



NEC3 Term Service Contract (TSC3)

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

and

for **The Provision of C&I Maintenance services for a
period of 60 months at Camden Power Station.**

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

CONTRACT No.

PART C1: AGREEMENTS & CONTRACT DATA

Contents:	No of pages
C1.1 Form of Offer and Acceptance	
[to be inserted from Returnable Documents at award stage]	
C1.2a Contract Data provided by the <i>Employer</i>	
C1.2b Contract Data provided by the <i>Contractor</i>	

C1.1 Form of Offer & Acceptance

Section 1.01 Offer

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

The Provision of C&I Maintenance services for a period of 60 months at Camden Power Station.

Article II.

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

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

Options A or C	The offered total of the Prices exclusive of VAT is	R [●]
Option E	The first forecast of the total Defined Cost plus the Fee exclusive of VAT is	R [●]
	Sub total	R [●]
	Value Added Tax @ 15% is	R [●]
	The offered total of the amount due inclusive of VAT is ¹	R [●]
	(in words) [●]	

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

Signature(s)

Name(s) _____

Capacity _____

For the tenderer:

(Insert name and address of organisation)

Name & signature of witness

Date

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*.

Tenderer's CIDB registration number:

Section 2.02 Schedule of Deviations to be completed by the *Employer* prior to contract award

Note:

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

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

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

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

(i) For the tenderer:

(ii) For the Employer

Signature _____
 Name _____
 Capacity _____
 On behalf of *(Insert name and address of organisation)* _____
 Name & signature of witness _____
 Date _____

 Justice Bore
 General Manager
 Eskom Holdings SOC Ltd, Camden Power Station, Private Bag X 1002, Nucam 2355
 Andrew Botshe

C1.2 TSC3 Contract Data

Part one - Data provided by the *Employer*

[Instructions to the contract compiler: (delete these two notes in the final draft of a contract)]

1. Please read the relevant clauses in the conditions of contract before you enter data. 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.
2. Some TSC3 options are always selected by Eskom Holdings SOC Ltd. The remaining TSC3 options are identified by shading in the left hand column. In the event that the option is not required select and delete the whole row. Where the following symbol is used "[●]" - data is required to be inserted relevant to the specific option selected.]

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

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option:	
	dispute resolution Option and secondary Options	A: Priced contract with price list W1: Dispute resolution procedure
		X1: Price adjustment for inflation X2 Changes in the law
		X17: Low service damages X18: Limitation of liability
		X19: Task Order X20: Key Performance Indicators
		Z: Additional conditions of contract
	of the NEC3 Term Service Contract April 2013 ² (TSC3)	
10.1	The <i>Employer</i> is (name):	Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa
	Address	Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg

² Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 539 1902 www.ecs.co.za

Represented By

Tel No.

Fax No.

10.1	The <i>Service Manager</i> is (name):	Fikile Ngwane
	Address	Camden Power Station
	Tel	017 827 8441
	Fax	086 566 6623
	e-mail	Ngwanefe@eskom.co.za
11.2(2)	The Affected Property is	Camden Power Station
11.2(13)	The <i>service</i> is	The Provision of C&I Maintenance services for a period of 36 months at Camden Power Station.
11.2(14)	The following matters will be included in the Risk Register	
11.2(15)	The Service Information is in	Part 3: Scope of Work and all documents and drawings to which it makes reference.
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa
13.1	The <i>language of this contract</i> is	English
13.3	The <i>period for reply</i> is	Within 3 days
2	The Contractor's main responsibilities	The contractor provides the service in accordance with the service information.
21.1	The <i>Contractor</i> submits a first plan for acceptance within	2 weeks of the Contract Date
3	Time	
30.1	The <i>starting date</i> is.	[•]
30.1	The <i>service period</i> is	60 Months
4	Testing and defects	2.12 No data is required for this section of the conditions of contract. Terms and conditions of TSC will apply
5	Payment	
50.1	The <i>assessment interval</i> is	Between the 25th day of each successive month.
51.1	The <i>currency of this contract</i> is the	South African Rand
51.2	The period within which payments are made is	4 weeks.
51.4	The <i>interest rate</i> is	the publicly quoted prime rate of interest (calculated on a 365 day year) charged by from time to time by the Standard Bank of South

Africa Limited (as certified, in the event of any dispute, by any manager of such bank, whose appointment it shall not be necessary to prove) for amounts due in Rands and

(ii) The LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption “Money Rates” in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted *mutatis mutandis* every 6 months thereafter (and as certified, in the event of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited, whose appointment it shall not be necessary to prove.

6	Compensation events	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data
7	Use of Equipment Plant and Materials	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 <i>Employer's</i> risks	
83.1	The <i>Employer</i> provides these insurances from the Insurance Table	as stated for “Format TSC3” available on http://www.eskom.co.za/Tenders/InsurancePolicies/Procedures/Pages/EIMS_Policies_From_1_April_2014_To_31_March_2015.aspx (See Annexure A for basic guidance).
83.1	The <i>Employer</i> provides these additional insurances	as stated for “Format TSC3” available on http://www.eskom.co.za/Tenders/InsurancePolicies/Procedures/Pages/EIMS_Policies_From_1_April_2014_To_31_March_2015.aspx (See Annexure A for basic guidance)
83.1	The <i>Contractor</i> provides these additional insurances:	[•]
83.1	The minimum amount of cover for insurance against loss and damage caused by the <i>Contractor</i> to the <i>Employer's</i> property is	the amount of the deductibles relevant to the event described in the “Format TSC3” insurance policy available on http://www.eskom.co.za/Tenders/InsurancePolicies

*Procedures/Pages/EIMS_Policies_
 From_1_April_2014_To_31_March_2015.aspx*

83.1	The insurance against loss of or damage to the <i>works</i> , Plant and Materials is to include cover for Plant and Materials provided by the <i>Employer</i> for an amount of [•]	
83.1	The minimum amount of cover for insurance in respect of loss of or damage to property (except the <i>Employer's</i> property, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) arising from or in connection with the <i>Contractor's</i> Providing the Service for any one event is:	Whatever the <i>Contractor</i> deems necessary in addition to that provided by the <i>Employer</i>.
83.1	The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract for any one event is:	As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 and the <i>Contractor's</i> common law liability for people falling outside the scope of the Act with a limit of Indemnity of not less than R500 000 (Five hundred thousand Rands)..
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	
A	Priced contract with price list	
20.5	The <i>Contractor</i> prepares forecasts of the final total of the Prices for the whole of the <i>service</i> at intervals no longer than	4 Weeks.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i>	The person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).
	Address	[•]
	Tel No.	[•]
	Fax No.	[•]
	e-mail	[•]
W1.2(3)	The <i>Adjudicator nominating body</i> is:	the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the Institution of Civil Engineers (London)

		(see www.ice-sa.org.za) or its successor body.																					
W1.4(2)	The <i>tribunal</i> is:	arbitration																					
W1.4(5)	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.																					
	The place where arbitration is to be held is	The Republic of South Africa																					
	The person or organisation who will choose an arbitrator																						
	- if the Parties cannot agree a choice or	The Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.																					
	- if the arbitration procedure does not state who selects an arbitrator, is																						
12	Data for secondary Option clauses																						
X1	Price adjustment for inflation																						
X1.1	The <i>base date</i> for indices is	[•].																					
	The proportions used to calculate the Price Adjustment Factor are:	<table border="1"> <thead> <tr> <th>proportion</th> <th>linked to index for</th> <th>Index prepared by</th> </tr> </thead> <tbody> <tr> <td>0.</td> <td>[•]</td> <td>[•]</td> </tr> <tr> <td>[•]</td> <td>non-adjustable</td> <td></td> </tr> </tbody> </table>	proportion	linked to index for	Index prepared by	0.	[•]	[•]	0.	[•]	[•]	0.	[•]	[•]	0.	[•]	[•]	0.	[•]	[•]	[•]	non-adjustable	
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[•]	non-adjustable																						
		1.00																					
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.																					
X17	Low service damages																						
X17.1	The <i>service level table</i> is in	The penalty of 10% of the task order limited to 15% of the task order, will be deducted should the contractor fails to action the task as required by the Employer or as per the service information.																					
X18	Limitation of liability																						
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to	R0.0 (zero Rand)																					
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to	the amount of the deductibles relevant to the event described in the "Format TSC3" insurance policy available on http://www.eskom.co.za/Tenders/InsurancePolicies																					

X18.3	The <i>Contractor's</i> liability for Defects due to his design of an item of Equipment is limited to	<p><i>Procedures/Pages/EIMS_Policies_From_1_April_2014_To_31_March_2015.aspx</i></p> <p>The greater of</p> <ul style="list-style-type: none"> • the total of the Prices at the Contract Date and • the amounts excluded and unrecoverable from the <i>Employer's</i> insurance (other than the resulting physical damage to the <i>Employer's</i> property which is not excluded) plus the applicable deductibles in the <i>Employer's</i> assets and works / maintenance policies available on http://www.eskom.co.za/Tenders/InsurancePoliciesProcedures/Pages/EIMS_Policies_From_1_April_2014_To_31_March_2015.aspx
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> , for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	<p>The total of the Prices other than for the additional excluded matters.</p> <p>The <i>Contractor's</i> total liability for the additional excluded matters is not limited.</p> <p>The additional excluded matters are amounts for which the <i>Contractor</i> is liable under this contract for</p> <ul style="list-style-type: none"> • Defects due to his design, plan and specification, • Defects due to manufacture and fabrication outside the Affected Property, • loss of or damage to property (other than the <i>Employer's</i> property, Plant and Materials), • death of or injury to a person and • Infringement of an intellectual property right.
X18.5	The <i>end of liability date</i> is	2 months after the end of the <i>service period</i>.
X19	Task Order	
X19.5	The <i>Contractor</i> submits a Task Order programme to the <i>Service Manager</i> within	1 days of receiving the Task Order
X20	Key Performance Indicators	
X20.1	The incentive schedule for key performance indicators is in	No incentives to this Contract Data
X20.2	A report of performance against each Key Performance indicator is provided At intervals of	Every three months
Z	The <i>additional conditions of contract</i> are	Z1 to Z11 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 *Service 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 *Service Manager* within thirty days of the notification or as otherwise instructed by the *Service 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 Service.
- 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 P4 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 *Service 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 Affected Property or any portion thereof, in the course of Providing the Service and after the end of the *service period*, requires the prior written consent of the *Service 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 *Service Manager* 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 *service*. 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 Affected Property;
- 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 the *service*; and
- undertakes, in and about the execution of the *service*, 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 *service*, 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 *Service 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 Service 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 the last paragraph of core clause 61.3 and replace with:

If the *Contractor* does not notify a compensation event within eight weeks of becoming aware of the event, he is not entitled to a change in the Prices.

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 82.1 is provided for in 60.1(12) and the *Employer's* liability under the indemnity is limited to compensation as provided for in core clause 63 and X19.11 if Option X19 Task Order applies to this contract.

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 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 Subcontractors or the Subcontractor's employees,

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

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

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

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

Z11.1 A Committing Party may not take any Prohibited Action during the course of the procurement

of this contract or in execution thereof.

- Z11.2 The *Employer* may terminate the *Contractor's* obligation to Provide the Services if a Committing Party has taken such Prohibited Action and the *Contractor* did not take timely and appropriate action to prevent or remedy the situation, without limiting any other rights or remedies the *Employer* has. It is not required that the Committing Party had to have been found guilty, in court or in any other similar process, of such Prohibited Action before the *Employer* can terminate the *Contractor's* obligation to Provide the Services for this reason.
- Z11.3 If the *Employer* terminates the *Contractor's* obligation to Provide the Services for this reason, the amounts due on termination are those intended in core clauses 92.1 and 92.2.
- Z11.4 A Committing Party co-operates fully with any investigation pursuant to alleged Prohibited Action. Where the *Employer* does not have a contractual bond with the Committing Party, the *Contractor* ensures that the Committing Party co-operates fully with an investigation.

Z12 Insurance

Z 12 .1 Replace core clause 83 with the following:

Insurance cover 83

- 83.1 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.
- 83.2 The *Contractor* provides the insurances stated in the Insurance Table A from the *starting date* until the earlier of Completion and the date of the termination certificate.

INSURANCE TABLE A

Insurance against	Minimum amount of cover or minimum limit of indemnity
Loss of or damage caused by the <i>Contractor</i> to the <i>Employer's</i> property	The replacement cost where not covered by the <i>Employer's</i> insurance. The <i>Employer's</i> policy deductible as at Contract Date, where covered by the <i>Employer's</i> insurance.
Loss of or damage to Plant and Materials	The replacement cost where not covered by the <i>Employer's</i> insurance. The <i>Employer's</i> policy deductible as at Contract Date, where covered by the <i>Employer's</i> insurance.
Loss of or damage to Equipment	The replacement cost where not covered by the <i>Employer's</i> insurance. The <i>Employer's</i> policy deductible as at Contract Date, where covered by the <i>Employer's</i> insurance.
The <i>Contractor's</i> liability for loss of or damage to property (except the <i>Employer's</i> property, Plant and Materials and Equipment) and liability for bodily injury to or death of a	<u>Loss of or damage to property</u> The replacement cost <u>Bodily injury to or death of a person</u> The amount required by the applicable law.

person (not an employee of the <i>Contractor</i>) arising from or in connection with the <i>Contractor's</i> Providing the Service	
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract	The amount required by the applicable law

Z 12.2 Replace core clause 86 with the following:

Insurance by the Employer 86

86.1 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 limit of indemnity
Assets All Risk	Per the insurance policy document
Contract Works insurance	Per the insurance policy document
Environmental Liability	Per the insurance policy document
General and Public Liability	Per the insurance policy document
Transportation (Marine)	Per the insurance policy document
Motor Fleet and Mobile Plant	Per the insurance policy document
Terrorism	Per the insurance policy document
Cyber Liability	Per the insurance policy document
Nuclear Material Damage and Business Interruption	Per the insurance policy document
Nuclear Material Damage Terrorism	Per the insurance policy document

Z13 Nuclear Liability

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

Z13.2 The *Employer* is solely responsible for and indemnifies the *Contractor* or any other person against any and all liabilities which the *Contractor* or any person may incur arising out of or resulting from nuclear damage, as defined in Act 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*.

