				
3.7	D-DT-0330	12m Pole Concrete Pole Back-Actor or Hand (2m Deep)	Each				
3.8	D-DT-0330	12m Pole Concrete Pole Compressors (2m Deep)	Each				
3.9	D-DT-0330	12m Pole Concrete Hard Rock Drilling (1.0m Deep)	Each				
3.10	D-DT-0330	13m Pole Concrete Back-Actor or Hand (2.2m Deep)	Each				
3.11	D-DT-0330	13m Pole Concrete Compressors (2.2m Deep)	Each				
3.12	D-DT-0330	13m Pole Concrete Hard Rock Drilling (1.0m Deep)	Each				
3.13	D-DT-0330	14m Pole Concrete Back-Actor or Hand (2.3m Deep)	Each				
3.14	D-DT-0330	14m Pole Concrete Compressors (2.3m Deep)	Each				
3.15	D-DT-0330	14m Pole Concrete Hard Rock Drilling (1.0m Deep)	Each				
SUB - TOTAL							
4		**Heavy Conductor Wood/Concrete Poles & Foundation**					

4.1	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 700mm Diameter	Each				
4.2	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 800mm Diameter	Each				
4.3	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1000mm Diameter	Each				
4.4	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1000mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each				
4.5	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1000mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each				
4.6	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1200mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each				
4.7	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1200mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each				
4.8	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1800mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each				
4.9	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1800mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each				
4.10	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 1800mm Diameter - *Add 12 Pockets of Cement to Moistened/Imported Excavated Soil*	Each				
4.11	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 2000mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each				
4.12	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 2200mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each				
4.13	D-DT-0330	11m Pole Back-Actor or Hand - 1800mm Deep x 2500mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each				
4.14	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 700mm Diameter	Each				
4.15	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 800mm Diameter	Each				
4.16	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1000mm Diameter	Each				
4.17	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1000mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each				
4.18	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1000mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each				
4.19	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1200mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each				
4.20	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1200mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each				
4.21	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1800mm Diameter - *Add 6 Pockets of Cement to Moistened Excavated Soi*	Each				
4.22	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1800mm Diameter - *Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil*	Each				
4.23	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 1800mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each				
4.24	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 2000mm Diameter - *Add 12 Pockets of Cement to Moistened/Imported Excavated Soil*	Each				
4.25	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 2200mm Diameter - *Add 12 Pockets of Cement to Moistened/Imported Excavated Soil*	Each				
4.26	D-DT-0330	12m Pole Back-Actor or Hand - 2000mm Deep x 2500mm Diameter - *Add 12 Pockets of Cement to Moistened/Imported Excavated Soil*	Each				
4.27	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 700mm Diameter	Each				

4.28	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 800mm Diameter	Each				
4.29	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1000mm Diameter	Each				
4.30	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1000mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each				
4.31	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1000mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each				
4.32	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1200mm Diameter - Add 6 Pockets of Cement to Moistened Excavated Soil	Each				
4.33	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1200mm Diameter - Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil	Each				
4.34	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1800mm Diameter - *Add 6 Pockets of Cement to Moistened Excavated Soil*	Each				
4.35	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1800mm Diameter - *Clay and Turf - Add 8 Pockets of Cement to Moistened Imported Soil*	Each				
4.36	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 1800mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each				
4.37	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 2000mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each				
4.38	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 2200mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each				
4.39	D-DT-0330	13m - 14m Pole Back-Actor or Hand - 2200mm Deep x 2500mm Diameter - Add 12 Pockets of Cement to Moistened/Imported Excavated Soil	Each				
SUB-TOTAL							
5		**Free Standing Poles & Foundation**					
5.1	D-DT-1650	12m Pole Free Standing 8kN Back-Actor or Hand (2.5m Deep) - Soil Type 1 & 2	Each				
5.2	D-DT-1650	12m Pole Free Standing 8kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
5.3	D-DT-1650	12m Pole Free Standing 8kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each				
5.4	D-DT-1651	12m Pole Free Standing 15kN Back-Actor or Hand (2.5m Deep) - Soil Type 1 & 2	Each				
5.5	D-DT-1651	12m Pole Free Standing 15kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
5.6	D-DT-1651	12m Pole Free Standing 15kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each				
5.7	D-DT-1652	12m Pole Free Standing 27kN Back-Actor or Hand (2.5m Deep) - Soil Type 1 & 2	Each				
5.8	D-DT-1652	12m Pole Free Standing 27kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
5.9	D-DT-1652	12m Pole Free Standing 27kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each				
5.10	D-DT-1653	12m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each				
5.11	D-DT-1653	12m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each				
5.12	D-DT-1653	12m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
5.13	D-DT-1653	12m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each				
5.14	D-DT-1654	12m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each				
5.15	D-DT-1654	12m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each				
5.16	D-DT-1654	12m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
5.17	D-DT-1654	12m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each				
5.18	D-DT-1655	12m Pole Free Standing Terminal Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each				
5.19	D-DT-1655	12m Pole Free Standing Terminal Back-Actor or	Each				

		Hand (2.5m Deep) - Soil Type 2					
5.20	D-DT-1655	12m Pole Free Standing Terminal Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
5.21	D-DT-1655	12m Pole Free Standing Terminal Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each				
5.22	D-DT-1656	12m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each				
5.23	D-DT-1656	12m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each				
5.24	D-DT-1656	12m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
5.25	D-DT-1656	12m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each				
5.26	D-DT-1657	12m Pole Free Standing 106kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each				
5.27	D-DT-1657	12m Pole Free Standing 106kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each				
5.28	D-DT-1657	12m Pole Free Standing 106kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
5.29	D-DT-1650	13m Pole Free Standing 8kN Back-Actor or Hand (2.5m Deep) - Soil Type 1 & 2	Each				
5.30	D-DT-1650	13m Pole Free Standing 8kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
5.31	D-DT-1650	13m Pole Free Standing 8kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each				
5.32	D-DT-1651	13m Pole Free Standing 15kN Back-Actor or Hand (2.5m Deep) - Soil Type 1 & 2	Each				
5.33	D-DT-1651	13m Pole Free Standing 15kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
5.34	D-DT-1651	13m Pole Free Standing 15kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each				
5.35	D-DT-1652	13m Pole Free Standing 27kN Back-Actor or Hand (2.5m Deep) - Soil Type 1 & 2	Each				
5.36	D-DT-1652	13m Pole Free Standing 27kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
5.37	D-DT-1652	13m Pole Free Standing 27kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each				
5.38	D-DT-1653	13m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each				
5.39	D-DT-1653	13m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each				
5.40	D-DT-1653	13m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
5.41	D-DT-1653	13m Pole Free Standing 42kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each				
5.42	D-DT-1654	13m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each				
5.43	D-DT-1654	13m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each				
5.44	D-DT-1654	13m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
5.45	D-DT-1654	13m Pole Free Standing 58kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each				
5.46	D-DT-1655	13m Pole Free Standing Terminal Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each				
5.47	D-DT-1655	13m Pole Free Standing Terminal Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each				
5.48	D-DT-1655	13m Pole Free Standing Terminal Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
5.49	D-DT-1655	13m Pole Free Standing Terminal Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each				
5.50	D-DT-1656	13m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each				
5.51	D-DT-1656	13m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each				
5.52	D-DT-1656	13m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
5.53	D-DT-1656	13m Pole Free Standing 73kN Back-Actor or Hand (2.5m Deep) - Soil Type 4	Each				
5.54	D-DT-1657	13m Pole Free Standing 106kN Back-Actor or Hand (2.5m Deep) - Soil Type 1	Each				
5.55	D-DT-1657	13m Pole Free Standing 106kN Back-Actor or Hand (2.5m Deep) - Soil Type 2	Each				

5.56	D-DT-1657	13m Pole Free Standing 106kN Back-Actor or Hand (2.5m Deep) - Soil Type 3	Each				
SUB-TOTAL							
6		**Steel Poles**					
6.1	D-DT-0020	8.740m Steel Pole Street Lighting	Each				
6.2	D-DT-0021	10.00m Steel Pole Street Lighting	Each				
6.3	D-DT-0022	11.35m Steel Pole Street Lighting	Each				
6.4	D-DT-0023	14.00m Steel Pole Street Lighting	Each				
6.5	D-DT-0024	15.00m Steel Pole Street Lighting	Each				
6.6	D-DT-0025	7m Steel Pole 194 x 92 Oval Cross Section	Each				
6.7	D-DT-0026	9m Steel Pole 194 x 92 Oval Cross Section	Each				
6.8	D-DT-0027	10m Steel Pole 236 x 118 Oval Cross Section	Each				
6.9	D-DT-0028	11m Steel Pole 236 x 118 Oval Cross Section	Each				
6.10	D-DT-0069	11.00m Steel Pole 11kV Intermediate Street Lighting	Each				
6.11	D-DT-0068	15.55m Steel Pole 11kV Intermediate Street Lighting	Each				
SUB-TOTAL							
SUB-TOTAL C							
D		**Plant Poles**	**Unit**	**LQty**	LRate		**Total**
1		**Wooden Poles**					
1.1	D-DT-0058	5m Wooden Pole 80-100mm Top Diameter	Each				
1.2	D-DT-0066	6m Wooden Pole/X-Arm 160-179 Top Diameter	Each				
1.3	D-DT-0050	7m Wooden Pole 100-120mm Top Diameter	Each				
1.3	D-DT-0050	7m Wooden Pole 120-139mm Top Diameter	Each				
1.4	D-DT-1866	8m Wooden Pole/X-Arm 160-179 Top Diameter	Each				
1.5	D-DT-0055	9m Wooden Pole 140-159mm Top Diameter	Each				
1.6	D-DT-0055	9m Wooden Pole 160-179 mm Top Diameter	Each				
1.7	D-DT-0055	9m Wooden Pole 180-199mm Top Diameter	Each				
1.8	D-DT-0052	10m Wooden Pole 160-179mm Top Diameter H4	Each				
1.9	D-DT-0052	10m Wooden Pole 160-179mm Top Diameter H5	Each				
1.10	D-DT-0052	10m Wooden Pole 180-199mm Top Diameter H4	Each				
1.11	D-DT-0052	10m Wooden Pole 180-199mm Top Diameter H5	Each				
1.12	D-DT-0052	10m Wooden Pole 200-219mm Top Diameter H4	Each				
1.13	D-DT-0052	10m Wooden Pole 200-219mm Top Diameter H5	Each				
1.14	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter H4	Each				
1.15	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter 75MPA H4	Each				
1.16	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter H5	Each				
1.17	D-DT-0051	11m Wooden Pole 140-159mm Top Diameter 75MPA H5	Each				
1.18	D-DT-0051	11m Wooden Pole 160-179mm Top Diameter H4	Each				
1.19	D-DT-0051	11m Wooden Pole 180-199mm Top Diameter H4	Each				
1.20	D-DT-0051	11m Wooden Pole 200-219mm Top Diameter H4	Each				
1.21	D-DT-0053	12m Wooden Pole 160-179mm Top Diameter	Each				
1.22	D-DT-0053	12m Wooden Pole 180-199mm Top Diameter	Each				
1.23	D-DT-0053	12m Wooden Pole 200-219mm Top Diameter	Each				
1.24	D-DT-0056	13m Wooden Pole 160-179mm Top Diameter H4	Each				
1.25	D-DT-0056	13m Wooden Pole 160-179mm Top Diameter H5	Each				
1.26	D-DT-0056	13m Wooden Pole 180-199mm Top Diameter H4	Each				
1.27	D-DT-0056	13m Wooden Pole 180-199mm Top Diameter H5	Each				
1.28	D-DT-0056	13m Wooden Pole 200-219mm Top Diameter H4	Each				
1.29	D-DT-0056	13m Wooden Pole 200-219mm Top Diameter H5	Each				
1.30	D-DT-0054	14m Wooden Pole 160-179mm Top Diameter H4	Each				
1.31	D-DT-0054	14m Wooden Pole 160-179mm Top Diameter H5	Each				
1.32	D-DT-0054	14m Wooden Pole 180-199mm Top Diameter H4	Each				
1.33	D-DT-0054	14m Wooden Pole 180-199mm Top Diameter H5	Each				
1.34	D-DT-0054	14m Wooden Pole 200-219mm Top Diameter H4	Each				
1.35	D-DT-0054	14m Wooden Pole 200-219mm Top Diameter H5	Each				
1.36	D-DT-0057	15m Wooden Pole 200-219mm Top Diameter	Each				

1.37	D-DT-0049	16m Wooden Pole 180-199mm Top Diameter	Each				
1.38	D-DT-0049	16m Wooden Pole 200-219mm Top Diameter	Each				
1.39	D-DT-0048	18m Wooden Pole 180-199mm Top Diameter	Each				
1.40	D-DT-0048	18m Wooden Pole 200-219mm Top Diameter	Each				
SUB-TOTAL							
2		**Concrete Poles**					
2.1	D-DT-0330	4m Concrete Pole back-actor or hand(0.8m Deep)	Each				
2.2	D-DT-0330	7m Wood/Concrete Pole back-actor or hand(1.3m Deep)	Each				
2.3	D-DT-0330	9m Wood/Concrete Pole back-actor or hand(1.5m Deep)	Each				
2.4	D-DT-0017	11m Concrete Pole 10kN Ultimate Load	Each				
2.5	D-DT-0015	12m Concrete Pole 10kN Ultimate Load	Each				
2.6	D-DT-0016	13m Concrete Pole 10kN Ultimate Load	Each				
2.7	D-DT-0018	14m Concrete Pole 10kN Ultimate Load	Each				
SUB-TOTAL							
3		**Free Standing(Unsupported)**					
3.1	D-DT-1650	12m Concrete Pole 8kN	Each				
3.2	D-DT-1651	12m Concrete Pole 15kN	Each				
3.3	D-DT-1652	12m Concrete Pole 27kN	Each				
3.4	D-DT-1653	12m Concrete Pole 42kN	Each				
3.5	D-DT-1654	12m Concrete Pole 58kN	Each				
3.6	D-DT-1655	12m Concrete Pole 65kN - Terminal Structure	Each				
3.7	D-DT-1656	12m Concrete Pole 73kN	Each				
3.8	D-DT-1657	12m Concrete Pole 106kN	Each				
3.9	D-DT-1650	13m Concrete Pole 8kN	Each				
3.10	D-DT-1651	13m Concrete Pole 15kN	Each				
3.11	D-DT-1652	13m Concrete Pole 27kN	Each				
3.12	D-DT-1653	13m Concrete Pole 42kN	Each				
3.13	D-DT-1654	13m Concrete Pole 58kN	Each				
3.14	D-DT-1655	13m Concrete Pole 65kN - Terminal Structure	Each				
3.15	D-DT-1656	13m Concrete Pole 73kN	Each				
3.16	D-DT-1657	13m Concrete Pole 106kN	Each				
SUB-TOTAL							
4		**Steel Poles**					
4.1	D-DT-0020	8.740m Steel Pole Street Lighting	Each				
4.2	D-DT-0021	10.00m Steel Pole Street Lighting	Each				
4.3	D-DT-0022	11.35m Steel Pole Street Lighting	Each				
4.4	D-DT-0023	14.00m Steel Pole Street Lighting	Each				
4.5	D-DT-0024	15.00m Steel Pole Street Lighting	Each				
4.6	D-DT-0025	7m Steel Pole 194 x 92 Oval Cross Section	Each				
4.7	D-DT-0026	9m Steel Pole 194 x 92 Oval Cross Section	Each				
4.8	D-DT-0027	10m Steel Pole 236 x 118 Oval Cross Section	Each				
4.9	D-DT-0028	11m Steel Pole 236 x 118 Oval Cross Section	Each				
4.10	D-DT-0069	11.00m Steel Pole 11kV Intermediate Street Lighting	Each				
4.11	D-DT-0068	15.55m Steel Pole 11kV Intermediate Street Lighting	Each				
SUB-TOTAL							
SUB-TOTAL D							
E		**Assemble Three Phase MV Structures (Downwire excluded but Bonding Included)**	**Unit**	**LQty**	**L Rate**		**Total**
1		**Intermediate - 0 deg**					
1.1	D-DT-1700	3 Phase - Staggered Vertical (450mm Spacing)	Each				
1.2	D-DT-1710	3 Phase - Staggered Vertical (600mm Spacing)	Each				
1.3	D-DT-1720	3 Phase - Delta (450mm Stud)	Each				
1.4	D-DT-1730	3 Phase - Delta (Intermediate 'T' Crossarm)	Each				
1.5	D-DT-1740	3 Phase - Delta / 2,5m Wood Crossarm	Each				
1.6	D-DT-1750	3 Phase - Delta / 4,5m Wood Crossarm	Each				