Z13.3 Subject to clause Z13.4 below, the *Employer* waives all rights of recourse, arising from the

aforesaid, save to the extent that any claims arise or liability is incurred due or attributable to the unlawful intent of the *Contractor* or any other person, or the presence of the *Contractor* or that person or any property of the *Contractor* or such person at or in the KNPS or on the KNPS site, without the permission of the *Employer* or of a person acting on behalf of the *Employer*.

Z13.4 The *Employer* does not waive its rights provided for in section 30 (7) of Act 47 of 1999, or any replacement section dealing with the same subject matter.

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

Z14 Asbestos

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

AAIA	Means approved asbestos inspection authority.
ACM	Means asbestos containing materials.
AL	Means action level, i.e. a level of 50% of the OEL, i.e. 0.1 regulated asbestos fibres per ml of air measured over a 4 hour period. The value at which proactive actions is required in order to control asbestos exposure to prevent exceeding the OEL.
Ambient Air	Means breathable air in area of work with specific reference to breathing zone, which is defined to be a virtual area within a radius of approximately 30cm from the nose inlet.
Compliance Monitoring	Means compliance sampling used to assess whether or not the personal exposure of workers to regulated asbestos fibres is in compliance with the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
OEL	Means occupational exposure limit.
Parallel Measurements	Means measurements performed in parallel, yet separately, to existing measurements to verify validity of results.
Safe Levels	Means airborne asbestos exposure levels conforming to the Standard's requirements for safe processing, handling, storing, disposal and phase-out of asbestos and asbestos containing material, equipment and articles.
Standard	Means the <i>Employer's</i> 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, normalized to the baseline of a 4 hour continuous period, also applicable to short term exposures, i.e. 10-minute TWA.

Z14.1 The *Employer* ensures that the Ambient Air in the area where the *Contractor* will Provide the Services conforms to the acceptable prescribed South African standard for asbestos, as per the regulations published in GNR 155 of 10 February 2002, under the Occupational Health and Safety Act, 1993 (Act 85 of 1993) ("Asbestos Regulations"). The OEL for asbestos is 0.2 regulated asbestos fibres per millilitre of air as a 4-hour TWA, averaged over any continuous period of four hours, and the short term exposure limit of 0.6 regulated asbestos fibres per millilitre of air as a 10-minute TWA, averaged over any 10 minutes, measured in accordance with HSG248 and monitored according to HSG173 and OESSM.

- Z14.2 Upon written request by the *Contractor*, the *Employer* certifies that these conditions prevail. All measurements and reporting are effected by an independent, competent, and certified occupational hygiene inspection body, i.e. a SANAS accredited and Department of Employment and Labour approved AAIA. The *Contractor* may perform Parallel Measurements and related control measures at the *Contractor's* expense. For the purposes of compliance the results generated from Parallel Measurements are evaluated only against South African statutory limits as detailed in clause Z14.1. Control measures conform to the requirements stipulated in the AAIA-approved asbestos work plan.
- Z14.3 The *Employer* manages asbestos and ACM according to the Standard.
- Z14.4 In the event that any asbestos is identified while Providing the Services, a risk assessment is conducted and if so required, with reference to possible exposure to an airborne concentration of above the AL for asbestos, immediate control measures are implemented and relevant air monitoring conducted in order to declare the area safe.
- Z14.5 The *Contractor's* personnel are entitled to stop working and leave the contaminated area forthwith until such time that the area of concern is declared safe by either Compliance Monitoring or an AAIA approved control measure intervention, for example, per the emergency asbestos work plan, if applicable.
- Z14.6 The *Contractor* continues to Provide the Services, without additional control measures presented, on presentation of Safe Levels. The contractually agreed dates to Provide the Services, including the Completion Date, are adjusted accordingly. The contractually agreed dates are extended by the notification periods required by regulations 3 and 21 of the Asbestos Regulations, 2001.
- Z14.7 Any removal and disposal of asbestos, asbestos containing materials and waste, is done by a registered asbestos contractor, instructed by the *Employer* at the *Employer's* expense, and conducted in line with South African legislation.

Annexure A: Insurance provided by the Employer

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

1. Services provided in a TSC3 contract could include some element of construction or refurbishment as well as a continuous maintenance or operational service activity. If an event occurs which causes loss or damage, a claim could be made either against the *Employer's* "works" type policy which may be in place for the *Employer's* portion of the Affected Property concerned or against the *Employer's* assets policy which may be in place for the *Employer's* portion of the Affected Property concerned, or both.
2. The cover provided and the deductibles under the works policy are different to those under the assets policy. Each policy has a range of applicable deductibles depending on the location of the Affected Property and the nature of the insurable event.
3. The *Contractor* is required in terms of Contract Data for clause 83 to provide cover for the deductibles in the insurance provided by the *Employer*. This can be provided from his own resources on a 'self-insured' basis or obtained by him from his own insurers. In order to assess the extent of this cover, tendering contractors and their brokers should consult the internet web link given below and scroll to '**Format TSC3**' to establish both the cover and the deductibles in relation to the *service* provided in terms of this contract.
4. Tendering contractors should note that cover provided by the *Employer* is only per the policies available on the internet web link listed below and may not be the cover required by the tendering contractor or as intended by each of the listed insurances in the left hand column of the Insurance Table in clause 83.2. In terms of clause 83.1 "the *Contractor* provides the insurances stated in the Insurance Table except any insurance which the *Employer* is to provide". Hence the *Contractor* provides insurance which the *Employer* does not provide and in cases where the *Employer* does provide insurance the *Contractor* insures for the difference between what the Insurance Table requires and what the *Employer* provides.
5. If Marine Insurance is required the *Contractor* needs to obtain a copy of the latest edition of Eskom's Marine Policies Procedures found at internet website given below.
6. Further information and full details of all Eskom provided policies and procedures may be obtained from:

[http://www.eskom.co.za/Tenders/InsurancePoliciesProcedures/Pages/EIMS_Policies_
From_1_April_2014_To_31_March_2015.aspx](http://www.eskom.co.za/Tenders/InsurancePoliciesProcedures/Pages/EIMS_Policies_From_1_April_2014_To_31_March_2015.aspx)

C1.2 Contract Data

Part two - Data provided by the *Contractor*

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

Whenever a cell is shaded in the left hand column it denotes this data is optional and would be required in relation to the option selected. In the event that the option is not required select and delete the whole row.]

Notes to a tendering contractor:

1. Please read both the both the NEC3 Term Service Contract April 2013 and the relevant parts of its Guidance Notes (TSC3-GN)³ in order to understand the implications of this Data which the tenderer is required to complete.
2. The number of the clause which requires the data is shown in the left hand column for each statement however other clauses may also use the same data.
3. Where a form field like this [] appears, data is required to be inserted relevant to the option selected. Click on the form field **once** and type in the data. Otherwise complete by hand and in ink.

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

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name): Address Tel No. Fax No.	
11.2(8)	The <i>direct fee percentage</i> is	%
	The <i>subcontracted fee percentage</i> is	%
11.2(14)	The following matters will be included in the Risk Register	
11.2(15)	The Service Information for the <i>Contractor's</i> plan is in:	
21.1	The plan identified in the Contract Data is contained in:	
24.1	The key people are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job	

³ Available from Engineering Contract Strategies Tel 011 803 3008 Fax 086 5391902 or www.ecs.co.za

Responsibilities:

Qualifications:

Experience:

**CV's (and further key person's data including
CVs) are in .**

A	Priced contract with price list
11.2(12)	The <i>price list</i> is in
11.2(19)	The tendered total of the Prices is R

PART 2: PRICING DATA

TSC3 Option A

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option A	2
C2.2	The <i>price list</i>	1

C2.1 Pricing assumptions: Option A

How work is priced and assessed for payment

Clause 11 in NEC3 Term Service Contract (TSC3) core clauses and Option A states:

- Identified and defined terms** 11
 11.2 (12) The Price List is the *price list* unless later changed in accordance with this contract.
- (17) The Price for Services Provided to Date is the total of
- the Price for each lump sum item in the Price List which the *Contractor* has completed and
 - Where a quantity is stated for an item in the Price List, an amount calculated by multiplying the quantity which the *Contractor* has completed by the rate.
- (19) The Prices are the amounts stated in the Price column of the Price List. Where a quantity is stated for an item in the Price List, the Price is calculated by multiplying the quantity by the rate.

This confirms that Option A is a priced contract where the Prices are derived from a list of items of service which can be priced as lump sums or as expected quantities of service multiplied by a rate or a mix of both.

Function of the Price List

Clause 54.1 in Option A states: "Information in the Price List is not Service Information". This confirms that instructions to do work or how it is to be done are not included in the Price List but in the Service Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Service in accordance with the Service Information". Hence the *Contractor* does **not** provide the Service in accordance with the Price List. The Price List is only a pricing document.

Link to the *Contractor's* plan

Clause 21.4 states "The *Contractor* provides information which shows how each item description on the Price List relates to the operations on each plan which he submits for acceptance". Hence when compiling the *price list*, the tendering contractor needs to develop his first clause 21.2 plan in such a way that operations shown on it can be priced in the *price list* and result in a satisfactory cash flow in terms of clause 11.2(17).

Preparing the *price list*

Before preparing the *price list*, both the *Employer* and tendering contractors should read the TSC3 Guidance Notes pages 14 and 15. In an Option A contract, either Party may have entered items into the *price list* either as a process of offer and acceptance (tendering) or by negotiation depending on the nature of the *service* to be provided. Alternatively the *Employer*, in his Instructions to Tenderers or in a Tender Schedule, may have listed some items that he requires the *Contractor* to include in the *price list* to be prepared and priced by him.

It is assumed that in preparing or finalising the *price list* the *Contractor*:

- Has taken account of the guidance given in the TSC3 Guidance Notes relevant to Option A;
- Understands the function of the Price List and how work is priced and paid for;
- Is aware of the need to link operations shown in his plan to items shown in the Price List;
- Has listed and priced items in the *price list* which are inclusive of everything necessary and incidental to Providing the Service in accordance with the Service Information, as it was at the time of tender, as well as correct any Defects not caused by an *Employer's* risk;
- Has priced work he decides not to show as a separate item within the Prices or rates of other listed items in order to fulfil the obligation to complete the *service* for the tendered total of the Prices.
- Understands there is no adjustment to items priced as lump sums if the amount, or quantity, of work within that item later turns out to be different to that which the *Contractor* estimated at time of tender. The only basis for a change to the (lump sum) Prices is as a result of a compensation event.

Format of the *price list*

(From the example given in an Appendix within the TSC3 Guidance Notes)

Entries in the first four columns in the *price list* in section C2.2 are made either by the *Employer* or the tendering contractor.

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

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

If the *Contractor* is to be paid a Price for an item proportional to the length of time for which a service is provided, a unit of time is stated in the Unit column and the expected length of time (as a quantity of the stated units of time) is stated in the Expected Quantity column.