1.7	D-DT-1760	3 Phase - H-Pole / 3,5m Wood Crossarm	Each				
1.8	D-DT-1770	3 Phase - H-Pole / 4,5m Wood Crossarm	Each				
1.9	D-DT-1785	MV Heavy Conductor - 3 Phase Staggered Vertical 800mm Spacing	Each				
1.10	D-DT-1790	MV Heavy Conductor - 3 Phase - Delta - 3500mm Wooden Crossarm	Each				
1.11	D-DT-1793	MV Heavy Conductor - 22kV H-Pole Suspension Structure General Arrangement	Each				
1.12	D-DT-1870	Three Phase T-Frame / 2m Steel Crossarm	Each				
SUB-TOTAL							
2		**Intermediate - (0 - 10) deg**					
2.1	D-DT-1701	3 Phase - Vertical (450mm Spacing)	Each				
2.2	D-DT-1711	3 Phase - Vertical (600mm Spacing)	Each				
2.3	D-DT-1771	3 Phase - H-Pole / 4,5m Wood Crossarm	Each				
2.4	D-DT-1871	Three Phase T-Frame / 2m Steel Crossarm	Each				
SUB-TOTAL							
3		**Intermediate - (15 - 30) deg**					
3.1	D-DT-1702	3 Phase - Vertical (450mm Spacing)	Each				
3.2	D-DT-1712	3 Phase - Vertical (600mm Spacing)	Each				
SUB-TOTAL							
4		**Strainer - 0 deg**					
4.1	D-DT-1703	3 Phase - Vertical (450mm Spacing)	Each				
4.2	D-DT-1713	3 Phase - Vertical (600mm Spacing)	Each				
4.3	D-DT-1733	3 Phase - Delta / 1,3m Steel Crossarm	Each				
4.4	D-DT-1743	3 Phase - 600mm Phase Spacing Delta / 2,5m Wood Crossarm	Each				
4.5	D-DT-1747	3 Phase - 600mm Phase Spacing Delta / 2 x 2,5m Wood Crossarm	Each				
4.6	D-DT-1747	3 Phase - 800mm Phase Spacing Delta / 2 x 2,5m Wood Crossarm	Each				
4.7	D-DT-1753	3 Phase - Delta / 4,5m Wood Crossarm	Each				
4.8	D-DT-1763	3 Phase - Delta / 3,5m Wood Crossarm	Each				
4.9	D-DT-1767	3 Phase - H-Pole / 2 x 3,5m Wood Crossarm	Each				
4.10	D-DT-1773	3 Phase - H-Pole / 4,5m Wood Crossarm	Each				
4.11	D-DT-1777	3 Phase - H-Pole / 2 x 4,5m Wood Crossarm	Each				
4.12	D-DT-1783	3 Phase - Trips	Each				
4.13	D-DT-1786	MV Heavy Conductor - 22kV 3 Phase - Vertical 800mm Spacing	Each				
4.14	D-DT-1794	MV Heavy Conductor - 22kV H-Pole Braced	Each				
SUB-TOTAL							
5		**Strainer - Small (1 - 30) deg**					
5.1	D-DT-1704	3 Phase - Vertical (450mm Spacing)	Each				
5.2	D-DT-1714	3 Phase - Vertical (600mm Spacing)	Each				
5.3	D-DT-1734	3 Phase - Delta / 1,3m Steel Crossarm	Each				
5.4	D-DT-1787	MV Heavy Conductor - 22kV 3 Phase - Vertical 800mm Spacing	Each				
SUB-TOTAL							
6		**Strainer - Medium (1 - 60) deg**					
6.1	D-DT-1744	3 Phase - Delta / 2,5m Wood Crossarm	Each				
6.2	D-DT-1748	3 Phase - Delta / 2 x 2,5m Wood Crossarm	Each				
6.3	D-DT-1754	3 Phase - Delta / 4,5m Wood Crossarm	Each				
6.4	D-DT-1754	3 Phase - Delta / 2 x 4,5m Wood Crossarm	Each				
6.5	D-DT-1764	3 Phase - H-Pole / 3,5m Wood Crossarm	Each				
6.6	D-DT-1768	3 Phase - Pole / 2 x 3,5m Wood Crossarm	Each				
6.7	D-DT-1774	3 Phase - H-Pole / 4,5m Wood Crossarm	Each				
6.8	D-DT-1778	3 Phase - Pole / 2 x 4,5m Wood Crossarm	Each				
6.9	D-DT-1795	MV Heavy Conductor - 22kV H-Pole Braced	Each				
SUB-TOTAL							
7		**Strainer - Large (61- 90) deg**					
7.1	D-DT-1705	3 Phase - Vertical (450mm Spacing)	Each				
7.2	D-DT-1715	3 Phase - Vertical (600mm Spacing)	Each				
7.3	D-DT-1735	3 Phase - Delta / 1,3m Steel Crossarm	Each				

7.4	D-DT-1742	3 Phase - Delta 2,5m Wood Crossarm / 1700 Steel Crossarm	Each				
7.5	D-DT-1742	3 Phase - Delta 2,5m Wood Crossarm / 2,5m Wood Crossarm	Each				
7.6	D-DT-1745	3 Phase - Delta 2 x 2,5m Wood Crossarm / 1700 Steel Crossarm	Each				
7.7	D-DT-1745	3 Phase - Delta 2 x 2,5m Wood Crossarm / 2 x 2,5m Wood Crossarm	Each				
7.8	D-DT-1745	3 Phase - Delta 1 x 2,5m Wood Crossarm / 1700 Steel Crossarm	Each				
7.9	D-DT-1745	3 Phase - Delta 2,5m Wood Crossarm 2,5m Wood Crossarm	Each				
7.10	D-DT-1784	3 Phase - Trips	Each				
7.11	D-DT-1788	MV Heavy Conductor - 22kV 3 Phase - Vertical 800mm Spacing	Each				
7.12	D-DT-1791	MV Heavy Conductor - 22kV 3 Phase - Vertical 800mm Spacing (Double Wood Poles)	Each				
7.13	D-DT-1792	MV Heavy Conductor - 22kV 3 Phase - Vertical 800mm Spacing (Double Wood Poles)	Each				
7.14	D-DT-1873	3 Phase - H-Pole / 2 x 4.5m Wooden Crossarm	Each				
SUB-TOTAL							
8		**Strainer - Terminal**					
8.1	D-DT-1706	3 Phase - Vertical (450mm Spacing)	Each				
8.2	D-DT-1716	3 Phase - Vertical (600mm Spacing)	Each				
8.3	D-DT-1736	3 Phase - Delta / 1,3m Steel Crossarm	Each				
8.4	D-DT-1746	3 Phase - Delta / 2,5M Wood Crossarm	Each				
8.5	D-DT-1749	3 Phase - Delta / 2 x 2,5m Wood Crossarm	Each				
8.6	D-DT-1756	3 Phase - Delta / 4,5M Wood Crossarm	Each				
8.7	D-DT-1766	3 Phase - H-pole / 3,5m Wood Crossarm	Each				
8.8	D-DT-1769	3 Phase - H-pole / 2 x 3,5m Wood Crossarm	Each				
8.9	D-DT-1776	3 Phase - H-pole / 4,5m Wood Crossarm	Each				
8.10	D-DT-1779	3 Phase - H-pole / 2 x 4,5m Wood Crossarm	Each				
8.11	D-DT-1789	MV Heavy Conductor - 22kV 3 Phase - Vertical 800mm Spacing	Each				
8.12	D-DT-1796	MV Heavy Conductor - 22kV H-Pole Braced	Each				
SUB-TOTAL							
9		**Take-Off**					
9.1	D-DT-1800	3 Phase Take-Off - Vertical (450mm Spacing)	Each				
9.2	D-DT-1801	3 Phase Take-Off - Vertical (600mm Spacing)	Each				
9.3	D-DT-1803	3 Phase Take-Off - Delta / 1.3m Steel Crossarm	Each				
9.4	D-DT-1804	3 Phase Take-Of - 2,5M Wooden Crossarm	Each				
9.5	D-DT-1805	3 Phase Take-Of - 2 x 2,5M Wooden Crossarm	Each				
9.6	D-DT-1806	3 Phase Take-Of - H-Pole 3,5M Wooden Crossarm	Each				
9.7	D-DT-1807	3 Phase Take-Of - H-Pole 2 x 3,5M Wooden Crossarm	Each				
9.8	D-DT-1808	3 Phase Take-Off - 1.7m Steel Crossarm (Fox)	Each				
9.9	D-DT-1809	3 Phase Take-Off - 1.7m Steel Crossarm (Hare)	Each				
SUB-TOTAL							
10		**Insulation Coordination**					
10.1	D-DT-0310	Install BIL Downwire	Each				
SUB-TOTAL E							
F	-	Assemble Dual Phase MV Structures(Downwire excluded but Bonding Included)					
1		**Intermediate - 0 deg**					
1.1	D-DT-1300	STAGGERED VERTICAL 450mm SPACING INTERMEDIATE 0 DEG. DEVIATION	Each				
1.2	D-DT-1310	STAGGERED VERTICAL 600mm SPACING INTERMEDIATE - 0 DEG. DEVIATION	Each				
1.3	D-DT-1320	MV PHASEDELTA (450mm STUD) INTERMEDIATE - 0 DEG. DEVIATION	Each				
1.4	D-DT-1330	MV PHASE / PHASE (600mm STUD) INTERMEDIATE - 0 DEG. DEVIATION	Each				
1.5	D-DT-1340	2500 WOODEN CROSSARM INTERMEDIATE - 0 DEG. DEVIATION	Each				

1.6	D-DT- 1370	H-POLE / 4500 WOODEN CROSSARM INTERMEDIATE - 0 DEG. DEVIATION	Each				
1.7	D-DT-1390	T-FRAME / 2m STEEL CROSSARM INTERMEDIATE - 0 DEG DEVIATION	Each				
SUB-TOTAL							
2		**Intermediate - (0 - 10) deg**					
2.1	D-DT-1301	VERTICAL 450 SPACING - INTERMEDIATE SMALL (1-+10) DEG. DEVIATION	Each				
2.2	D-DT-1311	VERTICAL 600 SPACING INTERMEDIATE SMALL (1-+10) DEG. DEVIATION	Each				
2.3	D-DT-1371	H-POLE - 4500 WOODEN CROSSARM INTERMEDIATE - SMALL (1-+10) DEG. DEVIATION	Each				
2.4	D-DT-1391	T-FRAME / 2m STEEL CROSSARM INTERMEDIATE - SMALL (1-+10) DEG DEVIATION	Each				
SUB-TOTAL							
3		**Intermediate - (15 - 30) deg**					
3.1	D-DT-1302	VERTICAL 450 SPACING - INTERMEDIATE MEDIUM (+15-20) DEG. DEVIATION	Each				
3.2	D-DT-1312	VERTICAL 600 SPACING - INTERMEDIATE MEDIUM (+15-20) DEG. DEVIATION	Each				
SUB-TOTAL							
4		**Strainer - 0 deg**					
4.1	D-DT-1303	VERTICAL 450 SPACING STRAIN - 0 DEG. DEVIATION	Each				
4.2	D-DT-1313	VERTICAL 600 SPACING - INTERMEDIATE STRAIN - 0 DEG. DEVIATION	Each				
4.3	D-DT-1333	1300 STEEL CROSSARM STRAIN - 0 DEG. DEVIATION	Each				
4.4	D-DT1343	DELTA / 2,5m WOOD X-ARM - STRAIN - 0° DEVIATION	Each				
4.5	D-DT-1373	H-POLE - 2500/3500/4500 WOODEN CROSSARM STRAIN - 0 DEG. DEVIATION	Each				
SUB-TOTAL							
5		**Strainer - Small (1 - 30) deg**					
5.1	D-DT-1304	VERTICAL 450 SPACING - STRAIN SMALL (1 - 30) DEG. DEVIATION	Each				
5.2	D-DT-1314	VERTICAL 600 SPACING - STRAIN SMALL (1-30) DEG. DEVIATION	Each				
SUB-TOTAL							
6		**Strainer - Medium (1 - 60) deg**					
6.1	D-DT-1334	1300 STEEL CROSSARM STRAIN - MEDIUM (1 - 60) DEG. DEVIATION	Each				
6.2	D-DT-1343	2,5m WOOD X-ARM - STRAIN - MEDIUM(1°-60°) DEVIATION	Each				
6.3	D-DT-1373	4,5m WOOD X-ARM - STRAIN - MEDIUM (1°-60°) DEVIATION	Each				
SUB-TOTAL							
7		**Strainer - Large (30- 90) deg**					
7.1	D-DT-1305	VERTICAL (450mm SPACING) - STRAIN - LARGE(30°-90°) DEVIATION	Each				
7.2	D-DT-1315	VERTICAL (600mm SPACING) - STRAIN - LARGE (30°-90°) DEVIATION	Each				
7.3	D-DT-1335	DELTA / 1,3m STEEL X-ARM - STRAIN - LARGE (60°-90°) DEVIATION	Each				
SUB-TOTAL							
8		**Strainer - Terminal**					
8.1	D-DT-1306	VERTICAL (450mm SPACING) - STRAIN - TERMINAL	Each				
8.2	D-DT-1316	VERTICAL (600mm SPACING) - STRAIN - TERMINAL	Each				
8.3	D-DT-1336	DELTA / 1,3m STEEL X-ARM - STRAIN - TERMINAL	Each				
8.4	D-DT-1346	DELTA / 2,5m WOOD X-ARM - STRAIN - TERMINAL	Each				
8.5	D-DT-1376	H-POLE / 4,5m WOOD X-ARM - STRAIN - TERMINAL	Each				

SUB-TOTAL							
9		**Take-Off**					
9.1	D-DT-1810	TAKE-OFF - VERTICAL 450mm SPACING	Each				
9.2	D-DT-1811	TAKE-OFF - VERTICAL 600mm SPACING	Each				
9.4	D-DT-1813	TAKE-OFF - DELTA / 1.3m STEEL CROSSARM	Each				
9.5	D-DT-1814	TAKE-OFF - 2.5m WOODEN CROSSARM	Each				
9.6	D-DT-1815	TAKE-OFF - 2 x 2.5m WOODEN CROSSARM	Each				
9.7	D-DT-1816	TAKE-OFF - H-POLE 3.5m WOODEN CROSSARM	Each				
9.8	D-DT-1817	TAKE-OFF - H-POLE 2 x 3.5m WOODEN CROSSARM	Each				
9.9	D-DT-1818	TAKE-OFF - 1.7m STEEL CROSSARM (FOX)	Each				
9.10	D-DT-1819	TAKE-OFF - 1.7m STEEL CROSSARM (HARE)	Each				
SUB-TOTAL							
SUB-TOTAL F							
G		**Assemble MV Stays**	**Unit**	**LQty**			
1	D-DT-0341	Make-Off Conventional Stay	Each				
2	D-DT-0343	Make-Off Flying Stay	Each				
3	D-DT-0342/0351	Make-Off Strut Pole	Each				
4	D-DT-0344	Hip Stay	Each				
H		**Assemble Three Phase LV Structures**	**Unit**	**LQty**			
1	D-DT-1100	LV - 3 Phase Bare Neutral ABC Suspension Assembly 0-30 Deg.	Each				
2	D-DT-1121	LV - 3 Phase Bare Neutral ABC Strain Assembly 0-60 Deg.	Each				
3	D-DT-1122	LV - 3 Phase Bare Neutral ABC Strain Assembly 60-90 Deg.	Each				
4	D-DT-1120	LV - 3 Phase Bare Neutral ABC Terminal Assembly	Each				
5	D-DT-1140	LV - 3 Phase Bare Neutral ABC T-Off Assembly From Intermediate	Each				
6	D-DT-1141	LV - 3 Phase Bare Neutral ABC Cross Intermediate - Intermediate Assembly	Each				
7	D-DT-1142	LV - 3 Phase Bare Neutral ABC T-Off Assembly From Strain	Each				
8	D-DT-1143	LV - 3 Phase Bare Neutral ABC Cross Intermediate - Strain Assembly	Each				
SUB-TOTAL							
1		**Assemble Single Phase LV Structures**					
1.1	D-DT-1153	LV - 3 Phase Bare Neutral ABC Suspension Assembly 0-30 Deg.	Each				
1.2	D-DT-1154	LV - 3 Phase Bare Neutral ABC Strain Assembly 0-60 Deg.	Each				
1.3	D-DT-1155	LV - 3 Phase Bare Neutral ABC Strain Assembly 60-90 Deg.	Each				
1.4	D-DT-1156	LV - 3 Phase Bare Neutral ABC Terminal Assembly	Each				
1.5	D-DT-1157	LV - 3 Phase Bare Neutral ABC T-Off Assembly From Intermediate	Each				
1.6	D-DT-1158	LV - 3 Phase Bare Neutral ABC Cross Intermediate - Intermediate Assembly	Each				
1.7	D-DT-1159	LV - 3 Phase Bare Neutral ABC T-Off Assembly From Strain	Each				
1.8	D-DT-1160	LV - 3 Phase Bare Neutral ABC Cross Intermediate - Strain Assembly	Each				
2		**Assemble Dual Phase LV Structures**					
2.1	D-DT-1145	LV - 3 Phase Bare Neutral ABC Suspension Assembly 0-30 Deg.	Each				
2.2	D-DT-1146	LV - 3 Phase Bare Neutral ABC Strain Assembly 0-60 Deg.	Each				
2.3	D-DT-1147	LV - 3 Phase Bare Neutral ABC Strain Assembly 60-90 Deg.	Each				
2.4	D-DT-1148	LV - 3 Phase Bare Neutral ABC Terminal Assembly	Each				
2.5	D-DT-1149	LV - 3 Phase Bare Neutral ABC T-Off Assembly	Each				