C2.2 the *price list*

Item	Description	Unit	Resources Qty	Months	Hours Per Month	Market Rate	Eskom Rec. Rate	Average Rate	Amount
			A	B	C			D	A x B x C x D
	<p><u>BILL OF QUANTITIES</u></p> <p><u>PREAMBLES</u></p> <p>For Preambles refer to SANS Documents which is obtainable on request for the full descriptions of materials and work to be done in this Bill.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Rate approvals:</u></p> <p>The tenderer is advised that any rate that is required for work must include the following breakdown:</p> <p>Material, labour, plant, wastage, transport and profit.</p> <p><u>LABOUR INTENSIVE ITEMS</u></p> <p>The contractors must work in a labour intensive manner, . The Contractor must take this method of construction into consideration when programmes the work.</p> <p><u>PRICING OF THE BILLS OF QUANTITIES</u></p> <p>Any items left unpriced will be understood to be provided free of charge and no claim for any extras arising out of the Tenderers omission to price any item will be entertained.</p> <p><u>TECHNICAL DOCUMENT</u></p> <p>The Contractor is referred to entire Technical Document for the details of the Scope. The Contractor is to study the details of this document prior to pricing this Bills of Quantities</p> <p><u>PERIOD OF CONTRACT</u></p> <p>60 Months</p> <p><u>CURRENCY</u></p> <p>All rates tendered on and / or pricing in these bills of quantities to be in the South African Rands Currency (ZAR)</p> <p>All individual amounts in these bills of quantities exclude Value Added Tax (VAT) VAT is to be calculated as a lump sum and added to the total of all values in the Final Summary under the item provided for VAT</p> <p><u>HEALTH AND SAFETY</u></p> <p>The contractor must ensure that all health and safety regulatory and safety requirements are met and valid.</p>								

SECTION 01 - PRELIMINARIES AND GENERAL									
Bill No. 1: Preliminaries and General									
29	Provision and Submission of Safety File	Once off	1	1	1			R	R
30	Standby Allowance	Per month	28	60	84			R	R
31	Site Establishment (Offices Facilities, Signs etc)	Per Month	1	1	1			R	R
32	Motor Site Vehicles (Maximum 5 people)	Per Month	2	60	1			R	R
33	PPE	Annually	39	5	1			R	R
34	First Aid- Screening & Medicals	Annually	39	5	1			R	R
35	SAPS Vetting	Once off	39	1	1			R	R
36	Tools and Equipment	Once off	1	1	1			R	R
37	Miscellaneous Expenses	Per Month	1	60	1			R	R
38	Training Costs	Per Month	1	60	1			R	R
31	De-Establishment	Sum	1	1	1			R	R
Section 01 - Total									R
SECTION 02 - MAINTENANCE									
Bill No. 2: Fixed Cost Labour - Normal Time									
1	Site Manager	Man Hrs	1	60	173	R	R	R	R
2	Technical Supervisor	Man Hrs	2	60	173	R	R	R	R
3	System Administrators	Man Hrs	2	60	173	R	R	R	R
4	Technicians	Man Hrs	9	60	173	R	R	R	R
5	Technicians is shared with Outage	Man Hrs	2	29	173	R	R	R	R
6	Artisans/ Mechanics	Man Hrs	11	60	173	R	R	R	R
7	Artisans/ Mechanics is shared with outage	Man Hrs	2	29	173	R	R	R	R
8	Safety Officer	Man Hrs	1	60	173	R	R	R	R
9	Quality Officer	Man Hrs	1	60	173	R	R	R	R
9	Quality Officer is a shared with Outage	Man Hrs	1	29	173	R	R	R	R
10	Semi-Skilled/Technical Assistants	Man Hrs	4	60	173	R	R	R	R
11	General Workers	Man Hrs	3	60	173	R	R	R	R
Sub-Total									R

Bill No. 3: Fixed 24 Hour Coverage Costs (In 12 Hour Cycles)									
12	Site Manager	Man Hrs	1	60	8	R	R	R	R
13	Technical Supervisor	Man Hrs	2	60	14	R	R	R	R
14	Technicians	Man Hrs	11	60	122	R	R	R	R
15	Artisans/Mechanicians	Man Hrs	11	60	130	R	R	R	R
16	Artisans/ Mechanicians is shared with outage	Man Hrs	2	29	130	R	R	R	R
17	Semi-skilled/Technical aids is ahared with Outage	Man Hrs	2	29	138	R	R	R	R
18	System administrator	Man Hrs	2	60	40	R	R	R	R
19	Quality officer is shared with Outage	Man Hrs	2	29	32	R	R	R	R
20	General worker	Man Hrs	3	60	4	R	R	R	R
Sub-Total									R
Section 02 (Maintenance) - Grand Total									
SECTION 03 - OUTAGE									
Bill No. 4: Fixed Cost Labour - Normal Time									
21	Technicians	Man Hrs	2	31	173	R	R	R	R
22	Artisans/ Mechanicians	Man Hrs	4	31	173	R	R	R	R
23	Quality Officer	Man Hrs	1	31	173	R	R	R	R
24	Semi-Skilled/Technical Assistants	Man Hrs	4	31	173	R	R	R	R
Sub-Total									R
Bill No. 5: Overtime Hours									
25	Technicians	Man Hrs	2	31	122	R	R	R	R
26	Artisans/Mechanicians	Man Hrs	4	31	130	R	R	R	R
27	Semi-skilled/Technical aids	Man Hrs	4	31	138	R	R	R	R
28	Quality officer	Man Hrs	1	31	32	R	R	R	R
Sub-Total									R
Section 3 (Outage) - Grand Total									
Grand Total (Prelims, Maintenance and Outage (Excl. Vat))									R

PART 3: SCOPE OF WORK

Document reference	Title	No of pages
	This cover page	1
C3.1	<i>Employer's Service Information</i>	3
C3.2	<i>Contractor's Service Information</i>	
	Total number of pages	

C3.1: EMPLOYER’S SERVICE INFORMATION

Contents

Part 3: Scope of Work	
C3.1: Employer’s service Information	
1 Description of the service	
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1.2 <i>Employer’s</i> requirements for the <i>service</i>	
1.3 Interpretation and terminology	
2 Management strategy and start up.	
2.1 The <i>Contractor’s</i> plan for the <i>service</i>	
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5 Working on the Affected Property	
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5.3 Health and safety facilities on the Affected Property	
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5.5 Cooperating with and obtaining acceptance of Others.....	
5.6 Records of <i>Contractor’s</i> Equipment.....	

- 5.7 Equipment provided by the *Employer*.....
- 5.8 Site services and facilities.....
 - 5.8.1 Provided by the *Employer*.....
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- 5.9 Control of noise, dust, water and waste
- 5.10 Hook ups to existing works

Description of the service

Executive overview

C&I Maintenance services for a period of 36 months
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Employer's requirements for the service

1 Introduction

This document covers the scope involved in the Control & Instrumentation maintenance contract for Camden Power Station to ensure a high degree of co-operation between the Employer and the Contractor.

2 Supporting Clauses

2.1 Scope

2.1.1 Purpose

The purpose of this document is to stipulate the main activities that will be required from the Contractor when performing C&I maintenance in the plant.

2.1.2 Applicability

This document is applicable to C&I Engineering, C&I Maintenance, Procurement department as well as C&I Contractors.

2.1.3 Effective date

Authorization date.

2.1.4 Normative References

The following documents are to be used together with this document:

[1] **240/53114002** – Engineering Change Management Procedure

[2] **004/3991** – C&I Maintenance Partnering

[3] Basic conditions of employment

[4] SHEQ

[5] **240/56355731** – Environmental Conditions for Process Control Electronic Equipment used at Power Stations

[6] **004/5602** – Business Excellence Quality Management Standard for Refurbishment, Engineering, Manufacturing, & Maintenance Works for Camden Power Station

2.3 Abbreviations

2.1.5 Informative References

N/A

2.2 Definitions Term	Description
ES 680	C&I Engineering Station.
Field Equipment	Equipment in the field that supplies or receives a signal, for a device that either controls or monitors. For example (Press SW, Press TX, Level SW, Level TX, Flow SW, Flow TX, Temp

	SW, Temp TX, Analysers, Opacity meters, Vibration Monitors, Gas Analysers, Detectors, Gauges. (Including Generator bearing vibration systems in its entirety) Thermocouples, RTD, Pyrometers in its entirety, etc.)
First/1st line maintenance	Maintenance required on specific part of plant where the contractor must do fault finding up to the point where the signal path from the equipment to the DCS can be ruled out as being the problem.
Full maintenance	Maintenance where the contractor is required to work on the equipment to the point where the equipment is back to normal operation
Green Line	Cable placed around a conveyor belt, for safety purposes (Pull wire) and could be used to trip the conveyor belt in any circumstances.
MSR	Computerized drawing system.
OM 650	Plant to operating system (operates & monitors)
Plant	All systems that form part of Camden Power Station.

2.3 Abbreviations

Abbreviation	Description
AC	Alternating Current
AP	Automation Processor
AWR	Ash Water Return
C&I	Control and Instrumentation
CCTV	Closed Circuit Television
Abbreviation	Description
CW	Cooling Water
DC	Direct Current
DCS	Distributed Control System
EMDAS	Electrical Metering Data Acquisition System
ES	Engineering Station
FFP	Fabric Filter Plant

F/O	Fuel Oil
GO	General Outage
GPS	Global Positioning System
H2	Hydrogen
ITP	Inspection and Test Plan
LAN	Local Area Network
LCS	Local Control Station
LV	Low Voltage
MV	Medium Voltage
MNT	Maintenance
OEM	Original Equipment Manufacturer
OHS	Occupational Health and Safety
PA	Public Address
PFMA	Public Finance Management Act
PLC	Programmable Logic Controller

Abbreviation	Description
PSR	Plant Safety Regulations
QCP	Quality Control Procedure
RTD	Resistance Temperature Detector
RTS	Return to Service
SAP	Systems Applications and Products
SFP	Steam Feed Pump
SHEQ	Safety, Health, Environment, Quality
SOW	Scope of Work
SU	Storage Unit
SW	Switch
SWG	Switchgear
TX	Transmitter

V	Volt
WTP	Water Treatment Plant

2.4 Roles and Responsibilities Department	Responsibility
C&I Engineering	Is responsible to draw up the scope for the maintenance contract.
C&I Maintenance	Is responsible to set-up a C&I maintenance contractor as per the terms set- out in the SOW
Procurement	Is responsible to ensure that the procurement process is properly followed in setting-up the C&I maintenance contract.

2.5 Process for Monitoring

The Procurement process ensures that the maintenance contract is set-up according to the terms given in the SOW.

2.6 Related/Supporting Documents

N/A

3 Scope of Work

3.1 Scope overview Plant System	Type	Full Mnt	1st line Mnt
UNIT C&I		Integrated Unit control	
<i>HMI systems</i>		x	
Application Server	Stratus Ft4500	x	
<i>Engineering and diagnostic systems</i>	ES680/OM 650	x	
<i>Process Computer / Historian</i>	VA View	x	
<i>Process LAN</i>	Scalance X212-2	x	
<i>Power supplies</i>			
UPS's	APC Power Saving Back UPS Pro 1500	x	
<i>Simulator</i>			
Emulator	Siemens S3000		x
Process Modelling	SimuPACT		x
Boiler system			
<i>Boiler & auxiliaries</i>	Siemens T2000 &T3000AS620	x	

<i>Boiler Protection system</i>	Siemens T2000 AS620F & T3000	x	
<i>Feed-pump control system</i>	Siemens T2000 AS620 & T3000	x	
<i>Sootblower control system</i>	Siemens T2000 AS620 & T3000	x	
<i>FFPs control</i>	Siemens T2000 AS620 & T3000	x	
Burner management			
F/O field management	Ham worthy Combustion Engineering		X
Overall management	Siemens T2000&T3000 AS620	x	
Feeder control			
Feeder speed	Siemens Micro-master 440	x	
Overall control	Siemens T2000 &T3000 AS620	x	
<i>PA flow</i>	Promecon McONair	x	
<i>Tube leak detection</i>	Inspecta FFT	x	
Turbine (and BFPT) system			
<i>Turbine Control system</i>			
Overall control	Siemens T2000 &T3000 AS620	x	
Turbine controller	Siemens S7-400	x	
<i>Turbine Turbovisory system</i>	Bentley Nevada 3500	x	
<i>Turbine Protection system</i>			
Overall protection	Siemens T2000 AS620 & T3000	x	
Failsafe System	Jaquet System FT3000 3-Channel Speed	x	

SIL3)		Control and Protection System	
<i>Turbine Auxiliaries</i>	Siemens T2000 AS620 & T3000	x	
<i>Turbine Condition monitoring/analysis</i>	Bentley System 1	x	
<i>Field</i>			
Common C&I			
Integrated Common plant control			
<i>WTP, LPS, Coal, CW, Ash, EOD</i>	Siemens T2000 AS620 &T3000	x	

Emissions			
<i>Emission Monitoring</i>			
1.1.1.1.1 Dust Monitoring	1.1.1.1.2 SICK SB100	x	
1.1.1.1.3 G as Monitoring	1.1.1.1.4 CODEL GCEM4000		X
Fly Ash Plant control system	1.1.1.1.5 Siemens T2000 AS620	x	
Coarse Ash Plant control system	1.1.1.1.6 Siemens T2000 AS620	x	
Coal Plant Control system	1.1.1.1.7 Siemens T2000 AS620	x	
Conveyor Long line protection	1.1.1.1.8 CT Systems	x	
Water treatment control	1.1.1.1.9 Siemens T2000 AS620	x	
LP Services control system	1.1.1.1.10 Siemens T2000 AS620	x	
Fuel oil control system	1.1.1.1.11 Siemens T2000 AS620	x	
Fire detection system	1.1.1.1.12 Siemens-Sigma-sys M with		X
Sigma-plan D100 software V7.3			
H2 Plant	1.1.1.1.13 Not applicable		X
PA System	1.1.1.1.14 TOA PA System		X

3.1.1 Note: The supplier will be expected to take the scope below as works instruction and duties of the supplier are not limited to the scope. Other legitimate duties as we go will arise and the supplier will be expected to execute them at no extra cost. The supplier is to render C&I Maintenance services at Camden power station for a period of 60 months adhering to the scope as the works instruction. The Contractor will be fully responsible for most field instrumentation systems at Camden except for systems that are maintained by the OEMs. Where a contract exists, the contractor will be responsible to do 1st line maintenance. The Contractor is expected to have full knowledge of systems mentioned on the above table and proof of such knowledge.

3.1.2 Maintenance to be performed will be inspection, calibration, loop checking, stroke checking, function checking, repairing, removing, replacing and testing of field-instrumentation of all C&I related plants at Camden Power Station.

3.1.3 The works consist of maintenance of all control and instrumentation: Maintenance is also required on Common plant that is coal, Fuel, Ash, Cooling water, water service, Compressed air, Fire detection system, Low Pressure Gas, H2 Plant and FFP Blower plants and any other plant which is part of Camden Power station.

3.1.4 The Contractor is responsible for the maintenance of the total control and field instrument system that is working on 24V. This shall also include any circuits that work on voltages less than 220V AC and 220V DC.

3.1.5 The Employer must authorise any equipment changes (Plant) or modifications. (In all cases even if there is a need to move equipment, change equipment, or add equipment.

3.1.6 The Contractor shall render service with no additional cost, for any tests required by other Contractors representing Maintenance at Camden Power Station, and Camden Power Station permanent staff.

3.1.7 The Contractor shall render a service to C&I engineering, outage department during outages and any other related work and no additional costs will be charged.

3.1.8 The Site Manager shall report directly to the C&I Maintenance Manager/ Contract Manager, for the day-to-day issues.

3.1.9 The Contractor must perform function checks and Calibration on the entire field Instruments and the Calibration Sheet must be filled and both Eskom and the contractor must have copies of such for filing.

3.1.10 The Contractor shall maintain the environmental conditions the where the C&I equipment operate under in the equipment and server rooms as specified in 240-56355731 Environmental Conditions for Process Control Equipment Used at Power Stations Standard.

3.1.11 The Employer will supply all the Spares needed by the Contractor to execute the scope at hand. However, after a proper fault finding should be performed and be demonstrated until replacement of the instrument is the last resort.

3.1.12 System Administration Duties on a T2000 and T3000 shall also be performed, as well as maintenance and proper fault diagnosis.

3.1.13 Contractor must manage the Software as well as C&I maintenance on the VA view, Bentley Nevada and Public Address System.

3.1.14 The Contractor must assist at no additional costs other than provided in this contract, in terms of commissioning of all new plants and maintenance on new handed over plant after a modification.

3.1.15 The Contractor must assist with modifications which arise from an equipment change due to the currently used equipment being obsolete at no additional costs and only if such modification falls under ECM procedure Doc number: 240-53114002 and a Project related modifications then such modification will be at Eskom's cost.

3.1.16 The Contractor must perform Stroking of all the Actuators that is Auma, Drehmo and/or any other actuator that is installed at Camden Power Station.

3.1.17 All documents generated in the course of executing work on behalf of the Employer in accordance with this contract to be filed and stored appropriately, and to be made available for audit purposes as and when required.

3.1.18 The Contractor is expected to perform the Protection Checks when required and/ or after a GO, mini-GO or an IR.

3.1.19 The Contractor must as far as possible, and pricing allow it, support local community with business. The Contractor shall also assist with monitoring and optimisation of process parameters on a small scale where required and also manage field simulations.

3.1.20 The Contractor shall ensure that all its employees are authorised in terms of the Fossil Firing Fuel Regulation (FFFR) and Plant Safety Regulations (PSR). At the commencement of contract at least 50% must be FFFR & PSR authorised, 50% of Unauthorised employees shall be given a period of six months to 1 year from the commencement of the contract to gain authorisation. Failure to adhere to the stipulated time, will lead to that individual being removed from Camden Power station premises with immediate effect.

3.1.21 All C&I documents (either on softcopy or hardcopy) in Eskom's possession, whether it be OEM or at "Black Box Interfaces" with similar Contractors, which is required for plant operation and maintenance purposes will be made available to the Contractor.

3.1.22 Any tool required for maintenance work needs to be supplied by the contractor as per the minimum standard tool list (list at the last page), but not limited to the tool list.

3.1.23 All transportation requirements required by the contractors for its employees will be provided for by the contract.

3.1.24 Workshop tools and equipment's are to be maintained, kept safe and to be as found, when lost must be replaced by the contractor.

3.1.25 The Contractor is responsible for Cleaning of Workshop, all Equipment rooms, Public Address room and Computer rooms. It would be the Contractors responsibility to submit defects for areas that are dirty. Eskom could inspect the areas at any time.

3.1.26 The Equipment Rooms and Computer rooms should be cleaned at least twice a week. This is dependent on the state of the rooms, and the cleaning frequency should be adjusted accordingly.

3.1.27 The environmental conditions of all Equipment rooms and Computer rooms should be checked daily. The Temperature and moisture in the air should be noted and defects loaded onto SAP and brought to the attention of the appropriate people. There should also be check sheets developed in a joint cooperation between the Contractor and Eskom to look at these on a daily basis. Water ingress into the building via the roof also needs to be reported, as and when it takes place. (This shall be done in terms of 240-56355731)

3.1.28 All the planned weekend work to be done by the Contractor that is Technical Supervisors, Technicians, Mechanics/Artisans, Safety officer, Quality officers, Semi-Skilled and Project Manager must be requested in writing by the Contractor and approved by the Employer. If such overtime is not pre-approved, it will not be paid.

3.1.29 The Equipment room should be always clean, anything that has an influence, on the cleanliness of the cubicles should be addressed immediately as far as reasonably practicable.

3.1.30 It is the responsibility of the Contractor to ensure, always that all equipment rooms are clean from the wall to the cubicles.

3.1.31 The general workers should adhere to the PSR regulations when cleaning the equipment rooms, as the equipment rooms are referred to 'restricted area', and entry is permitted to an person in terms of PSR and have no effect on production.

3.1.32 The Workshop should be cleaned daily.

Note: management of the MSR system will be done by the OEM.

3.2 Minimum requirements of staff

3.2.1 Technicians should hold a Technicon / Technical (N6 with trade test) diploma in Electrical Engineering LC (Process Instrumentation, Electronics, Computer and Digital), have a minimum of 3 years' experience in a power plant or related field (Instrumentation) experience, have background knowledge of Boiler protections, Turbine protections, T2000, MSR drawings, CT system and T3000 certificate. Must have a driver's license as standby duties are mandatory.

3.2.2 Artisans/Mechanician should hold N4 and Trade test certificates/ Technical Diploma with trade test / Technicon diploma in Electrical Engineering LC (Process Instrumentation, Electronics, Computer and Digital) and a minimum of 3 years' experience in a power plant or related field (Instrumentation), have background knowledge of T2000, T3000, MSR drawings and CT system. Must have a driver's license as standby duties are mandatory.

3.2.3 Semi-skilled should hold Matric certificate, must have worked in any industrial site before, preferably a power plant.

3.2.4 Site Manager should hold a Technicon/ Technical diploma with trade test in Electrical Engineering LC (Process Instrumentation, Electronics, Computer and Digital), have a minimum of 5 years' technical experience in the process and instrumentation environment at a Power Station and 3 years managerial work experience at any industry, preferably in a power plant.

3.2.5 Technical Supervisors should hold a Technicon/ Technical diploma with a trade test equaling to the minimum years of experience in Electrical Engineering LC (Process Instrumentation, Electronics, Computer and Digital). Have 5 years of experience working with CT System, Boiler and Turbine controls and protections, must have T3000 certificate and extensive knowledge on T2000. Experience in a power plant is preferable.

3.2.6 System administrators should hold a technical / Technicon diploma in Digital Engineering/ Electronics Engineering/ Computer Engineering/ IT Systems/ Process Instrumentation with a minimum of 3 years' experience as a system administrator, must have received accreditation of T3000 Basic, administrator training and cyber security training and declared competent with proof of such by the OEM. In addition, must have worked on the following systems: T2000, Linux administration, Industrial networking, Network communications, programming and windows servers.

3.2.7 Quality Officer should have Electrical engineering LC (Process Instrumentation, Electronics, Computer and Digital) with Internal auditing and ISO 9001, 2015 (Introduction and Implementation) certificates and 3 years of experience in a power plant or Quality diploma with 3 years of experience in a power plant.

3.2.8 Safety Officer should hold a NQF 5 SAMTRAC Certificate with Incident investigation level 3 and First aid level 3, level 5 certificates will be an added advantage or diploma in Safety with incident investigation level 3 certificate; must have a minimum of 3 years' safety related experience in any industrial site or power plant.

3.2.9 It is the responsibility of the contractor to ensure that all employees meet the minimum requirements. 50% of the staff must meet the minimum requirements on the inception of the contract. Anyone not meeting the minimum requirement will be given a period of a year from the day the contract commences to its first anniversary, to acquire all necessary documentation and qualifications to meet the minimum requirements. If by the anniversary date of the contract there is no proof that the person has written exams and is awaiting results or graduation, the person will be dismissed with immediate effect and the contractor will be expected to replace the person with a qualifying candidate within a period of a 2 month from the day of dismissal.

3.2.10 CVs, Valid certified copies of qualifications (only minimum requirement qualifications), IDs, Drivers licence and appointment letters for all employed personnel should be given to the Service manager on the kickoff meeting, prior to the contract commencement.

3.2.11 The structure or organogram should be as follows: 1x Site manager, 1x Technical Supervisor U1-U8, 1x Technical Supervisor common plant, 2x System Administrators, 1x Safety Officer, 2x Quality officer, 8x Technicians U1-U8, 2x technicians common plant, 1x technician outages, 8x Mechanics U1-U8, 4x Mechanics common plant, 1x Mechanician outages, 4x Technical assistants/ Semi-skilled and 3x General workers.

3.3 Recruitment (Human Resource)

3.3.1 Short listing and interviews will be done by the supplier, information of the interviews including, interview questions, scoring sheets and short-listing criteria should always be forwarded to the service manager after the interviews to evaluate and to ensure transparency and fairness to all shortlisted and appointed candidates. A criminal record report from SAP or any accredited service provider of all newly appointed individuals must always be provided, with copies of CV, certified copies of qualifications (minimum requirement) and ID.

3.3.2 In an event where an employee is employed on the current contract and resigns before the contract term comes to end/ finishes, such employee will not be allowed to be employed on the same contract again until it finishes its term.

3.3.3 Successful candidates should not be brought to site without the final acceptance via email or any form of written communication used at that instance by the service manager. That will be done to ensure all requirements stated on the scope of work are fulfilled/ met.

3.3.4 In an event where a candidate is given an offer of employment and brought to site without the approval of the service manager, such employee will be taken off Eskom's premises and will not be considered as part of this contract therefore his/her payment will not be Eskom's responsibility but the suppliers.

3.3.5 All employees employed; a letter (on a company letter head) of employment acceptance signed by both the supplier and the employee with commencement and end date of employment, date on which the letter was signed, agreement to do any legitimate work not stated on the scope of work, the employee has read and understood the scope of work (work instruction), the employee will respect/follow orders/ instructions from the employer/ Employer's representative and agrees to follow all Eskom's processes and procedures; should be provided to the service manager prior bringing the employee to site.

3.3.6 Should the employee contravene any of the contents included in the employment acceptance letter, a disciplinary process will be followed with a possibility of immediate dismissal. This clause should also be included in the employment acceptance letter.

3.4 Field Instrumentation

3.4.1 Routine Work

3.4.1.1 All the simulations shall be managed as per the local procedures 004/9477 and 004/5141.

3.4.1.2 All simulations, disablements and temporary adjustments must be recorded and approved in accordance with the "Out of Normal Condition" procedure.

3.4.1.3 The Contractor should be flexible for Hot and Cold Commissioning as well as first phase optimisation.

3.4.1.4 The Contractor should make people available for Unit light ups if requested from them.

3.4.1.5 Oil burner management, interfacing only.

3.4.1.6 Outside plant protection test and trip testing on DCS or PLC, or system used.

3.4.1.7 Outside plant sequencing testing on DCS, S7 or system used.

3.4.1.8 Trip or load loss reports to be supplied to Eskom if required with recommendations as soon as possible (directly after incident).

3.4.1.9 Unit & Outside plant fault finding from primary element up to and including of relevant DCS & AS modules (AP).

3.4.1.10 Replacing of relevant DCS and PLC modules, system fault finding from primary element up to and including of relevant module.

3.4.1.11 The Contractor must inspect the Boiler Metal temperatures after Mechanical Contractor has welded them on Super heater stages, which constitute getting inside Penthouse/Dead Space and checking if the thermocouples are welded on the correct Super Heater stage and pull them outside to the correct junction box.

3.4.1.12 All electrical actuators binary & control and setting of appropriate limits for adjusting of stroke (including cabling from equipment room to valve, and equipment room to first point of termination in SWG).

3.4.1.13 All pneumatic controllers and valves, stroke check and adjusting of pneumatic controllers where needed (including tubing on controllers up to first point of isolation away from controller).

3.4.1.14 Soot blower system, maintain software, pressure switches and limit switches with voltage below 240V.

3.4.1.15 Tube leak detection system, maintain and advise if change is required.

3.4.1.16 FFP and associated circuits including dust monitor calibration.

3.4.1.17 Lockheed system associated instruments.

3.4.1.18 Outside plant binary & analogue signals on WTP (fire service, raw, demineralized, potable, effluent, water reservoirs and dams), sewage, coal, ash (course & fine), fuel oil, propane gas, compressors, CW system and H₂), below 220 V.