		From Intermediate					
2.6	D-DT-1150	LV - 3 Phase Bare Neutral ABC Cross Intermediate - Intermediate Assembly	Each				
2.7	D-DT-1151	LV - 3 Phase Bare Neutral ABC T-Off Assembly From Strain	Each				
2.8	D-DT-1152	LV - 3 Phase Bare Neutral ABC Cross Intermediate - Strain Assembly	Each				
SUB-TOTAL H							
I		**Assemble LV Stays**	**Unit**	**LQty**	**LRate**		
1	D-DT-0341	Make-Off Conventional Stay	Each				
2	D-DT-0343	Make-Off Flying Stay	Each				
3	D-DT-0342/0351	Make-Off Strut Pole	Each				
4	D-DT-0344	Make-Off Short Strut Pole	Each				
SUB-TOTAL I							
J		**Meter Kiosk(Only For High Risk Areas)**	**Unit**	**LQty**	LRate		**Total**
1	D-DT-3236	Prepare Site Including Excavation and Compaction for Pre-Cast Plinth	Each				
2	D-DT-3236	Install Pre-Cast Plinth	Each				
3	D-DT-3055	Install LPU Meter Kiosk	Each				
4	D-DT-3236	4 Way High Risk Steel Kiosk	Each				
5	D-DT-3236	6 Way High Risk Steel Kiosk	Each				
6	D-DT-3236	8 Way High Risk Steel Kiosk	Each				
7	D-DT-3236	12 Way High Risk Steel Kiosk	Each				
8	D-DT-3236	Energy Management Units (Meter)	Each				
9		Energy Management Units (Meter)	Each				
10		Vermin Proofing	Each				
11		Stencilling	p/letter				
		Supply and Install Labels	Each				
SUB-TOTAL J							
K		**Conductor Stringing (Tension, Regulate and Bind in)**	**Unit**	**LQty**	LRate		**Total**
1		Fox Conductor 1-Phase	m				
2		Fox Full Tension Joint*	Each				
3		Mink Conductor 1-Phase	m				
4		Mink Full Tension Joint*	Each				
5		Hare Conductor 1-Phase	m				
6		Hare Full Tension Joint*	Each				
7		Chickadee Conductor 1-Phase	m				
8		Chickadee Full Tension Joint*	Each				
9		Kingbird Conductor 1-Phase	m				
10		Kingbird Full Tension Joint*	Each				
11		35mm sq Full Tension Joint*	Each				
12		35 mm sq ABC 1-phase	m				
13		35 mm sq ABC 2- phase	m				
14		35 mm sq ABC 3-phase	m				
15		70mm sq Full Tension Joint*	Each				
16		70 mm sq ABC 1-phase	m				
17		70 mm sq ABC 2-phase	m				
18		70 mm sq ABC 3-phase	m				
19		Install Bird Flappers	Each				
SUB-TOTAL K							
L		**Equipment Installation**	**Unit**	**LQty**			**Total**
1		**Transformers**					
1.1	D-DT-1862	Install 5-Pole Double Platform Mounted Transformer Structure	Each				
1.2	D-DT-1863	Install 2-Pole Platform Mounted Transformer Structure	Each				
1.3	D-DT-1864	Install 5-Pole Double Platform Mounted Transformer Structure (Out of Line)	Each				
1.4	D-DT-1865	Install 2-Pole Platform Mounted Transformer Structure (Out of Line)	Each				
1.5	D-DT-1866	Install Single Pole Mounted Out of Line	Each				

		Transformer Structure (Out of Line)					
1.6	D-DT-3021	Relocate - 300-500kVA x 3-Phase	Each				
1.7	D-DT-3021	Install Transformer - 300-500kVA x 3-Phase	Each				
1.8	D-DT-3021	Relocate - 200kVA x 3-Phase	Each				
1.9	D-DT-3021	Install Transformer - 200kVA x 3-Phase	Each				
1.10	D-DT-3021	Relocate - 100kVA x 3-Phase	Each				
1.11	D-DT-3021	Install Transformer - 100kVA x 3-Phase	Each				
1.12	D-DT-3021	Relocate - 50kVA x 3-Phase	Each				
1.13	D-DT-3021	Install Transformer - 50kVA x 3-Phase	Each				
1.14	D-DT-3021	Relocate - 32kVA x 2 Phase	Each				
1.15	D-DT-3021	Install Transformer - 32kVA x 2 Phase	Each				
1.16	D-DT-3021	Relocate - 25kVA x 3-Phase	Each				
1.17	D-DT-3021	Install Transformer - 25kVA x 3-Phase	Each				
1.18	D-DT-3021	Relocate Transformer - 16kVA x 1-Phase	Each				
1.19	D-DT-3021	Install Transformer - 16kVA x 1-Phase	Each				
1.20		Supply Install Labels	Each				
1.21		Commission a Data Concentrator/Gateway onto a back plate	Each				
1.22		Install Data Concentrator/Gateway with standard modem (Minisub/Groung Mount Kiosk)	Each				
1.23		Install Data Concentrator/Gateway with external antenna (Minisub/Groung Mount Kiosk)	Each				
SUB-TOTAL							
2		**Transformer MV Protection**					
2.1	D-DT-1849	Equipment Links Cut-Outs Or Disconnectors 2.5m Wood Crossarm / Single Pole	Each				
2.2	D-DT-1850	Section / Equipment Links Or Disconnectors 1.3m Steel Crossarm / Single Pole	Each				
2.3	D-DT-1869	Section / Equipment Links Cut/Out Or Disconnectors 1.7m Steel Crossarm/Single Pole	Each				
2.4	D-DT-0261	Install Surge Arresters (3-phase)	Each				
2.5		Supply and Install Labels	Each				
3		**Transformer LV Protection**					
3.1	D-DT-0309	63A 1-phase	Set				
3.2	D-DT-0309	63A 2-phase	Set				
3.3	D-DT-0309	63A 3-phase	Set				
3.4	D-DT-0309	80A Morsdorf Type Fuses - 1-Phase	Set				
3.5	D-DT-0309	80A Morsdorf Type Fuses - 2-Phase	Set				
3.6	D-DT-0309	80A Morsdorf Type Fuses - 3-Phase	Set				
3.7	D-DT-0309	125A Morsdorf Type Fuses - 3-Phase	Set				
3.8	D-DT-0309	160A Morsdorf Type Fuses - 3-Phase	Set				
3.9	D-DT-3034	150A MCCB - 3-Phase(Circuit breaker)	Each				
3.10	D-DT-3034	300A MCCB - 3-Phase(Circuit breaker)	Each				
3.11		Supply and Install Labels	Each				
SUB-TOTAL							
4		**Pole Mounted Sectionaliser**					
4.1	D-DT-1821	Install Sectionaliser Structure	Each				
4.2	D-DT-1828	Install Sectionaliser - Out-Of-Line Structure	Each				
4.3	D-DT-3177	Install Sectionaliser	Each				
4.4	D-DT-1848	Section Links Cut/Outs Or Disconnectors 2.5m Wood Crossarm / Single Pole	Each				
4.5	D-DT-1852	Equipment Links - Cut-Outs Or Disconnectors - 3.5/4.5m Wood Crossarm / H-Pole	Each				
4.6	D-DT-1853	Equipment Isolating (In-Out) Links - Cut-Outs Or Disconnectors - 2 x 2.5m Wood Crossarm / H-Pole	Each				
4.7	D-DT-1854	Equipment Isolating (In-Out) Links - Cut-Outs Or Disconnectors - 4.5m Wood Crossarm / Out-Of-Line	Each				

4.8	D-DT-1857	3 Phase Switch Disconnector Ganged, Link Stick Operated Horizontal Assembly H-Pole 1800 And 2200 Centres	Each				
4.9	D-DT-1858	3 Phase Switch Disconnector Ganged, Link Stick Operated Assembly Single Pole Mounted	Each				
4.10	D-DT-1875	Equipment Isolating (In-Out) Links Cut/Outs Or Disconnectors 2x2.4m Steel Crossarm / H-Pole	Each				
4.11	D-DT-0261	Install Surge Arresters	Each				
4.12		Supply and Install Labels	Each				
SUB-TOTAL							
5		**Pole Mounted Recloser**					
5.1	D-DT-1825	Install Recloser Structure	Each				
5.2	D-DT-1829	Install Recloser - Out-Of-Line Structure	Each				
5.3	D-DT-0272	Install Recloser On Existing Structure	Each				
5.4	D-DT-1848	Section Links Cut/Outs Or Disconnectors 2.5m Wood Crossarm / Single Pole	Each				
5.5	D-DT-1852	Equipment Links - Cut-Outs Or Disconnectors - 3.5/4.5m Wood Crossarm / H-Pole	Each				
5.6	D-DT-1853	Equipment Isolating (In-Out) Links - Cut-Outs Or Disconnectors - 2 x 2.5m Wood Crossarm / H-Pole	Each				
5.7	D-DT-1854	Equipment Isolating (In-Out) Links - Cut-Outs Or Disconnectors - 4.5m Wood Crossarm / Out-Of-Line	Each				
5.8	D-DT-1857	3 Phase Switch Disconnector Ganged, Link Stick Operated Horizontal Assembly H-Pole 1800 And 2200 Centres	Each				
5.9	D-DT-1858	3 Phase Switch Disconnector Ganged, Link Stick Operated Assembly Single Pole Mounted	Each				
5.10	D-DT-1875	Equipment Isolating (In-Out) Links Cut/Outs Or Disconnectors 2x2.4m Steel Crossarm / H-Pole	Each				
5.11	D-DT-0270	Install Auxiliary Transformer	Each				
5.12	D-DT-0261	Install Surge Arresters	Each				
5.13		Supply and Install Labels	Each				
SUB-TOTAL							
6		**Line Fault Path Indicator**					
6.1		Install Fault Path Indicator	Each				
SUB-TOTAL							
7		**Voltage Regulator**					
7.1	D-DT-1830	Install Voltage Regulator - 11/22kV 100/200A Open Delta Structure	Each				
7.2	D-DT-1831	Install Voltage Regulator - 11/22kV 100/200A Closed Delta Structure	Each				
7.3	D-DT-1833	Install Voltage Regulator - 11/22kV 100/200A Open Delta - Out-Of-Line Structure	Each				
7.4	D-DT-1834	Install Voltage Regulator - 11/22kV 100/200A Closed Delta - Out-Of-Line Structure	Each				
7.5	D-DT-3119	Install Voltage Regulator On Existing Structure	Each				
7.6	D-DT-1848	Section Links Cut/Outs Or Disconnectors 2.5m Wood Crossarm / Single Pole	Each				
7.7	D-DT-1851	Equipment Links - Cut-Outs Or Disconnectors - 2.5m Wood Crossarm / H-Pole	Each				
7.8	D-DT-1852	Equipment Links - Cut-Outs Or Disconnectors - 3.5/4.5m Wood Crossarm / H-Pole	Each				
7.9	D-DT-1854	Equipment Isolating (In-Out) Links - Cut-Outs Or Disconnectors - 4.5m Wood Crossarm / Out-Of-Line	Each				
7.10	D-DT-1857	3 Phase Switch Disconnector Ganged, Link Stick Operated Horizontal Assembly H-Pole 1800 And 2200 Centres	Each				
7.11	D-DT-1858	3 Phase Switch Disconnector Ganged, Link Stick Operated Assembly Single Pole Mounted	Each				
7.12	D-DT-1874	Equipment Links Or Disconnectors 2.4m Steel Crossarm / H-Pole	Each				

7.13	D-DT-0261	Install Surge Arresters	Each				
7.14		Supply and Install Labels	Each				
SUB-TOTAL							
8		**Pole Mounted CT-VT Unit**					
8.1	D-DT-1839	Install MV CT / VT Metering Bulk Tarif Out-Of-Line Structure	Each				
8.2	D-DT-1840	Install MV CT / VT Metering Bulk Tarif in Line Structure	Each				
8.3	D-DT-1841	Install CT/VT Metering In-line Statistical Structure	Each				
8.4	D-DT-1846	Install CT/VT Metering Statistical Out-Of-Line Structure	Each				
8.5	D-DT-3118	Install CT/VT unit	Each				
8.6	D-DT-1848	Section Links Cut/Outs or Disconnectors 2.5m Wood Crossarm / Single Pole	Each				
8.7	D-DT-1850	Section / Equipment Links or Disconnectors 1.3m Steel Crossarm / Single Pole	Each				
8.8	D-DT-1852	Equipment Links - Cut-Outs or Disconnectors - 3.5/4.5m Wood Crossarm / H-Pole	Each				
8.9	D-DT-1853	Equipment Isolating (In-Out) Links - Cut-Outs or Disconnectors - 2 x 2.5m Wood Crossarm / H-Pole	Each				
8.10	D-DT-1854	Equipment Isolating (In-Out) Links - Cut-Outs or Disconnectors - 4.5m Wood Crossarm / Out-Of-Line	Each				
8.11	D-DT-1857	3 Phase Switch Disconnector Ganged, Link Stick Operated Horizontal Assembly H-Pole 1800 And 2200 Centres	Each				
8.12	D-DT-1858	3 Phase Switch Disconnector Ganged, Link Stick Operated Assembly Single Pole Mounted	Each				
8.13	D-DT-1875	Equipment Isolating (In-Out) Links Cut/Outs or Disconnectors 2x2.4m Steel Crossarm / H-Pole	Each				
8.14	D-DT-3236	Install CT/VT Metering Kiosk	Each				
8.15	D-DT-0261	Install Surge Arresters	Each				
8.16		Supply and Install Labels	Each				
SUB-TOTAL							
9		**Pole Mounted Shunt Capacitor Banks**					
9.1	D-DT-1832	Install Capacitor Structure	Each				
9.2	D-DT-3218	Install Capacitor Bank	Each				
9.3	D-DT-1849	Equipment Links Cut-Outs or Disconnectors 2.5m Wood Crossarm / Single Pole	Each				
9.4	D-DT-1850	Section / Equipment Links or Disconnectors 1.3m Steel Crossarm / Single Pole	Each				
9.5	D-DT-0261	Install Surge Arresters	Each				
9.6		Supply and Install Labels	Each				
SUB-TOTAL							
10		**Line Arrester**					
10.1		Install Equipment Links	Each				
10.2	D-DT-1842	Line Arresters 1.3m Long Steel Crossarm Staggered Vertical Configuration	Each				
10.3	D-DT-1843	Line Arresters 2.5m Long Wooden Crossarm Vertical Configuration	Each				
10.4	D-DT-1844	Line Arresters H-Pole Configuration	Each				
10.5	D-DT-1845	Line Arresters Delta Configuration	Each				
10.6		Supply and Install Labels	Each				
SUB-TOTAL							
11		**3 Phase Sectional Links**					
11.1	D-DT-1847	Section Links Cut/Outs or Disconnectors 3.5/4.5m Wood Crossarm / H-Pole	Each				
11.2	D-DT-1848	Section Links Cut/Outs or Disconnectors 2.5m Wood Crossarm / Single Pole	Each				
11.3	D-DT-1850	Section / Equipment Links Or Disconnectors 1.3m Steel Crossarm / Single Pole					
11.4	D-DT-1857	3 Phase Switch Disconnector Ganged, Link Stick Operated Horizontal Assembly H-Pole 1800 And	Each				

		2200 Centres					
11.5	D-DT-1858	3 Phase Switch Disconnector Ganged, Link Stick Operated Assembly Single Pole Mounted	Each				
11.6	D-DT-1869	Section / Equipment Links Cut/Out Or Disconnectors 1.7m Steel Crossarm/Single Pole	Each				
11.7		Supply and Install Labels	Each				
SUB-TOTAL							
12		**Miniature Substation**					
12.1	-	Prepare Site Including Excavation and Compaction for Pre-Cast Plinth	m^2				
12.2	D-DT-0859	Install Pre-Cast Plinth	Each				
12.3	D-DT-8050	Install Miniature Substation 11kV Type B	Each				
12.4	D-DT-8051	Install Miniature Substation 22kV Type B	Each				
12.5	D-DT-8052	Install Miniature Substation 11kV Type A	Each				
12.6	D-DT-8053	Install Miniature Substation 22kV Type A	Each				
12.7	D-DT-3409	Install LV Fuses	SET				
12.8	D-DT-3034	225A MCCB - 3-Phase (LV Circuit Breakers)	Each				
12.9	D-DT-3034	300A MCCB - 3-Phase	Each				
12.10	D-DT-3034	350A MCCB - 3-Phase	Each				
12.11	-	Vermin Proofing	Each				
12.12	-	Stencilling	p/letter				
12.13		Supply and Install Labels	Each				
SUB-TOTAL							
13		**Ring Main Unit**					
13.1	-	Prepare Site Including Excavation and Compaction for Pre-Cast Plinth	m^2				
13.2	D-DT-0863	Install Pre-Cast Plinth	Each				
13.3	D-DT-8060	Install Ring Main Unit	Each				
13.4	-	Vermin Proofing	Each				
13.5	-	Stencilling	p/letter				
13.6		Supply and Install Labels	Each				
SUB-TOTAL							
14		**Ground Mounted CT-VT Unit**					
14.1	-	Prepare Site Including Excavation and Compaction for Pre-Cast Plinth	m^2				
14.2	D-DT-0865	Install Pre-Cast Plinth	Each				
14.3	D-DT-0865	Install CT-VT Unit	Each				
14.4	-	Vermin Proofing	Each				
14.5	-	Stencilling	p/letter				
14.6		Supply and Install Labels	Each				
SUB-TOTAL							
15		**Meter Kiosk(Only For High Risk Areas)**					
15.1	-	Prepare Site Including Excavation and Compaction for Pre-Cast Plinth	m^2				
15.2	D-DT-0865	Install Pre-Cast Plinth	Each				
15.3	D-DT-0865	Install LPU Meter Kiosk	Each				
15.4	D-DT-3236	4 Way High Risk Steel Kiosk	Each				
15.5	D-DT-3236	6 Way High Risk Steel Kiosk	Each				
15.6	D-DT-3236	8 Way High Risk Steel Kiosk	Each				
15.7	D-DT-3236	12 Way High Risk Steel Kiosk	Each				
15.9	-	Install single phase Meter Circuit Breaker with wiring(complete)	Each				
15.1	-	Install Three phase Meter Circuit Breaker with wiring(complete)	Each				
15.11	-	Single Rate Single Phase Meter	Each				
15.12	-	Single Rate Three Phase Meter	Each				

15.13	-	Install single phase smart meter with Customer Interface Unit	Each				
15.14	-	Install three phase smart meter with Customer Interface Unit	Each				
15.15	-	Install external smart metering modem with antenna	Each				
15.16	-	Vermin Proofing	Each				
15.17	-	Stencilling	p/letter				
15.18		Supply and Install Labels	Each				
SUB-TOTAL							
SUB-TOTAL L							
M		**Earthing Installation**	**Unit**	**LQty**			
1		**Transformer - MV Earthing**					
1.1		Excavation - length long, 0.5m deep and 0.6m wide	m^3				
1.2	D-DT-3139	16mm sq Bare Stranded Cu Conductor	m				
1.3	D-DT-3137	16mm sq Insulated Stranded Cu Conductor	m				
1.4	D-DT-0642	26mm sq Bare Stranded Copper Clad Steel Conductor	m				
1.5	D-DT-0642	26mm sq Insulated Stranded Copper Clad Steel Conductor	m				
1.6		Backfill - length long, 0.5m deep and 0.6m wide	m^3				
1.7	D-DT-0642 & 240-130615754	30 Ohm Electrode - 300 Ω.m soil	Each				
1.8	D-DT-0642 & 240-130615754	30 Ohm Electrode - 600 Ω.m soil	Each				
1.9	D-DT-0642 & 240-130615754	30 Ohm Electrode - 900 Ω.m soil	Each				
1.1	D-DT-0642 & 240-130615754	30 Ohm Electrode - 1500 Ω.m soil	Each				
1.11	Project specific drawing & 240-130615754	Less than 30 Ohm Electrode - 300 Ω.m soil	Each				
1.12	Project specific drawing & 240-130615754	Less than 30 Ohm Electrode - 600 Ω.m soil	Each				
1.13	Project specific drawing & 240-130615754	Less than 30 Ohm Electrode - 900 Ω.m soil	Each				
1.14	Project specific drawing & 240-130615754	Less than 30 Ohm Electrode - 1500 Ω.m soil	Each				
SUB-TOTAL							
2		**Transformer - LV Earthing**					
2.1		Excavation - length long, 0.5m deep and 0.6m wide	m^3				
2.2	D-DT-3139	16mm sq Bare Stranded Cu Conductor	m				
2.3	D-DT-3137	16mm sq Insulated Stranded Cu Conductor	m				
2.4	D-DT-0642	26mm sq Bare Stranded Copper Clad Steel Conductor	m				
2.5	D-DT-0642	26mm sq Insulated Stranded Copper Clad Steel Conductor	m				
2.6		Backfill - length long, 0.5m deep and 0.6m wide	m^3				
2.7	D-DT-0642 & 240-130615754	30 Ohm Electrode - 300 Ω.m soil	Each				
2.8	D-DT-0642 & 240-130615754	30 Ohm Electrode - 600 Ω.m soil	Each				
2.9	D-DT-0642 & 240-130615754	30 Ohm Electrode - 900 Ω.m soil	Each				

2.1	D-DT-0642 & 240-130615754	30 Ohm Electrode - 1500 Ω.m soil	Each				
2.11	D-DT-0642 & 240-130615754	70 Ohm Electrode - 300 Ω.m soil	Each				
2.12	D-DT-0642 & 240-130615754	70 Ohm Electrode - 600 Ω.m soil	Each				
2.13	D-DT-0642 & 240-130615754	70 Ohm Electrode - 900 Ω.m soil	Each				
2.14	D-DT-0642 & 240-130615754	70 Ohm Electrode - 1500 Ω.m soil	Each				
2.15	Project specific drawing & 240-130615754	Less than 30 Ohm Electrode - 300 Ω.m soil	Each				
2.16	Project specific drawing & 240-130615754	Less than 30 Ohm Electrode - 600 Ω.m soil	Each				
2.17	Project specific drawing & 240-130615754	Less than 30 Ohm Electrode - 900 Ω.m soil	Each				
2.18	Project specific drawing & 240-130615754	Less than 30 Ohm Electrode - 1500 Ω.m soil	Each				
SUB-TOTAL							
3		**Other Overhead System Equipment Earthing - Capacitor Bank / CV-VT Unit / Line Arrester / Recloser / Sectionaliser / Voltage Regulator**					
3.1		Excavation - length long, 0.5m deep and 0.6m wide	m^3				
3.2	D-DT-3139	16mm sq Bare Stranded Cu Conductor	m				
3.3	D-DT-3137	16mm sq Insulated Stranded Cu Conductor	m				
	D-DT-0642	26mm sq Bare Stranded Copper Clad Steel Conductor	m				
	D-DT-0642	26mm sq Insulated Stranded Copper Clad Steel Conductor	m				
3.5		Backfill - length long, 0.5m deep and 0.6m wide	m^3				
	D-DT-0642 & 240-130615754	MV Electrode - 30 Ohm Electrode - 300 Ω.m soil	Each				
	D-DT-0642 & 240-130615754	MV Electrode - 30 Ohm Electrode - 600 Ω.m soil	Each				
	D-DT-0642 & 240-130615754	MV Electrode - 30 Ohm Electrode - 900 Ω.m soil	Each				
	D-DT-0642 & 240-130615754	MV Electrode - 30 Ohm Electrode - 1500 Ω.m soil	Each				
	D-DT-0642 & 240-130615754	MV Electrode - 70 Ohm Electrode - 300 Ω.m soil	Each				
	D-DT-0642 & 240-130615754	MV Electrode - 70 Ohm Electrode - 600 Ω.m soil	Each				
	D-DT-0642 & 240-130615754	MV Electrode - 70 Ohm Electrode - 900 Ω.m soil	Each				
	D-DT-0642 & 240-130615754	MV Electrode - 70 Ohm Electrode - 1500 Ω.m soil	Each				
	Project specific drawing & 240-130615754	MV Electrode - Less than 30 Ohm Electrode - 300 Ω.m soil	Each				
	Project specific drawing & 240-130615754	MV Electrode - Less than 30 Ohm Electrode - 600 Ω.m soil	Each				
	Project specific drawing & 240-130615754	MV Electrode - Less than 30 Ohm Electrode - 900 Ω.m soil	Each				
	Project specific drawing & 240-130615754	MV Electrode - Less than 30 Ohm Electrode - 1500 Ω.m soil	Each				

	D-DT-0642 & 240-130615754	LV Electrode - 30 Ohm Electrode - 300 Ω.m soil	Each				
	D-DT-0642 & 240-130615754	LV Electrode - 30 Ohm Electrode - 600 Ω.m soil	Each				
	D-DT-0642 & 240-130615754	LV Electrode - 30 Ohm Electrode - 900 Ω.m soil	Each				
	D-DT-0642 & 240-130615754	LV Electrode - 30 Ohm Electrode - 1500 Ω.m soil	Each				
	D-DT-0642 & 240-130615754	LV Electrode - 70 Ohm Electrode - 300 Ω.m soil	Each				
	D-DT-0642 & 240-130615754	LV Electrode - 70 Ohm Electrode - 600 Ω.m soil	Each				
	D-DT-0642 & 240-130615754	LV Electrode - 70 Ohm Electrode - 900 Ω.m soil	Each				
	D-DT-0642 & 240-130615754	LV Electrode - 70 Ohm Electrode - 1500 Ω.m soil	Each				
	Project specific drawing & 240-130615754	LV Electrode - Less than 30 Ohm Electrode - 300 Ω.m soil	Each				
	Project specific drawing & 240-130615754	LV Electrode - Less than 30 Ohm Electrode - 600 Ω.m soil	Each				
	Project specific drawing & 240-130615754	LV Electrode - Less than 30 Ohm Electrode - 900 Ω.m soil	Each				
	Project specific drawing & 240-130615754	LV Electrode - Less than 30 Ohm Electrode - 1500 Ω.m soil	Each				
SUB-TOTAL							
4		**Other Underground System Equipment Earthing - Miniature Substation / Ring Main Unit / CV-VT Unit**					
4.1		Excavation - length long, 0.5m deep and 0.6m wide	m^3				
4.2	D-DT-3139	16mm sq Bare Stranded Cu Conductor	m				
4.3	D-DT-3137	16mm sq Insulated Stranded Cu Conductor	m				
4.4	D-DT-0642	26mm sq Bare Stranded Copper Clad Steel Conductor	m				
4.5	D-DT-0642	26mm sq Insulated Stranded Copper Clad Steel Conductor	m				
4.6		Backfill - length long, 0.5m deep and 0.6m wide	m^3				
4.7	D-DT-0642 & 240-130615754	MV Electrode - 30 Ohm Electrode - 300 Ω.m soil	Each				
4.8	D-DT-0642 & 240-130615754	MV Electrode - 30 Ohm Electrode - 600 Ω.m soil	Each				
4.9	D-DT-0642 & 240-130615754	MV Electrode - 30 Ohm Electrode - 900 Ω.m soil	Each				
4.1	D-DT-0642 & 240-130615754	MV Electrode - 30 Ohm Electrode - 1500 Ω.m soil	Each				
4.11	D-DT-0642 & 240-130615754	MV Electrode - 70 Ohm Electrode - 300 Ω.m soil	Each				
4.12	D-DT-0642 & 240-130615754	MV Electrode - 70 Ohm Electrode - 600 Ω.m soil	Each				
4.13	D-DT-0642 & 240-130615754	MV Electrode - 70 Ohm Electrode - 900 Ω.m soil	Each				
4.14	D-DT-0642 & 240-130615754	MV Electrode - 70 Ohm Electrode - 1500 Ω.m soil	Each				
4.15	Project specific drawing & 240-130615754	MV Electrode - Less than 30 Ohm Electrode - 300 Ω.m soil	Each				
4.16	Project specific drawing & 240-130615754	MV Electrode - Less than 30 Ohm Electrode - 600 Ω.m soil	Each				

4.17	Project specific drawing & 240-130615754	MV Electrode - Less than 30 Ohm Electrode - 900 Ω.m soil	Each				
4.18	Project specific drawing & 240-130615754	MV Electrode - Less than 30 Ohm Electrode - 1500 Ω.m soil	Each				
4.19	D-DT-0642 & 240-130615754	LV Electrode - 30 Ohm Electrode - 300 Ω.m soil	Each				
4.20	D-DT-0642 & 240-130615754	LV Electrode - 30 Ohm Electrode - 600 Ω.m soil	Each				
4.21	D-DT-0642 & 240-130615754	LV Electrode - 30 Ohm Electrode - 900 Ω.m soil	Each				
4.22	D-DT-0642 & 240-130615754	LV Electrode - 30 Ohm Electrode - 1500 Ω.m soil	Each				
4.23	D-DT-0642 & 240-130615754	LV Electrode - 70 Ohm Electrode - 300 Ω.m soil	Each				
4.24	D-DT-0642 & 240-130615754	LV Electrode - 70 Ohm Electrode - 600 Ω.m soil	Each				
4.25	D-DT-0642 & 240-130615754	LV Electrode - 70 Ohm Electrode - 900 Ω.m soil	Each				
4.26	D-DT-0642 & 240-130615754	LV Electrode - 70 Ohm Electrode - 1500 Ω.m soil	Each				
4.27	Project specific drawing & 240-130615754	LV Electrode - Less than 30 Ohm Electrode - 300 Ω.m soil	Each				
4.28	Project specific drawing & 240-130615754	LV Electrode - Less than 30 Ohm Electrode - 600 Ω.m soil	Each				
4.29	Project specific drawing & 240-130615754	LV Electrode - Less than 30 Ohm Electrode - 900 Ω.m soil	Each				
4.30	Project specific drawing & 240-130615754	LV Electrode - Less than 30 Ohm Electrode - 1500 Ω.m soil	Each				
SUB-TOTAL							
SUB-TOTAL M							
N		**Service Connection Installation**	**Unit**	**LQty**	**L Rate**		
1	D-DT-0360	Overhead Service Connection (Per House)	Each				
2	D-DT-0367	Underground Service Connection (Including 25mm Conduct LDPE Pipe Per House)	Each				
2.2	D-DT-0854	Excavation - 0.75m Deep and 0.45 Wide	m^3				
2.3		Road Crossing - Digging	Each				
2.4		Road Crossing - Bulleting	m				
2.5	D-DT-8018	Install Sleeves	Each				
2.6	D-DT-0854	Laying of Warning Tape	m				
2.7	D-DT-0854	Backfill - 0.75m Deep and 0.45 Wide	m^3				
SUB-TOTAL							
3		**Split Metering**					
3.1	D-DT-3145	Customer Interface Unit Including Sealing of meters	Each				
3.2	D-DT-3176	Ready-Board Including Sealing of meters	Each				
3.3		Marketing for connections	Each				
3.4		Capture and Upload of Customer Data New & Existing Including GPS Coordinates	Each				
4		COC certificates Eskom short version	Each				
SUB-TOTAL							
SUB-TOTAL N							
O		**Service Conductor Installation**		**LQty**	**L Rate**		
	D-DT-3140	6mm sq Tinned Copper Steel cable with Communication Core	m				
1	D-DT-3140	8mm sq Tinned Copper Airdac with	m				