3.4.1.19 Sequence trip testing on Outside plant.

3.4.1.20 Boiler & Aux. consists of all binary & analogue signals including electrical & pneumatic actuators and dampers.

3.4.1.21 Turbine & Aux. consists of all binary & analogue signals including electrical & pneumatic actuators.

3.4.1.22 Step & subgroup control, sequencing control of all signals from primary elements to DCS.

3.4.1.23 Faulty alarms should be corrected from primary element up to DCS module.

3.4.1.24 All coils of solenoid valves on units and outside plant below 220V AC or 110V DC.

3.4.1.25 All electrical circuits on systems below 220V AC or 110V DC.

3.4.1.26 Investigate into the function and reliability of primary elements.

3.4.1.27 Advise on plant changes and Outside plant and where requested implementation of changes.

3.4.1.28 Outside plant sequence testing from primary element up to appropriate PLC, DCS or system defined module.

3.4.1.29 All appropriate controllers or systems used on the field at the Outside plant (e.g., green line system on conveyors).

3.4.1.30 Responsible for all controllers and operating systems on units and outside plant.

3.4.1.31 All temperature compensating cable and associated elements.

3.4.1.32 Simulation of signals with the necessary written authorisation, control and removal of simulations as soon as possible.

3.4.1.33 To maintain an acceptable access control system in C&I restricted areas when installed.

3.4.1.34 Responsible for all connector, junction, LCS and any other similar device used in the field.

3.4.1.35 Maintain the public address (PA) system.

3.4.1.36 The Contractor is to be involved in trip and load loss investigations and assist with investigations during normal working time and after hours. The Contractor must be able to pinpoint problems as well as suggest solutions.

3.4.1.37 Running maintenance includes daily walk-downs to confirm the control system DCS's condition and to identify and address visible faults. All defects or potential failures will be recorded. Performance of plant in operation is monitored and optimized by the Contractor.

3.4.1.38 The Contractor must complete all preventative maintenance within the time span given. The Contractor should, if needed or requested, generate PM's. Where Permit to Work is required, the work will be planned with the Production Manager.

3.4.1.39 The Contractor is expected to give a plan for planned work with time frames every Thursday of the week, as well as a plan for emergency maintenance with time frames. Emergency maintenance lesson learned, and standby activities lesson learned to be shared in the morning/ toolbox meetings on a daily basis.

3.4.1.40 The Contractor must complete all notifications within the given time span, according to SAP system and Work management prioritization guide (classification of notification priority 01, 02, 03, 04, 05). The Contractor must generate notifications on Flip system when needed or required (defects and corrective maintenance). Where Permit to Work is required, the work will be planned with the Production Manager.

3.4.1.41 Corrective, planned and preventative maintenance will be prioritized with the emphasis on the corrective maintenance or according to the priority.

3.4.1.42 All C&I equipment must be maintained according to the philosophies and recommendations of the OEM's or Eskom. Changes to the philosophies must be authorized by Eskom.

3.4.1.43 The Contractor will deliver quality maintenance according to the Camden Standard Quality Control Procedures (QCP's will be drawn up for all work to be performed by the Contractor).

3.4.1.44 The Contractor is to compile procedures when needed or requested by Eskom and handed over to Eskom for approval.

3.4.1.45 The primary elements on the MV and LV switchgear will be from the last termination point in the switchgear including the cabling to the DCS.

3.4.1.46 This will include the terminations in the actuators, situated inside the actuator termination box.

3.4.1.47 The calibration and maintenance of all temperature switches, temperature transmitters, pressure switches, pressure transmitters, level switches, level transmitters, analysers, analyser pickups (non-laboratory equipment), flow switches, flow transmitters, solenoid coils, thermocouples, RTD's and gauges, that operates on less than 220V AC and 220V DC.

3.4.1.48 The removal and replacement of spares (disposal if requested) of all temperature switches, temperature transmitters, pressure switches, pressure transmitters, level switches, level transmitters, analysers, analyser pickups (non-laboratory equipment), flow switches, flow transmitters, solenoid coils, thermocouples, RTD's, gauges, vibration pick -ups and limits, that operates on less than 220V AC and 220V DC.

3.4.1.49 The generator thermocouples from the DCS up to the junction box closest to the generator thermocouple through bushing.

3.4.1.50 All compensating cable that would be required on the complete plant.

3.4.1.51 Process computer system in its entirety, including the operating system.

3.4.1.52 The Contractor must complete all preventative maintenance within the time span given. The Contractor should, if needed or requested, generate PM's. Where Permit to Work is required, the work will be planned with the Production Manager.

3.4.1.53 The Contractor is expected to give a plan for planned work with time frames every Thursday of the week, as well as a plan for emergency maintenance with time frames. Emergency maintenance lesson learned, and standby activities lesson learned to be shared in the morning/ toolbox meetings on a daily basis.

3.4.1.54 The Contractor must complete all notifications within the given time span, according to SAP system and Work management prioritization guide (classification of notification priority 01, 02, 03, 04, 05). The Contractor must generate notifications on Flip system when needed or required (defects and corrective maintenance). Where Permit to Work is required, the work will be planned with the Production Manager.

3.4.1.55 Corrective, planned and preventative maintenance will be prioritized with the emphasis on the corrective maintenance or according to the priority.

3.4.1.56 All C&I equipment must be maintained according to the philosophies and recommendations of the OEM's or Eskom. Changes to the philosophies must be authorized by Eskom.

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3.4.1.58 The Contractor is to compile procedures when needed or requested by Eskom and handed over to Eskom for approval.

3.4.1.59 The primary elements on the MV and LV switchgear will be from the last termination point in the switchgear including the cabling to the DCS.

3.4.1.60 This will include the terminations in the actuators, situated inside the actuator termination box.

3.4.1.61 The calibration and maintenance of all temperature switches, temperature transmitters, pressure switches, pressure transmitters, level switches, level transmitters, analysers, analyser pickups (non-laboratory equipment), flow switches, flow transmitters, solenoid coils, thermocouples, RTD's and gauges, that operates on less than 220V AC and 220V DC.

3.4.1.62 The removal and replacement of spares (disposal if requested) of all temperature switches, temperature transmitters, pressure switches, pressure transmitters, level switches, level transmitters, analysers, analyser pickups (non-laboratory equipment), flow switches, flow transmitters, solenoid coils, thermocouples, RTD's, gauges, vibration pick-ups and limits, that operates on less than 220V AC and 220V DC.

3.4.1.63 The generator thermocouples from the DCS up to the junction box closest to the generator thermocouple through bushing.

3.4.1.64 All compensating cable that would be required on the complete plant.

3.4.1.65 Process computer system in its entirety, including the operating system.

3.4.1.66 All alarms that are feeding through the DCS system and alarms that are fed with a voltage less than 220V AC and 220V DC.

3.4.1.67 The fire detection system (including all cabling).

3.4.1.68 The computer tube leak detection

3.4.1.69 Assistance on the bearing vibration system.

3.4.1.70 The total control system operating on 24V DC.

3.4.1.71 The oil burner management system interface

3.4.1.72 All pneumatic controllers and valves, stroke check and adjustment of controllers where needed (including tubing on controllers up to first point of isolation away from controller).

3.4.1.73 Soot blower system controls and limits operating on less than 220V AC and 220V DC.

3.4.1.74 FFP and dust monitors, the control and calibration of appropriate instruments and circuits.

3.4.1.75 Lockheed system, all signals less than 220V AC and 220V DC and associated instruments.

3.4.1.76 All solenoid valve coils on units and outside plant below 220V AC and 220V DC, power to the coil and operation of the coil.

3.4.1.77 Instrumentation will be removed and replaced as so requested by mechanical group when work has to be done, and change would be that equipment will be damaged.

3.4.1.78 All tubing on instruments will be done by Control and Instrumentation, only those which are control and instrumentation related.

3.4.1.79 All cable trunking on appropriate cabling is seen as part of Instrumentation.

3.4.1.80 Commissioning, investigation of faults, clarification of problem areas, AGC performance, review of planned maintenance program, specialized fault finding, parameter control and assistance during return to refurbished units and start-up on units. Optimization of the unit control system will be a continuous process and are to be reviewed during unit light-ups as well as during load changes and capabilities. The unit control system performance criteria are as per the OEM's maintenance manual performance criteria. Assistance should be given during two shifting if the need arises.

3.4.1.81 To supply a service free of charge to the mechanical sections (fault rectification, fault finding, calibration of gauges etc. that concern instrumentation and the effective operation of the station).

3.4.1.82 To supply a service to the Boiler, Turbine, Milling and outside plant sections where necessary/ needed.

3.4.1.83 Control and Instrumentation to render a service to electrical sections.

3.4.1.84 Where there is a need for the use of the Hotline facility to Germany, it is the responsibility and cost of the Contractor to ensure that assistance is acquired via that facility.

3.4.1.85 If information is needed from the plant control and automation system the Contractor is to assist Eskom Camden Power Station staff to obtain this information from the system. This is applicable during and after hours.

3.4.2 Outage Related Work

3.4.2.1.1 For outages, interims and GO's additional staff would be used. The Contractor would make use of his maintenance staff to full fill this function. The Contractor should release staff from certain duties and plan as far as possible around these activities. The releasing of staff from maintenance duties should not compromise maintenance activities as well. The contractor is to ensure that duties of the staff released to outage is covered by the staff remaining for maintenance services.

3.4.2.1.2 Opportunity outages should be utilised for changes and/or backups and upgrades where required.

3.4.2.1.3 ITP shall be drawn up for the agreed activities between the Contractor and Eskom with, hold and inspection points.

3.4.2.1.4 The Contractor represents Eskom in all the appropriate meetings for activities at all times during outage. The contractor to give feedback of activities or issues raised at the outage meeting on a daily basis to the Eskom personnel.

3.4.2.1.5 The Contractor in conjunction with the Employer shall draw up the Outage & GO plan as part of his scope. The main aim of the maintenance is to restore the plant to a higher level of integrity. The Contractor will perform all the work according to the scope of work for the specific plant within the duration of the outage. The outage scope determination for C&I related activities shall be based on the type of outage. The Contractor will make available additional resources during that period at his own cost, if required to ensure that the full outage scope of work is covered and completed within the time constrains.

3.4.2.2 The aim of the maintenance Contractor is to correct outage defects, and to ensure that the plant is available when the unit is returned to service, with the least impact on production and business performance. This occurs typically, during a boiler tube leak when the unit is shut down, either planned or unplanned. The time interval to decide to shutdown varies from hours to twenty -eight days.

3.4.2.3 The Contractor should inspect his plant system that he is responsible for before the return to service of the plant and ensure that the plant is in an operable state that will not cause unnecessary delays.

3.4.2.4 Contractor should raise notifications for himself on Flip system or SAP, after partaking on the plant walk down and there are defects identified.

3.4.2.5 In the event where an upgrade or change to plant configuration is necessary the Contractor should notify Eskom, and Eskom shall make final decision.

3.4.2.6 When an outage plan or knowledge of an outage is known or available, Eskom would notify the Contractor, so that planning could be done.

3.4.2.7 Work that will take place over the weekend on GO, IR, and Weekend short outage must be according to the Outage program and approved by the Employer before such work can take place.

3.4.2.8 If an outage related defect is known, spares must be identified by the Contractor and made known to the Employer, so that the Employer can procure or reserve immediately, when an unplanned outage happen the situation can be addressed.

3.4.2.9 The Contractor should be flexible for Hot and Cold Commissioning as well as first phase optimisation. These are things that need to be attended to after all down time of Units and in a much broader band after an outage.

3.4.2.10 Boiler & Turbine protection and safety systems (trip testing)

3.4.2.11 Unit response tests.

3.5 System Administration and DCS

3.5.1 If and when modifications or changes are required it would only be done after written authorized documentation is received. A filing system with a register needs to be kept. The drawings (MSR or FUPs) before and after the changes need to be filed, with the documentation approving these changes. A report of changes needs to be given to Eskom on a monthly basis. All changes need to be approved by C&I Eskom representative before implementation.

3.5.2 The software on the Siemens T2000 and T3000 including the ES and AP.

3.5.3 Implementing and advice on software, or change of software where requested by Eskom, and update necessary software.

3.5.4 Back-ups are kept of all systems under the Contractors responsibility.

3.5.5 ES hardware and software.

3.5.6 Bus system structure (Responsible for Coms., Processing Unit and cross talk modules (T2000 & AS).

3.5.7 Fault finding and replacement of appropriate modules on system.

3.5.8 Reload of programs / software on systems where needed and requested.

3.5.9 Advice people to replace modules (Fault reporting).

3.5.10 Bus system:

a. Terminal Bus OM 650.

b. LAN (Local Area Network)

c. Plant Bus.

3.5.11 OM 650 hardware and software including monitors operating terminal and all related equipment, excluding normal desktop PC's and radio system, not part of operating system (Complete control room system).

3.5.12 Control and allocation of software passwords where needed.

3.5.13 All PLC software including communications and processing units' modules.

3.5.14 UNIX, Windows and Linux operating system.

3.5.15 All networking including system printers.

3.5.16 Virus control and prevention. The Contractor must be able to advise and implement necessary Cyber Security measures for the station.

3.5.17 Archiving and server data capturing (analogues, binary, sequencing and alarms).

3.5.18 All system alarms repairs.

3.5.19 All module and plant alarms due to faulty software.

3.5.20 Software manipulation to display counter values and motor running hours where needed (software engineering).

3.5.21 Database administration of engineering station (hardware & software maintenance (ES 680, OM 650, AP and back-ups).

3.5.22 VA system hardware and software, including necessary office PC software (excluding office desktop hardware and software).