		Communication Core					
2	D-DT-3140	10mm sq Airdac	m				
3	D-DT-3140	10mm sq Airdac with Communication Core	m				
5	D-DT-0384	Kicker Pole Dressing	Each				
6	D-DT-0384	Shack Pole Dressing	Each				
7	D-DT-3128	16mm sq Underground	m				
SUB-TOTAL							
P		**Underground Cable Installation**	**Unit**	**LQty**	**L Rate**		
1		**Trenching**					
1.1	D-DT-0854	Excavation - General Trench - length Long, 1.0m Deep and 0.45m Wide - MV Cable	m^3				
1.2	D-DT-0854	Excavation - Rail/Road Crossing Trench - length Long, 1.6m Deep and 0.45m Wide - MV Cable	m^3				
1.3	D-DT-0854	Excavation - Along The Road Trench - length Long, 1.3m Deep and 0.45m Wide - MV Cable	m^3				
1.4	D-DT-0854	Excavation - General Trench - length Long, 1.0m Deep and 0.5m Wide - MV Cable	m^3				
1.5	D-DT-0854	Excavation - Rail/Road Crossing Trench - length Long, 1.6m Deep and 0.5m Wide - MV Cable	m^3				
1.6	D-DT-0854	Excavation - Along The Road Trench - length Long, 1.3m Deep and 0.5m Wide - MV Cable	m^3				
1.7	D-DT-0854	Excavation - General Trench - length Long, 0,75m Deep and 0.45m Wide - LV Cable	m^3				
1.8	D-DT-0854	Excavation - Rail/Road Crossing Trench - length Long, 1.350m Deep and 0.45m Wide - LV Cable	m^3				
1.9	D-DT-0854	Excavation - Along The Road Trench - length Long, 1.05m Deep and 0.45m Wide - LV Cable	m^3				
1.1	Project Specific drawings.	Excavation - General Trench - length Long, Deep varies up to 1.5 and 0.5m Wide (Theft deterred design) - MV and LV cable	m^3				
1.11	Project Specific drawings.	Excavation - Rail/Road Crossing Trench - length Long, 1.6m Deep and 0.5m Wide (Theft deterred design) - MV and LV cable	m^3				
1.12	240-56030635 and 240-56030637	Install Barricading	m				
1.13		Install Shoring (One side of trench) - To be designed by professional Civil engineer.	m				
1.14	240-56030635 and 240-56030637	Install Shoring (Both sides of trench) - To be designed by professional Civil engineer.	m				
SUB-TOTAL							
2		**Road Crossing**					
2.1		Directional Drilling	m				
2.2		Excavate Start and End Pits	m^3				
2.3	240-56030635 and 240-56030637	Supply and Install appropriate sleeve / duct (PVC/HDPE) - 110mm diameter (Nominal bore)	m				
2.4	240-56030635 and 240-56030637	Supply and Install appropriate sleeve / duct (PVC/HDPE) - 160mm diameter (Nominal bore)	m				
2.5	240-56030635 and 240-56030637	Supply and Install appropriate sleeve / duct (PVC/HDPE) - 200mm diameter (Nominal bore)	m				

2.6	240-56030635 and 240-56030637	Supply and Install appropriate sleeve / duct (PVC/HDPE) - 250mm diameter (Nominal bore)	m				
2.7	240-56030635 and 240-56030637	Supply and install bentonite inside sleeves with cable	m^3		Cost plus fee		
2.8	240-56030635 and 240-56030637	Install backfill material inside sleeves with cable	m^3				
2.9	240-56030635 and 240-56030637	Supply and install non-metallic draw wires	m				
2.1	240-56030635 and 240-56030637	Seal ends of pipes	Each				
2.11	240-56030635 and 240-56030637	Supply and install minimum surround of 75 mm of concrete around pipe.	m				
SUB-TOTAL							
3		**Compacting Bedding Soil**					
3.1	D-DT-0854	Sifted Soil - length Long, 0.15m High (Compacted) and 0.45m / 0.5m Wide	m^3				
3.2	D-DT-0854 & SANS 10198 & Project Specific drawings.	Imported Soil of 0,7 K.m/W thermal resistivity - length Long, 0.15m High (Compacted) and 0.45m / 0.5m Wide	m^3				
3.3	D-DT-0854 & SANS 10198 & Project Specific drawings.	Imported Soil of 0,8 K.m/W thermal resistivity - length Long, 0.15m High (Compacted) and 0.45m / 0.5m Wide	m^3				
3.4	D-DT-0854 & SANS 10198 & Project Specific drawings.	Imported Soil of 0,9 K.m/W thermal resistivity - length Long, 0.15m High (Compacted) and 0.45m / 0.5m Wide	m^3				
3.5	D-DT-0854 & SANS 10198 & Project Specific drawings.	Imported Soil of 1,0 K.m/W thermal resistivity - length Long, 0.15m High (Compacted) and 0.45m / 0.5m Wide	m^3				
3.6	EMP	Dispose of Excavated Material at approved disposal site	m^3				
SUB-TOTAL							
4		**Laying of Cable**					
4.1	D-DT-0854	Laying of 1-Core 185mm sq MV Cable	m				
4.2	D-DT-0854	Laying of 3-Core 95mm sq MV Cable	m				
4.3	D-DT-0854	Laying of 3-Core 185mm sq MV Cable	m				
4.4	D-DT-0854	Laying of 3-Core 300mm sq MV Cable	m				
4.5	D-DT-0854	Laying of 4-Core 16mm sq LV Cable	m				
4.6	D-DT-0854	Laying of 4-Core 25mm sq LV Cable	m				
4.7	D-DT-0854	Laying of 4-Core 35mm sq LV Cable	m				
4.8	D-DT-0854	Laying of 4-Core 50mm sq LV Cable	m				
4.9	D-DT-0854	Laying of 4-Core 70mm sq LV Cable	m				
4.1	D-DT-0854	Laying of 4-Core 95mm sq LV Cable	m				
4.11	D-DT-0854	Laying of 4-Core 120mm sq LV Cable	m				
4.12	D-DT-0854	Laying of 4-Core 150mm sq LV Cable	m				
4.13	D-DT-0854	Laying of 4-Core 185mm sq LV Cable	m				

SUB-TOTAL							
5		**Compacting Blanket Soil**					
5.1	D-DT-0854	Sifted Soil - length Long, 0.25m High (Compacted) and 0.45m / 0.5m Wide	m^3				
5.2	D-DT-0854	Sifted Soil - length Long, 0.15m High (Compacted) and 0.45m / 0.5m Wide	m^3				
5.3	D-DT-0854 & SANS 10198 & Project Specific drawings.	Imported Soil of 0,7 K.m/W thermal resistivity - length Long, 0.15m High / 0.25 High (Compacted) and 0.45m / 0.5m Wide	m^3				
5.4	D-DT-0854 & SANS 10198 & Project Specific drawings.	Imported Soil of 0,8 K.m/W thermal resistivity - length Long, 0.15m High / 0.25 High (Compacted) and 0.45m / 0.5m Wide	m^3				
5.5	D-DT-0854 & SANS 10198 & Project Specific drawings.	Imported Soil of 0,9 K.m/W thermal resistivity - length Long, 0.15m High / 0.25 High (Compacted) and 0.45m / 0.5m Wide	m^3				
5.6	D-DT-0854 & SANS 10198 & Project Specific drawings.	Imported Soil of 1,0 K.m/W thermal resistivity - length Long, 0.15m High / 0.25 High (Compacted) and 0.45m / 0.5m Wide	m^3				
5.7	EMP	Dispose of Excavated Material at approved disposal site	m^3				
SUB-TOTAL							
6		**Backfilling of the Cable Trench**					
6.1	D-DT-0854	General Trench - length Long, 0.6m High and 0.45m Wide	m^3				
6.2	D-DT-0854	Rail/Road Crossing Trench - length Long, 1.2m High and 0.45m Wide	m^3				
6.3	D-DT-0854	Along The Road Trench - length Long, 0.9m High and 0.45m Wide	m^3				
6.4	D-DT-0854	Laying of Warning Tape	m				
6.5	D-DT-8012	Installation of Cable Route Markers	Each				
6.6	D-DT-0854 & D-DT-8076	Installation of concrete slab	Each				
6.7	Project Specific drawings.	1:8 Cement to Soil mixture (Supply Cement)	m^3				
6.8	Project Specific drawings.	1:10 Cement to Soil mixture (Supply Cement)	m^3				
6.9	Project Specific drawings.	Polypropylene clamps around cable	Each				
6.1	Project Specific drawings.	Supply and install anchoring rods (600mm long)	Each				
6.11	Project Specific drawings.	Supply and install 600m long anchor bracket (to attach to polypropylene clamps)	Each				
6.12	D-DT-8081	Fibre optic duct	m				
6.13	D-DT-8081	Supply and install fibre optic duct	m				
6.14	n/a	Supply and install fibre optic duct end caps	Each				
6.15	SAP: 241584	Install Coaxial cable	m				
6.16	SAP: 241584	Supply and Install Coaxial cable	m				
6.17		Re-instatement of Gardens	m^2				
6.18		Re-instatement of Pavements	m^2				
6.19		Re-instatement of Driveways	m^2				
6.2		Re-instatement of Tarred surfaces	m^2				
SUB-TOTAL P							
Q		**Cable Termination**	**Unit**	**LQty**	**LRate**		
1		**Cable Termination Onto Air-Filled Cable Termination Enclosure**					
1.1	240-56030637	Install 2-Core 16mm sq LV Bare Termination	Each				
1.2	240-56030637	Install 4-Core 16mm sq LV Bare Termination	Each				
1.3	240-56030637	Install 4-Core 25mm sq LV Bare Termination	Each				

1.4	240-56030637	Install 4-Core 35mm sq LV Bare Termination	Each				
1.5	240-56030637	Install 4-Core 50mm sq LV Bare Termination	Each				
1.6	240-56030637	Install 4-Core 70mm sq LV Bare Termination	Each				
1.7	240-56030637	Install 4-Core 95mm sq LV Bare Termination	Each				
1.8	240-56030637	Install 4-Core 120mm sq LV Bare Termination	Each				
1.9	240-56030637	Install 4-Core 150mm sq LV Bare Termination	Each				
1.1	240-56030637	Install 4-Core 185mm sq LV Bare Termination	Each				
1.11	D-DT-8011	Install 3-Core 95mm sq Shrouded Termination	Each				
1.12	D-DT-8006	Install 3-Core 95mm sq Unscreened Separable Connector Termination	Each				
1.13	D-DT-8006	Install 3-Core 95mm sq Unscreened Separable Connector Extended Screen Termination	Each				
1.14	D-DT-8006 & D-DT-8017	Install 3-Core / 3 x 1 Core 95mm sq Screened Separable Connector Termination	Each				
1.15	D-DT-8011	Install 3-Core 185mm sq Shrouded Termination	Each				
1.16	D-DT-8006	Install 3-Core 185mm sq Unscreened Separable Connector Termination	Each				
1.17	D-DT-8006	Install 3-Core 185mm sq Unscreened Separable Connector Extended Screen Termination	Each				
1.18	D-DT-8006 & D-DT-8017	Install 3-Core / 3 x 1 Core 185mm sq Screened Separable Connector Termination	Each				
1.19	D-DT-8011	Install 3-Core 300mm sq Shrouded Termination	Each				
1.2	D-DT-8006	Install 3-Core 300mm sq Unscreened Separable Connector Termination	Each				
1.21	D-DT-8006	Install 3-Core 300mm sq Unscreened Separable Connector Extended Screen Termination	Each				
1.22	D-DT-8006 & D-DT-8017	Install 3-Core / 3 x 1 Core 300mm sq Screened Separable Connector Termination	Each				
SUB-TOTAL							
2		**Cable Termination Onto Overhead Line**					
2.1	D-DT-0850	Install 95mm sq O/D Termination	Each				
2.2	D-DT-0851	Install 95mm sq O/D Termination	Each				
2.3	D-DT-0850	Install 185mm sq O/D Termination	Each				
2.4	D-DT-0851	Install 185mm sq O/D Termination	Each				
2.5	D-DT-0850	Install 300mm sq O/D Termination	Each				
2.6	D-DT-0851	Install 300mm sq O/D Termination	Each				
2.7	D-DT-1850	Install Equipment Links - 3-Phase	Each				
2.8	D-DT-0261	Install Surge Arresters - 3-Phase	Each				
2.9	D-DT-8023	Install a Steel Pipe	Each				
SUB-TOTAL							
SUB-TOTAL Q							
R		**Cable Joint**	**Unit**	**LQty**	**LRate**		**Total**
1		**Cable Joint**					
1.1	240-56030635	Excavate a Joint Bay 2m long x 1,5m wide x 1,2m deep - MV cable	m^3				
1.2	240-56030637	Excavate a Joint Bay 2m long x 1,5m wide x 0,95m deep - LV cable	m^3				
SUB-TOTAL							
2	D-DT-0854	**Compact Bedding Soil**					
2.1	240-56030635	Sifted Soil - length Long, 0.45m High (Compacted) and 1,5m Wide	m^3				
2.2	240-56030637	Sifted Soil - length Long, 0.35m High (Compacted) and 1,5m Wide	m^3				
2.2	EMP	Dispose of Excavated Material at approved disposal site	m^3				
2.3	240-56030635 & 240-56030637	Imported Soil of 0,7 K.m/W thermal resistivity - length Long, 0.45m High / 0.35 High (Compacted) and 1,5m Wide	m^3				
2.4	240-56030635 & 240-56030637	Imported Soil of 0,8 K.m/W thermal resistivity - length Long, 0.45m High / 0.35 High (Compacted) and 1,5m Wide	m^3				
2.5	240-56030635 & 240-56030637	Imported Soil of 0,9 K.m/W thermal resistivity - length Long, 0.45m High / 0.35 High (Compacted)	m^3				