- 3.5.23 Maintenance on complete GPS system.
- 3.5.24 Maintenance of MSR system hardware and software (Drawing system).
- 3.5.25 If need be, simulate signals with the necessary written authorisation. Control and remove simulations as soon as possible.
- 3.5.26 Maintain & updating of all MSR related drawings (including hardware drawings).
- 3.5.27 T2000 and T3000 including AS (AP) module maintenance.
- 3.5.28 Advising & Design and implementing changes, hardware and software where needed or required by Eskom.
- 3.5.29 PLC module maintenance.
- 3.5.30 EMDAS S7 PLC module maintenance, all wiring (from first termination in PLC cubicle).
- 3.5.31 Complete S7 tube leak detection.
- 3.5.32 ET200M PLC's on Common Plant (AWR).
- 3.5.33 Step & Sub group control.
- 3.5.34 Step & Sub group control advice on design and implementing changes where needed, and requested by Eskom.
- 3.5.35 Module alarms to be corrected.
- 3.5.36 Faulty plant alarms to be corrected in DCS and displayed correctly on operating system or advice correction of alarms where needed.
- 3.5.37 All air conditioning alarms generated from first point of connection in Equipment room.
- 3.5.38 Responsible for all PLC systems installed on plant.
- 3.5.39 Contractor is expected to assist in the design and maintenance as and when requested on the hardware and software of the Simulator.
- 3.5.40 Back-ups to be kept of all software used on controllers, if needed or requested, supplied to Eskom.
- 3.5.41 Parameter control is to be carried out to ensure no unauthorized simulations as well as establishing a parameter database for control of parameters. It would become the property of Eskom and the Contractor is responsible to keep the database up to date.
- 3.5.42 Control system fault finding to be carried out when faults occur on the control system and reports on major control system malfunction must be provided.

3.5.43 A comprehensive up to date C&I parameter list must be made available by the Contractor for quick reference fault finding. It would become the property of Eskom and the Contractor is responsible to keep the list up to date.

3.5.44 The Contractor attends the daily production meeting and all C&I related meetings as requested by Eskom as the Eskom C&I representative.

3.6 Cabling

3.6.1 The Contractor shall be responsible for cabling by pulling in and out any type, Length (Distance) and any size (Thickness) of new cabling which is C&I related and termination from a Junction box, Cubicle to the instrument or Local control panel. The Employer will supply the cable and the Contractor shall execute the activity at no extra cost.

3.6.2 The Contractor is responsible for all cabling with a voltage of less than 220V AC and 220V DC. The purchase and replacement of cables is the responsibility of the Contractor. This includes all the terminations up to and including the primary elements.

3.6.3 Perform all C&I cabling removal and replacement where needed or requested by Eskom.

3.6.4 Perform all C&I tubing removal and replacement where needed or requested by Eskom.

3.7 Spares Management and Personal protective equipment

3.7.1 The Contractor shall supply all personal protective equipment, including special personal protective equipment such as acid proved overalls, clean conditions gear and Arc Flash gear which will be checked and satisfied to be the correct PPE by safety personnel.

3.7.2 The Employer will supply all the Spares needed by the Contractor to execute the scope at hand.

3.7.3 The contractor in conjunction with the Employer shall identify critical spares and submit a list detailing them. When identifying the spares, the Contractor shall keep in mind the need to minimise production risk due to spares availability, and also the need to avoid wasteful expenditure of public funds in terms of PFMA by holding too much spares than is necessary. The risks involved shall be listed with appropriate solutions. This action should be a joint effort between Contractor and the Employer.

3.7.4 The Contractor in conjunction with the Employer shall determine a minimum spare holding for the plant that will include critical spares, such holding shall be maintained, controlled and monitored by the site manager/supervisor and shall be used for standby or emergency purposes. The Contractor is to be aware that the spares are the property of the Employer. The spares shall be correctly marked and labelled.

3.7.5 If Spares are not available at the Eskom stores, The Contractor may, in consultation with Eskom, make temporary measures at the plant to minimise either the risk of injury to personnel or plant damage, or load loss or unit trip.

3.8 Workshops, Facilities and Test Equipment

3.8.1 The power station Electrical department is responsible for all 220V AC supply; this includes the work area that has been allocated to the Contractor (i.e. Workshops, offices).

3.8.2 The Contractor uses the Employers' facilities which are the telephones, computers and printers. External Telephone expenses will be on the Contractor's account.

3.8.3 The Contractor can make use of Eskom's medical facilities; however, the cost will be on the Contractor's account.

3.8.4 The Contractor will be provided with a Workshop. Should the Contractor need to have any changes done to the Workshop, the changes must be discussed with Eskom and approved by Eskom. The contractor will then be responsible for the costs of the changes to be done.

3.8.5 Portable electrical equipment registers are to be kept and updated by the Contractor. All tests done by the Contractor must be done according to Eskom regulations and standards, both the contractor and Eskom must have copies of such as proof of the tests for filling.

3.8.6 Test equipment and computers will be supplied by Eskom. The equipment is seen as the property of Eskom. The contractor will maintain and keep it in good working state, any losses or damages of such equipment shall be on the contractor's costs. Any theft of such equipment should be reported to the Eskom personnel as well as to the Eskom security service within 24hrs of realisation for formal investigations to be done, all negligence declared cases shall be on the contractor's account.

3.8.7 Test equipment should be checked and tested frequently by the Eskom representative, according to Eskom standards and sent for calibration at a national accredited source (SANAS), the contractor to give a list of all test equipment which will expire every 3 months before their expiry date for calibrations, failure to do so, a monetary penalty shall be charged to the contractor which will be negotiated as that might have a production loss implication.

3.8.8 The Contractor is responsible for the repairs of test equipment whereby the damages are done by its employees.

3.9 Hours of Work and Standby

3.9.1 Normal Working Hours

3.9.1.1 Normal working hours are from 07H15 to 16H30, Mondays to Thursdays. Lunch is from 12H00 to 12H30. On Fridays the working hours are from 7H15 to 12H15. On weekends and all public holidays, only employees who are marked to be working by the roster are expected to be onsite and executing their duties. 3.9.1.2 Late coming will not be tolerated at all costs, there will be a sign in register every morning which is expected to be signed by every employee of the contractor and scanned to the service manager at 07:30 on weekdays. For every person who hasn't signed the sign in register by the time it gets to the service manager, the individual will be deemed not at work and his/her 8hrs for that day will not be paid; unless their late coming is communicated to the site Manager/ service manager an hour prior the normal starting time 07:15 or on the time of sending the scanned sign in register via email that the individual will be late with number of hours mentioned and the reporting time to work noted on the sign in register. It is the responsibility of the employee to inform the service manager telephonically on arrival to work when coming in late. If the employee reported the late coming and forgot to inform the service manager upon arrival, a penalty of 3 hours will be deducted from the employee's daily 8 hours. Employees on training should be indicated on the sign in register with training, on Annual leave with A/L, Family responsibility leave with F/L and Sick leave with S/L.

3.9.2 Standby

3.9.2.1 The Contractor's Scheduled 12 hours coverage crew is to be always available (24 hours 7days a week). The Scheduled 12 hours coverage crew is to be competent on the power plant process, basic fault finding and authorized to act as a responsible person on permits as per PSR and be able to carry out simulations. Specialised crew should be available if needed. The Contractor is to decide when help is needed from specialized crew and should have no effect on production.

3.9.2.2 The Scheduled 12 hours coverage crew should consist of 6 people and shall always be available on onsite free from drugs, of which 3 members of the crew will cover the 1st 12 hour of the day (During the day) and other 3

crew members will cover the last 12 hours of the day (at night) . The starting time for the day crew will be at 07h00 and the knock-off time will be at 19h00 daily for the period of their scheduled time as per the scheduled 12 hours coverage roster. Technical supervisor will work after hours on an emergency as and when required. Their hours worked outside of working hours will be paid as per their bookings. They will claim only the hours they have been at work. The contractor will be expected to provide the Employer with a scheduled 12 hours coverage roster with the contact details of the person scheduled to work for that week. If changes occur on the scheduled 12 hours coverage roster the employer should be notified, and such changes must be authorised by the employer/ employer's representative. If the employer/ employer's representative did not authorised the changed then such changes cannot be implemented.

3.9.2.3 Travelling payments for this arrangement (Scheduled 12 hours coverage) will only be to the contractor for the standby vehicles. There will be no hours paid on travelling for scheduled 12 hours coverage crews, as their travelling will be regarded as home – work -home. It is a requirement that all employees on the scheduled 12 hours coverage roster, reside in Ermelo.

3.9.2.4 The Standby roster should be submitted to Eskom at least a month prior that Scheduled 12 hours coverage Roster's execution month. The Employer/ employer's representative has a right to influence changes on the Scheduled 12 hours coverage Roster for the purpose of balancing the skills. Final draught of the Scheduled 12 hours coverage Roster should be agreed on by both Eskom and the contractor.

3.9.2.5 Site work execution for the screw scheduled to work will be as per the Work Management prioritization guide, which states:

Priority 1 defect is that which,

- Causes a load loss immediately,
- Has an immediate harm to the environment and
- Has immediate safety implication to the people and equipment/ machinery.

All Priority 1 work/ notifications must be executed within 24 hours.

Priority 2 defect is that which,

- Will cause a load loss in 7 days,
- Will have an environmental impact in 7 days and
- Will have safety implications to the people and equipment/ machinery.

All priority 2 work/ notifications should be executed within 7 days.

Priority 3 defect is that which has no load loss, environmental and safety of people and equipment/ machinery implications. All priority 3 work/ notifications can be planned and executed as per the plan.

All priority 1 and 2 work done, should be accompanied by a notification number.

3.9.2.6 Management can book overtime not more than 3 times in a month, if there is any urgent work/callout that requires their presence such work/callout shall be done within 5 hours; hours beyond the stipulated hours should be compensated by the contractor. Supervisor will work overtime only if given a written authorisation by the service manager, overtime worked without written authorisation shall not be paid. 3.9.2.7 This scheduled 12 hours coverage will not be regarded as shifts; therefore, shift allowance and shift rests will not be applicable, only hours worked will be booked and the resting periods will be as negotiated with the contractor upon placing of the contract. No employee will book more than 60 hours in a month, whether there is outage or not booking of hours should be capped to 60 hours per individual. The outage technician and mechanic can only be included in the scheduled 12 hours coverage when there is an outage on-going. Should there be a different outcome during negotiations of the contract, regarding booking of hours for the scheduled 12 hours coverage arrangement; the agreed terms will take precedence over this section: 2.10.2.7. therefore, the booking of hours will be as per the price list provided on the NEC contract. 3.9.2.8 The Contractor is expected to have system Administrators scheduled to work on a call out basis to perform system administration C&I related Breakdowns. When there is a failure where no fault could be found or not an acceptable answer for failure is determined, it would be the Contractors responsibility liaise with an Eskom personnel to obtain an answer via Siemens Germany Omnivise services which Eskom has a Contract with and obtain an acceptable answers, in a case where by the Omnivise services contract is not renewed; it is still the responsibility of the Contractor to obtain the answers from the OEM, the costs will be on the Contractor's account. The urgency to solve the problem will be determined by the notification priority.

3.9.2.9 Contractor to anticipate and cooperate in any audit or investigation that would involve C&I.

3.9.2.10 The Contractor will be responsible to ensure that skills transfer and training take place to ensure long term sustainability.

3.9.2.11 All C&I work that does not fall within the requirements of the permit to work system, must be executed under the limited access register.

3.9.2.12 The Employer's temporary operating instructions must be used in the events, which are not covered by an existing work instruction or procedure, or to cater for a particular plant condition which is unique and not likely to re-occur.

3.9.2.13 All Contractors should adhere to security rules and regulations and access permits will be issued by security.

3.9.2.14 KKS coding and pipe colour coding as per the Eskom standard is to be applied at all times.

3.9.2.15 The behaviors of the Contractor and its employees should always be professional and ethical as per the Eskom code of conduct and ethics procedure. Failure to comply with Eskom's requirements in this regard could lead to removal of the Contractor or the removal of the guilty employee from site. All contractor employees are not allowed to do business with Eskom or its subsidiaries, should employees found guilty of such conduct; it will be an immediate dismissal.

3.9.2.16 When in an emergency it is requested for C&I to do certain work, it would happen as a direct instruction from the Employer. Failure to execute such instruction will result into a disciplinary procedure being followed to correct such misconduct/ deviation.

3.9.2.17 All Prioritised work attended to immediately must be of a production loss (Load loss), Safety, health and environmental risk. Such work must be accompanied by a notification with a priority.

3.10 Overtime

3.10.1 Work executed outside working hours on Mondays to Saturdays, 1.5 will be paid to the employee's wage/ hourly rate for every hour worked.

3.10.2 Work executed on Sundays and Public holidays, double the employee's wage/ hourly rate will be paid for every hour worked.

3.10.3 Employees will only be allowed to book for work executed outside of working hours not more than 7hrs a day during the week, not more than 24 hours on weekends and 60 hours a month.

3.10.4 The scheduled 12 hours coverage crews and the outage crew during outages, will use the planned overtime form when on duty.

3.11 Leave Management

3.11.1 **Annual Leave:** Employees will be entitled to 21 days annual leave accumulative every end of the month 1.75 from the month of employment on this contract at Camden. Employees are allowed to take their accumulated annual leave on the sixth month from the date of employment. Any annual leave taken prior finishing the six months waiting period will be regarded as unpaid leave. The above will only apply on the 1st year of signing the employment contract. All annual leaves should be planned, unless in an exceptional unforeseen circumstance which will be expected to be occasions less than the planned leaves. All annual leaves are expected to be planned

and used in the year at which the leave was accumulated. Unused annual leave cannot overlap to the following year, unused annual leave will be forfeited.