		and 1,5m Wide					
2.6	240-56030635 & 240-56030637	Imported Soil of 1,0 K.m/W thermal resistivity - length Long, 0.45m High / 0.35 High (Compacted) and 1,5m Wide	m^3				
SUB-TOTAL							
3		**Making off Cable Joints**					
3.1	D-DT-8004	Make-Off a Cable Joint - Trifurcating kit - 3-Core 95mm sq MV Cable	Each				
3.2	D-DT-8004	Make-Off a Cable Joint - Trifurcating kit - 3-Core 185mm sq MV Cable	Each				
3.3	D-DT-8004	Make-Off a Cable Joint - Trifurcating kit - 3-Core 300mm sq MV Cable	Each				
3.4	D-DT-8008	Make-Off a Cable Joint - Trifurcating joint kit - 3-Core 95mm sq to 1-Core 185mm2 sq MV Cable	Each				
3.5	D-DT-8008	Make-Off a Cable Joint - Trifurcating joint kit - 3-Core 185mm sq to 1-Core 185mm2 sq MV Cable	Each				
3.6	D-DT-8008	Make-Off a Cable Joint - Trifurcating joint kit - 3-Core 300mm sq to 1-Core 185mm2 sq MV Cable	Each				
3.7	D-DT-8008	Make-Off a Cable Joint - 3-Core 95mm sq MV Cable (Same insulation)	Each				
3.8	D-DT-8008	Make-Off a Cable Joint - 3-Core 185mm sq MV Cable (Same insulation)	Each				
3.9	D-DT-8008	Make-Off a Cable Joint - 3-Core 300mm sq MV Cable (Same insulation)	Each				
2.1	D-DT-8021	Make-Off a Cable Joint - 3-Core 95mm sq MV Cable (Transition joint)	Each				
3.11	D-DT-8021	Make-Off a Cable Joint - 3-Core 185mm sq MV Cable (Transition joint)	Each				
3.12	D-DT-8021	Make-Off a Cable Joint - 3-Core 300mm sq MV Cable (Transition joint)	Each				
3.13	D-DT-8014	Make-Off a Cable Joint - 4-Core 16mm sq LV Cable	Each				
3.14	D-DT-8014	Make-Off a Cable Joint - 4-Core 25mm sq LV Cable	Each				
3.15	D-DT-8014	Make-Off a Cable Joint - 4-Core 35mm sq LV Cable	Each				
3.16	D-DT-8014	Make-Off a Cable Joint - 4-Core 50mm sq LV Cable	Each				
3.17	D-DT-8014	Make-Off a Cable Joint - 4-Core 70mm sq LV Cable	Each				
3.18	D-DT-8014	Make-Off a Cable Joint - 4-Core 95mm sq LV Cable	Each				
3.19	D-DT-8014	Make-Off a Cable Joint - 4-Core 120mm sq LV Cable	Each				
3.2	D-DT-8014	Make-Off a Cable Joint - 4-Core 50mm sq LV Cable	Each				
3.21	D-DT-8014	Make-Off a Cable Joint - 4-Core 185mm sq LV Cable	Each				
SUB-TOTAL							
4	D-DT-0854	**Compact Blanket Soil**					
4.1	240-56030635	Sifted Soil - length Long, 0.25m High (Compacted) and 1,5m Wide	m^3				
4.2	240-56030637	Sifted Soil - length Long, 0.15m High (Compacted) and 1,5m Wide	m^3				
4.3	240-56030635 & 240-56030637	Imported Soil of 0,7 K.m/W thermal resistivity - length Long, 0.15m High / 0.25 High (Compacted) and 1,5m Wide	m^3				
4.4	240-56030635 & 240-56030637	Imported Soil of 0,8 K.m/W thermal resistivity - length Long, 0.15m High / 0.25 High (Compacted) and 1,5m Wide	m^3				
4.5	240-56030635 & 240-56030637	Imported Soil of 0,9 K.m/W thermal resistivity - length Long, 0.15m High / 0.25 High (Compacted) and 1,5m Wide	m^3				
4.6	240-56030635 & 240-56030637	Imported Soil of 1,0 K.m/W thermal resistivity - length Long, 0.15m High / 0.25 High (Compacted) and 1,5m Wide	m^3				
4.7	EMP	Dispose of Excavated Material at approved disposal site	m^3				

4.8	D-DT-0854	Backfill a Joint Bay	m^3				
4.9	D-DT-8012	Install a Route Marker	Each				
SUB-TOTAL							
SUB-TOTAL R							**0.00**
S		**Equipment Dismantling -** Includes Cut Up, Coiling And Loading But Excludes Transport To The Nearest Eskom Stores	**Unit**	**LQty**	**LRate**		**Total**
1		Dismantle LV Conductor	m				
2		Dismantle MV Conductor	m				
3		Dismantle Service Conductor	m				
4		Dismantle MV Overhead Transformers	Each				
5		Dismantle MV Overhead Sectionaliser	Each				
6		Dismantle MV Overhead Reclosers	Each				
7		Dismantle MV Pole Mounted CT-VT Unit	Each				
8		Dismantle MV Pole Mounted Shunt Capacitor Banks	Each				
9		Dismantle MV Line Arrestor	Each				
10		Dismantle MV Overhead Section / Equipment Links	Each				
11		Remove LV Pole Top Boxes	Each				
12		Dismantle Stays	Each				
13		Dismantle Poles	Each				
14		Remove MV Cable	m				
15		Remove LV Cable	m				
16		Remove MV Cable I/D Terminations	Each				
17		Remove MV Cable O/D Terminations	Each				
18		Remove RMU	Each				
19		Remove Minisub	Each				
20		Remove Ground Mounted CT-VT Unit	Each				
21		Remove LV Kiosks	Each				
22		Remove Plinths	Each				
23		Transport Of Dismantled/Decommissioned To Eskom Stores	KM				
SUB-TOTAL S							
T		**Labelling**	**Unit**	**LQty**	**LRate**		**Total**
1		MV Pole Number	Each				
2		LV Pole Number	Each				
3		Meter Number	Each				
SUB-TOTAL T							
U		**Equipment Testing**	**Unit**	**LQty**	**Lrate**		**Total**
1	240-56030637	D.C. Insulation Test - LV cable	Each				
2	240-56030637	A.C.. Insulation Test - LV cable	Each				
3	240-56030637	Perform Phasing Test - LV cable	Each				
4	240-56030637	Continuity Test - LV cable	Each				
5	240-56030637	Insulation resistance - LV cable	Each				
6	240-56030637 & SANS 10142	Voltage at the load - LV cable	Each				
7	240-56030635	Moisture / 'Crackle test' - MV cable	Each				
8	240-56030635	D.C. Insulation Test - MV cable	Each				
9	240-56030635	A.C. Insulation Test - MV cable	Each				
10	240-56030635	5 kV Insulation test - MV cable	Each				
11	240-56030635	Outer Sheath Test (Serving Test) - MV cable	Each				
12		Perform Phasing Test	Each				
13	240-130615754	Earth Resistance Test	Each				
14	240-75883148	Compaction Test - Overhead lines (poles)	Each				
15	240-45683927	Compaction Test - Cable Trenches	Each				
16	240-56030635 & SANS 10198	Thermal resistivity of soil (SANAS accredited laboratory)	Each				
SUB-TOTAL U							
V		**As-Built**	**Unit**	**LQty**	**LRate**		**Total**

1		Supply As-built	Each				**0.00**
W		**Other**	**Unit**	**LQty**	**LRate**		**Total**
1	2-ET-14828	Giraffe Transformer Protection Camp	Each				
X		**Physical Security Measures**	**Unit**	**LQty**	**LRate**		
1	240-83056429 & 240-76368574	Supply and install High Security mesh fencing - Category One	m				
2	240-83056429 & 240-76368574	Supply and install High Security mesh fencing - 5m sliding gate	Each				
3	240-83056429 & 240-76368574	Supply and install High Security mesh fencing - 7m sliding gate	Each				
4	240-83056429 & 240-76368574	Supply and install High Security mesh fencing - 1,5m pedestrian gate	Each				
5	240-83056429	Supply and install lockable cage	Each		Cost plus fee		
6	240-83056429	Supply and install control cubicle enclosure	Each		Cost plus fee		
7	240-170000511 & 240-170000512	Supply and install theft mitigation bolt	Each		Cost plus fee		
SUB-TOTAL X							
				LQTY	**LRate**		**Total**
Y		**Material**					
		supply of Material on cost plus fee basis	item		Cost plus fee		

Note: Fee percentage must be inserted in th Data by contractor section

Transport

Bill of Activities						
Item	**Reference Drawing**	**Description**	**Unit**	**Quantity**	**Transport Rate**	**Total**
2		**Transport**				
2,1		LDV	km			0,00
2,2		Personnel Transport for Staff	km			0,00
2,3		10 m³ Tipper Truck	km			0,00
2,4		6 m³ Tipper Truck	km			0,00
2,5		Transport Truck 2-4 ton	km			0,00
2,6		Transport Truck 5-8 ton	Day			0,00
2,7		Transport Truck 5-8 ton with crane	km			0,00
2,8		Transport Truck 9-14 ton	km			0,00
2,9		Transport Truck 9-14 ton with crane	km			0,00
SUB-TOTAL A						0,00

PART 3: SCOPE OF WORK

Document reference	Title	No of pages
	This cover page	1
C3.1	*Employer*’s Works Information	
C3.2	*Contractor*’s Works Information	
	Total number of pages	

C3.1: EMPLOYER'S WORKS INFORMATION

Contents

1 Description of the *works*

1.1 Executive overview

The work comprises of (but not limited to):
The supply of material (limited cases), labour, transport and supervision to execute the following:

- Bush Clearing
- Excavations, backfilling and compaction for: Stays and Struts, Wood Poles, Concrete Poles, Steel poles, Free standing Poles, Foundations, plinths, cable trenches and joint bays.
- Installation or relocation of: Wood Poles, Concrete Poles, Steel poles, Free standing Poles, Three phase MV and LV structures (various types), Dual phase MV and LV structures (various types), MV stay and strut assemblies, Pole and ground mounted distribution and meter kiosks (SPU and LPU), Transformer MV and LV protection, Pole mounted sectionalisers, Pole mounted reclosers, Pole mounted Voltage regulators, Pole mounted Capacitor banks, Line arrestors, Three phase section links, Pole and ground mounted CT/VT units, Pole and ground mounted transformers, miniature substations, Ring main units, Services connections (including meters [various types], data concentrators, antenna, modems and Customer-Interface-Units), MV and LV overhead line hardware, MV and LV cable accessories (including jointing and terminations [indoor and outdoor]), MV and LV Earthing and bonding (various types for overhead and underground networks), insulation coordination, fuses, fault path indicators, plinths, sleeves (along with bulleting and directions drilling) and street light infrastructure.
- Conductor stringing and tensioning (Various MV and LV conductors, including ABC).
- Equipment dismantling (MV and LV, overhead and underground networks)
- Labelling (New and re-labelling)
- Physical security measures to deter theft or animal interaction
- Quality control including Testing and As-builts.

SCOPE OF WORK: SECURITY SERVICES

GENERAL

- The scope of work is applicable to external security service providers intending to or rendering a security service to Eskom, Distribution Cluster herein referred to as Eskom.
- This is as and when services, the contract(s) will be valid as per agreed contractual period -
- The Security service provider herein referred to as the contractor, is expected to disclose any pending investigations by any organ of the state; particularly Department of labour, South African Police Service (SAPS) and Private Security Industry regulator (PSIRA) against the company, its owner(s) and/or Directors.
- Contractor must have at least 5 years' experience in Security services industry.
- Security department and the contractor shall not deviate from the terms and conditions of the contract without proper modification and ratification by Eskom Procurement Tender Committee each time beforehand.
- The contractor is expected to do environment scanning within which security services are to be rendered in order to identify potential risks as well as develop risk mitigation strategies to address the identified risks. The implementation of such strategies shall be done in consultation with Eskom.

DESCRIPTION OF SERVICES

Category A - 24/7 unarmed physical/ static guarding

- Monitor specified locations, areas or installations for the presence of unauthorized persons, suspicious activities or occurrences that may endanger personnel or cause damage to assets, prevent criminal activities and interruption of the Eskom normal business.

- Control access/egress to/from site by ensuring that only authorized person's gains access/egress to the site and only authorized equipment and material enters or is removed from site. Access control shall including Alcohol screening and Induction of visitors.

- Patrolling of sites at irregular intervals and not in a specific sequence to detect the presence of unauthorized persons, suspicious activities or occurrences that may endanger people and assets.

- Static guarding sites must be equipped with a panic button and a guard monitoring system linked to the contractor's control room.

- Prevent crime incidents against Eskom personnel, contractors, visitors and assets at the sites where security services are being rendered.

- Ensure compliance to Eskom Standards, Policies, and Standard operating procedures and work instructions.

- Eskom reserves the right to alter the number of Security officers per site as to their satisfaction, needs, requirements and to the possibility of total removal of Security officers from sites and installing security systems at such sites.

- Ad-hoc security services maybe required from as and when for a specific duration.

- Install the clocking devices that are able to generate site summary report and sent Eskom a detailed patrol report. A target of 90% patrol must be met all times.

2.2 Category B - 24/7 armed physical security services which includes:

(a) Monitor specified locations, areas or installations for the presence of unauthorized persons, suspicious activities or occurrences that may endanger personnel or cause damage to assets, prevent criminal activities and interruption of the Eskom normal business.

(b) Control access/egress to/from site by ensuring that only authorized person's gains access/egress to the site and only authorized equipment and material enters or is removed from site. Access control shall including Alcohol screening and Induction of visitors.

(c) Patrolling of sites at irregular intervals and not in a specific sequence to detect the presence of unauthorized persons, suspicious activities or occurrences that may endanger people and assets.

(d) Static guarding sites must be equipped with a panic button and a guard monitoring system linked to the contractor's control room.

(e) Prevent crime incidents against Eskom personnel, contractors, visitors and assets at the sites where security services are being rendered.

(f) Ensure compliance to Eskom Standards, Policies, and Standard operating procedures and work instructions.

(g) Eskom reserves the right to alter the number of Security officers per site as to their satisfaction, needs, requirements and to the possibility of total removal of Security officers from sites and installing security systems at such sites.

(h) Ad-hoc security services maybe required from as and when for a specific duration.

(i) Install the clocking devices that are able to generate site summary report and sent Eskom a detailed patrol report. A target of 90% patrol must be met all times.

3. CONTRACT REQUIREMENTS

3.1. COMPANY

(a) The company must be officially registered in South Africa as a business entity.

(b) The company and the company owner(s)/directors must be registered in terms of Section 20 of Private Security Industry regulatory Act as Security Service providers.

(c) **Eskom reserves the right to immediately terminate services of any company not in good standing with PSIRA.**

(d) The company must have an established and functional 24-hr security control room and Eskom reserves the right to conduct inspections of the facilities.

(e) The company should meet all the site(s) requirements and be in a position to render the required services without fail.

(a) The company must ensure that Security officer's salaries/wages are according to PSIRA rates for the grade that they have been employed and deployed for on Eskom sites.

(f) Service provider should have sound knowledge of applicable South African legislation and ensure compliance thereto.

(g) The contractor will be expected to attend weekly operational and monthly contract management meetings.

(h) **In the event of non-performance by the supplier, Eskom reserves the right to cancel the contract immediately and replace with another service provider. All costs incurred as a result of such action will be recovered from the outgoing contractor.**

3.2 SECURITY OFFICERS

(a) All Security officers must be registered with PSIRA at the required Grade.

(b) Security officers must be able to read and write.

(c) Security officers must be in possession of their PSIRA and company I.D card at all times.

(d) All Security officers must be armed at all times, unless otherwise stated.

(e) Armed Security officers must possess firearm competency certificates (issued by SAPS) and carry it at all times.

(f) Armed Security officers must always carry Firearm permits as per the Firearm control Act.

(g) Armed Security officers must have completed SASSETA training on the specific firearms they are expected to use.

(h) Armed security officers should have undergone Regulation 21 training and continue to do so for at least once per year.

(i) Eskom reserves the right to have at its own costs, all Security officers intended to be armed as per this contract, assessed in the safe handling and use of firearms before they may be deployed on Eskom sites. **Assessments of additional Security officers over and above the contracted numbers shall be at the contractor's costs.** Eskom will assist as far as reasonably possible with the arrangement of the assessment either internally or with an Eskom preferred supplier.

(j) Eskom will provide at its own costs, a once off training of Security officers on alcohol screening for the exact number of Security officers intended to be deployed in terms of this contract. **Training of additional Security officers over and above the contracted numbers shall be at the contractor's costs.** Eskom will assist as far as reasonably possible with the arrangement of the training which shall be provided by the Eskom preferred supplier.

(k) Security officers may be expected to sign a declaration of Secrecy, before commencements of their duties in terms of this contract.

(l) Security officers may be subjected to a screening process and including security vetting.

(m) Security officers should not have been convicted of any criminal offence and should disclose all pending criminal prosecutions against them. **Non-disclosure of such will result in the officers' automatic removal from Eskom site or duties.**

(n) Security officers should be able to read and write and express themselves well in English.

(o) Security officers may be required to undergo a polygraph tests as and when required.

(p) Security officers expected to perform driving activities as part of their tasks should have undergone an Advance driver training at an accredited institution.

(q) Security officers will not be allowed to access IT networks registries, communication networks or any sensitive/zoned areas even when responding to alarms.

(r) Security officers should be trained on the Standard Operating Procedures (SOPs) relevant for their site of deployment and/or be made available for training by Eskom at no additional costs on any process or procedure necessary for them to do their duties. Proof of training must be kept on file and availed to Eskom on request.

(s) **No security officers are to be deployed in terms of this contract, before undergoing necessary Eskom induction, training and assessments. Eskom reserves the right to remove such Officers that have not complied with this requirement from their sites or duties as per this contract at the cost to the contractor.**

3.3 USE OF DOGS

(a) Handler must attend dog handler/patrol dog training at an accredited training institution.

(b) Handler must be medical fit, love dogs and be non-allergic to dogs.

(c) Handler must know how to utilise the dog during an intrusion, attack or search of an area for possible perpetrators and to make an arrest.

(d) The dog must be large e.g. German Shepherd or Rottweiler. Must be naturally aggressive, strong and have an excellent temperament and a sense of smell.

(e) The dog should have an outgoing and energetic character. The dog must have excellent hearing, be able to detect suspicious sounds before the handler and alert its handler.

(f) The dog must also have the ability to protect his handler under any circumstances. The dog must therefore detect any intrusion, searched for suspects and assists with arrests.

(g) The dog must be medically fit and undergone obedience training e.g. sit, lie down, walk, climb over or underneath obstructions, to search for an object (including people) and to release the object.

(h) The dog must unquestionably obey the handler's commands.

(i) At static sites dogs must preferably be deployed after hours.

(j) Handlers and dogs should be attending a refresher course (one day) at least once per year.

(k) Handlers to ensure that dogs are always on a leech and in the immediate vicinity of the handler, except if there was an intrusion and the dog is ordered to search or to assist with an arrest.

(l) The environment where dogs released themselves must be cleaned by the handlers.

(m) Danger signs (dog on premise) should be displayed on the premise preferably on the outside perimeter fence.

(n) **The dogs shall be kept at the contractors premises when not on duty.**

3.4 SHIFTS

(a) The security service is required 24 hours a day on a two shift cycle i.e. 06:00 to 18:00 and 18:00 to 06:00.

(b) A signed off reviewed list of Security officers deployed in terms of this contract must be provided as and when required by service manager or its delegate

(c) The contractor is responsible to ensure that every shift complement is satisfied before commencement of the shift.

(d) Safe handling of firearms during shift changes must be adhered to at all times. The contractor must ensure that a procedure is put in place to that effect.

(e) Safes must be provided by the contractor for the safekeeping of firearms not in use.

(f) The Security Officers will be expected to do a pre-job / daily risk assessment and safety talks before commencement of every shift.

3.5 UNIFORM

(a) Wearing of uniform is compulsory and as per PSIRA requirements. Corporate wear shall be worn at Office buildings and combat uniform for field work.

(b) Uniforms must always be clean and correctly worn. The uniform must be in good condition.

(c) The winter uniform should include a warm coat, boots, gloves and a beanie (woollen hat).

(d) Personal protective equipment (PPE) must include safety shoes, raingear and level 3 bullet proof vest.

(e) **Bullet Proof Vests Level III Special SA MIX** shall be procured, supplied and maintained by the supplier as part of its PPE scope of supply for the services. Bullet proof vests shall be worn as part of uniform by all security officers. Only Eskom shall indicate exclusions to this rule for certain sites or posts as per the site risk assessments; if applicable. **For obvious hygiene and safety reasons, each Security officer must be issued with his/her own bullet proof vest.**

FIREARMS

- Only Eskom approved firearms namely; 9mm pistols, Rifles and Shot guns may be allowed for usage in terms of this contract. Revolvers are specifically excluded for usage as per this contract.
- Armed Security officers must have competency certificates for the specific firearm in possession thereof.
- Security Company is responsible for providing firearms, ammunition, firearm safe and registers as per Firearm Act.

- Only company firearms licensed in the security service providers name may be utilised as per this contract.
- The contractor must ensure provision of equipment/facilities for making firearms safe. A procedure to that effect, should also be in place.
- Each armed security officer must be provided with two full (ammunition) magazines.
- The service provider must ensure that Security officer's private firearms are not utilised for their business purposes, in terms of this contract.

EQUIPMENT

- The contractor must provide Security officers with necessary equipment to adequately perform their duties as per site Standard operating procedures and/or work instructions.
- The contractor must ensure that the status of all equipment is constantly checked, maintained, are always safe for usage and in an operational condition.
- Where Security officers are posted at isolated areas, they must be provided with water, ablution facilities and shelter.
- The following equipment must be supplied unless otherwise stated:
    - Two way radios or company Push-to-talk (PTT) must be linked to Security
    - Service provider/ Contractor's control room (Per site);
    - Panic buttons must be provided to all guarded sites and be tested timeously for their
    - reliability;
    - Firearms – as per Site specification;
    - Firearms safe – as per SAPS & SABS specifications;
    - Torches, batteries/chargers (minimum two cells);
    - Spot lights for Crime prevention patrols;
    - Handcuffs;
    - Batons – where firearms are not required
    - Pocket book, black and red pen
    - Clocking points and guard monitoring system must be installed on all guarded sites and generate a summary on patrols daily not later than 07h00

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VEHICLES

- The contractor must ensure that vehicles suitable for all environments (on and off road) are provided where vehicles are required for the provision of the security services.
- All vehicles are to be fitted with a vehicle tracking device and be tracked 24 hours from a control room.
- Movement reports are to be provided to Eskom on weekly basis and as and when required.
- The correct number of vehicles must always be available 24/7. When vehicles are taken for maintenance, a replacement vehicle must be provided at contractors costs.
- All vehicles must start off each shift with a full tank (fuel).
- All vehicles must be registered under the contractors name and be branded with the contractors' company name.
- The contractor is expected to comply with Eskom standards, policies and procedures regarding maintenance and usage of vehicles.
- No passengers shall be carried at the back of LDV's not designed and SABS approved for such purpose

COMMUNICATION

- Communication between security control room and Security officers must be adequate, reliable and sustainable.
- The contractor must provide radio or Push-to-talk (PTT) communication between the deployed officers and Contractor control room. **Cellular phones may only be provided as a secondary communication measure.**
- Radio or PTT communication must be established between deployed Security officers and the contractor control room immediately and without hassles.
- Communication between the Contractor control room and Eskom Control room must be established immediately without delays.
- Patrolling Security officers must be in radio/ PTT contact at all times to ensure safety and effective service delivery.
- Communication between Security officers, control room, supervisors, and Eskom representatives must be recorded in an Occurrence book for later reference.
- Security officers must be supplied with clear and precise work instructions and radio/PTT communication procedures to ensure effective communication.
- All Contact lists must be reviewed on a monthly basis, dated, signed and provided at all sites.
- 3.10 SECURITY REGISTERS
- The Security Service provider will be required to provide with the Occurrence books, Visitors and After-hours register.
- Occurrence book to be correctly completed by Security officers and supervisors listing all occurrences and visits on site.
- Visitors register to be completed daily and filed on site for future reference and pages must be numbered.
- Contractor must ensure that quality registers are provided. Register must remain bonded, with no loose pages.
- Accurate records of all occurrences are to be kept for a minimum of 12 months post the occurrence and should be made readily available to Eskom at any time.
- 3.11 INCIDENTS REPORTING AND INVESTIGATION
- All incidents and response to incidents must be handled according to the relevant SOPS and/or work instructions for each site.
- All incidents and response must be immediately reported to the Eskom control room.
- The SAPS must be contacted immediately only for criminal incidents or suspected ongoing criminal activities.
- Weekly status reports are to be supplied by the service provider.
- The contractor is to ensure that all involved personnel are available for relevant court proceedings, incident investigations and assist Eskom and the SAPS in their investigations as and when required.
- All incidents (including incidents in terms of the Occupational Health and Safety Act), should be reported within 24 hours and a preliminary investigation report provided within
- 24 hours as well as a final Incident investigation report within Seven (7) days.

SAFETY REQUIREMENTS

- Transportation of injured person on vehicles not suitable for the purpose is totally prohibited. The Service Provider is encouraged to make use of the services of the Eskom contracted Emergency service provider, as far as it is practically possible.

- All vehicles utilized to transport staff, must be fitted with SABS approved seatbelts.

- The Service provider is responsible to ensure that the security officers deployed at Ad-hoc sites have access to a shelter, water and sanitation.

- All Security officers should receive a safety induction before they can be deployed on Eskom sites.

- Safety recommendations following an incident shall be implemented by all Security Service providers to prevent further reoccurrences at any of the Eskom site, as per allocated timeframes.
- Open fires, the use of bar heaters and hotplates as heaters at Eskom sites, is totally prohibited.
- Security officers should observe the provisions of the Criminal procedure Act and all relevant legislation regarding the use of minimum force. **Security officers should at all-time use minimum force sufficient to bring the situation under control and such force shall cease as soon as the situation is brought under control. No deliberate assault on suspects will be condoned.**

TASK ORDERS

- No work is to commence before a Task order with an SAP Order number has been supplied to the contractor by Eskom and such Task order is signed by the supplier and returned to Eskom. (b) No Task order will be issued until Eskom has been satisfied that all applicable training has been done and all requirements had been met.

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INSPECTIONS AND SITE VISITS

- Eskom management will carry out random inspections and evaluation visits. Similar visits should be carried out by supplier management from Operation Manager upwards.

- As part of the above visits, Security officer may be taken off site for practical and theoretical evaluation at a suitable location.

- Eskom reserves the right to visit and conduct inspection of the contractor's control rooms and carry out evaluation at any random time.

- The security contractor must comply fully with all legislation, Eskom policies, standards and procedures.

- The Eskom reserves the right, to order the removal of a Security officer who has been found not to be competent or negligent in his duties.

- Non-conformances are to be issued by Eskom should the Service provider fail to comply with the contract terms.

DOCUMENTATION

The following documentation is to be supplied by the security service provider at least four (4) weeks before a Task order can be issued and commencement of the contract.

- List of all potential security officers intended to be deployed on Eskom sites in terms of this contract.
    - Certified ID copies and PSIRA certificates of all security officers.
    - Certified copies of matric/Grade 12 certificates.
    - Certified copies of firearm competency certificates of the security officers.
    - List of all firearms to be used and certified copies of the licenses.
    - Certified copies of all Security officers' firearm competency certificates.
    - Certified copies of SASSETA training certificates for all armed Security officers.

- Certified copies of the company and Directors PSIRA registrations certificates.
- Criminal check records as proof that the Security officers have not been convicted of any criminal offence.
- Certified copies of Driving license for all drivers.
- Certified copies of Dog handlers training certificates for all handlers.
- A list of all vehicles and maintenance records for vehicles to be used as per this contract.
- A compressive risk assessment and a site risk assessment report for all sites.
- Emergency Preparedness procedure with relevant contact details. ➢ Equipment list per site.

4.1 Standard operating procedures per site to include the following but not limited to and should be approved by Eskom representative before application:

- Wearing of uniform standard.
- Communication procedure.
- Firearm handling procedure.
- Shift changes.
- Response process.
- Failure by the Security Service provider to provide with the above requirements at the stipulated time period may result in termination of the services and appointment of another service provider.

Drinking Water

Where there is **no access to potable water** at a site, the RFP shall request a daily rate quotation from the supplier for the supply of potable water for its security guards. The cost for daily water supply shall be benchmarked against prices in previous. It should be noted that the provision of potable water by Eskom to a site where water is not available is a legal obligation and therefore mandatory.

4.2 **Ablution Facility (portable Toilet)**

Where ablution facilities are required at a site, the RFP shall request a quote for the supply and maintenance of the facility on a weekly basis. This requirement is also a legal obligation and mandatory for Eskom to ensure it is provided to the security service provider.

4.3 **Panic button with armed response services**

The cost for the supply of panic button with armed response services by security contractors shall be distinctly provided for in the tender cost schedule. The security services scope shall provide for a detailed description of the panic button with armed response services and shall capture all expectation in terms of the services from the security services provider. Any ambiguity in scope shall be clarified with the tenderers prior to tender submission.

4.4 **Transportation of security guards**

The PSIRA guidelines provide for the costs associated with the transportation of security to be included in the overhead and profit cost. In this regard Eskom shall not pay additional costs for the transportation of guards to and from work.

N.B.: for safety reasons no security guards shall be transported at the back of a bakkie. This requirement shall be spelt out clearly in the scope document.

5. Schedule of Deficiency and Penalties

NO.	DEFICIENCY	PENALTY
1	Security officer (SO) or dog not posted on duty as agreed upon. (Short posting)	One shift cost deduction
2	SO intoxicated/ or under the influence of liquor or drugs.	Permanent removal of SO from Eskom contract duties.
3	Refusal by SO to comply with lawful instruction.	Permanent removal of SO from Eskom contract duties.

4	Sleeping on duty.	50% of cost deduction
5	Desertion of post by SO	One shift cost deduction
6	Negligent by SO in the performance of their duties	Permanent removal of SO from Eskom contract duties.
7	SO late for duty (tantamount to short posting)	50% of shift cost deduction
8	SO without a functional torch or spot light	10% deduction of the SO shift rate
9	SO or site without a functional radio or PTT	10% deduction of the total monthly site cost
10	No functional panic button on site only for applicable sites	10% deduction of the total monthly site cost
11	SO not wearing bullet proof vest. Vests worn without plates and wearing of non-level 3 bullet proof vests will be deemed as no bullet proof vest was worn.	50% deduction of the SO shift rate per occurrence
12	SO not armed in one shift	50% deduction of the shift rate
13	Non submission of vehicle tracking reports	Non payments of the total services (i.e. the cost for the SOs, vehicle and dog)
14	Non submission of site inspections reports by Crime prevention and response team.	Non payments of the total services (i.e. the cost for the SOs, vehicle and dog)
15	Late reporting of patrol teams at designated reporting site.	50% of total shift cost deduction (i.e. the cost for the SOs, vehicle and dog)
16	SO not wearing proper uniform items or uniform is worn out.	50% shift cost deduction
17	SO not armed in one shift	50% deduction of the shift rate
18	Non submission of vehicle tracking reports	Non payments of the total services (i.e. the cost for the SOs, vehicle and dog)
19	Non submission of site inspections reports by Crime prevention and response team.	Non payments of the total services (i.e. the cost for the SOs, vehicle and dog)
20	SO not wearing proper uniform items or uniform is worn out.	One shift cost deduction
21	SO not in possession of a baton or hand-cuffs	10% deduction of the SO shift rate
22	Unavailability of patrol teams on call out.	Total shift cost deduction (i.e. the cost for the SOs, vehicle and dog)
23	Lost/Damage of equipment due to officer's negligence	Contractor will be liable for the repairs/replacement cost

1.2 Employer's objectives and purpose of the *works*

Subcontracting will be utilised for the development of 1 to 2EP & 1 to 2CE where feasible, however CIDB alone is not a pre-requisite for subcontracting, but the subcontractors will have to comply to set minimum Eskom requirements for safety purposes.

Projects will be managed and coordinated by the Project Coordinator and Senior Advisor Project Management where applicable, supervised by the Programme Manager, supported by the COW, NED, S&I, SHEQS, O&M, Plant and CMS and accountable to the Portfolio Manager/s.

The Portfolio Manager/s will be responsible to monitor and ensure compliance to CIDB supported by the Programme Manager/s.

Utilization will be monitored by the Contracts Services Manager to ensure fair utilization of Contractors supported by the Contract Administrator/s. Contractual disputes will also be overseen by the Contracts Services Manager supported by the Senior Advisor Contracts Management as well as Legal & Compliance upon request. The Portfolio Manager will be accountable for the overall compliance.

The Clerk of Works will be responsible to ensure all quality and technical requirements are met pertaining to construction related activities and assist to monitor safety on site as well as the monitoring of defects during construction and to monitor and confirm testing results.

The Project Engineer will ensure that all design related elements are complied to as well as provide technical solutions that are design related as and when they arise.

SHEQS will be responsible to monitor compliance to all safety, environmental, quality and security requirements as well as providing project specific requirements.

Operations and Maintenance will provide support on outage scheduling and booking as well as other related matters.

Plant are responsible as the end users of the assets to be constructed to provide all support required during construction and in the Hand Over Process and for defect identification during the defects period and to notify the Project Coordinator of any defects to be rectified during the defects period.