3.11.2 Family Responsibility Leave: Employees will be entitled to 3 days of family responsibility leave after five months being employed on this contract by Camden Power Station. Family responsibility leave can be booked after the end of the Fifth month. Family responsibility leave can be taken for the following events: Child sickness, Sickness of spouse/life partner and Death of a (spouse/life partner, child, parents, grandparents limited to 2, siblings and grandchildren). Family responsibility leave taken without proof of the event for which leave was taken, will be considered unpaid leave. E.g. Leave taken for a funeral and a death certificate is not provided. An employee's unused family leave will elapse at the end of every 12th month from which the employee was employed, in the year which the leave accrues.

3.11.3 Sick Leave: An employee is entitled to 180 days of sick leave in 1 period cycle of sick leave (3 years). In the first six months of employment, an employee is entitled to 1 day of sick leave for every 26 days worked. For every sick leave taken, a medical certificate or sick note from a doctor/ medical practitioner should be provided or such leave will be deemed unpaid leave. Sick leave will be closely monitored, for events where trends reveal sick leave abuse; a disciplinary hearing will be initiated guided by the Eskom disciplinary procedure.

3.12 Compliance, Payments and Performance

3.12.1 Compliance: There will be monthly meetings with the supplier to review service level agreement and to check if the supplier is still complying with terms of the contract and the Work Information. If a contravention to the contract agreement or the service information is noticed, a penalty of 10% of the assessment value will apply to the supplier.

3.12.2 Performance: The supplier together with Eskom representative from C&I Maintenance, are expected to develop key performance indicators. The supplier is expected to develop a performance management plan for individual performance management and monitoring of the contractor's employees. If non-performance is noticed using the performance management plan, the supplier will be expected to take actions against the poor performing employee and provide evidence to Eskom of actions taken to correct the poor performance behaviour. If the non-performance behaviour continues for more than 3 occasions with evidence of remedial actions by the supplier, during the contract period; the supplier will be expected to remove the poor performing employee permanently from Camden Power Station and replace him/her with a new employee who will also be subjected to the performance management plan as well. Such poor performing employee will no longer be part of the contract; therefore Eskom will not incur costs for such employee. Meetings will be held monthly with the material management supervisor to discuss monthly performance of the contract and individual performance of the contract employees.

3.12.3 Payment: Eskom will send task orders in the beginning of every month and do assessments on the 25th of every month and initiate service entries on the same day. Assessments should be signed by both the supplier and Eskom representative prior initiation of the service entry for payments. Eskom will also send a payment certificate which will be accompanied by the assessment; the payment certificate also needs to be signed by both the supplier and the Eskom representative prior payments.

3.13 Technical and SHEQ Training Requirements

3.13.1 The Contractor shall ensure that all its employees have the following technical and SHEQ training with proof prior to commencement of the contract. If training could not be done prior then the Contractor shall be given a period of 1year from the contract commencement to train its employees; Failure to adhere shall lead to the Contractor to be removed from Camden premises with immediate effect. The Contractor shall also be liable to train their employees for any other SHEQ/ Quality/ Environment and technical training which might arise from audit findings, regulation changes, legislation amendments; new Eskom requirement, which were not there before etc. at the contractor's account.

NOTE: Technical and SHEQ training Matrix: Below is a list of training to be done within the above stipulated periods/time frame. The **x** indicates must do (Applicable) and the **-** indicates must not do (Not Applicable).

TECHNICAL AND SHEQ TRAINING MATRIX Training course	Site manager	Technical Supervisor	System Admin	Technician & Mechanician	Quality officer	Semi-Skilled & Safety officer	Labourers
T3000 Basic	X	X	X	X	—	—	—
T3000 Advanced	—	X	X	—	—	—	—
T3000 System Admin	—	—	X	—	—	—	—
MS Server Certificate	—	—	X	—	—	—	—
Cyber Security	—	—	X	—	—	—	—
Cyber security awareness	X	X	—	X	—	—	—
Networking	—	—	X	—	—	—	—
Linux certification	—	—	X	—	—	—	—
FFFR	X	X	—	X	X	—	—
FFFR Awareness	—	—	X	—	—	X	—
PSR	X	—	—	X	—	—	—
PSR Awareness	—	—	X	—	X	X	X
Working at heights	X	X	X	X	X	X	X
HIRA	X	X	X	X	X	X	X
1st line Mnt Stratus Ft4500	—	—	X	X	—	—	—
1st line Mnt Simulator hardware	—	X	—	X	—	—	—

1st line Mnt CODEL GCEM4000	—	X	—	X	—	—	—
1st line Mnt Hamworthy Combustion Engineerin	—	X	—	X	X	—	—

g/ Fuel oil.							
1st line Mnt on VA View	—	X	—	X	X	—	—
1st line Mnt on Fire detection	—	X	—	X	X	—	—
1st line Mnt on H2 plant	—	X	—	X	X	—	—
Job Observations	X	X	—	—	—	—	—
Re-Induction	X	X	X	X	X	X	X
Environmental Systems	X	X	X	X	X	X	X
Oil Management	X	X	X	X	X	X	X
Waste Management	X	X	X	X	X	X	X
PPE	X	X	X	X	X	X	X
SHE Systems orientation	X	X	X	X	X	X	X
Noise awareness	X	X	X	X	X	X	X
Asbestos Awareness	X	X	X	X	X	X	X
Emergency preparedness/ Planning for Evacuation	X	X	X	X	X	X	X

3.13.2 Site facilities allocated to the Contractor. The Contractor is responsible to keep it clean and up to NOSA & Eskom standards. All changes to the workspace will become the property of Eskom and will remain so until on termination of the Contractor's service.

3.13.3 Contractor to have his own monthly Safety meetings (records to be kept and made available to Eskom on request) and attend the main SHE meetings every month. (Meetings should be according to Eskom standards and regulations).

3.13.4 The Contractor provides all personal safety equipment as stipulated by Eskom safety procedures.

3.13.5 Contractors to be LV and HV regulations authorized.

3.13.6 Induction will be done by all Contractors prior to the contract commencement, thereafter on a yearly basis.

3.13.7 Contractor should work according to Eskom guide lines, NOSA & OHSA.

3.13.8 Safety inspections to be done by Eskom, or an Eskom appointed party.

3.13.9 Contractor's site manager and the safety officer will always partake in SHEQ related investigations which are C&I related.

3.13.10 The Contractor is to adhere to the site quality regulations.

3.13.11 The Contractor should be environmental ISO 14001 compliant. All substances that are used must be environmentally friendly. The Contractor should adhere to all environmental regulations.

3.13.12 The contractor to ensure that it adheres to all Camden Power station Safety processes, procedures and requirements at all times including the yearly medicals of its employees that are done prior expiring. The contractor should also adhere to SHEQ regulations at all times, failure to do so will lead to the contractor removed from Camden power station premises.

3.14 Exclusions from the contractor's scope of work and Eskom assistance.

3.14.1 All maintenance on telephone lines is excluded.

3.14.2 Maintenance of MSR.

3.14.3 Eskom will supply workshop facilities and contractor to upgrade where necessary.

3.14.4 Eskom will make equipment available for the contractor and the contractor will maintain and account for the equipment's handling and safety.

3.14.5 Eskom documentation centre is available for information for the contractor.

3.15 Boundaries between Instrumentation and Electrical

3.15.1 Control and Instrumentation Responsibilities 3.15.1.1 All cabling with voltage less than 220V AC or 220V DC.

3.15.1.2 The terminations up to the primary elements.

3.15.1.3 The primary elements on the MV and LV switchgear will be up to the last termination point in the switchgear including the cabling to the DCS.

3.15.1.4 This will include all the appropriate terminations in the actuators situated inside the actuator termination box. The stroke checking of the actuators, and the necessary changes to the limits.

3.15.1.5 The calibration of all temperature switches, Temp TX, pressure switches, Press TX, level switches, Level TX, analysers, analyser pick-ups (non-laboratory plant equipment), flow switches, Flow TX, solenoid coils, thermocouples, RTD, (all primary plant in its entirety). That is on less than 220V AC or 220V DC.

3.15.1.6 The removal and replacement of spares, as temperature switches, Temp TX, pressure switches, Press TX, level switches, Level TX, flow switches, Flow TX, solenoids, thermocouples, RTD, vibration pick-ups, limits, (all primary plant in its entirety). That is on a voltage less than 220V AC or 220V DC.

3.15.1.7 The generator thermocouples from the DCS up to the junction box closest to the generator thermocouple through bushing.

3.15.1.8 All compensating cables that would be required on the complete plant.

3.15.1.9 Process computer system in its entirety, including operating systems.

3.15.1.10 All alarms that are feeding through the DCS system that are fed with a voltage less than 220V AC or 220V DC.

3.15.1.11 Bearing vibration systems, support if required (Gen, SFP, etc.).

3.15.1.12 Control and Instrumentation to support all departments who needs C&I services at no extra costs.

3.16 Supplier Development Localisation & Industrialisation (SDLI) Requirements

3.16.1 Subcontracting:

When subcontracting, use of NEC will be compulsory. The *Employer* may list which subcontractors or suppliers the *Contractor* is required to enter into subcontracts with. This is usually only required where specialist services need to be obtained from a particular supplier or group of suppliers in order to comply with operational standards. The employer's representative (Service Manger) will determine how subcontract tenders are to be issued, received, assessed (using a joint report) and awarded. All contractors to be used must have a minimum of 2 years of experience in a power plant doing C&I related work. Printed Purchase orders will be used as evidence of work done. A minimum of 2 references should be provided.

The tenderer will subcontract some of the SOW to the designated suppliers i.e. EME / QSE with at least 51% BO. The designated suppliers should not be part of their subsidiaries or having shares in that company, preferable they should be selected from local to site and shall be as follows:

Procurement from Designated Group	Eskom Target	Tenderer Proposal
Black Owned	5%	

The following are tender returnable.

- Proof of a sub-contract agreement/s

OR

- Letter of intent to subcontract.

Potential scope to be subcontracted and/or outsourced:

- PPE
- First Aid- Screening & Medicals
- SAPS Vetting
- Tools and Equipment
- Training

3.16.2 Any other SDL&I requirements will follow the recommendations of the SDL&I practitioner and should be adhered to.

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

Note: The objectives shall be sourced from previously disadvantaged Communities around Msukaligwa District Municipality

Transformation – BBEE Improvement or Retention Plan

Transformation remains an area of focus, where Eskom continuously strives to align itself with national transformation imperatives to unlock growth, drive industrialization, create employment and contribute to skills development. Eskom encourages its suppliers to constantly strive to improve their B-BBEE rating. Whereas Tenderer/s will be allocated points in terms of a preference point system based on specific goals, Eskom also requests that tenderer/s submits their B-BBEE improvement or retention plan within 30 days of signing the contract. Tenderer/s are therefore requested to indicate the extent to which they will maintain (only if the respondent is a Level 1) or may improve/maintain their B-BBEE status over the contract period if their B-BBEE status is level 2 or 3. Tenderer/s with a B-BBEE status level 4 at the time of contract award, shall migrate and achieve as a non-negotiable a milestone of B-BBEE Level 3 by the end of the first year of the contract and thereafter improve their B-BBEE status level or migrate by one level higher.

Tenderer/s with a B-BBEE recognition status of Level 5 to Level 8 or non-compliant at the time of contract award, shall migrate and achieve as a non-negotiable a milestone of Level 4 by the end of the first year of the contract and thereafter improve at least one B-BBEE Level higher of each year from the second year of the contract. Tenderer/s are requested to submit their B-BBEE Improvement Plan as an essential document within 30 days of signing the contract.

NB: A valid B-BBEE certificate or Sworn Affidavit is a condition for contract award, if your company's annual Total Revenue is R10 Million or less you qualify as an Exempted Micro Enterprise therefore you can submit Sworn Affidavit. If your annual Total Revenue is R50 Million or less, you qualify as Qualifying Small Enterprise and must comply with all of the elements of QSE score card relevant to your sector unless an entity is at least 51% Black owned you are required to obtain a Sworn affidavit. If your Annual Total Revenue is above R50m you need to submit a Valid B-BBEE certificate

3.2. Local Procurement Content

“Local Procurement Content” refers to value added in South Africa by South African resources. Where a single contract involves a combination of local and imported goods and/or services, the tender response must be separated into its components as per the Price Schedule included with the tender documents. Local procurement content is total spending minus the imported component.

Tenderers are required to submit their proposals in the table below.

	Eskom target	Tenderer Proposal
Local Procurement Content	100%	

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

Type of Jobs to be created	Number of Jobs to be created

Type of Jobs to be retained	Number of Jobs to be retained

Eskom target: 42 (including outages)

5. Skills development

Tenderers are required to submit proposals in a table below for developing the skills of unemployed candidates in the country. Skills development is intended to address Eskom’s core, scarce and critical skills, and the scarce and critical skills. These skills are also included in a 2020 list of occupations in high demand as stipulated in the Government Gazette 43937. Candidates shall be from all provinces in the country, and their composition shall be representative of the population demographics of South Africa.