All material shall be managed according to the **Work Instruction for Project Material Management** (240-9674 2100) or any latest version of the Work Instruction. When the Contractor takes possession of Eskom material they become liable for that material. The Contractor is to ensure that they have sufficient insurance cover to cover their liability for the material. The Project Coordinator is to ensure that the Contractor has insurance to cover their liability for the project prior to the commencement of construction, the Programme Manager will be accountable to ensure that the Project Coordinator ensures compliance. This includes instances where the Contractor stores material at their own premises. Contractors should not be holding project material post project completion or cancellation.

The Contractor will also be responsible to provide material where Eskom is not in a position to provide the material. The Project Coordinator must inform the Contractor prior to a quotation for a project being submitted and provide the Contractor with a relevant Bill of Material. Should the requirement arise for the Contractor to provide material during construction, it should be done with the Project Coordinator having acquired the relevant governance approval and provide the Contractor with a Purchase Order and a contractual instruction.

The Contractor will be liable for any material that is under their care and possession whether on or off site and will be responsible to replace missing material or reimburse Eskom for material issued to them which is missing.

Contractors are also responsible to provide security for projects according to the requirements set out by the Eskom Security Department Risk Analysis which should be conducted prior to Execution Release Approval (ERA) approval as it will have a direct cost impact on the project. The Project Coordinator must ensure that the risk analysis has been carried out prior the approval of the ERA and the Programme Manager is accountable.

The Contractor is responsible for the management of the local SMME's for any possible subcontracting that could be undertaken by the local SMME's and their performance thereof. Subcontracting must be implemented in terms of the PPPFA requirements as set out by National Treasury. Eskom will provide support where necessary but the responsibility lies with the Contractor.

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

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

The allocated Contractor will do a site visit with the Eskom project representatives and verify the scope of work to be executed contained in the design package, assess the Site conditions, the Project Specific SHEQ requirements and SD&L requirements before the quotation for the works is finalised. The Project Manager will then request a quotation from the Contractor for the execution of the works as verified. The quotation must be

submitted to the Project Manager by the Contractor within 7 days. The Project Manager will requestthe Quantity Surveyor to verify the quotation for correctness and confirm the cost according to the agreed negotiated rates.

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

No work may commence on a project unless the Task Order has been issued, the Project Specific Agreement has been signed, the Contractor Safety File has been approved by Eskom, the 37(2) agreement

has been signed and Site Access has been granted to the allocated Contractor. Eskom will not be liable to pay for any work unless a valid Task Order Number has been issued.

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

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

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

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

Minimum recommended working hours to be observed site are from 07h30 to 16h00.

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

The Contactor will also ensure that all plant and equipment dedicated to the project will not be removed from site until there is no use for the intended plant and equipment. No moving of plant and equipment between projects will be allowed as it will have impact on completion of the project and lead to delays in completion.

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

Payment Assessments will only be done for work done to date. Records of defined costs are to be kept on file on site whereby the *Project Manager* has access to this file at all times.

1.3 Interpretation and terminology

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation

AFC	Approved for construction
OBL	Outside battery limits

2 Management and start up.

2.1 Management meetings

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register and compensation events	As and when required basis	Project Site Office or MS Teams	Contractor, Project Co-ordinators, Supervisor and Stakeholders
Overall contract progress and feedback	Monthly date to be communicated	Project Site Office or MS Teams	*Employer*, *Contractor*, *Supervisor*, Safety Officer, Quantity Surveyor and other Project Team Members

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

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

2.2 Documentation control

All correspondence will be on NEC letters or forms attached to e-mails and will follow a chronological numbering system.

2.3 Health and safety risk management

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

2.4 Environmental constraints and management

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

2.5 Quality assurance requirements

The *Contractor* shall comply with the Quality criteria and constraints stated in Annexure B

2.6 Programming constraints

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

The following dates shall be clearly reflected on the programme:

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

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

FORMAT OF THE PROGRAM

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

OTHER INFORMATION TO BE SHOWN ON THE PROGRAM.

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

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

2.7 *Contractor*'s management, supervision and key people

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

2.8 Invoicing and payment

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

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

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

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

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

2.9 Insurance provided by the *Employer*

Contractor to comply with Eskom Insurance conditions as attached to Annexure C of the contract

2.10 Contract change management

Any changes in the contract will be dealt with my using the NEC process and forms as well as the Eskom Procurement and Supply Chain Policy 32-1034.

2.11 Records of Defined Cost, payments & assessments of compensation events to be kept by the *Contractor*

Record of defined cost will be submitted to the project Manager for assessments of compensation events.

3 Engineering and the *Contractor*'s design

3.1 *Employer*'s design

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

3.2 As-built drawings, operating manuals and maintenance schedules

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

4 Procurement

4.1 People

4.1.1 Minimum requirements of people employed on the Site

Contractor shall appoint labourers according to the labour laws of South Africa, SHE specification and SD & L requirements

4.1.2 BBBEE and preferencing scheme

There is no minimum level for BBBEEE and there is no preferencing scheme

4.1.3 Supplier Development and Localisation

Section 2: Local Content Designated Sectors

When applicate the following stipulated minimum threshold for Local Production and Content must be achieved in full by the tenderer

Commodity	Local Content Threshold
Fabricated Steel	100%
Cables class 0	90%
Joining/ Connecting components	100%
Concrete works	100%
Fabricated steel	100%
Nails/ Bolts	100%
Cement	100%
Concrete / Wood / steel poles	100%
Cables Class1	100%
Clamps/ joints	100%
Lone hardware (Listed Appendix A)	100%
PPE Textile/ Leather/ Clothing	100%
Meters Prepaid / Post	70%
Smart meter	50%
Plastic pipes / Fitting	100%
Transformer Shunts and reactors	90%
Vermin Proofing (wire Fence)	100%

NOTE 2: SBD 6.2 Declaration Form is therefore objective criteria and should be a tender returnable.

Note: For this section (Special Conditions of Tendering) the following documents should also be completed and signed:

A completed and duly signed SBD 6.2 – Local Content Declaration Certificate as a tender returnable.

Note: For this section (Special Conditions of Tendering) the following documents should also be completed and signed:

- A completed and duly signed SBD 6.2 – Local Content Declaration Certificate.
- A completed and duly signed Annexure C, D and E.
- Completed and duly signed Preference point Claim form.

Section 3: CIDB Skills Development

Continuation of Pre-qualification

Criteria	Eskom Target	Tenderer Commitment
CSDG Percentage	0.25%	

Note 3: Failure by the Contractor/Service Provider/Supplier to meet the CIDB CSDG mandatory % will render their tender non-responsive.

Section 5: SD&L Undertaking

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

Enterprise Development
The main contractor will be required to propose development in the following areas: EME1-2

Support Description	Tenderer Proposal
1% x cumulative per annum The successful tenderer is required to identify and incubate an SME fromthe designated groups in the Gauteng Operating Unit area. Assistance could be in the form of business support, equipment and/or finance. The successful tenderer will also be required to draft an Enterprise Development programme and agreement within eight weeks of contract award. The ED agreement must be entered into with the beneficiary and sent to Eskom for review and acceptance. Theaccepted ED programme will be	

monitored throughout the duration of the contract. This requirement with be negotiated with the successful tenderer	

Note 1:

Eskom prefers to contract with but is not limited to compliant BBEEE level 1-4 contractors. Any tenderer who does not comply with this criterion should provide a migration plan that will form part of the contractual obligation. The terms and conditions will be negotiated and agreed prior tocontract award. The migration plan will be accepted based on partial fulfillment or as a whole depending on the time period allocated for the transaction/s.

Where there is a partial acceptance of a migration plan, should the same tenderer be awarded further contracts with Eskom the agreed migration plan must be shared with Eskom officials responsible for the tender for continued compliance monitoring

Job Opportunities

Tenderer to indicate number of Jobs to be created and/or retained from this contract;

Number of Jobs to be created	Number of Jobs to be retained

Skills Development

Category	Eskom Target	Tenderer Proposal
Project Managers	3	
Welding Technologist / Engineers / Inspectors	4	
Electrical Engineers / Artisans	9	
Safety Officer	4	
Supervisors	4	

NOTE 2: An estimated 0.25% of the Purchase Order value is expected to be committed on skills development

NOTE 3: For each of the above training we require:
1 candidate (for either of the training courses above) for every R2 Million worth of accumulated purchase orders that has been allocated to the contractor.

Section 6: SDL&I Penalty

- Eskom will apply a penalty of 2.5% of the Contract Value for failure to meet SDL&I obligations.
- For the duration of the contract, Contractor to submit report with every invoice, without, without which Eskom will retain 2.5% of every invoice (excluding VAT) as security for the fulfilment of all SDL&I Obligations. The retained amounts shall only be released to the Contractor upon fulfilment of all SDL&I obligations at the end of the contract.
- Alternatively the Contractor shall submit a bond equivalent to 2.5% of the Contract Value and shall only be released to the Contractor upon fulfilment of all SDL&I Obligations

Section 7: Reporting and Monitoring

- The suppliers shall on a bi-annual basis submit a report to Eskom in accordance with Data Collection Template on their compliance with the SDL&I obligations described above.
- Eskom shall review the SDL&I reports submitted by the suppliers within 60 (sixty) days of receipt of the reports and notify the suppliers in writing if their SDL&I obligations have not been met.
- Upon notification by Eskom that the suppliers have not met their SDL&I obligations, the suppliers shall be required to implement corrective measures to meet those SDL&I obligations before the commencement of the following report, failing which Retention clauses shall be invoked.
- Every contract shall be accompanied by the SDL&I Implementation Schedule which must be completed by the suppliers and returned to SDL&I representative for acceptance 28 days after contract award. This will be used as a reference document for monitoring, measuring and reporting on the supplier's progress in delivering on their stated SDL&I commitments

4.2 Subcontracting

4.2.1 Subcontract documentation, and assessment of subcontract tenders

Subcontractor are expected to perform the work as if they were employed as the main contractor meaning that all conditions pertaining to this NEC applies to them.

4.2.2 Limitations on subcontracting

The contractor shall not appoint a subcontractor until the Project Manager has approved such appointment.

4.2.3 Attendance on subcontractors

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

4.3 Plant and Materials

4.3.1 Quality

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

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

Free issue Material will be issued as per the BOM and contractor will be responsible to collect the material from Eskom Stores. This will all be detailed in the Project Specific Agreement.

4.3.3 Contractor's procurement of Plant and Materials

Material must adhere to Eskom Quality Standards. Contractor to ensure that warranties from suppliers in favour of the *Employer*

5 Construction

5.1 Temporary works, Site services & construction constraints

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

This will be according to the Security Requirements.

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

Restrictions are as per the SHE specifications

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

Restrictions will be as per the Project Specific Agreement.

5.1.4 Title to materials from demolition and excavation

The contractor shall have no title to material

5.1.5 Cooperating with and obtaining acceptance of Others

The contracto shall co-perate with landowners before perfoming work on Eskom Servitude. The contractor should obtain acceptance before the work commences.

5.1.6 Publicity and progress photographs

This will be as per the Project Specific Agreement and Protection of Personal Information Act.

5.1.7 Contractor's Equipment

5.1.8 Equipment provided by the Employer

The *Employer* will not be providing equipment under this contract.

5.1.9 Site services and facilities

Contractor shall provide everything necessary for Providing the Works. Constraints for hook up shall be according to the safety specification.

5.1.10 Facilities provided by the Contractor

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

The constraints hereunder shall be detailed in the Project Specifica Agreement.

5.1.12 Survey control and setting out of the works

This will be documented in the Project Specific Agreement.

5.1.13 Excavations and associated water control

This is as per the SHE specification and Construction Regulations

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

The contractor and project manager will agree on the measures to be taken when working within other services and this will be agreed accordingly in the Project Specific agreement.

5.1.15 Giving notice of work to be covered up

Contractor shall give the Supervisor timely written notice to assess the excavations before work is covered up.

5.2 Completion, testing, commissioning and correction of Defects

5.2.1 Work to be done by the Completion Date

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

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

5.2.2 Use of the works before Completion has been certified

On or before the Completion Date the *Contractor* shall have done everything required to Provide the Works The *Project Manager* cannot certify Completion been done and is also free of Defects which would have, in his opinion, prevented the *Employer* from using the *works* and others from doing their work. All works which need to be used before completion is certified will be listed in the Project Specific Agreement.

5.2.3 Commissioning

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

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

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

5.2.5 Take over procedures

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

5.2.6 Access given by the Employer for correction of Defects

The *Project Manager* arranges access for the *Contractor* to use a part of the *works* which has been taken over if needed to correct any Defects. After the *works* have been put into operation, the *Employer* may require the *Contractor* to undertake certain procedures before such access can be granted. The *Contractor* will be responsible for ensuring that the area to be worked in is barricaded before correcting any defects.

5.2.7 Performance tests after Completion

The *Contractor* to demonstrate that the *works* can operate as specified by the *Employer Quality* Standard.

6 Plant and Materials standards and workmanship

6.1 Civil engineering and structural works

The provisions will be according to Eskom design and Standards for Each project

6.2 Electrical & mechanical engineering works

The provisions will be according to Eskom design and Standards for Each project

7 List of drawings

7.1 Drawings issued by the *Employer*

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

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

Drawing number	Revision	Title

Annexure A

To whom it may concern

This letter serves to confirm the insurance cover as follows:

Insurer : ESCAP SOC Ltd

Insured : Eskom Holdings SOC Ltd

Additional Insureds : Entities dictated by financial or operational interest of the Insured, each for their respective rights and interest

All contractors undertaking work for or on behalf of the Named Insured but only in respect of the execution of any contract(s) (the “Contracts”) between the contractor and Named Insured (it being understood that where the Named Insured undertakes the work they shall be deemed to be the “Contractor” provided that their rights hereunder shall not exceed the rights of any independent contractor working on behalf of the Named Insured)

(hereinafter called the “Contractor”).

All subcontractors employed by the Contractor and all other subcontractors (whether nominated or otherwise engaged but only in respect of the fulfilment of the contract(s)) (hereinafter called the "Subcontractor") for their respective rights and interests.

Any reference to Insured in this Policy shall apply to the Named Insured and where applicable the Additional Insured listed above. Cover in respect of contractors and subcontractors shall only be provided to the extent that the Named Insured undertakes in the contracts with the Additional Insured between the Named Insured and Contractor and/or Subcontractor to provide the

ESCAP SOC Ltd
Maxwell Drive Megawatt Park Sunninghill Sandton
PO Box 1091 Johannesburg 2000 SA
Tel +27 11 800 6804 Fax +27 11 800 4737 www.eskom.co.za

Escap SOC Ltd Reg No 1993/003340/30

Insurance coverage found in this policy (hereinafter called the "Insurance Cover") for such parties

Policy name : Annual Construction All Risks

Period of insurance : 01 April 2024 – 31 March 2025

Policy limit : **Section I - Contract Works:**
Basic project value of **R 500 million** up to **R 1 billion and 60 months at inception**, thereafter unlimited in value and project time up to completion.

Section II - Contract Works Public Liability:
R25 million, any occurrence or series of occurrences arising out of one event

Policy coverage : Direct physical loss of or damage to any part of the Works and property insured including while in transit or at storage, including third party liability.

Policy deductibles : As per table below

Deductible	**Division / Coverage**
Section I – Contract Works	
R 500,000	Physical Damage to Property
R10 000 000	Transmission – Theft and Vandalism
R 5,000,000	Distribution - Theft & Vandalism
R1 000 000	Eskom Rotek Industries – Theft and Vandalism
R 50,000	Debris Removal
R 50,000	Debris Removal (No Damage)
R 25,000	Borrowing of plant for commission purposes
R 1,000	Documentation
Section II – Contractors' Public Liability	
R 50,000	Damage resulting from Fire and Spread of Fire

R 20,000	All other losses

Should you have any queries, please contact the Insurer at MmutleM@eskom.co.za

Yours sincerely

Moreti Tumelo Mphahlele

Escap SOC Ltd – Underwriting

Date: 11 April 2024 Escap SOC Ltd Reg No 1993/003340/30

Annexure B

Specifications

Item No	Description	Object	Attached to Enquiry
1	**SHE spec**	SHE Spec (1).pdf	**YES**
2	**Quality Spec**	240-105658000 Supplier Quality Ma 240-109253302 _ Quality Control Plan 240-109253698 CQP Template Rev 3.docx	**YES**
3	**LTIR Template**	LTIR Template.xls	**NO**
4	**Project Specific Agreement**	Major Reticulation Project Specific Agre	**YES**