Skill type / Occupation	Eskom target	Entry Level	Output	Tenderers Proposal
System Administrator	3	Diploma (Electrical /IT/Computer Engineering	T3000 System Admin certificate	
Electrical Light Current Technicians	3	Diploma Engineering Light Current	12 Months on the job training	
Mechanician	3	N4 Electrical Engineering Light Current	Trade test	

The process of developing these skills shall involve the participation by tenderers directly and through their supply network. In certain cases, the SETA’s accredited training providers can be approached to participate in developing critical and scarce skills.

Note: That these targets for skills development candidates categorically exclude Eskom employees and registered learners. The tenderers are required to take full responsibility for the total cost of developing the requisite skills, and Eskom shall not make any financial contribution towards the fulfilment of this obligation. Tenderers also are advised to approach their relevant SETAs to access grants, subsidies, and incentives as well as South African Revenue Services for tax rebates that are earmarked for skills development initiatives.

Section 4: SDL&I Penalty and Performance Security

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

- Eskom receives the SDL&I progress report/s from the contractor.
- Fulfilment of all SDL&I obligations by the contractor.
- Submission of an approved compliance report by SDL&I Department.

• Section 4: Reporting and Monitoring

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

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

4 Document Acceptance (Stakeholders)

This document has been seen and accepted by: Name	Designation	Approval Signatures
Nosipho Mjelo	Technical Support Manager	
Godfrey Noko	Outage Manager	

5 Revisions

Date	Rev.	Remarks	Compiler/Reviewer
09/10/2014	0	Original Document	O. Veerasamy
22/05/2018	1	Addition of scope	O. Veerasamy
14/06/2021	2	Additional of scope	F.E Ngwane
08/11/2024	3	Additional of scope	F.E Ngwane

6 Development Team

The following people were involved in the development of this document:

- Nkoskhona Kunene
- Gugu Hlatshwayo
- Fikile Ngwane
- Grace Mandlazi
- Mlungisi Nkosi
- Muzi Nkosi
- Mbuyiselo Maphanga
- Thabi Mampa
- Gugu Sishange

7 Acknowledgements

N/A

8. Minimum Toolbox List

AREA: C& I MAINTENANCE Technician name: YEAR:												
NOTE DO NOT "tick" use the number of the specific deviation given in the legend below. If the hand tool is defective it must be tagged "Defective" and must be reported to the person responsible for the repair of equipment. If the hand tool is beyond repair it must be destroyed and discarded.												
LEGEND												
1. Damaged – repair 2. Unsafe – replace 3. Not provided – supply 4. Guarding device missing												
5. Storage facilities inadequate 6. Good condition 7.												
ITEMS INSPECTED	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Long nose/Plier												
Water pump plier												
Stanley Knives												
S/D Small flat 4mm												
S/D Big flat 6mm												
S/D Small star												
S/D Big star												
Terminal S/D												
Allen keys												
Fluke multimeters												
Torch												
Side cutter												
Shifting 6"												
Shifting 10"												
R/F spanner 8mm												
10 mm ring flat												
13 mm ring flat												
17 mm ring flat												
19mm ring flat												
Brush												
2 way radio/ Pax phones												
Crimping tool												
Tool bag												
Jewelers S/D												

Management strategy and start up.

The *Contractor's* plan for the *service*

In the TSC3 the *Contractor's* plan is his "design" for performing the *service* throughout the *service period*. Section 2 of the *conditions of contract* describes what the *Contractor* is to show in his plan both in the core clauses and some additional requirements in each of the main Options.

The extent of the *Contractor's* plan will depend on whether the *Contractor* is required to develop a plan in accordance with the *Employer's* broad outline of the *service* or whether the *Employer* has provided a plan for the *Contractor* to follow. Read the TSC3 Guidance Notes pages 21 and 22 for more information on the *Contractor's* plan.

Use this section to describe any particulars which must be taken into account by the *Contractor* in developing his plan as required by clause 21.2. For example information about the order and timing or method of carrying out particular items of work.

List technical reporting and scheduling requirements which are to be incorporated into the *Contractor's* plan.

Management meetings

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register and compensation events	As and when required	Site	Employer, Contractor, Supervisor, others as required
Overall contract progress and feedback	3 Monthly	Site	Employer, Contractor, Supervisor, others as required
Safety	Monthly.	Site	Employer, Contractor, Supervisor, others as required
Early Warning Meeting	As and when required.	Site	Employer, Contractor, Supervisor, others as required

Meetings of a specialist nature may be convened as specified elsewhere in this Service Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the *service*. Records of these meetings shall be submitted to the *Service 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.

Contractor's management, supervision and key people

State any additional constraining requirements on *Contractor's* supervision and key people that are not already stated in other sections such as for Health and Safety. This section could be used to solicit an organogram from the *Contractor* showing his people and their lines of authority / communication. This would be essential if the *Contractor* is a Joint Venture.

Provision of bonds and guarantees

The form in which a bond or guarantee required by the *conditions of contract* (if any) is to be provided by the *Contractor* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.

The *Employer* may withhold payment of amounts due to the *Contractor* until the bond or guarantee required in terms of this contract has been received and accepted by the person notified to the *Contractor* by the *Service Manager* to receive and accept such bond or guarantee. Such withholding of payment due to the *Contractor* does not affect the *Employer's* right to termination stated in this contract.

Documentation control

Specify how documentation will be identified with an alpha numeric which indicates source, recipient, communication number etc. Provide details of any particular format or other constraints; for example that all contractual communications will be in the form of properly compiled letters or forms attached to e mails and not as a message in the e mail itself. State any particular routing requirements but note from TSC3 who issues what to whom.

Invoicing and payment

The Z clauses make reference to invoicing procedures stated here in this Service Information. Also include a list of information which is to be shown on an invoice.

Within one week of receiving a payment certificate from the *Service 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 *Service Manager's* payment certificate.

The *Contractor* shall address the tax invoice to

And include on each invoice the following information:

Name and address of the *Contractor* and the *Service 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)

Contract change management

This section is intended to deal with any additional requirements to the compensation event clauses in section 6 of the core clauses; such as the use of standard forms. Not the same thing as documentation control.

Records of Defined Cost to be kept by the Contractor

If Option C or E applies first read clause 52.2 and then state whether the *Contractor* is required to keep any other records. Include any other constraint which may be required in regard to format and filing of the records, and whether access for the *Service Manager* shall be provided in hard copy or electronically.

Could delete if Option A applies unless the *Employer* requires some form of control over the *Contractor's* record keeping for the purpose of compensation event management.

Insurance provided by the *Employer*

First read TSC3 Core Clause 86.1 and then add anything necessary for the management of insurance related issues such as a cross reference to where procedures for making claims can be found. Also provide contact details for persons capable of being able to answer any insurance related queries the *Contractor* may have, as well as to whom the information required by Marine Insurance (if any) may be addressed.

Management of work done by Task Order

Contract title	Article III. [•]	Number:	[•]
Contract action	Article IV. Clause X19.2 Task Order		

Further to our consultations dated [•] about the content of this Task Order and in terms of clause X19.1(1) and X19.1(2) in secondary Option X19 of the above contract, I hereby instruct the *Contractor* to carry out the below stated work as a Task within the *service*.

Task Order No.	[•]	<i>service</i>	[•]
Detailed description of the work in the Task:	[•]		
Starting date for the Task	[•]		
Task Completion Date	[•]		
Delay damages (if any)	[•]		
A priced list of items of work in the Task in which items are taken from the Price List is attached			
Total of Prices for items of work taken from the Price List per the attached priced list is:		R.	_____
Total of Prices for items of work not in the Price List (details attached) is:		R.	_____
Total of the Prices for this Task Order		R.	_____

Yours faithfully,

Signature (***Service Manager***)

Name

Distribution:				

Health and safety, the environment and quality assurance

Health and safety risk management

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

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

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

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

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

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

Environmental constraints and management

Describe or cross refer to environmental constraints applicable to the *Contractor's* plan and his activities on the Affected Property and how they should be managed. Include here or cross refer to an Annexure to the Service Information.

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

Quality assurance requirements

Specify minimum requirements for the *Contractor's* Quality Plan and Work Procedures or provide the *Employer's* Quality Plan if that is to be used. Make sure witness and hold points are identified generally and describe any particular requirements for QA outside the Affected Property. Indicate how the *Contractor's* QA documentation is to be submitted for acceptance and any conditions that need to be imposed relating to acceptance. State whether ISO compliance is a condition and if so which ISO standard shall apply.

Procurement

There is a cross reference from the core clause 11.2(6) definition of Disallowed Cost to the Service Information regarding procurement procedures. This part of the Service Information MUST include any such procedures to be able to administer Disallowed Cost.

People

Minimum requirements of people employed

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

Subcontracting

Preferred subcontractors

TSC3 does not make use of nominated subcontracting, but the *Employer* may list which subcontractors or suppliers the *Contractor* is required to enter into subcontracts with. This is usually only required where specialist services need to be obtained from a particular supplier or group of suppliers in order to comply with operational standards.

Subcontract documentation, and assessment of subcontract tenders

Specify any constraints on how the *Contractor* is to prepare subcontract documentation, whether use of the NEC system is compulsory or not (compulsory is recommended) and how subcontract tenders are to be issued, received, assessed (using a joint report?) and awarded.

Limitations on subcontracting

The *Employer* may require that the *Contractor* must subcontract certain specialised work, or that the *Contractor* shall not subcontract more than a specified proportion of the whole of the contract.

Attendance on subcontractors

State requirements for attendance on Subcontractors, if any

Working on the Affected Property

This part of the Service Information addresses constraints, facilities, services and rules applicable to the *Contractor* whilst he is doing work on the Affected Property.

Employer's site entry and security control, permits, and site regulations

Sites such as Koeberg Nuclear Power Station have very strict entrance requirements which tendering contractors need to allow for in their prices, and the *Contractor* has to comply with. State these or similar requirements here.

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

People restrictions, hours of work, conduct and records

Restrictions and hours of work may apply on some sites. It is very important that the *Contractor* keeps records of his people working on the Affected Property, including those of his Subcontractors. State that the *Service Manager* shall have access to them at any time. These records may be needed when assessing compensation events.

Health and safety facilities on the Affected Property

Section 3 deals with contractual H & S requirements in addition to those of the OHSA Act. This section allows the *Employer* to state what measures are to be taken on the Affected Property by describing where First Aid facilities provided by the *Employer* are located and any other emergency arrangements. Do not use if already addressed in 2.3.

Environmental controls, fauna & flora

This sub-paragraph may not be required in a service contract or if these matters are dealt with in the general environmental requirements referred to in section 3 above.

Cooperating with and obtaining acceptance of others

This sub-paragraph could be used to deal with two issues.

1) The cross reference from core clause 25.1 about cooperation generally as well as details about Others with whom the *Contractor* may be required to share the Affected Property. See clause 11.2(9) for the definition of others.

2) Requirements for liaison with and acceptance from statutory authorities or inspection agencies.

Records of Contractor's Equipment

This sub-paragraph is intended to address how records are to be kept of Equipment on Site including whether it is owned or hired. Include any constraints about scaffolding, rigs, heavy lifts and cranes, including removal from the Affected Property.

Equipment provided by the *Employer*

Provide details of equipment (e.g. overhead cranes) made available for use by the employer and set out conditions relating thereto.

Site services and facilities

Provided by the *Employer*

This is a mandatory cross reference from clause 25.2 in TSC3. State what the *Employer* will provide in the way of power, water, waste disposal, telecommunications, ablutions, fire protection and lighting (etc.) on the Affected Property. Give hook up locations and any constraints on how the hook up is to be done. Always conclude by stating that the *Contractor* shall provide everything else necessary for providing the Service.

Provided by the *Contractor*

The contractor will provide working tools to all technical personnel (Technician and Mechanics) as per the tool list provided on the service information. Multimeters should also be provided to all technical personnel (Technicians and Mechanics). This equipment should be handed over to Eskom at the end of the contract's service with Eskom.

Control of noise, dust, water and waste

State requirements, if any.

Hook ups to existing works

State any constraints

X20 Key Performance Indicators

	<u>FLOOR</u>	<u>KICK IN</u>	<u>NORM</u>	<u>STRECH</u>	<u>CEILING</u>	<u>ACTUAL</u>	<u>Unit of measure</u>	<u>Evidence</u>
	1	2	3	4	5			
<u>KPA 1</u>								
SAP						50%		
KPI 1.1 Maintenance matrics	65	75	85	95	100		Percentage	SAP 1 Pager and Work Management report
KPI 1.2 Emergent work priority 1 work done without a notification number	40	30	20	10	5		Percentage	SAP 1 Pager
KPI 1.3 Number of corrective defects on work that has PM	4	3	2	1	0		Number	Work Management report
<u>KPA 2</u> Time & leave management						20%		
KPI 2.1 Employees reporting to work late and on leave. At least 20 out of 39 manpower should be onsite daily by 07:30 excluding night scheduled team.	10	12	14	20	30	39	number	Daily sign in register
<u>KPA 3</u> UCLF and UAGS						30%		
KPI 3.1 Trips(caused by C&I)	4	3	2	1	0		Number	GPSS and Camden Feedback group
KPI 3.2 Load loss incidents (caused by C&I)	4	3	2	1	0		Number	GPSS and Camden Feedback group
KPI 3.3	4	3	2	1	0		Hours	GPSS and Camden

Unit delay by C&I							Feedback group
Total 100%							